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Demographic Analyses and Enrollment Forecast for Emery Unified School District

July 21, 2008

Executive Summary

Emery Unified School District (Emery, EUSD, the District) administrators are in the process of redesigning facilities and determining what properties will be needed to meet the educational needs of the Emeryville community. They requested a thorough analysis of demographic factors affecting enrollments and a professional assessment of likely future enrollment levels.

We developed two different sets of enrollment forecast scenarios for the District. For the first set, we employed a conventional approach to enrollment forecasting, and assumed that the District's reputation will not change substantially in the future. For the second set of scenarios, we assumed that Emeryville will become much more attractive to families with children due to substantial improvement in EUSD test scores and perhaps more family-oriented amenities available to residents.

Before discussing these forecast scenarios, we note a few important demographic trends that have shaped or will shape future enrollments.

Out-of-District Students

Since 1999, about half of EUSD's students have had addresses outside the District.[1] About 20 percent of these out-of-district students were former District residents. Another 20 percent were "Allen Bill" students, meaning that either their parents worked in Emeryville or they had childcare arrangements in Emeryville. When planning facilities, Emery may wish to have sufficient space to accommodate at least the out-of-district students who are former residents and Allen Bill students.

New Housing

More than 1,700 housing units have been built in the City of Emeryville since 2000. Construction continues, but the residential housing market has slowed considerably and it is not clear if all projects that have been proposed, or even all those that have been approved, will actually be built in the foreseeable future. In order to recognize the uncertainty about the pace of construction, we developed two housing forecasts: a "Full Housing Forecast" includes all of the approved and proposed developments, and a "Conservative Housing Forecast" assumes only a subset of projects will actually be built. Because so few EUSD students live in condominiums and large apartment complexes, the future housing will have a relatively small impact on enrollments. In the conventional forecast scenarios, the Conservative Housing Forecast projects an additional 38 students from new housing, while the Full Housing Forecast projects 83 students.

[1] Out-of-district enrollments may have been high before 1999, but we lack the data to check this.

Overall Enrollment Trends

In fall 2007, Emery had 822 students attending their schools, but only 377 students lived within the District boundaries (resident enrollments). However, in 1999, the first year for which we have data on resident enrollments, 587 students lived in the District. When planning facilities, decision-makers should keep in mind that enrollments change over time. The fact that Emery schools once had nearly 600 resident students means that the city's housing stock could certainly hold that many public school students in the future.

Birth data of Emery residents, by ethnicity, show that African American births have been declining, Hispanic and White births have been stable, and Asian births have been rising. African Americans, Hispanics, and White resident enrollments all follow their birth pattern. However, Asian enrollments have been stable, unlike their pattern of rising births.

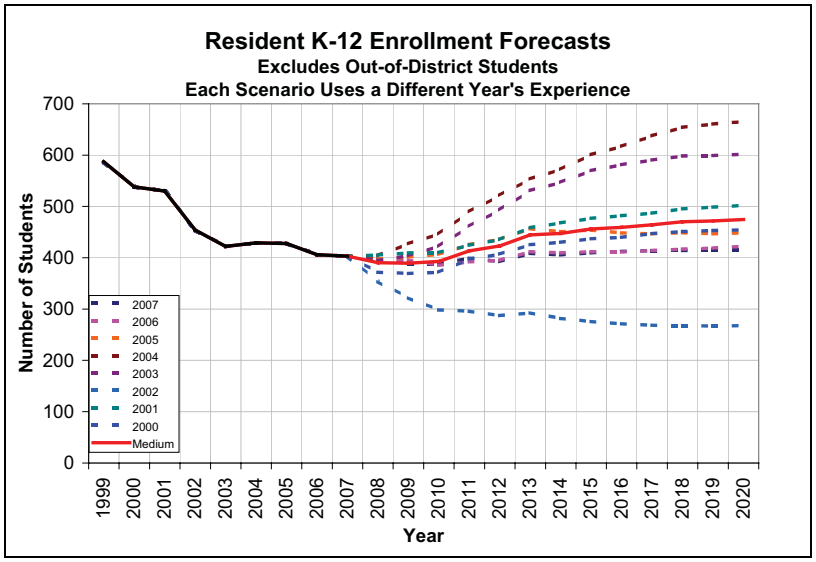
Conventional Enrollment Forecast Scenarios

Applying the standard demographic forecasting method to Emery Unified resulted in forecasts that show a slight increase in resident enrollments, primarily from new housing. Chart 1 shows resident enrollment forecasts. While the Medium (most likely) forecast shows 475 resident students by 2020, there is a range of other forecasts that are possible using various reasonable assumptions (each based on Emery patterns during the last eight years). All of these forecasts assume the Full Housing Forecast. If the Conservative Housing Forecast turns out to be more accurate, the projections should be reduced by 45 students.

Future resident student enrollments under the Medium forecast are less than those in 1999, when the District had 587 resident students. Because in the not too distant past the District had more resident students, it is quite possible that the District will reach this enrollment level again in coming decades. District enrollments naturally change over time, and this change is not always captured by the enrollment forecasts, especially since enrollment forecasts much beyond 10 years are not very reliable. In short, we recommend that the District plan facilities to accommodate at least 600 resident enrollments, even if the Medium forecast does not reach that level within the next decade.

In addition to providing facilities to accommodate resident enrollments, the District may wish to accommodate former residents and Allen Bill students (an additional 200 students).

Chart 1



Alternative Enrollment Forecast Scenarios

We were asked to explore how enrollments might change if the District's standardized test scores improved substantially and/or the community became more attractive to families. We believe that substantially improved test scores would result in higher student yields (numbers of children per housing unit). That is, more of the city's housing, both old and new, would be occupied by families with school-aged children. These forecast scenarios rely on three factors: (1) understanding the housing stock in Emeryville, (2) measuring student yields by type of housing in Emeryville, and (3) knowledge of student yields in other Bay Area school districts to guide our judgment regarding how student yields are likely to increase as test scores improve.

Emeryville is unusual in that it contains relatively few houses. Condominiums and large apartment complexes comprise 78 percent of the city's housing. In most school districts, relatively few students live in condominiums and large apartment complexes, and Emeryville condominiums and market-rate units in large apartment complexes have *extremely* low yields. (The one exception is Emery Bay Village. These townhouse-type condominiums contain a fair number of students.)

When we consider Emeryville's socioeconomic mix, however, the abnormally low condominium (and large apartment complex) yields are not surprising. We have found that yields in higher-priced housing in communities with a large spread in household incomes are usually abnormally low. For example, public school yields are low in the Berkeley Hills where housing prices are high, but normal in the Berkeley flatlands where housing prices are much lower. We found the same socioeconomic pattern when we were working with San Leandro Unified in the 1990s. In Emeryville, condominiums and luxury apartment complexes are the higher-priced housing, and the District's student yields follow the pattern we have observed in other communities with a broad income distribution.

Nonetheless, it is certainly possible that Emery's student yields could increase, including in the condominiums and large apartment complexes. We believe a yield increase is likely if test scores do improve substantially. In recent years, Emery has had the lowest or next-to-lowest scores in the County. We believe yields would increase if Emery could achieve test scores above those in Oakland, Hayward, San Leandro, and San Lorenzo Unified.

Our knowledge of student yields throughout the Bay Area led us to develop two alternative enrollment forecasts. For each, we multiplied the District's housing stock, by type of unit, by the anticipated student yield. Current yields were used to test the model (Alternative 0), and alternative (higher) student yields were used to suggest what enrollments could be if Emeryville attracted more families with children. Under one alternative (Alternative 1), the forecast suggests between 748 and 843 resident students. This alternative seems likely to us if Emery's test scores exceeded those of Oakland, Hayward, San Leandro, and San Lorenzo schools. Under another alternative (Alternative 2), we increased student yields even more, similar to what we have seen in high-performing districts. This forecast suggested, depending on which housing forecast was used, between 1,232 and 1,441 resident students.

Summary

The table below summarizes the resident enrollment forecasts predicted under both the conventional method and the alternative methods.

Summary of Resident Enrollment Forecast Scenarios

Forecast Scenario	Assumptions about District's future reputation	Forecast Under Conservative Housing Forecast	Forecast under Full Housing Forecast
Conventional Forecast (Medium)	no change in District's reputation	425	470
Alternative 0	no change in District's reputation	504	530
Alternative 1	District's test scores exceed those of Oakland, Hayward, San Leandro	748	843
Alternative 2	District has test scores similar to high-performing districts.	1,232	1,441

For facilities purposes, whichever forecast is used, the District might want to add an additional 100 students for former residents and another 100 students (at least) to accommodate Allen Bill students.

Acknowledgments

This report was conducted under the direction of Joe Frantz, Assistant Superintendent for Business Services, Emery Unified School District, and Stephen J. Wesley, Ph.D., Superintendent. We thank District staff members John Perry and Wanda Stewart, as well as consultant Roy C. Miller, AIA, for their assistance and advice.

We thank City of Emeryville staff members Amy Hiestand and Diana Keena, and applaud the city for the wealth of information we were able to obtain on its website. We thank Kris Owens, former Planning Commissioner, for her valuable insights.

Lapkoff & Gobalet Demographic Research, Inc., staff members who contributed to this report include Shelley Lapkoff, Jeanne Gobalet, Robin Merrill, and Alvin Ludwig.

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Introduction

Emery Unified School District (Emery, EUSD, the District) administrators are in the process of redesigning facilities and determining what properties will be needed to meet the educational needs of the Emeryville community. They requested a thorough analysis of demographic factors affecting enrollments and a professional assessment of likely future enrollment levels. They are particularly concerned about the enrollment effects of:

- The large number of new housing units planned by the city;
- Possible improvements in test scores; and
- General demographic trends in the District.

We are pleased to have been asked to help the District, and this report includes discussions of the following:

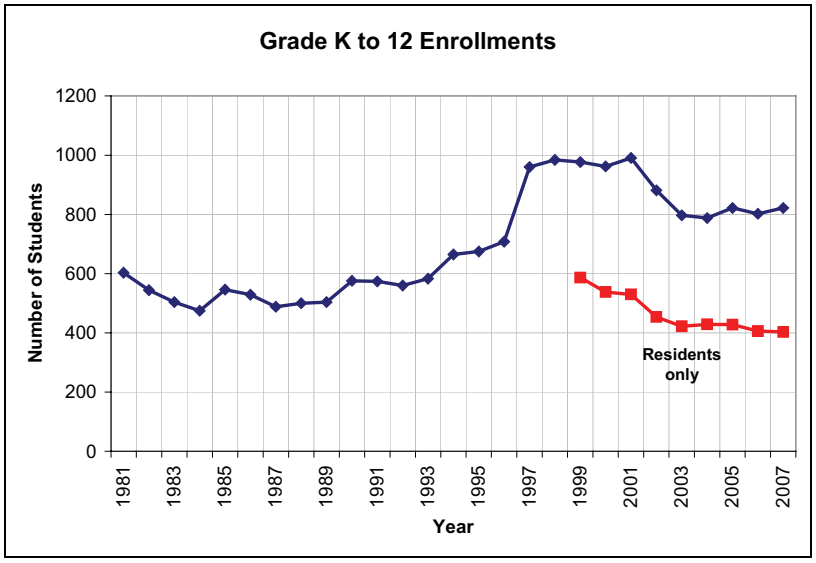
- An enrollment forecast based on the standard demographic method of projecting school populations, using the District's current enrollments, historical rates of students entering and leaving its schools, and births to forecast future kindergarten enrollments;
- Measurements of student yields (the average number of students per housing unit) in Emeryville, by housing type (condominium, apartment, houses, and below market rate units);
- Possible EUSD student yields if its test scores rose;
- An alternative forecast assuming increased student yields; and
- A discussion of private school enrollment rates.

Past Enrollment Trends

Overall Enrollment Trends

Chart 2 shows EUSD's K-12 enrollments from 1981 through 2007. The top line shows total enrollments (both resident and out-of-district students) and the bottom line shows residents only. We have student addresses beginning in 1999, and report "residents only" from that time period onward. About half of the District's students live outside Emeryville.

Chart 2



It is striking that EUSD's enrollments were fairly stable for many years, and then increased between fall 1996 and fall 1997. In just one year, enrollments reported to the State of California[2] jumped from 708 to 960. Although we do not have student address data for 1996 through 1999 to confirm this, we believe that this large increase resulted from an increase in out-of-district students, and not from an increase in the population residing within the city of Emeryville or choosing public schools.

We have seen this kind of dramatic enrollment change in other school districts only as a result of something like the admission of more out-of-district students or perhaps a very sudden change in a school district's reputation. We also wonder whether data collection or reporting errors in the late 1990s were at least partly responsible for the apparent sudden enrollment increase.

[2] These data are from CBEDS reports, and are available online from the California Department of Education (CDE) web site.

That said, because resident enrollments in 1999 were higher than total enrollments during the 1980s and early 1990s, we know there had to have been at least *some* increase in *resident* enrollments sometime during the middle to late 1990s.

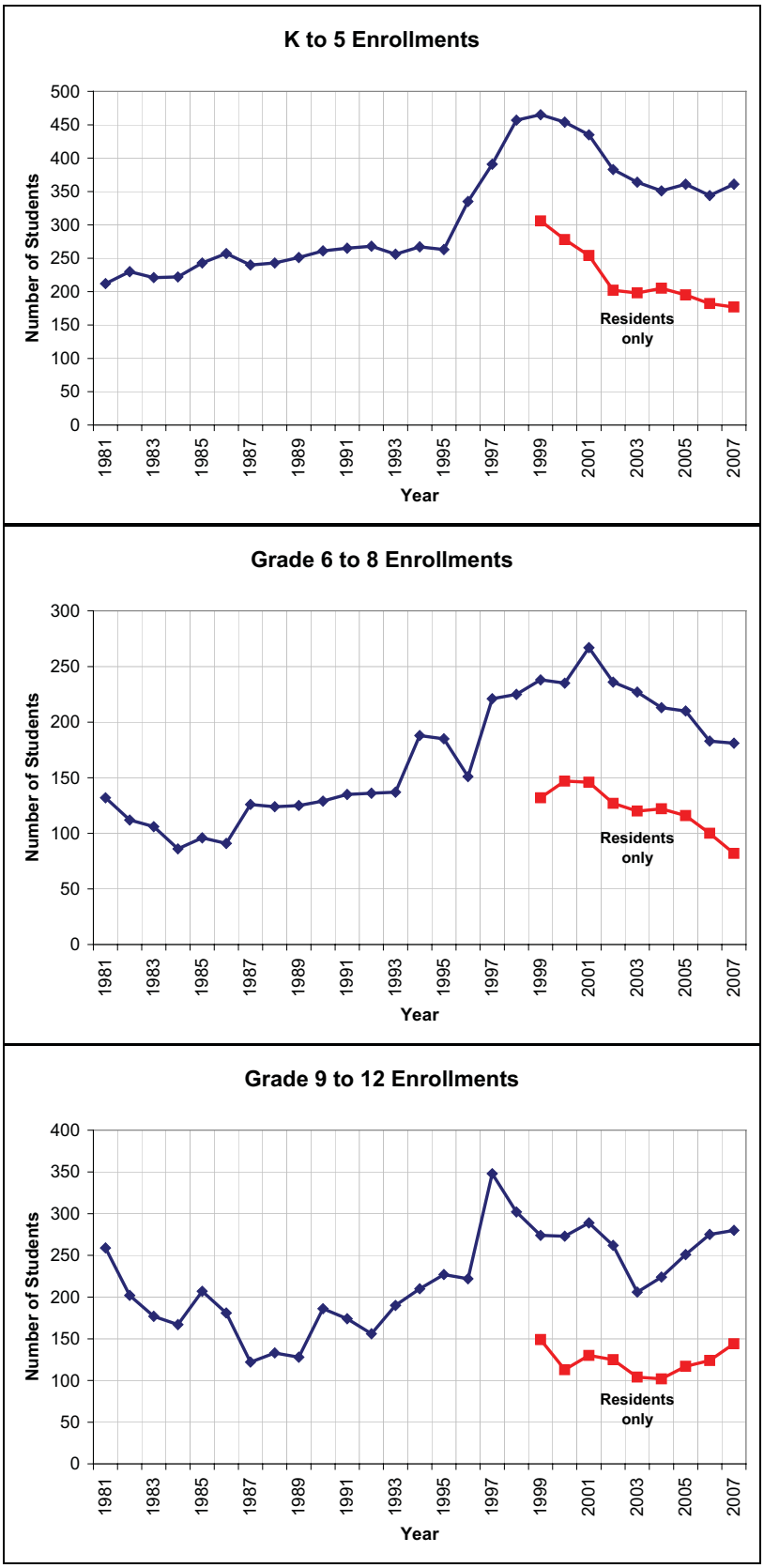
The number of students living in Emeryville declined substantially between 1999 and 2003. This decline corresponds to political and financial difficulties in the District, and may reflect a decision by parents to leave the District, or for families that were potential migrants not to move to Emeryville.

Since 2003, enrollments have been quite stable.

To get a better understanding of the enrollment trends, Chart 3 groups enrollments by combinations of grades: K to 5, 6 to 8, and 9 to 12, even though this is not the current school configuration.

- K to 5 enrollments replicate the trend found in the K-12 enrollments (Chart 2): enrollments rose between 1995 and 1998, and then began declining in 2001.
- Enrollments in grade 6 to 8 were more erratic, primarily because the numbers are so much smaller and subject to random variation. The figures for grade 6 to 8 "residents only" show a steady decline between 2001 and 2007.
- High school enrollments are also subject to random variation due to small numbers of students. In 1997, enrollments in grades 9 to 12 peaked, jumping from 222 in 1996 to 348 in 1997. It is really unfortunate that we do not have address data to tell us what amount of the increase resulted from admission of more out-of-district students.

Chart 3


K to 5 Enrollments
Number of Students
500
450
400
350
300
250
200
150
100
50
0
1981
1983
1985
1987
1989
1991
1993
1995
1997
1999
2001
2003
2005
2007
Year
Residents only
Grade 6 to 8 Enrollments
Number of Students
300
250
200
150
100
50
0
1981
1983
1985
1987
1989
1991
1993
1995
1997
1999
2001
2003
2005
2007
Year
Residents only
Grade 9 to 12 Enrollments
Number of Students
400
350
300
250
200
150
100
50
0
1981
1983
1985
1987
1989
1991
1993
1995
1997
1999
2001
2003
2005
2007
Year
Residents only

Comparison with State and County Trends

Emery's past enrollment trends differ from those of the state and Alameda County. Unlike Emery, both the state and the county experienced overall enrollment increases during most of the 1980s and 1990s, though the increase was more pronounced at the state level (See Charts 4 and 5). And unlike Emery, state and county enrollments did not rise sharply in the late 1990s, and then subsequently decline. However, Emery is similar to the state and county in that its enrollments have been relatively stable during the last five years or so.

Chart 4

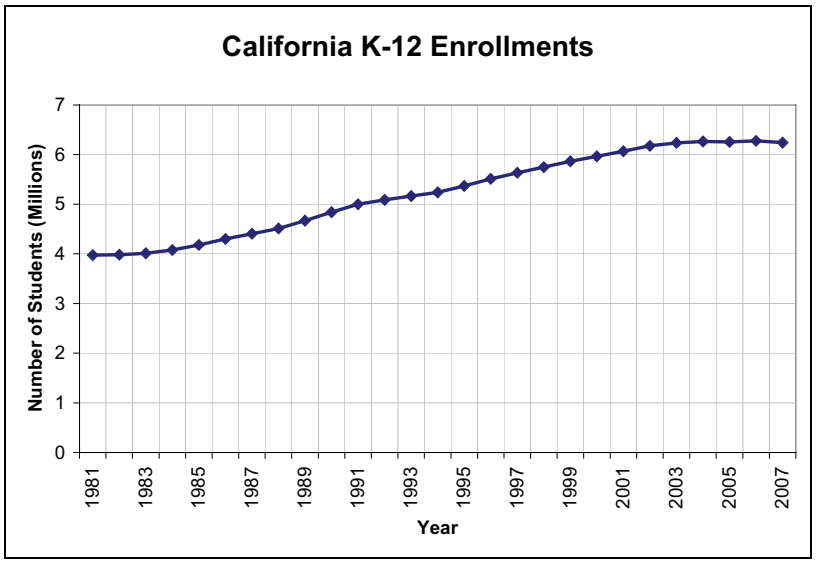
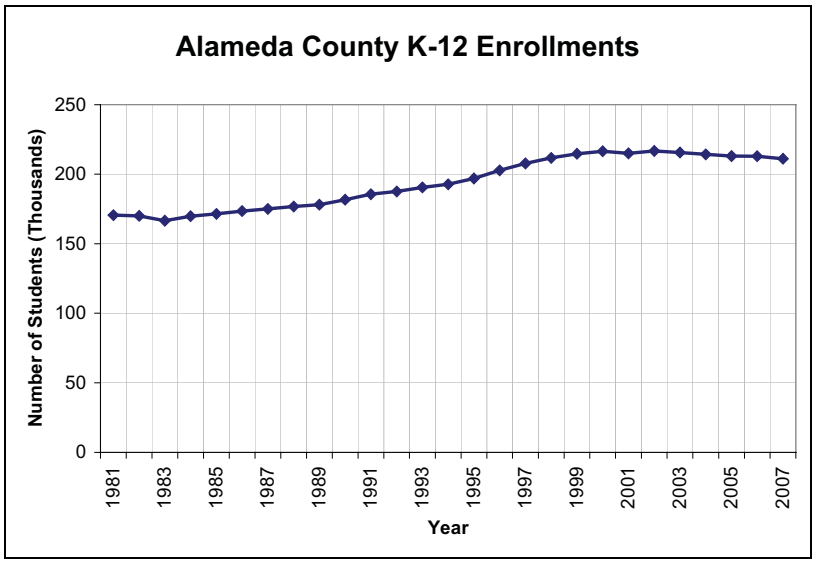


Chart 5



Interdistrict Transfer Students

As Chart 2 showed, about half of EUSD's students live outside the District. This has been the case since 1999 (and perhaps before, though we lack data to confirm this). In order to understand these patterns better, we grouped enrollments by combinations of grades: K to 5, 6 to 8, and 9 to 12, even though this is not the current school configuration. Chart 6 shows the number of students with out-of-district addresses in each of the three grade levels.

As mentioned above, we believe there was probably a huge increase in the number of out-of-district students in fall 1997, and these numbers probably remained high for several years.

Many districts use out-of-district students to optimize the use of teachers and classrooms. Since districts receive more funds when they have more students, it is usually financially beneficial to accept some out-of-district students to fill classrooms. This is also true for Emery, but there are other reasons it enrolls students who live outside Emeryville.

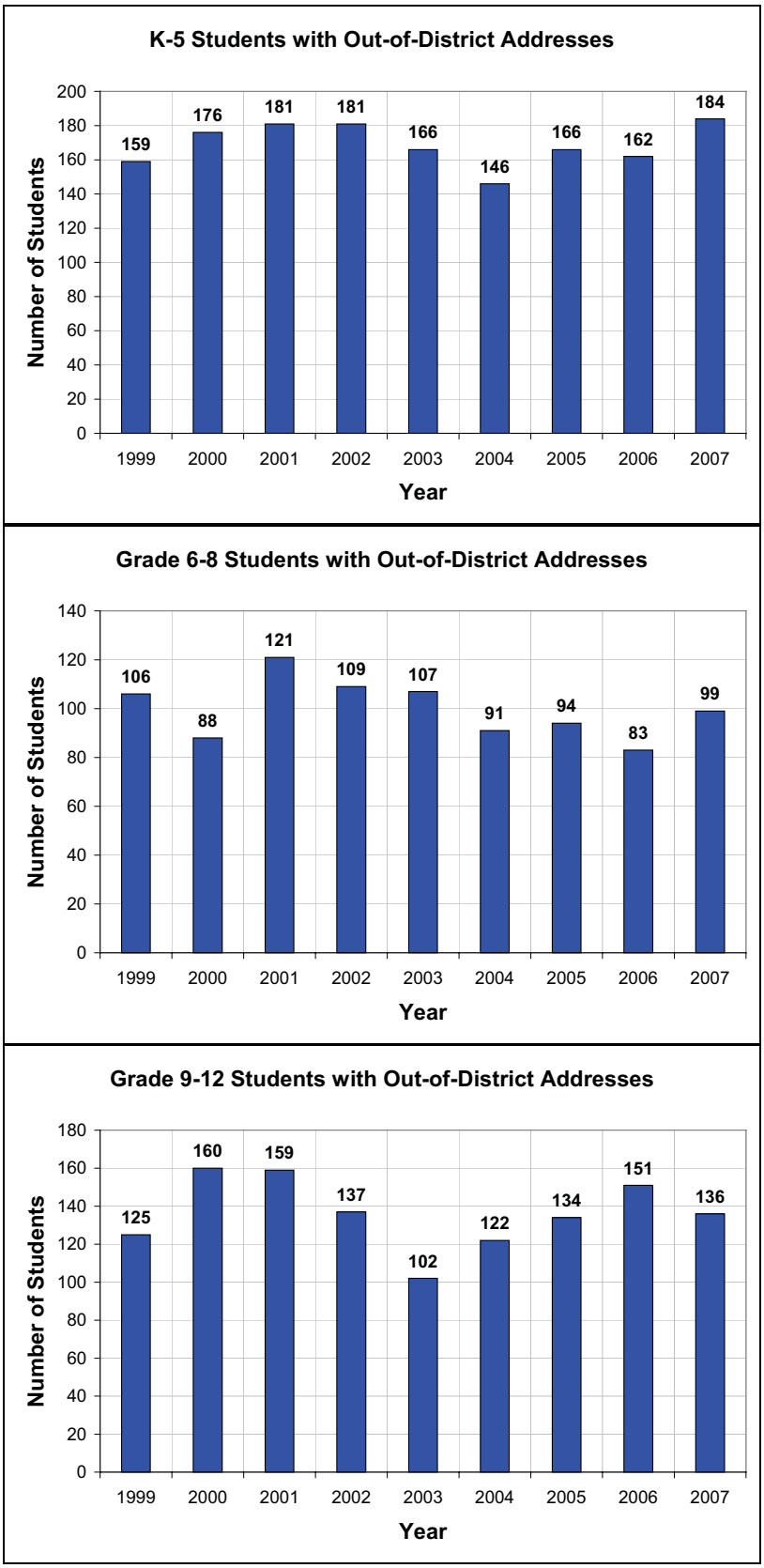
Former Residents

Emery's students are highly mobile. Many live in rental housing, and our study of enrollment patterns from 1999 through 2007 shows significant numbers moving into and out of the District. Sometimes students begin as Emeryville residents, leave the District for a few years and attend schools elsewhere, and then return to Emery as out-of-district students for a year or two before moving back into the District.

Our analysis shows that about 20 percent of out-of-district students started out as Emery students. In addition, another five percent started out as out-of-district students and subsequently moved into the District.

Because the school district is so small and has a strong sense of community, we imagine that District personnel almost always like to make room for out-of-district children who once were Emery students.

Chart 6


K-5 Students with Out-of-District Addresses
Number of Students
Year
1999 2000 2001 2002 2003 2004 2005 2006 2007
159 176 181 181 166 146 166 162 184
Grade 6-8 Students with Out-of-District Addresses
Number of Students
Year
1999 2000 2001 2002 2003 2004 2005 2006 2007
106 88 121 109 107 91 94 83 99
Grade 9-12 Students with Out-of-District Addresses
Number of Students
Year
1999 2000 2001 2002 2003 2004 2005 2006 2007
125 160 159 137 102 122 134 151 136

Allen Bill Students
As school administrators know, the California State Education Code allows parental employment in lieu of residency in a district of attendance ("Allen Bill Transfers"; CA State Education Code, Section 48204(b)). If space is available, Emery must accommodate K-8 children whose parents work in Emeryville and who wish to send their children to EUSD schools.[3] Note that the Allen Bill does not cover high school students.

In addition to the state requirement, EUSD administrators want to accommodate such students in the school because of the District's partnership with some of the large Emeryville employers. If a bond were passed, these large employers would pay much of the revenue. For these reasons, EUSD may want to plan to have enough space in the schools to accommodate children of people working in Emeryville.

District staff members have kept statistics on the number of out-of-district students admitted for childcare or employment reasons. Currently, 79 students, or 41 percent of out-of-district K-5 students, result from childcare (20 percent) or employment (21 percent). Of 6th-8th grade students, 12 students, representing 23 percent of all out-of-district students, were admitted for either childcare or employment reasons.

Residents of ZIP Code 94608
A final consideration regarding out-of-district students is that many of them are in ZIP Code 94608, the code that covers Emeryville, as well as some area beyond the city limits. Some Emeryville residents consider residents of these areas to be part of the "Emeryville community" even though they are officially outside the city (and school district) boundary. About 55 percent of out-of-district students live in this ZIP Code.

Ethnicity

Chart 7 and Table 1 show the ethnic distribution of all EUSD students (in-district and out-of-district students combined) since 1993. African Americans outnumber members of all the other ethnic groups. Currently, African Americans are 61 percent of the student body, but comprised as much as 74 percent during the late 1990s. During the last few years, a growing number of students are identified as "multiple race" or "other," making it more difficult to compare ethnic trends over time.

Note that almost all the enrollment increase between fall 1996 and fall 1997 was of African American students.

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[3] "The Allen Bill established a parent's right to apply to register their children in a district where either parent's job is located. However, your child isn't guaranteed enrollment in the district where you work. Transfers under the Allen Bill are always on a space-available basis, and districts have the right to determine whether or not to accept them. Districts that do accept Allen Bill transfers can limit the number of incoming students as well as establish certain criteria according to types of requests." (http://www.greatschools.net/cgi-bin/showarticle/239). To read the relevant section of the CA Education Code, see: http://www.leginfo.ca.gov/cgi-bin/displaycode?section=edc&group=48001-49000&file=48200-48208).

Chart 8 shows each ethnic group on a separate graph, so that the trend line is discernible (however, note the change in scale on the left axis for each graph). Hispanic enrollments have increased, White enrollments have declined, and Asian enrollments show no discernible trend.

Chart 7

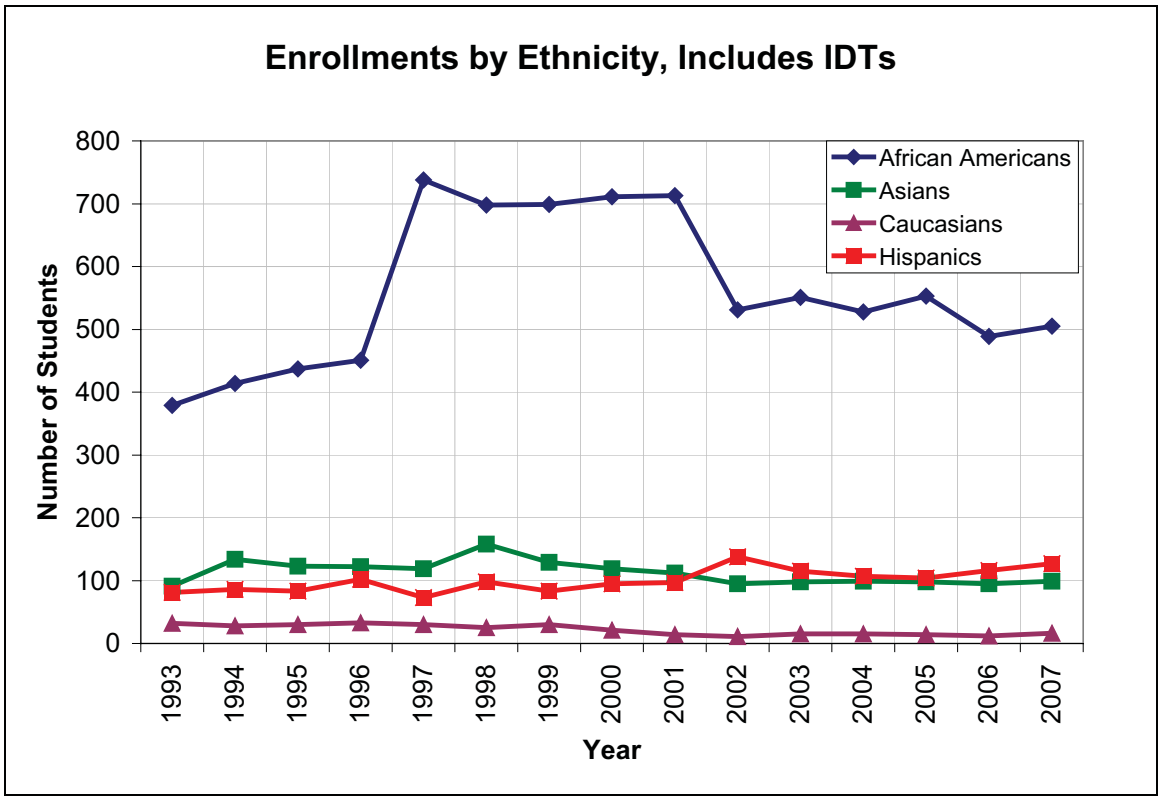
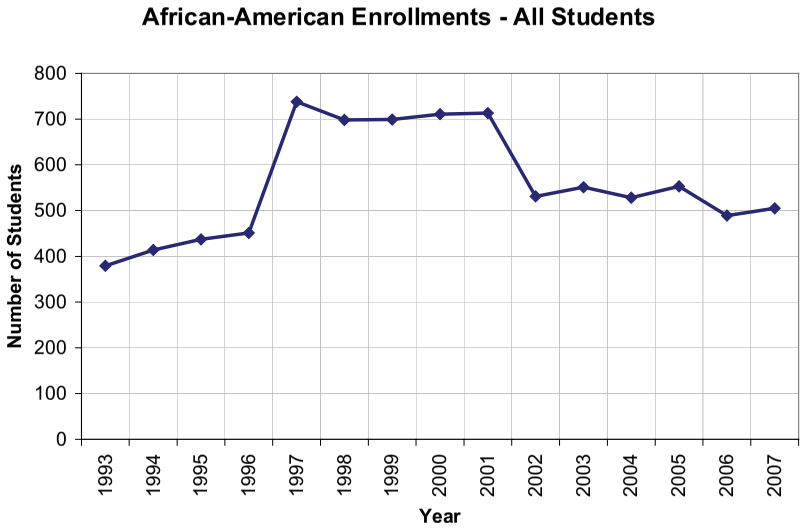


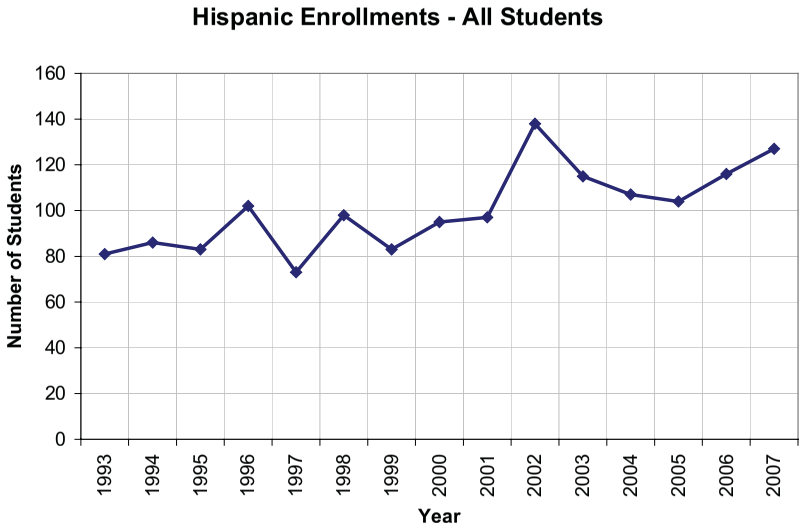
Table 1

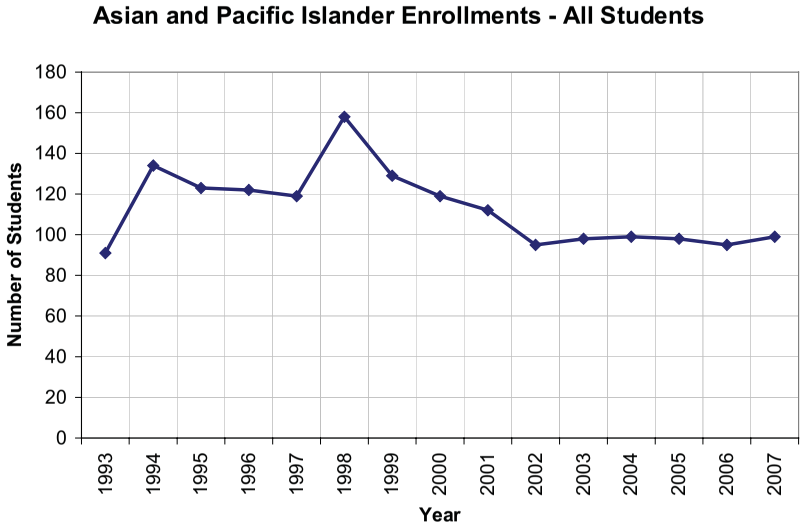
Ethnicity of Emery Unified Students (Includes both In-District and Out-of-District Students)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
African American	379	414	437	451	738	698	699	711	713	531	551	528	553	489	505
API/F	91	134	123	122	119	158	129	119	112	95	98	99	98	95	99
Caucasian	32	28	30	33	30	25	30	21	14	11	15	15	14	12	16
Hispanic	81	86	83	102	73	98	83	95	97	138	115	107	104	116	127
Native American	0	3	2	0	0	3	6	8	10	4	0	0	1	1	1
Other	0	0	0	0	0	2	30	8	45	102	18	39	52	89	74
Total	583	665	675	708	960	984	977	962	991	881	797	788	822	802	822
							SHARES								
African American	65%	62%	65%	64%	77%	71%	72%	74%	72%	60%	69%	67%	67%	61%	61%
API/F	16%	20%	18%	17%	12%	16%	13%	12%	11%	11%	12%	13%	12%	12%	12%
Caucasian	5%	4%	4%	5%	3%	3%	3%	2%	1%	1%	2%	2%	2%	1%	2%
Hispanic	14%	13%	12%	14%	8%	10%	8%	10%	10%	16%	14%	14%	13%	14%	15%
Native American	0%	0%	0%	0%	0%	0%	1%	1%	1%	0%	0%	0%	0%	0%	0%
Other	0%	0%	0%	0%	0%	0%	3%	1%	5%	12%	2%	5%	6%	11%	9%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Chart 8


African-American Enrollments - All Students
Number of Students
800
700
600
500
400
300
200
100
0
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
Year


Hispanic Enrollments - All Students
Number of Students
160
140
120
100
80
60
40
20
0
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
Year


Asian and Pacific Islander Enrollments - All Students
Number of Students
180
160
140
120
100
80
60
40
20
0
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
Year

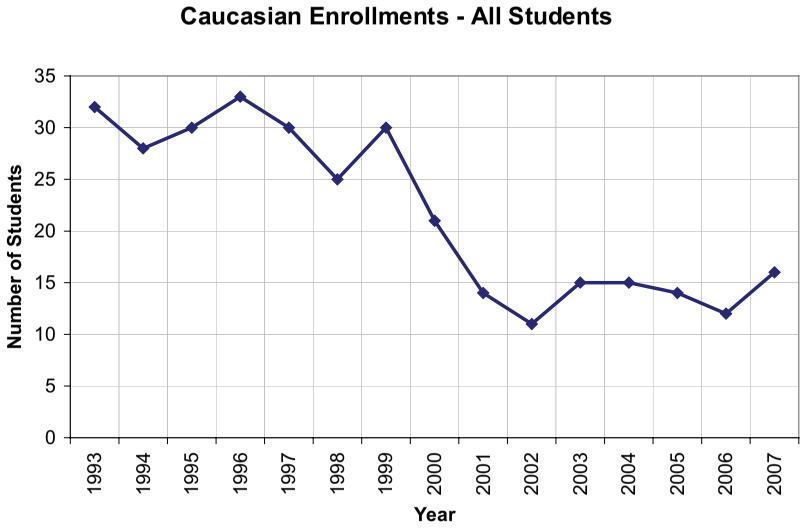

Caucasian Enrollments - All Students
Number of Students
35
30
25
20
15
10
5
0
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
Year

Table 2 shows the ethnicity of EUSD *residents*, as contrasted with the charts that use CBEDS data and combine residents and out-of-district students. These data are from the student address database, which has somewhat different categories from those used in the CBEDS reports. African Americans make up between 50 and 60 percent of the resident student body. Hispanic students are the next most numerous group, comprising about 19 percent of the resident student population. Asian Indians comprise about seven percent of the student body, as do Other Asians. Whites comprise only two to three percent of the student population. In 2007, no ethnicity was reported for 10 percent of the students.

These data indicate that the out-of-district students are less likely to be Hispanic and Asian, and more likely to be African American, than the resident population.

The number of Asian students has remained fairly constant. This is somewhat surprising because birth data that we will discuss below suggest that Emeryville's Asian population has been increasing.

Table 2

Ethnicity of Residents

	Fall 2003	Fall 2004	Fall 2005	Fall 2006	Fall 2007
African-American	241	249	258	200	187
Asian Indian	20	33	30	25	27
Chinese		1	2	2	1
Filipino	4	6	4	7	10
Hispanic	76	66	68	75	73
Japanese			1		
Korean			2	3	
Native	1	1	1	1	1
Other Asian	48	30	27	28	25
Other Pacific Islander			1	1	1
Vietnamese		1	4	6	4
White	10	10	10	12	12
Decline to State	20	24	24	33	36
Total	420	421	432	393	377
African-American	57%	59%	60%	51%	50%
Asian Indian	5%	8%	7%	6%	7%
Chinese	0%	0%	0%	1%	0%
Fiilipino	1%	1%	1%	2%	3%
Hispanic	18%	16%	16%	19%	19%
Japanese	0%	0%	0%	0%	0%
Korean	0%	0%	0%	1%	0%
Native	0%	0%	0%	0%	0%
Other Asian	11%	7%	6%	7%	7%
Other Pacific Islander	0%	0%	0%	0%	0%
Vietnamese	0%	0%	1%	2%	1%
White	2%	2%	2%	3%	3%
Decline to State	5%	6%	6%	8%	10%
Total	100%	100%	100%	100%	100%

Student Yields

This section reports on "student yields" in EUSD. A student yield, also called a student generation factor, student generation rate, or student housing unit multiplier, is the average number of students living in each housing unit. Analysts compute a yield by dividing the number of children or students living in an area by the number of housing units there. A yield of .50 would indicate that for every 100 housing units, there are 50 children or students in residence there (however uniformly or irregularly the 50 might be distributed among the units).

Measuring student yields in Emery is useful for two reasons:

1. We learn how many students per unit to expect from any specific future housing project; and
2. For the Alternative Forecast, we compare Emery's student yields to yields in other school districts, which suggests how enrollments might change if Emery's test scores and other community characteristics begin to resemble those of other districts.

In order to understand Emery's demographics, we have measured student yields in different types of housing. As one might expect, yields vary tremendously. Condominiums contain far fewer students per housing unit than houses or duplexes. Housing that low-income households can afford contains many more students per housing unit than market rate units.

In our experience, yields can vary markedly between school districts. During the early to mid-2000s, we believe that the publicizing of test scores on the Internet exacerbated differences in yields across school districts. High test scores have acted as a magnet for families with children. On the other hand low scores have deterred parents from enrolling their children in the public schools. We have measured changes in the yields in other districts that we believe were at least partly driven by the publicizing of test scores.

We also have noticed that student yields vary within districts that have a diverse socioeconomic mix. Districts like Berkeley, San Leandro, and Oakland Unified have wealthy households (mostly in the hill areas) as well as middle-income and low-income households. In such districts, we often see low student yields and high private school rates in the high-income housing areas. This is in contrast to Piedmont Unified, which also has wealthy households, but in which private school rates are low and yields high. Piedmont has high test scores and is relatively income-homogenous.

Emeryville's Housing Inventory

The first step in measuring student yields is to understand Emeryville's housing stock. The California Department of Finance (DOF) reported 5,998 housing units in Emeryville as of January 2008. These units are of all types, and we need more detail when measuring student yields.

We obtained Alameda County Assessor's Office data on each parcel in Emeryville.[4] We supplemented this database with information from city planners, and did "windshield surveys" of some areas about which we had questions. These sources included information for 5,628 units in 12 different housing categories (Table 3). This represents 95 percent of the housing reported by the Department of Finance.

Table 3

Our Housing Database, Using County Assessors Data and Other Sources

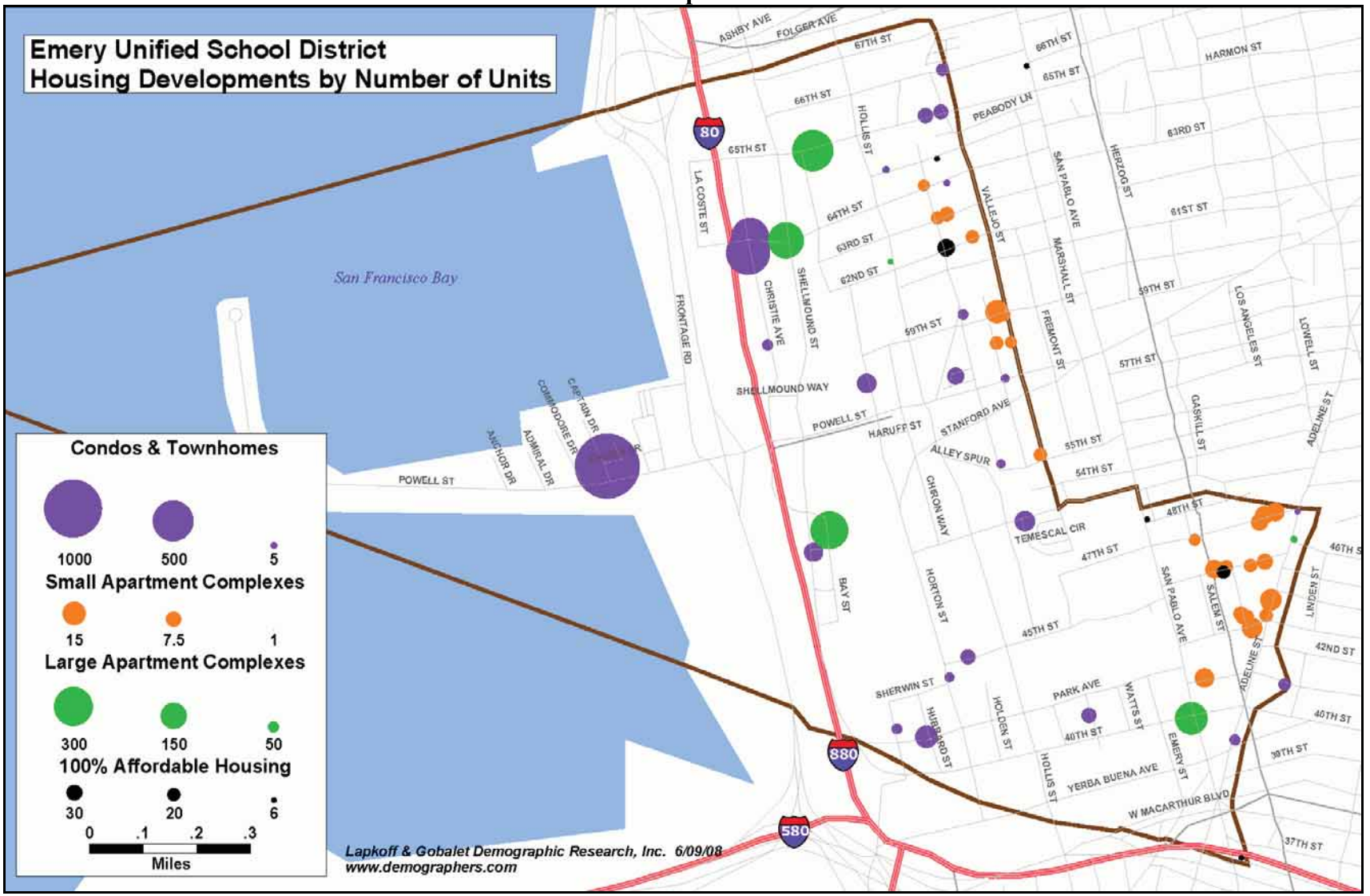
	Number	Percent
Condominiums	2,717	48%
Condominiums/Townhouse style	269	5%
Condominiums/Loft style	351	6%
Units in Large Apt Complexes	1,095	19%
Units in Small Apt Complexes	304	5%
Single Family Units (Houses)	197	4%
Duplexes	142	3%
Triplexes	99	2%
Fourplexes	132	2%
Low quality Housing (Includes SFUs, duplexes, etc)	130	2%
Units that are 100% Affordable	75	1%
Senior Housing	117	2%
Total	5,628	100%

Maps 1 and 2 show where the housing is located in Emeryville, by unit type. The large condominium and apartment complexes are concentrated in the western part of the District, while the single-family units, duplexes, triplexes, fourplexes, and small apartment complexes are located in the eastern areas.

Additional maps are provided in Appendix B, which shows SFUs, duplexes, triplexes, fourplexes, and poor (low quality) residential units, each on a separate map.

[4] The data were purchased from a private company, CD-Data, but the data originate from the County Assessor's Office.

Map 1


Emery Unified School District
Housing Developments by Number of Units
Condos & Townhomes
1000
500
5
Small Apartment Complexes
15
7.5
1
Large Apartment Complexes
300
150
50
100% Affordable Housing
30
20
6
0 .1 .2 .3
Miles
Lapkoff & Gobalet Demographic Research, Inc. 6/09/08
www.demographers.com
San Francisco Bay
ASHBY AVE
FOLGER AVE
67TH ST
66TH ST
65TH ST
PEABODY LN
HARMON ST
63RD ST
61ST ST
59TH ST
57TH ST
55TH ST
54TH ST
48TH ST
47TH ST
45TH ST
42ND ST
40TH ST
39TH ST
37TH ST
64TH ST
63RD ST
62ND ST
HOLLIS ST
LA COSTE ST
CHRISTIE AVE
SHELLMOUND ST
SHELLMOUND WAY
FRONTAGE RD
VALLEJO ST
SAN PABLO AVE
MARSHALL ST
FREMONT ST
HERZOG ST
LOS ANGELES ST
LOWELL ST
GASKILL ST
ADELINE ST
POWELL ST
HARUFF ST
STANFORD AVE
ALLEY SPUR
CHERON WAY
TEMESCAL CIR
BAY ST
HORTON ST
SHERWIN ST
HUBBARD ST
HOLDEN ST
PARK AVE
WATTS ST
EMERY ST
YERBA BUENA AVE
W MACARTHUR BLVD
SALEM ST
LINDEN ST
ANCHOR DR
ADMIRAL DR
COMMODORE DR
CAPTAIN DR
80
880
580

Map 2


Emery Unified School District
SFU and 2-4 Unit Housing Developments
San Francisco Bay
Emery Dist boundary
Fourplexes
Triplexes
Duplexes
SFUs
Poor Residential
0 .1 .2 .3
Miles
Lapkoff & Gobalet Demographic Research, Inc. 6/09/08
www.demographers.com
80
880
580
POWELL ST
SHELLMOUND WAY
STANFORD AVE
TEMESCAL CIR
PARK AVE
YERBA BUENA AVE
APGAR ST
W MACARTHUR BLVD
SAN PABLO AVE
ALCATRAZ AVE
PEABODY LN
OCEAN AVE
VALLEJO ST
SHELLMOUND ST
CHRISTIE AVE
FRONTAGE RD
LA COSTE ST
HOLLIS ST
HORTON ST
BAY ST
BEACH ST
HOLDEN ST
HALLECK ST
SHERWIN ST
EMERY ST
WATTS ST
HARLAN ST
HAVEN ST
ADELINE ST
LINDEN ST
ESSEX ST
SALEM ST
GASKILL ST
LOWELL ST
AILEEN ST
MARSHALL ST
FREMONT ST
BEAUDRY ST
ALLEY SPUR
PELADEAU ST
DOYLE ST
LOOP 22
HERZOG ST
SAN PABLO AVE
CAPTAIN DR
COMMODORE DR
ADMIRAL DR
ANCHOR DR
65TH ST
64TH ST
63RD ST
62ND ST
61ST ST
60TH ST
59TH ST
57TH ST
56TH ST
55TH ST
54TH ST
53RD ST
47TH ST
46TH ST
45TH ST
42ND ST
41ST ST
40TH ST
39TH ST
37TH ST

Student Yields in Emeryville's Housing

To calculate student yields, we used addresses supplied by the District for students attending EUSD between 1999 and 2007. Map 3 shows where students lived in fall 2007: they were concentrated in the eastern part of the District, especially the area east of San Pablo Avenue. Many students live outside the District, but close to Emeryville.

We matched these students to the housing database, in which, where possible, we noted the development's name, or "yield study area." This permitted us to identify enrollments in all of Emeryville's larger housing developments and in many of the smaller ones. Table 4 shows enrollments from 1999 through 2007 in each housing development that we could identify. The table classifies developments by type of unit. The right-most column shows the average number of students per unit over the 1999-2007 period.

Note that children living in Emeryville but attending private schools, charter schools, or a different public school district, are not included in our data, since the District does not have addresses (and other information) about these students.

Several important observations are:

1. Except for Emery Bay Village, condominium units have very, very few students. Many condominiums contained no students at all over the period studied.
2. Housing that is affordable to Very Low or Low Income households has the highest yields.
3. Single-family housing, duplexes, triplexes, and fourplexes have yields that are similar to what we have measured in other districts.
4. During the 1999 to 2007 period, enrollments declined substantially in houses, small apartment complexes and housing that is 100 percent affordable.
5. Large apartment complexes do not yield many students, except those with units affordable to Very Low and Low income households.
6. Yields in small apartment complexes are similar to and perhaps a bit higher than, yields that we have measured in other school districts.

Map 3

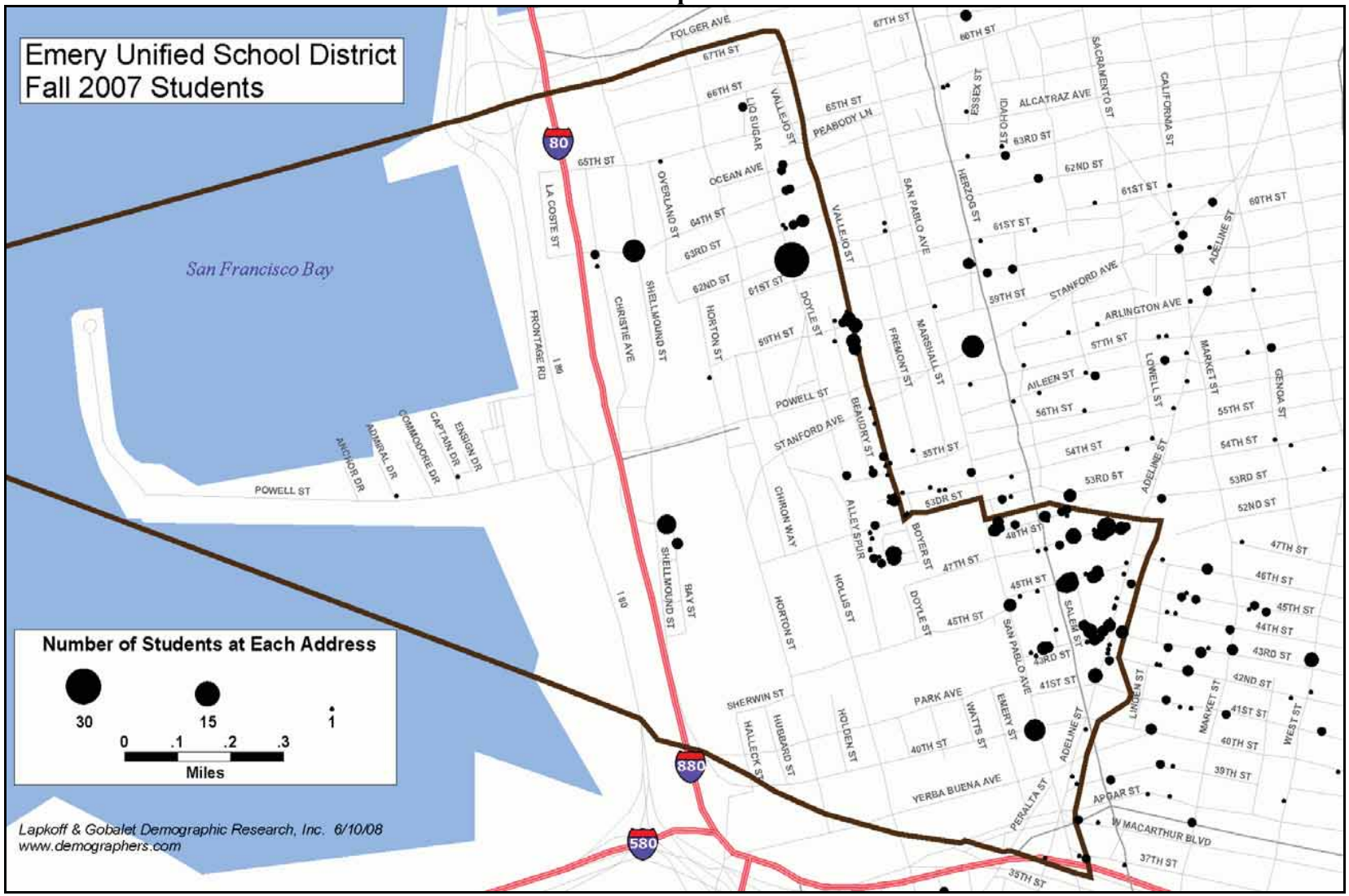

Emery Unified School District
Fall 2007 Students
San Francisco Bay
Number of Students at Each Address
30
15
1
0 .1 .2 .3
Miles
Lapkoff & Gobalet Demographic Research, Inc. 6/10/08
www.demographers.com
80
880
580
FOLGER AVE
67TH ST
66TH ST
65TH ST
64TH ST
63RD ST
62ND ST
61ST ST
60TH ST
59TH ST
57TH ST
56TH ST
55TH ST
54TH ST
53RD ST
52ND ST
48TH ST
47TH ST
46TH ST
45TH ST
44TH ST
43RD ST
42ND ST
41ST ST
40TH ST
39TH ST
37TH ST
35TH ST
OCEAN AVE
PEABODY LN
ALCATRAZ AVE
STANFORD AVE
ARLINGTON AVE
AILEEN ST
POWELL ST
SHERWIN ST
PARK AVE
YERBA BUENA AVE
APGAR ST
W MACARTHUR BLVD
LA COSTE ST
FRONTAGE RD
CHRISTIE AVE
SHELLMOUND ST
OVERLAND ST
HORTON ST
DOYLE ST
VALLEJO ST
LO SUGAR
SAN PABLO AVE
HERZOG ST
FREMONT ST
MARSHALL ST
BEAUDRY ST
CHIRON WAY
ALLEY SPUR
BOYER ST
HOLLIS ST
HOLDEN ST
HALLECK ST
HUBBARD ST
WATTS ST
EMERY ST
SALEM ST
PERALTA ST
ADELINE ST
LINDEN ST
MARKET ST
WEST ST
GENOA ST
LOWELL ST
CALIFORNIA ST
SACRAMENTO ST
IDAHO ST
PASSEK ST
ANCHOR DR
ADMIRAL DR
COMMODORE DR
CAPTAIN DR
ENSIGN DR
BAY ST

Table 4

Emeryville's Housing

Name	# All Units	# of Moderate Affordable units	# Low Affordable units	# Very low Affordable Units	# Market Rate Units	Year Built	Number of Students									Avg Yield
							1999	2000	2001	2002	2003	2004	2005	2006	2007	
Condominium/Townhouses																
Elevation 22	71	7	7	0	57	2004						0	0	0	0	0.00
Emery Bay Village	112	0	0	0	112	1979	13	11	11	15	12	10	16	18	22	0.13
City Limits	31	5	4	0	22	2005							0	0	0	0.00
Liquid Sugar	55	6	5	0	44	2003					0	0	0	0	2	0.01
Subtotal	269	18	16	0	235		13	11	11	15	12	10	16	18	24	0.07
Condominium/Lofts																
Besler Building Lofts	52	0	0	0	52	1986	0	0	0	0	0	0	0	0	0	0.00
Emeryville Warehouse Lofts	141	24	2	0	115	1999	0	0	0	0	0	0	0	0	0	0.00
Green City Lofts	31	3	3	0	25	2006								0	0	0.00
Horton Street Lofts	15	7	0	0	8	1993	0	0	0	0	0	0	0	0	0	0.00
Key Route Lofts	22	0	0	0	22	2006								0	0	0.00
Ocean Avenue Lofts	6	2	0	0	4	1997	0	0	0	0	0	0	0	0	0	0.00
Oliver Lofts	50	5	5	0	40	2002					1	1	1	0	0	0.01
Powell Street Lofts	10	5	0	0	5	1994	0	0	0	0	0	0	0	0	0	0.00
Temescal Lofts	4	2	0	0	2	1995	0	0	0	0	0	0	0	0	0	0.00
Subtotal	331	48	10	0	273		0	0	0	0	1	1	1	0	0	0.00
Condominiums																
Andante Condominiums (phases 1&2)	125	10	15	0	100	2004						0	1	6	4	0.02
Artist Co-op (condo-like)	53	6	4	29	14	1986	0	0	0	0	0	0	0	0	0	0.00
Bay Street One Condos	95	0	0	0	95	2006								0	0	0.00
Blue Star Corner	20	0	0	0	20	2007									0	0.00
Bridgewater Condos (Conversion)	424	0	0	0	424	1988	5	7	3	2	4	1	8	3	0	0.01
Co-Housing (condo-like)	12	0	0	0	12	1991	0	0	0	0	1	1	1	2	2	0.06
Pacific Park Plaza	582	0	0	0	582	1981	1	1	0	0	0	0	4	2	1	0.00
Terraces at Emery Station	101	11	9	0	81	2002					1		1	1	1	0.01
Watergate Condos	1247	0	0	0	1247	1971	0	2	1	1	0	2	4	3	2	0.00
Other	53	0	0	0	53		8	6	5	6	5	7	1	1	1	0.08
Subtotal	2712	27	28	29	2628		14	16	9	9	11	11	20	18	11	n.a.

Emeryville's Housing																		
							Number of Students											
Name	# All Units	# of Moderate Affordable units	# Low Affordable units	# Very low Affordable Units	# Market Rate Units	Year Built	1999	2000	2001	2002	2003	2004	2005	2006	2007		Avg Yield	
Small Apartment Complexes																		
1016 47TH ST	10				10	1963	5	3	6	0	1	1	0	0	0		0.18	
1024 47TH ST	10				10	1965	5	4	7	10	13	15	17	11	9		1.01	
1029 47TH ST	9				9	1959	14	12	8	5	5	4	5	3	5		0.75	
1031 45TH ST	6				6	1916	1	0	0	0	1	1	1	1	1		0.11	
1032 47TH ST	6				6	1909	0	0	0	0	0	0	0	0	0		0.00	
1034 47TH ST	14				14	1918	1	2	2	1	1	1	1	4	1		0.11	
1039 45TH ST	8				8	1923	1	0	0	0	0	0	0	0	0		0.01	
1049 43RD ST	12				12	1908	10	15	16	13	9	12	13	7	5		0.93	
1049 45TH ST	6				6	1930	3	3	4	5	6	8	6	6	7		0.89	
1054 45TH ST	6				6	1910	1	0	0	2	2	0	1	1	0		0.13	
1058 45TH ST	6				6	1958	0	0	1	2	2	0	2	0	1		0.15	
1068 45TH ST	10				10	1935	2	3	2	1	0	0	0	0	0		0.09	
1071 47TH ST	6				6	1910	0	0	0	1	0	0	0	0	1		0.04	
1077 47TH ST	5				5	1927	6	5	6	6	4	4	1	1	1		0.76	
1086 41ST ST	11				11	1913	1	0	0	0	0	0	0	0	0		0.01	
1260 59TH ST	15				15	1961	5	8	9	3	3	1	6	5	3		0.32	
1262 62ND ST	6				6	1967	2	2	0	0	0	0	0	0	0		0.07	
1266 62ND ST	6				6	1964	3	4	6	7	2	2	0	0	0		0.44	
1274 63RD ST	7				7	1965	2	1	0	0	0	0	0	0	2		0.08	
1298 63RD ST	6				6	1954	4	4	0	0	0	0	0	0	0		0.15	
3617 SAN PABLO AVE	1				1	1926	0	0	0	0	0	0	0	0	0		0.00	
4015 ADELINE ST	6				6	1906	0	0	0	0	0	0	0	0	0		0.00	
4305 ADELINE ST	6				6	1929	0	1	1	0	0	0	2	3	3		0.19	
4322 SALEM ST	5				5	1935	2	3	0	0	1	1	1	2	1		0.24	
4326 ESSEX ST	7				7	1916	0	0	1	1	1	2	2	1	1		0.14	
4327 ESSEX ST	5				5	1900	1	0	1	0	0	0	0	0	0		0.04	
4343 ESSEX ST	7				7	1964	10	5	3	3	4	2	2	4	3		0.57	
4359 ADELINE ST	10				10	1938	2	3	6	8	6	2	2	2	0		0.34	
4369 ADELINE ST	13				13	1927	0	0	0	0	0	0	0	0	0		0.00	
5505 VALLEJO ST	6				6	1939	1	0	2	1	1	0	0	1	1		0.13	
5517 VALLEJO ST	6				6	1920	0	1	3	0	0	0	0	0	2		0.11	
5851 VALLEJO ST	5				5	1965	2	1	1	0	0	0	0	1	1		0.13	
5860 BEAUDRY ST	6				6	1943	0	2	4	4	4	1	1	1	0		0.31	
5899 VALLEJO ST	5				5	1922	0	0	0	0	0	0	0	0	0		0.00	
5941 VALLEJO ST	5				5	1937	0	0	0	0	1	0	0	0	0		0.02	
Bakery Lofts	41	8	0	0	33	2002	0	0	0	0	0	0	0	0	0		0.00	
Doyle Dollar Lofts	20	0	0	0	20	2000		0	0	0	0	0	0	0	0		0.00	
Ocean and Doyle THs	5	0	0	0	5	1989											0.00	
Subtotal	324	8	0	0	316		84	82	89	73	67	57	63	54	48		0.21	

Emeryville's Housing																		
								Number of Students										
Name	# All Units	# of Moderate Affordable units	# Low Affordable units	# Very low Affordable Units	# Market Rate Units	Year Built		1999	2000	2001	2002	2003	2004	2005	2006	2007		Avg Yield
Larger Apartment Complexes																		
Bridgecourt Apts	220	0	64	24	132	1997		34	33	32	42	32	34	42	34	32		0.16
Archstone Apts	260	0	0	52	208	1993		26	23	27	29	24	33	16	13	12		0.09
Metropolitan at Bay Street Apts	284	0	0	57	227	2005									5	12		0.03
Courtyards Apts at 65th	331	62	0	1	268	2004								1	2	1		0.00
Subtotal	1095	62	64	134	835			60	56	59	71	56	67	59	54	57		0.05
Partially Rented Apts																		
Avenue 64	224	15	8	0	201	2007										2		
Developments that are 100% Affordable																		
Triangle Court	20	0	11	9	0	1994		26	26	23	19	20	19	23	23	21		1.11
Ocean Avenue Ct (1265 & 1269)	6	0	0	6	0	n.a.		11	10	11	6	3	3	2	0	1		0.87
Emery Glen (6200 Doyle)	36	0	0	36	0	1983		44	37	28	23	26	35	31	28	29		0.87
Gateway Commons	6	5	1	0	0	2000		0	0	0	0	0	1	2	5	5		0.31
Bay Bridge Apts	6	0	0	6	0	1998		0	0	0	0	0	0	1	1	0		0.04
1258 & 1268 64TH ST	5	2	3	0	0	1998		0	0	0	0	0	0	0	0	0		0.00
Artisan Walk						2006												
Subtotal	79	7	15	57				81	73	62	48	49	58	59	57	56		0.76
Senior Housing																		
Emery Villa	50	0	50	0	0	1993		4	6	8	1	1	0	0	0	1		0.05
Avalon Sr Apts	67	0	66	0	1	2000				0	1	1	0	0	0	0		0.00
Subtotal	117							4	6	8	2	2	0	0	0	1		0.02
Houses																		
Single Family Units	197							137	140	134	99	100	94	85	77	72		0.53
Duplexes	142							28	27	33	29	39	33	22	29	26		0.21
Triplexes	99							27	30	27	24	14	18	21	19	14		0.22
Fourplexes	132							43	44	34	26	38	32	33	32	31		0.26
Low quality housing	130							31	33	36	28	21	29	39	23	25		0.23
Subtotal	700							266	274	264	206	212	206	200	180	168		0.31

Emeryville's Housing																	
							Number of Students										
Name	# All Units	# of Moderate Affordable units	# Low Affordable units	# Very low Affordable Units	# Market Rate Units	Year Built	1999	2000	2001	2002	2003	2004	2005	2006	2007	Avg Yield	
Miscellaneous																	
Exempt Public Agencies							2	0	1	1	2	1	1	0	0		
Mixed Use							7	7	4	2	1	3	6	8	8		
non-residential							9	12	12	5	3	4	6	4	2		
unidentified							2	2	1	0	0	0	0	0	0		
Subtotal							20	21	18	8	6	8	13	12	10	13	
Total Residents							542	539	520	432	416	418	431	393	377	452	
Out-of-District							390	424	461	427	375	359	394	396	419		
No address data							6	9	10	4	2	4	1	1	1		
Inconsistency with CBEDS (# of address records different from CBEDS)							39	-10	0	18	4	7	-4	12	25		
Grand Total							938	972	991	863	793	781	826	790	797		

Table 5 summarizes the student yields by category of housing.[5]

Table 5

Average Student Yield 1999-2007 in Emery Unified

	Market Rate	Affordable to Moderate Income Households	Affordable to Low or Very Low Income Households
Market Rate Units			
Condominiums/THs	0.07	0.00	0.13
Condominiums/Lofts	0.00	0.00	0.00
Condominiums	0.007	0.10	0.20
Units in Small Apt Complexes	0.23	0.00*	no units
Units in Large Apt Complexes	0.01	0.03*	0.25
Developments that are 100% Affordable	no units	0.31*	0.87
Single Family Units (Houses)	0.53	no units	no units
Duplexes	0.21	no units	no units
Triplexes	0.22	no units	no units
Fourplexes	0.26	no units	no units
Low quality Housing	0.23	no units	no units
Senior Housing	0.02	no units	no units

* small sample size

Student Yields in Other Districts

We have conducted demographic studies for other Bay Area school districts, and we present yield information here for comparison purposes; we also present it to suggest what EUSD yields could be if test scores and other community characteristics were to change.

We measured student yields in the Albany Unified School District when we worked there in 2001. Albany is considered a very desirable school district, with high test scores and a diverse population. Albany includes University Village, which houses U.C. Berkeley graduate student families. In addition, Albany has a family-friendly atmosphere due to its concentration of single-family units, its Solano Avenue shopping district, and neighborhood parks.

Albany contains three large condominium complexes that are visible from Interstate 80. All three are on Pierce Street (535, 545, and 555 Pierce). Table 6 shows the student yields in 2000 and 2001, as well as some characteristics of the condominiums. The average student yield of .20 for these units is much higher than the student yield we have measured in other condominium developments. Most students living in the condominiums had Asian surnames.

[5] The summary data in Table 5 does not bear an exact correspondence to the data in Table 4 because we had to make some assumptions and perform some calculations to arrive at summary data.

A typical condominium yield in other districts we have studied is between .05 and .10. Albany's yield of .20 is quite high. We believe the attractiveness of the Albany schools and community explain this yield.

Table 6

Albany's High Rise Condominiums

Name	Address	Yr. Built	# Units	Number of Students		Student Yield	
				2000	2001	2000	2001
Bayside Commons	535 Pierce Street	1988	235	41	52	0.17	0.22
Bridgewater	545 Pierce Street	1986	103	15	18	0.15	0.17
Gateview	555 Pierce Street	1977	466	93	90	0.20	0.19
All			804	149	160	0.19	0.20

We also measured yields in Albany's smaller apartment complexes (less than 50 units per complex). We found yields averaging .30, which is higher than those we have measured in other districts.

Emeryville has some large apartment complexes. Except for those with affordable housing, the large apartment developments had relatively low yields. Our experience with other districts suggests that apartment yields can vary tremendously: some have no students, while others can have yields as high as .50. The larger complexes tend to have lower yields, but that is not always the case.

To our knowledge, Albany does not contain any large apartment complexes. However, Alameda Unified has one large apartment complex that could be useful for comparison purposes: the newly renovated Summer House development. Its units are being marketed as luxury apartments. It has no affordable units. As of fall 2007, it was only partially completed. Of the units that were rented, the yield was .08. This yield is within the range we expected. Note that Emeryville's large apartment complexes have been averaging a yield of .05, including units that are affordable, compared to Alameda's .08 market rate yield.

We have measured yields for many school districts in the San Francisco Bay Area, including Hayward Unified, Oakland Unified, San Leandro Unified, Los Altos Elementary, and Palo Alto Unified. The results of these studies inform our discussion in the last section of this report of how Emery's yields could increase if test scores improved substantially.

Students from New Housing

More than 1,700 housing units have been built since 2000 in the City of Emeryville. Construction continues, but the pace of residential housing sales has slowed considerably and it is not clear if all projects that have been proposed, or even those that have been approved, will actually be built in the foreseeable future. Therefore, this section presents two housing forecasts: a "Full Housing Forecast" that includes all of the approved and proposed developments; and a "Conservative Housing Forecast" that assumes only a subset of projects will actually be built.

No matter which housing forecast is assumed, District decision makers need to know how many public school students are likely to live in this future housing. As we explain below, we expect relatively few students to live in the new units, regardless of which housing forecast is used. We expect most of the students in future housing to occupy units that are affordable to Very Low and Low Income households.

The forecasts below show 83 students living in future housing under the Full Housing Forecast and 38 students under the Conservative Housing Forecast. Since there is so little difference between the Full and Conservative Housing Forecasts, we assumed the Full Housing Forecast in the enrollment projections that are discussed later in this report.

Forecasting Students from Future Housing

We estimate students from future housing by multiplying the estimated number of future housing units by the student yield that is typical of those kinds of units.

Most future Emeryville housing developments will have affordable units. Virtually all of Emeryville is in a redevelopment area, with the requirement that 20 percent of the units be "affordable" to Very Low, Low, or Moderate Income households. Affordable units have much higher student yields than market rate units. In particular, the units that are affordable to Very Low and Low Income households have higher yields than those that can be afforded only by Moderate Income households. Therefore, it is important to take into account the number of housing units in each project that are affordable to families with different income levels.

Table 7 shows our forecast of students from new housing through 2014, assuming the Full Housing Forecast. A total of 2,378 units would be built, most by 2010, though some projects could be delayed if the housing market remains sluggish. Of the 2,378 units, 365 would be affordable, which includes 184 units affordable to Very Low or Low Income households, where we expect most students to live.

The shaded columns in the middle of Table 7 show the student yields that we assumed for the housing forecast. Most of the market rate units are expected to yield .007 students, or seven students for every 1,000 units. For most of the units, a yield of .30 is assumed for units affordable to Very Low Income households, a .20 yield is assumed for units

affordable to Low Income households, and a .10 yield is assumed for units affordable to Moderate Income households.

By 2013, only 83 additional EUSD students are expected to live in the large number of housing units assumed under the Full Housing Forecast. The 2,014 market rate units are expected to house only 15 students, because so few current students live in similar housing. (Remember that this forecast assumes that no dramatic changes occur in the attractiveness of Emeryville and its schools to families.)

Table 8 shows our forecast of students from new housing built through 2014, assuming the Conservative Housing Forecast. A total of 966 units would be built. Of these, 147 would be "affordable," including 54 that would be affordable to Very Low or Low Income households, where we expect most students to live. When we assumed the same student yields as under the Full Housing Forecast scenario, we expect 38 EUSD students to live in the new homes, primarily in the affordable units.

Table 7

Enrollment Forecast for Emeryville Under the "Conservative" Housing Forecast

Future Housing in Emeryville								Assumed Yield				Cumulative Students Expected from Housing Built in 2008 and Later						
Project Name	Projected Tenure	Total # Units	Very Low	Low	Moderate	Market	Expected Completion	Very Low	Low	Moderate	Market	2008	2009	2010	2011	2012	2013	2014
Doyle Street Condos	own	27	0	0	0	27	2007	0.3	0.2	0.1	0.007	0	0	0	0	0	0	0
Vue46	own	47	0	3	6	38	2008	0.3	0.2	0.1	0.007	0	1	1	1	1	1	1
Adeline Place	own	36	0	0	13	23	2008	0.3	0.2	0.1	0.007	0	1	1	1	1	1	1
Beaudry St THs	own	4	0	0	0	4	2008	0.3	0.2	0.1	0.007	0	0	0	0	0	0	0
Oak Walk Mixed Use	own	53	0	4	0	49	2009	0.3	0.2	0.1	0.007	0	0	1	1	1	1	1
Oak Walk House renovations	own	5	0	0	5	0	2009	0.3	0.2	0.1	0.007	0	0	1	1	1	1	1
39th/Adeline(Madison Park)	own	80	5	0	7	68	2009	0.3	0.2	0.1	0.007	0	0	3	3	3	3	3
Bakery Lofts IV	own	18	0	0	0	18	2009	0.3	0.2	0.1	0.007	0	0	0	0	0	0	0
Ambassador Homes	own	55	0	0	11	44	2011	0.3	0.2	0.1	0.007	0	0	0	0	1	1	1
Marketplace Redevelopment	own	180	10	10	16	144	2012	0.3	0.2	0.1	0.007	0	0	0	0	0	8	8
Salem Manor	own	3	0	0	0	3	2010	0.3	0.2	0.1	0.007	0	0	0	0	0	0	0
Vallejo Gardens	own	3	0	0	0	3	2010	0.3	0.2	0.1	0.007	0	0	0	0	0	0	0
Glashaus THs and condos	own	145	5	6	18	116	2008	0.5	0.3	0.1	0.07	0	14	14	14	14	14	14
Subtotal		656	20	23	76	537												
Avenue 64	rent	224	0	8	15	201	2007	0.3	0.2	0.1	0.01	5	5	5	5	5	5	5
1077 41st 4plex relocation	rent	4	0	0	2	2	2009	0.3	0.2	0.1	0.01	0	0	0	0	0	0	0
1401 Park	rent	54	3	0	0	51	2007	0.3	0.2	0.1	0.01	1	1	1	1	1	1	1
Subtotal		282	3	8	17	254												
Age Song Assisted Living	rent	28	0	0	0	28	2009	0	0	0	0	0	0	0	0	0	0	0
Total		966	23	31	93	819						7	24	29	29	30	38	38

Table 8

Enrollment Forecast for Emeryville Under the "Conservative" Housing Forecast

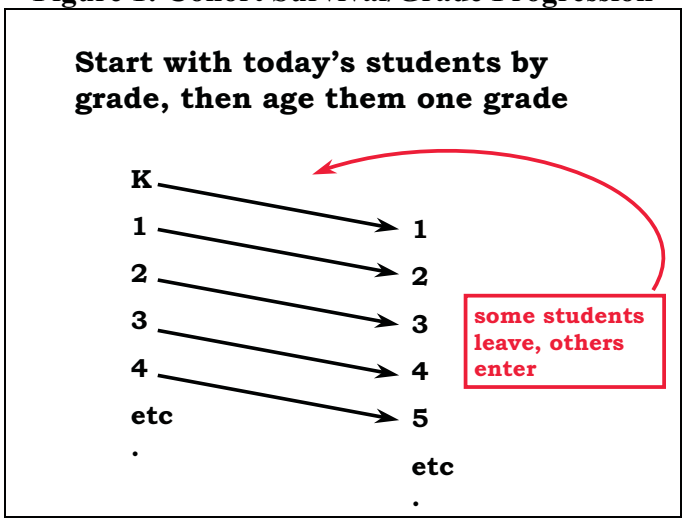
Future Housing in Emeryville								Assumed Yield				Cumulative Students Expected from Housing Built in 2008 and Later						
Project Name	Projected Tenure	Total # Units	Very Low	Low	Moderate	Market	Expected Completion	Very Low	Low	Moderate	Market	2008	2009	2010	2011	2012	2013	2014
Doyle Street Condos	own	27	0	0	0	27	2007	0.3	0.2	0.1	0.007	0	0	0	0	0	0	0
Vue46	own	47	0	3	6	38	2008	0.3	0.2	0.1	0.007	0	1	1	1	1	1	1
Adeline Place	own	36	0	0	13	23	2008	0.3	0.2	0.1	0.007	0	1	1	1	1	1	1
Beaudry St THs	own	4	0	0	0	4	2008	0.3	0.2	0.1	0.007	0	0	0	0	0	0	0
Oak Walk Mixed Use	own	53	0	4	0	49	2009	0.3	0.2	0.1	0.007	0	0	1	1	1	1	1
Oak Walk House renovations	own	5	0	0	5	0	2009	0.3	0.2	0.1	0.007	0	0	1	1	1	1	1
39th/Adeline(Madison Park)	own	80	5	0	7	68	2009	0.3	0.2	0.1	0.007	0	0	3	3	3	3	3
Bakery Lofts IV	own	18	0	0	0	18	2009	0.3	0.2	0.1	0.007	0	0	0	0	0	0	0
Ambassador Homes	own	55	0	0	11	44	2011	0.3	0.2	0.1	0.007	0	0	0	0	1	1	1
Marketplace Redevelopment	own	180	10	10	16	144	2012	0.3	0.2	0.1	0.007	0	0	0	0	0	8	8
Salem Manor	own	3	0	0	0	3	2010	0.3	0.2	0.1	0.007	0	0	0	0	0	0	0
Vallejo Gardens	own	3	0	0	0	3	2010	0.3	0.2	0.1	0.007	0	0	0	0	0	0	0
Glashaus THs and condos	own	145	5	6	18	116	2008	0.5	0.3	0.1	0.07	0	14	14	14	14	14	14
Subtotal		656	20	23	76	537												
Avenue 64	rent	224	0	8	15	201	2007	0.3	0.2	0.1	0.01	5	5	5	5	5	5	5
1077 41st 4plex relocation	rent	4	0	0	2	2	2009	0.3	0.2	0.1	0.01	0	0	0	0	0	0	0
1401 Park	rent	54	3	0	0	51	2007	0.3	0.2	0.1	0.01	1	1	1	1	1	1	1
Subtotal		282	3	8	17	254												
Age Song Assisted Living	rent	28	0	0	0	28	2009	0	0	0	0	0	0	0	0	0	0	0
Total		966	23	31	93	819						7	24	29	29	30	38	38

Grade Progressions

This section analyzes what demographers call "grade progressions" or, more technically, cohort survival rates and patterns. Grade progressions are an important input in a conventional enrollment forecast, and we study historical trends to guide what assumptions to use in the forecast model. Another reason to study grade progressions is to understand important demographic patterns within the District. Grade progressions often indicate migration trends, as well as retention rates, especially in the higher grades.

A "grade progression" is the change in the size of cohorts as they progress to the next grade. Figure 1 illustrates this process. One year's kindergarten class becomes the next year's first grade class, one year's first grade class becomes the next year's second grade class, and so on. However, as a cohort moves through the grades, its numbers can change. It is this change (indicated by the small box in Figure 1) that we call a grade progression.

Figure 1: Cohort Survival/Grade Progression



Most Recent Grade Progressions

Chart 9a shows EUSD's actual grade progressions between fall 2006 and fall 2007. The first bar on the chart represents the change between the number of fall 2006 kindergartners and the number of fall 2007 first graders (the K>1 progression); there was a net gain of two students. The second bar on the chart indicates that as the first graders from 2006 progressed to the second grade in fall 2007, there was a net loss of five students (the 1>2 progression).[6] Each bar on the chart presents the grade progression between each pair of grades.

[6] For enrollment forecasting purposes, it does not matter whether exactly the same students are present in consecutive years. Grade progressions are measures of *net* changes in cohorts. Theoretically, 100 percent of a cohort could move to the next grade, but they might not be the same students if the number of students who entered exactly replaced children who moved away.

Emery administrators have indicated that the high school grade progressions are affected by some students repeating grades, then sometimes "catching up." This is likely to explain the large numbers – both positive and negative – in the high school grade progressions. Students repeating ninth and tenth grades would increase the 8>9 and 9>10 grade progressions, while making the 10>11 and 11>12 progressions particularly negative.

Chart 9b shows grade progression *rates*. This shows the *percentage* change in the number of students as each cohort progressed to the next grade between fall 2006 and fall 2007. The first bar on the chart shows that the kindergarten class of fall 2006 increased by six percent when the students became first graders in fall 2007.

Chart 9a

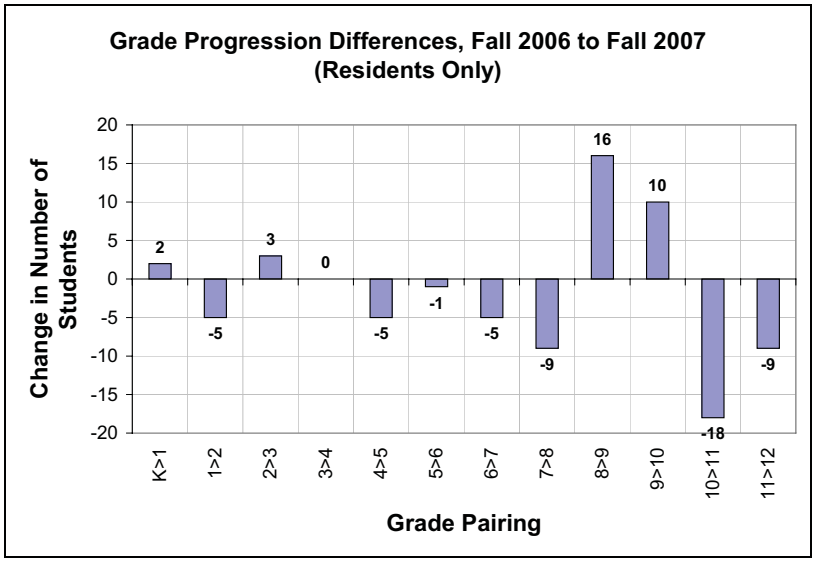
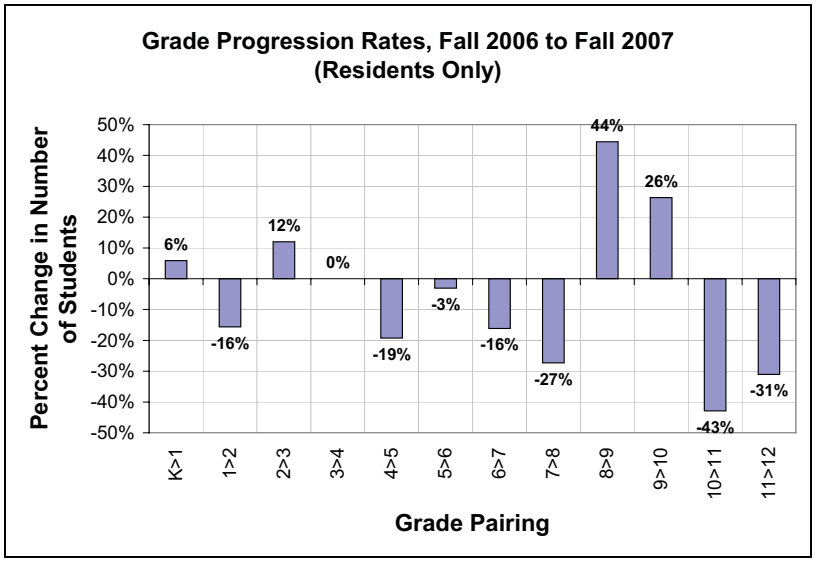


Chart 9b



Grade Progression Patterns Over Time

What are EUSD's typical grade progressions? How does the most recent set of progressions compare with that of each past year? In Appendix B we provide the historical annual grade progressions for each pair of years for which we have resident data. In addition to scrutinizing each set of charts, we have summarized each year's grade progressions by school level (K to 5, 6 to 8, 9 to 12) and compared the results across the years. We call these "aggregated grade progressions." [7] These measures are useful for comparing trends over time, giving a long-term perspective on this important assumption in the forecast model.

Chart 10 shows cohort size changes for elementary, middle, and high school resident students during each of the last seven pairs of years, covering all years for which we have student address data.

In the elementary grades, note the huge loss of students between fall 2001 and fall 2002. A net total of 46 fall 2001 students in kindergarten through fourth grades did not return the following year. Other than this pair of years, the elementary aggregate grade progressions have not fluctuated much. In most other years, the District loses a net of five to 20 students as the elementary students move to the next grade.

Middle school grade progressions have a different pattern. The fall 2001 to fall 2002 grade progression was not particularly low. The range of variation is between a net gain of 11 students and a net loss of 17 students. This is a large range given that middle school covers only three grades, and is about half the size of the combined elementary cohorts.

High school grade progressions show a distinct pattern different from those of the other two grade levels: grade progressions have become progressively less negative over time. The higher grade progressions could be a result of one or more of the following factors: lower dropout rates, more students taking five years to complete high school, more households moving into Emeryville with high school-aged children, and/or more students transferring from secondary charter (or private) schools into Emery's high school.

[7] To summarize elementary grade progressions, we compare the sum of kindergarten through fourth grade enrollments one year with the sum of first through fifth grade enrollments the following year. To summarize middle school grade progressions, we compare the sum of fifth through seventh grade enrollments one year with sixth through eighth grade enrollments the following year. To summarize high school grade progressions, we compare the sum of eighth through eleventh grade enrollments one year with ninth through twelfth grade enrollments the following year.

Chart 10: Grade Progressions for Residents Only

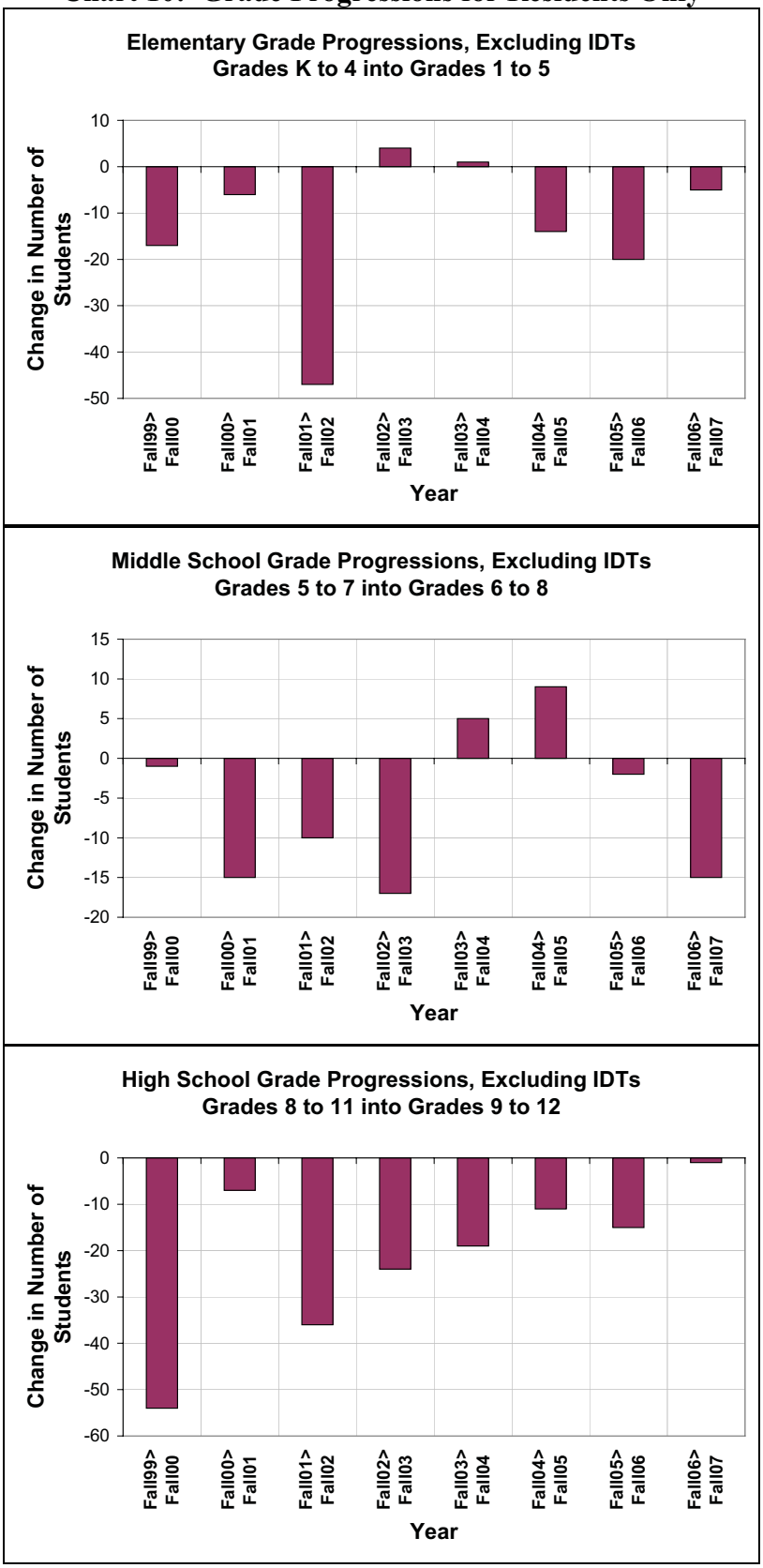


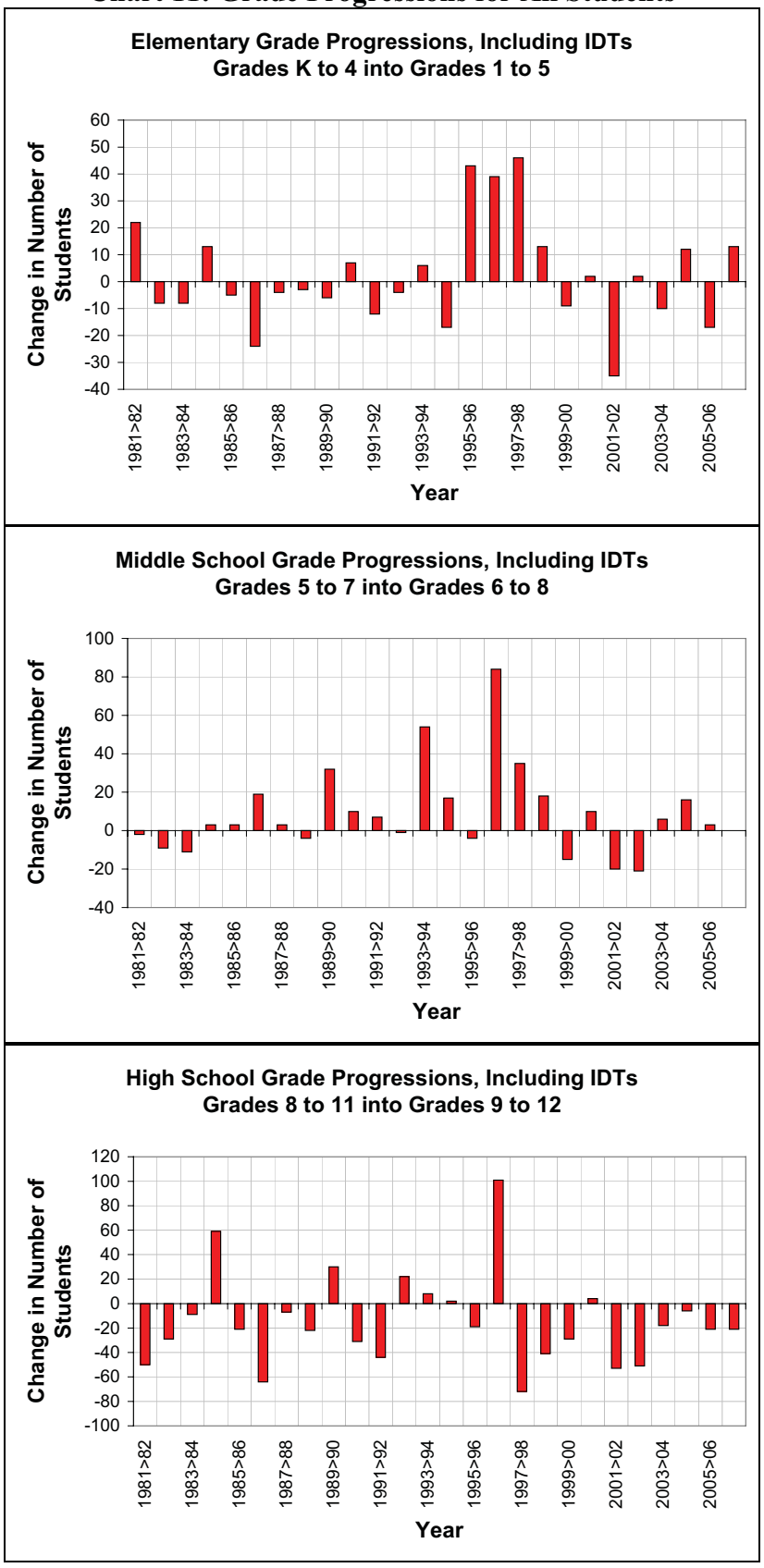
Chart 11 shows the aggregate grade progressions when the out-of-district students are included. These historical figures rely on CBEDS data, which we have from 1981 onward. Because the District has so many out of district students, it is difficult to draw meaning from the patterns. Changes in grade progressions could result from changes in the number of out-of-district students admitted, or they could result from changes in resident enrollments.

Whatever the cause, we see that elementary aggregate grade progressions were very high between 1995 and 1998, while middle and high school grade progressions were particularly high between fall 1996 and fall 1997.

Similar to the residents only graphs (Charts 10), the aggregate elementary grade progression was particularly low between fall 2001 and fall 2002.

Generally, middle school grade progressions are higher when the out-of-district students are included, probably because the District admits more out-of-district students at these levels. The reverse is true for the high school students: grade progressions are higher for residents than for residents and non-residents combined.

Chart 11: Grade Progressions for All Students



Following Cohorts Over Time

Another way to measure grade progressions is to follow a single cohort over time. Because we are interested in the demographic patterns within Emeryville, we track only District residents, and exclude students with out-of-district addresses. Chart 12a tracks the kindergarten class of 1999 as it progressed through the grades. The cohort started with 39 students, dipped to 29 students by the fourth grade, then rose again in the sixth grade. A large drop, to the lowest number over the nine years, was experienced between seventh and eighth grades. Note that because of the small sizes of resident cohorts, random variation can play a large role in the changing numbers of students.

Chart 12b starts with the fall 1999 resident fourth grade class and follows them through the twelfth grade in fall 2007. For this cohort there was also a substantial decline between seventh and eighth grades. Enrollments declined as students progressed through the high school grades.

Chart 12a

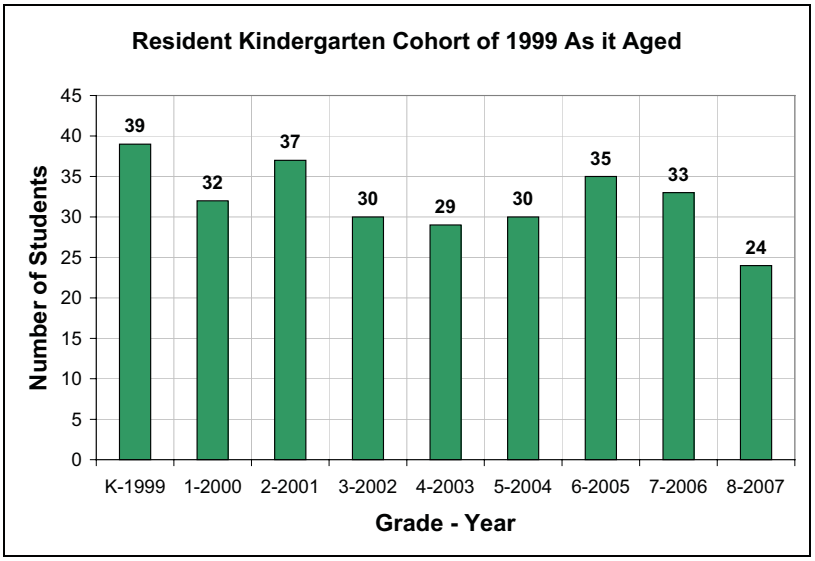
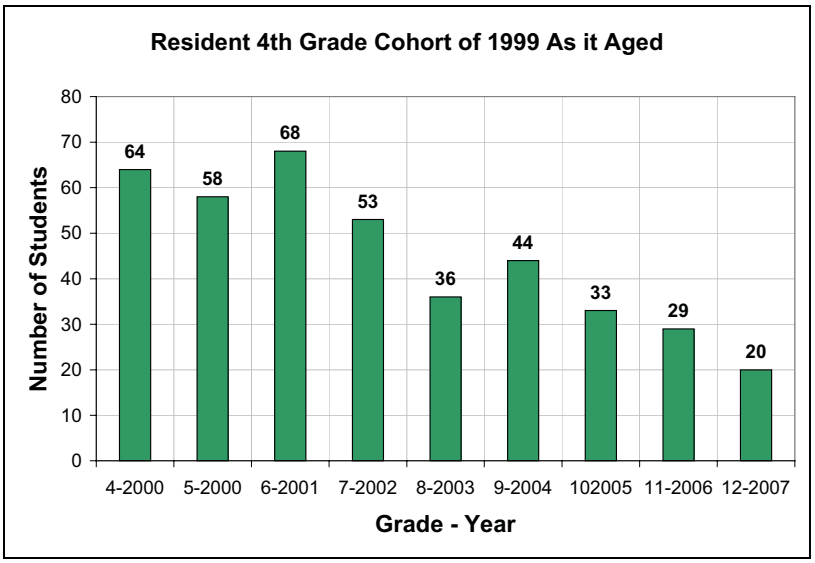


Chart 12b



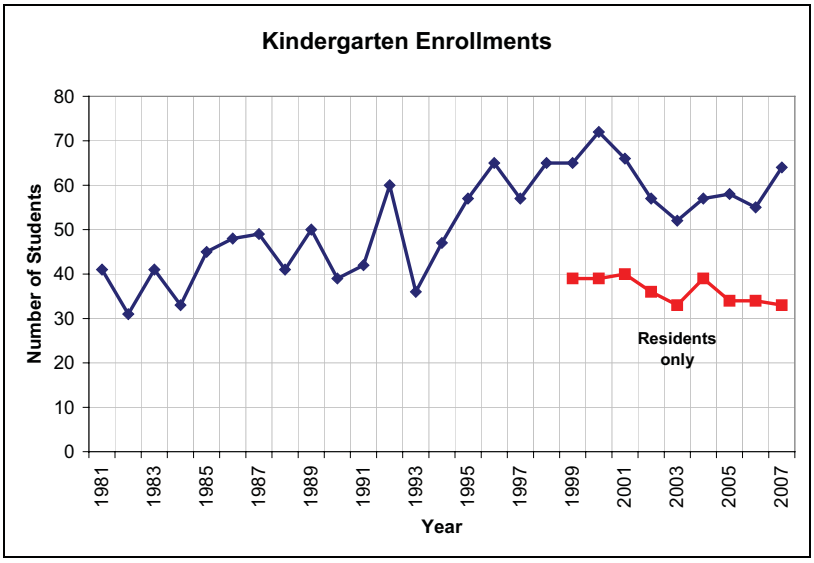
Kindergarten Enrollment

In this section, we discuss historical kindergarten patterns, birth patterns, the relationship between births and subsequent kindergarten enrollment (five years later), and forecasts of kindergarten enrollments using the conventional forecast model.

Historical Kindergarten Enrollments

EUSD kindergarten enrollments have varied a lot, partly because random variation can have a large effect on small numbers (see Chart 13). Also, EUSD may have admitted more out-of-district students in some years than others. Since 1999, resident kindergarten enrollments have been fairly stable: resident kindergarten enrollments ranged from a high of 42 students in 2001 to a low of 33 students in 2007.

Chart 13



Birth Trends

Chart 14 shows state, county, ZIP Code 94608, and City of Emeryville births. The state and county followed the same patterns between 1970 and 2006. The number of births increased substantially during the 1970s and 1980s, peaked in 1990, then declined until 1999. However, the decline was less marked in Alameda County than in the state, probably because of the county's housing growth during the decade. In both the state and county, the number of births has been relatively stable for the last 10 years.

Birth data are available for residents of ZIP Code 94608 for 1982 through 2006. The number of births was largest in the late 1980s and early 1990s. Between 1994 and 2002, the numbers were very stable, around 350. Between 2003 and 2005, the number of births dropped, but rose again to the prior 10-year average in 2006.

Finally, the last graph in Chart 14 shows the number of births to Emeryville residents. Birth numbers peaked in 1991 (similar to the state, county, and ZIP Code trends), and then declined. There is even more year-to-year variation (probably random) in the city figures than for the ZIP Code, no doubt because the city's population is smaller than the ZIP Code's. Note that the most recent year (2006) shows a jump in the number of births: from 83 in 2005 to 103 in 2006.

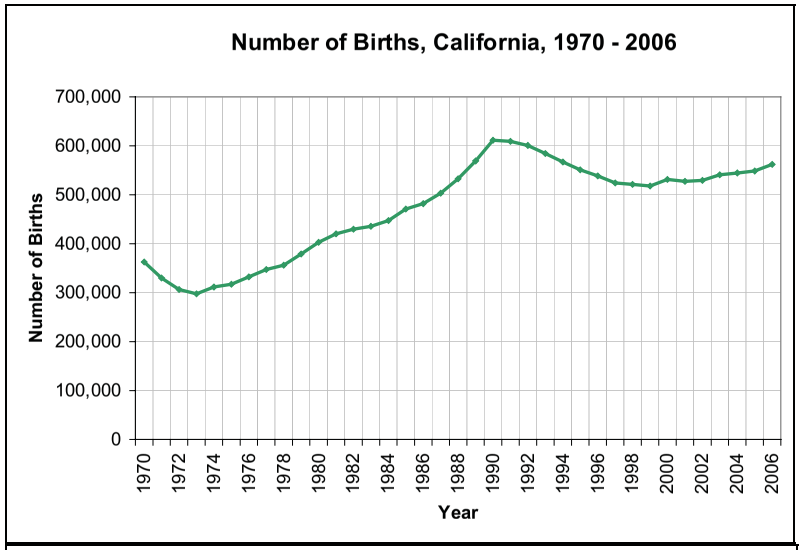
Additional information about trends in births to Emeryville residents is given in Chart 15, which details births by ethnicity.[8] We see that the 2006 increase was primarily a result of an increase in White births. Since about 1996, Asians have consistently had more births than any other ethnic group, which probably means that more Asians are migrating to Emeryville. This signals a probable shift in the community's ethnic mix.

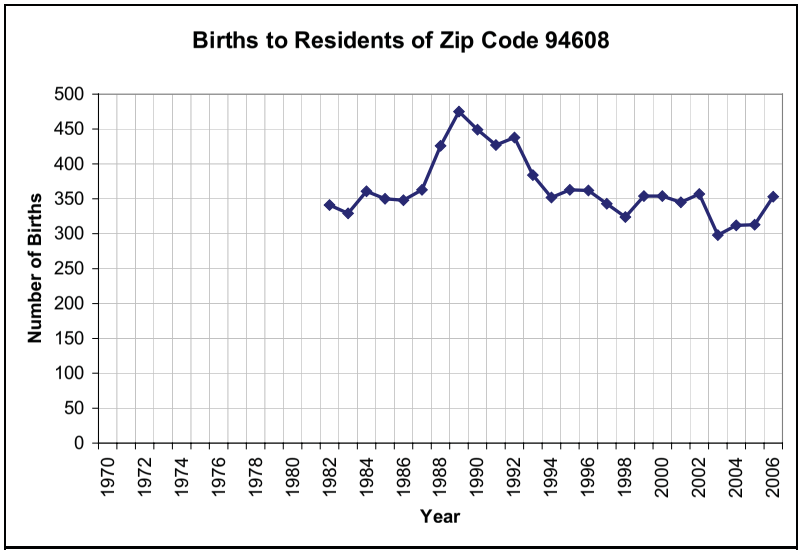
Other trends from the birth charts by ethnicity are:

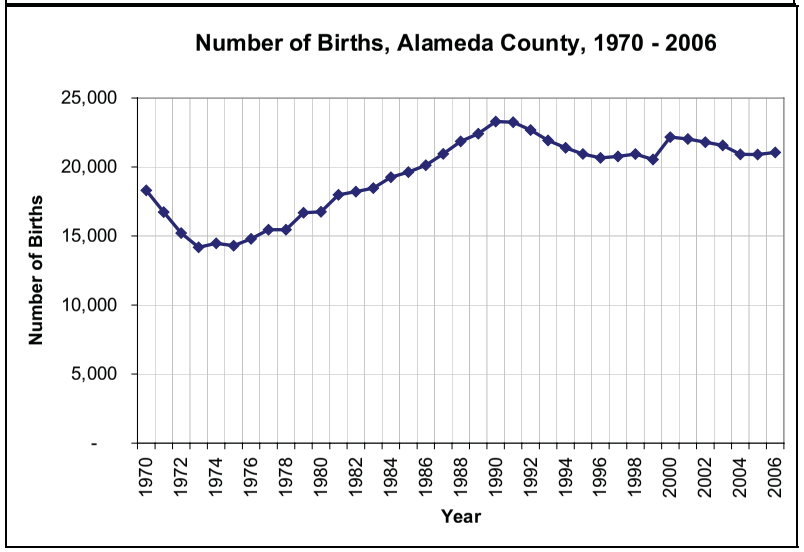
- The number of African American births has declined in recent years, probably as a result of African Americans leaving the area;
- The number of Hispanic births remains low;
- The number of Asian births has increased substantially over time;
- The number of White births has been erratic but with some underlying stability level, except for the jump in the most recent year.

[8] The ethnic categories in these charts reflects the mother's ethnicity, since this is how births are reported.

Chart 14


Number of Births, California, 1970 - 2006
Number of Births
700,000
600,000
500,000
400,000
300,000
200,000
100,000
0
1970 1972 1974 1976 1978 1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002 2004 2006
Year


Births to Residents of Zip Code 94608
Number of Births
500
450
400
350
300
250
200
150
100
50
0
1970 1972 1974 1976 1978 1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002 2004 2006
Year


Number of Births, Alameda County, 1970 - 2006
Number of Births
25,000
20,000
15,000
10,000
5,000
-
1970 1972 1974 1976 1978 1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002 2004 2006
Year

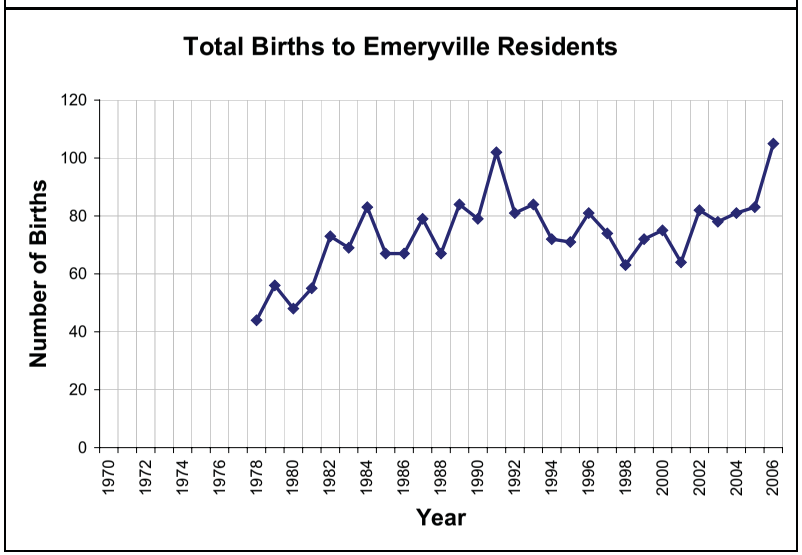
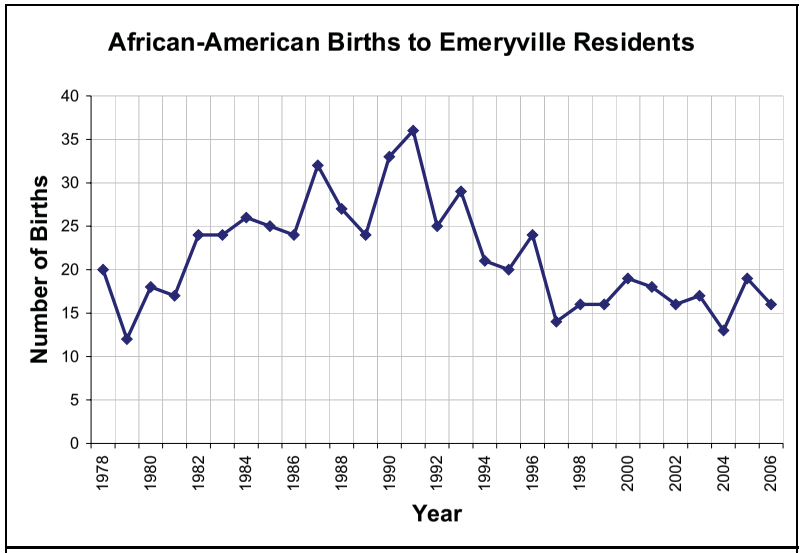
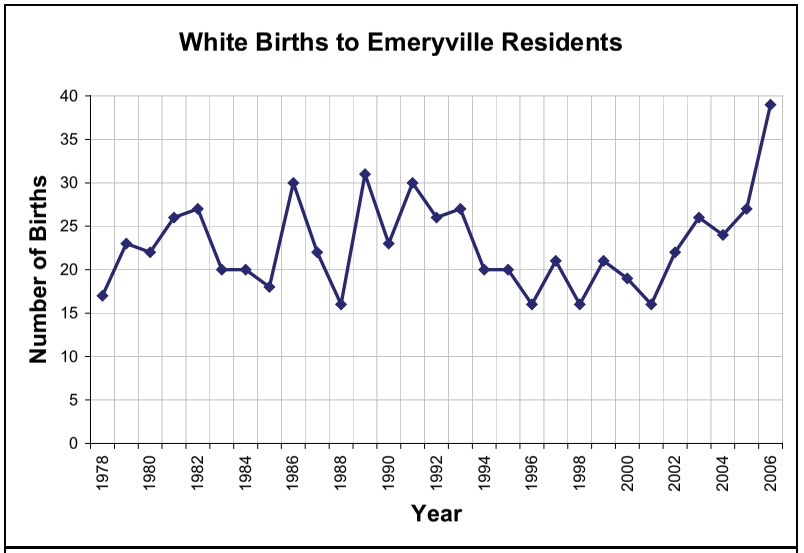
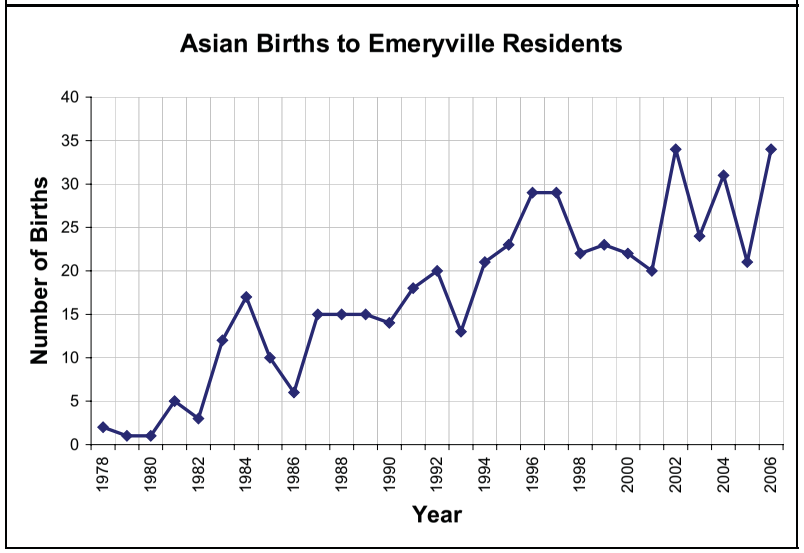
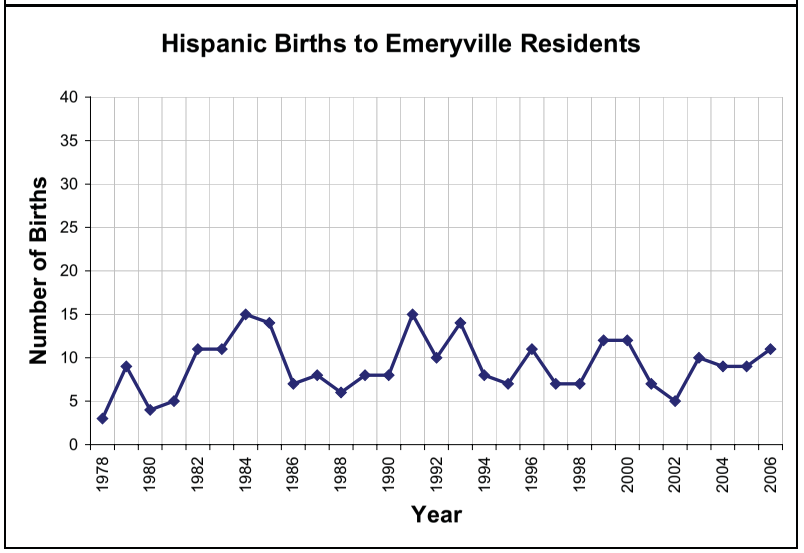

Total Births to Emeryville Residents
Number of Births
120
100
80
60
40
20
0
1970 1972 1974 1976 1978 1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002 2004 2006
Year

Chart 15


African-American Births to Emeryville Residents
Number of Births
Year


White Births to Emeryville Residents
Number of Births
Year


Asian Births to Emeryville Residents
Number of Births
Year


Hispanic Births to Emeryville Residents
Number of Births
Year

Comparison of Kindergarten Enrollments with Births Five Years Earlier

It is useful to compare kindergarten enrollments with the number of births five years earlier for two reasons. First, it can help us forecast kindergarten enrollment for the next four years. Second, it indicates the migration pattern of parents with young children.

Chart 16 compares the number of births (the bars) with kindergarten enrollments five years later (the red line). Far more children are born to Emeryville residents than enroll in its public schools five years later.

Chart 16

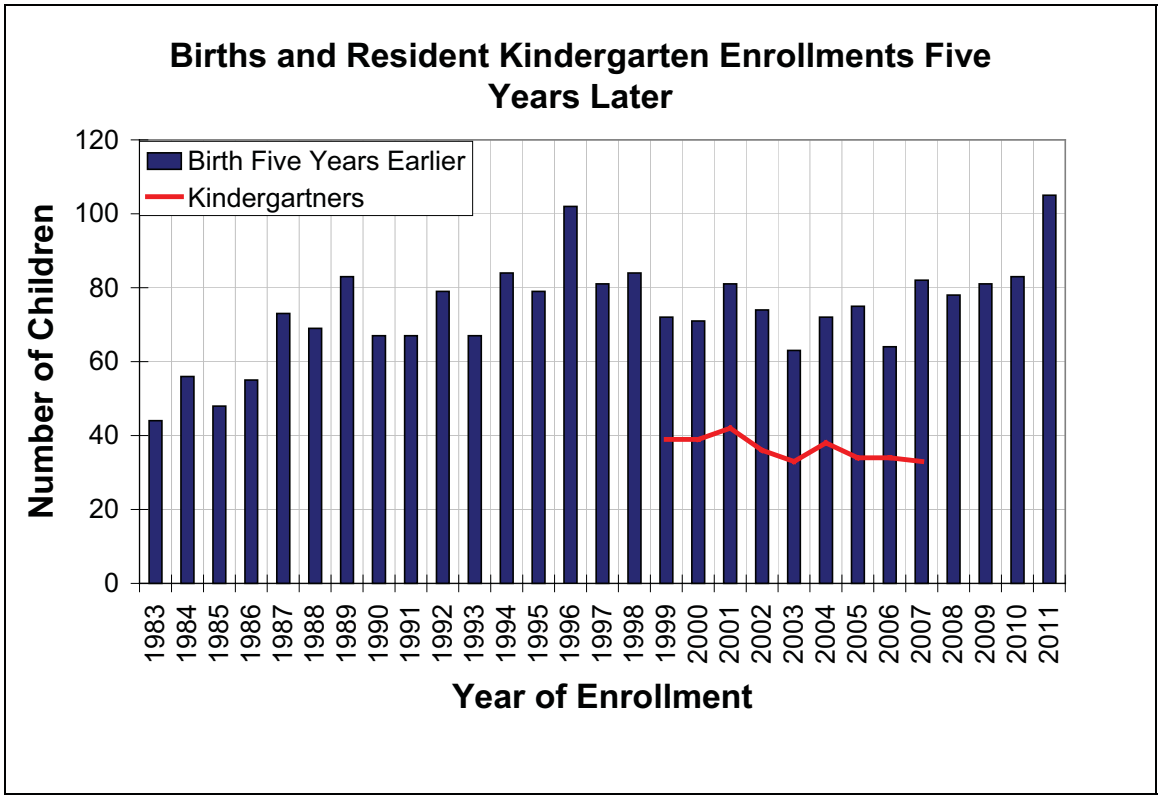
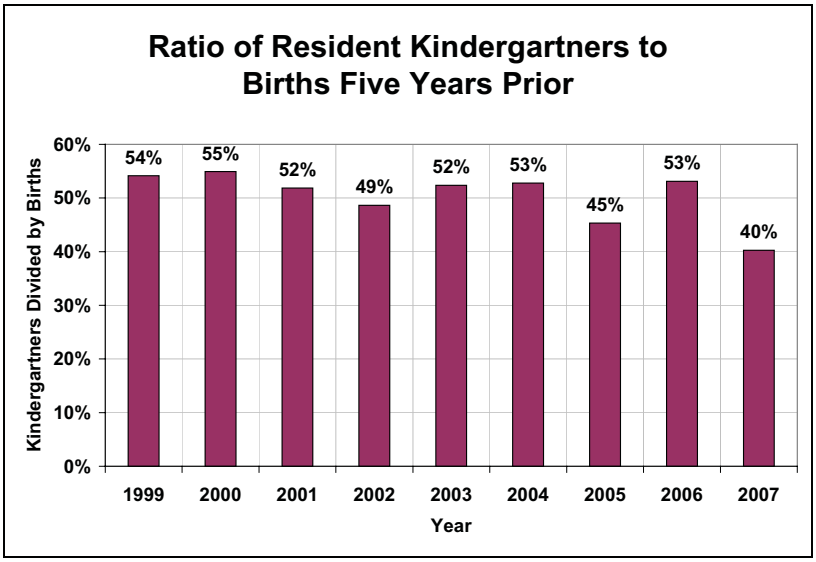


Chart 17 shows the *ratio* of the number of kindergartners to the number of births five years earlier. This kindergarten-to-birth ratio (about 50 percent) is the lowest ratio we have measured in our work for various California school districts. Because U.S. Census data indicate that relatively few Emeryville children attend private schools, the very low kindergarten-to-birth ratio strongly suggests that many families with children born in Emeryville move out of the city before kindergarten.

The conventional way to forecast kindergarten enrollment is to multiply the number of births five years earlier by the typical kindergarten-to-birth ratio. However, Emeryville's 50 percent kindergarten-to-birth ratio indicates that there is a great deal of mobility (families moving out of the city) of families with preschool-aged children. The big

difference between birth and enrollment numbers suggests to us that basing kindergarten forecasts on birth data could be highly unreliable and imprecise. Another factor that causes Emery's kindergarten forecasts to be unreliable is that Emery's resident kindergarten enrollment is very small (about 40 students), which means that random variation can create a lot of uncertainty when forecasting any particular year's enrollments.

Chart 17



The large number of births to Emeryville residents in 2006 would suggest, all else equal, that kindergarten enrollments in 2011 will be high. However, the data on births by ethnicity show that many of the additional births were to White mothers. The past ethnic mix of Emery kindergarten classes suggests that few of these White children will enroll in EUSD schools: for example, in 2007, there were only two White kindergarten students. Therefore, the 2006 birth increase may not result in a large 2011 kindergarten class.

When we take the ethnic mix of the District's students into account, we believe that it is more appropriate to focus on African American and Hispanic births when forecasting kindergarten enrollments. The numbers of births to African American and Hispanic mothers have been relatively stable during the last five years, and we anticipate relatively stable kindergarten enrollments, except for the (small) increases from new housing construction.

The Conventional Enrollment Forecast

The standard method to forecast student enrollments[9] starts with the number of students currently enrolled in District schools, by grade.[10] Student cohorts are advanced to the next grade for each forecast year. This year's first graders become next year's second graders, and the following year's third graders, and so on. However, as a cohort moves through the grades, its numbers can change. When forecasting, it is very important to account for students entering and leaving the District, by grade. We look at the historical patterns of cohort change (grade progressions) to guide the forecast assumptions.

In addition, kindergarten enrollments must be estimated and then incorporated into the model. To forecast kindergarten enrollment, we use non-White births five years earlier, plus the historical relationship between kindergarten enrollment and non-White births five years earlier.[11]

The process described above provides a forecast of residents of existing housing. The final two steps are (1) to add students from future housing and (2) add out-of-district students.

We prepared a variety of scenarios, each based on different assumptions regarding grade progressions and kindergarten-to-birth ratios. We prepared eight alternative forecasts or scenarios, each using a different historical year's patterns for its assumptions. For example, one forecast is based on the assumption that the 2000>01 grade progressions and fall 2001 kindergarten-to-birth ratio will exist through the forecast period. Another uses the 2001>02 grade progressions and kindergarten-to-birth ratio, and so on, to the 2006>2007 experience. An eighth scenario, labeled the "Medium Forecast," uses the average grade progressions and the average kindergarten-to-birth ratio.

In all scenarios, the number of students from future housing is the same. We multiplied the number of housing units forecasted by city planners by a student yield based on the type and income requirements of the future housing. The District's existing student yields by type and income were used to guide the assumption about future yields.

Although elementary forecasts are provided through fall 2020, please note that elementary forecasts for 2011 and beyond are not based on birth data (used to forecast kindergarten enrollments), and become increasingly less reliable as the forecast horizon extends beyond 2011.[12] The middle school forecasts have the same problem starting in 2018. We have shaded these areas of the table to indicate greater uncertainty in the forecasts.

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[9] The standard forecasting technique reported here is called the cohort survival method or cohort component method.

[10] For our forecast, we began with EUSD students enrolled on CBEDS date in October 2007.

[11] We exclude White births from our calculations because so few Whites enroll in Emery's kindergarten classes and because the White births have been erratic.

[12] The kindergarten forecast for 2012 and beyond is set equal to the 2011 level.

Table 9 shows grade detail for the Medium forecast, from 2008 through 2020. Chart 18 shows elementary, middle, and high school enrollments for all eight forecast scenarios, plus the Medium forecast. Table 10 provides the enrollment figures for the chart.

The Medium forecast shows a substantial increase in elementary enrollments. The projections show a nearly 80-student increase in elementary enrollments (from 177 students in fall 2007 to 255 students by 2016). Over half of the increase is students from new housing. However, as the forecast scenarios show, actual future enrollments could be different from the Medium forecast. By 2020, if we exclude the highest and lowest forecast scenario, the enrollments range from 207 to 319.

The Medium forecast shows a modest increase in middle school enrollments beginning in 2011. In fall 2007, there were 82 middle school residents; by 2019, resident enrollments peak at 111 students. By 2020, if we exclude the highest and lowest forecast scenario, the enrollments range from 82 to 153.

The Medium forecast shows a large decline in high school enrollments over the next few years, followed by a small increase. Enrollments drop from 144 students in fall 2007 to 91 students in fall 2011. By 2020, high school enrollments under the Medium forecast show 110 students. By 2020, if we exclude the highest and lowest forecast scenario, the enrollments range from 91 to 123.

Table 9

Medium Enrollment Forecast
Excludes Out-of-District Students

Year	2007 Actual	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
K	**33**	36	40	41	50	46	47	47	47	47	47	47	47	47
1	**36**	30	33	38	39	46	43	43	43	43	43	43	43	43
2	**27**	36	31	34	39	39	46	42	42	42	42	42	42	42
3	**28**	27	36	31	36	39	40	46	42	42	42	42	42	42
4	**32**	27	27	35	32	35	39	38	44	40	40	40	40	40
5	**21**	29	25	25	34	30	33	35	35	40	37	37	37	37
6	**32**	23	32	28	29	37	33	35	38	37	43	39	39	39
7	**26**	28	21	29	27	26	34	29	31	34	33	38	35	35
8	**24**	25	28	21	31	26	27	33	29	30	33	32	37	34
9	**52**	27	29	32	26	34	30	29	36	31	33	35	35	40
10	**48**	42	23	25	28	22	29	25	25	30	26	28	30	29
11	**24**	33	30	17	20	21	18	22	19	19	22	20	21	22
12	**20**	22	30	27	17	18	20	16	20	18	17	20	18	19
K-5	**177**	186	192	204	231	234	248	252	254	255	252	252	252	252
6-8	**82**	77	81	79	87	90	94	97	97	101	108	109	111	108
9-12	**144**	124	111	101	91	95	98	93	100	97	98	103	103	110
K-12	**403**	387	384	383	409	418	440	442	451	453	459	464	466	470

Table 10

Enrollment Forecast Scenarios, Excludes Out-of-District Students

K to 5 Enrollments

Basis for Forecast Scenario	2007 (actual)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
1999>2000 Experience	**177**	187	195	209	238	241	258	263	264	265	262	262	262	262
2000>2001 Experience	**177**	192	195	202	233	235	248	251	252	254	251	251	251	251
2001>2002 Experience	**177**	159	149	146	162	163	172	174	174	175	173	173	173	173
2002>2003 Experience	**177**	204	233	261	295	292	312	320	322	324	319	319	319	319
2003>2004 Experience	**177**	203	221	247	292	305	328	334	335	338	333	333	333	333
2004>2005 Experience	**177**	178	175	178	197	194	205	208	209	210	207	207	207	207
2005>2006 Experience	**177**	177	179	187	210	215	228	231	232	233	231	231	231	231
2006>2007 Experience	**177**	181	186	195	215	216	223	228	229	230	227	227	227	227
"Medium" forecast	**177**	186	192	204	231	234	248	252	254	255	252	252	252	252

6 to 8 Enrollments

Basis for Forecast Scenario	2007 (actual)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
1999>2000 Experience	**82**	81	84	74	83	83	88	93	92	98	105	106	108	105
2000>2001 Experience	**82**	68	75	81	83	89	92	96	97	98	106	106	107	104
2001>2002 Experience	**82**	77	73	66	67	59	53	49	47	48	51	51	52	51
2002>2003 Experience	**82**	71	74	75	89	121	134	140	138	144	155	156	157	153
2003>2004 Experience	**82**	84	94	89	101	105	117	138	147	158	170	171	176	170
2004>2005 Experience	**82**	88	102	105	114	112	111	108	101	102	109	110	112	109
2005>2006 Experience	**82**	79	84	79	85	79	80	80	81	85	91	92	93	90
2006>2007 Experience	**82**	68	66	63	72	75	82	79	78	77	83	83	84	82
"Medium" forecast	**82**	77	81	79	87	90	94	97	97	101	108	109	111	108

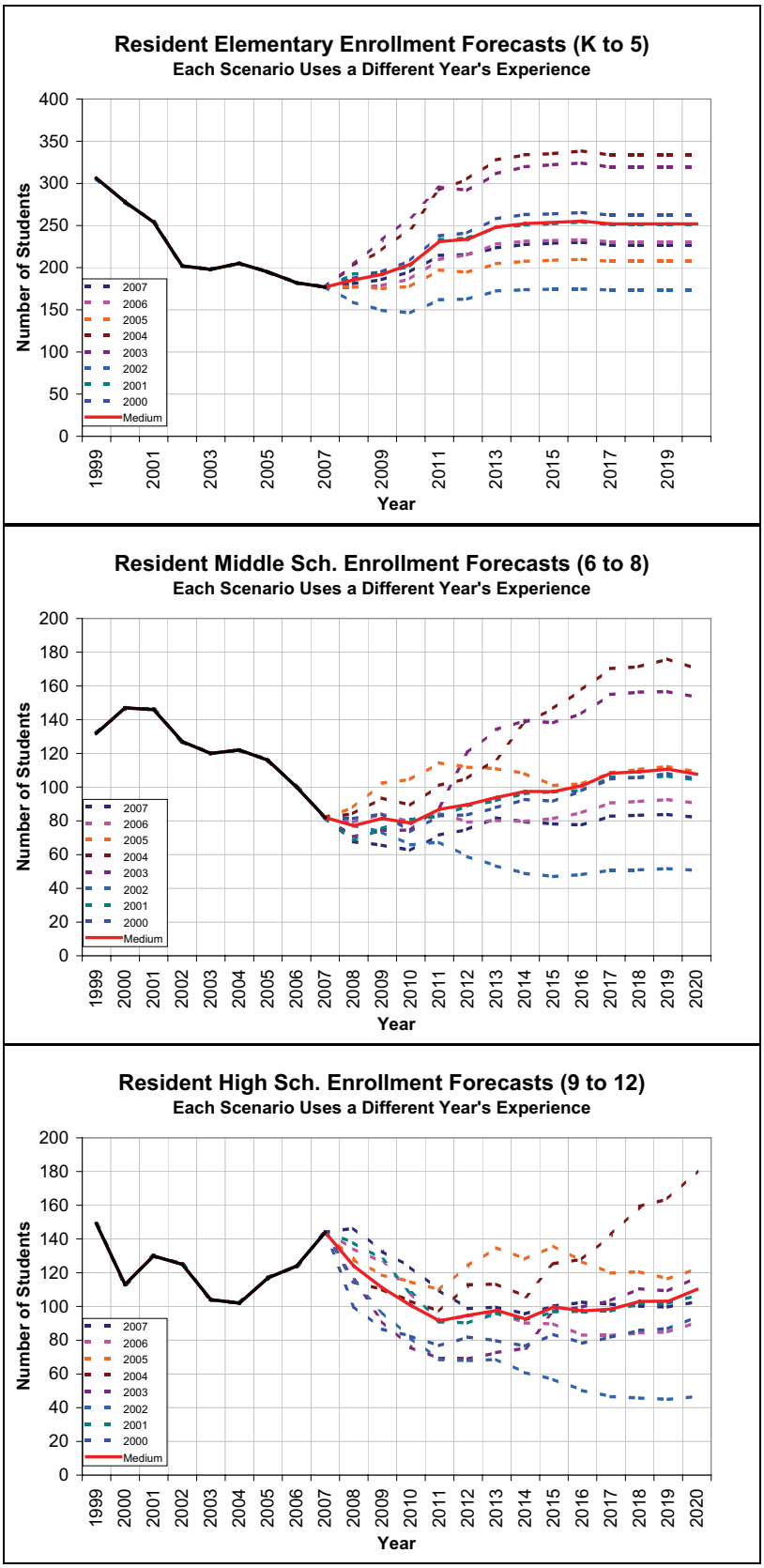
9 to 12 Enrollments

Basis for Forecast Scenario	2007 (actual)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
1999>2000 Experience	**144**	100	87	82	77	82	80	77	83	78	82	86	87	94
2000>2001 Experience	**144**	138	128	108	91	90	96	92	97	97	97	102	102	107
2001>2002 Experience	**144**	115	97	81	68	68	68	61	57	50	47	46	45	47
2002>2003 Experience	**144**	116	91	76	69	69	73	75	97	100	104	111	109	117
2003>2004 Experience	**144**	115	110	103	97	113	113	106	125	128	142	159	164	180
2004>2005 Experience	**144**	128	119	115	110	124	135	128	136	127	120	121	116	123
2005>2006 Experience	**144**	134	126	108	92	94	96	90	90	83	83	84	85	91
2006>2007 Experience	**144**	146	133	123	110	99	100	96	100	103	101	100	100	103
"Medium" forecast	**144**	124	111	101	91	95	98	93	100	97	98	103	103	110

Total Enrollments

Basis for Forecast Scenario	2007 (actual)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
1999>2000 Experience	**403**	369	366	365	397	407	426	432	439	442	449	454	457	461
2000>2001 Experience	**403**	399	398	390	407	414	436	439	446	450	454	458	459	462
2001>2002 Experience	**403**	351	319	293	298	289	294	283	278	273	271	270	270	271
2002>2003 Experience	**403**	390	398	411	453	481	518	535	558	568	578	586	585	590
2003>2004 Experience	**403**	402	424	440	490	523	558	578	607	624	646	664	673	684
2004>2005 Experience	**403**	393	396	397	421	430	451	444	446	438	436	439	436	439
2005>2006 Experience	**403**	390	389	374	386	389	404	401	403	401	404	407	408	412
2006>2007 Experience	**403**	395	384	381	396	389	405	403	408	410	411	411	411	412
"Medium" forecast	**403**	387	384	383	409	418	440	442	451	453	459	464	466	470

Chart 18


Resident Elementary Enrollment Forecasts (K to 5)
Each Scenario Uses a Different Year's Experience
Number of Students
Year
2007
2006
2005
2004
2003
2002
2001
2000
Medium
Resident Middle Sch. Enrollment Forecasts (6 to 8)
Each Scenario Uses a Different Year's Experience
Number of Students
Year
Resident High Sch. Enrollment Forecasts (9 to 12)
Each Scenario Uses a Different Year's Experience
Number of Students
Year

Including Some Out-of-district Students

The above forecasts excluded students who live outside the District. However, Emery enrolls many out-of-district students. In 2007, about half of student body lived outside the District (445 students). How many out-of-district students will the District enroll in future years?

In many districts, out-of-district students are admitted to balance classes. This has been true of EUSD, but there are at least two other considerations as well. The District has a substantial number of students who are covered under the Allen Bill: either they have daycare arrangements in Emeryville or their parents work in Emeryville. As a result of the partnership of the District with the city's large employers, the District might want to continue to allow students who are covered under the Allen Bill to attend its schools. Currently, District staff statistics show about 100 such students.

The second consideration is that about 20 percent of out-of-district students once lived in EUSD and began attending when they were residents. Significant numbers moved back into the district. Because Emeryville is so small, it is easy for a family to move a short distance and suddenly be located outside the District. Also, many of the households rent, and, on average, renters are more mobile than homeowners. District policymakers may want to allow enough capacity to allow residents who move outside the District to continue attending its schools. This is often the policy in other districts, but what makes Emery unique is the large number of students who fall into this category. These former residents currently number 100 students as well.

Combined, the former residents and Allen Bill students suggest that Emery will want to allow for an additional 200 spaces in their facilities for these students. If desired, Emery could admit more out-of-district students than these two groups. In particular, there are many out-of-district students living in the Emeryville ZIP code, which will probably continue to be attracted to Emery schools.

Alternative Enrollment Forecasts

We were asked to consider what would happen to Emery's enrollments if Emeryville became substantially more attractive to families with children. On the school district's part, this would mean a substantial increase in test scores, and perhaps other programs that, if publicized, would increase the school district's attractiveness. On the city's part, this might mean an increase in parks, programs for youth, and housing that is more attractive to families with children.

This section discusses the importance of test scores, the District's actual test scores, its appeal as a small district, and, finally, an indication or forecast of sorts of how enrollments could change if test scores improved dramatically.

Importance of Test Scores

Our experience (not rigorously investigated) indicates to us that standardized test scores influence public school enrollments. Since 2000, it has been easy for the public to obtain test scores of schools and school districts, and as a result, we believe that many parents consider these scores when deciding where to live and whether to send their children to public, private, or charter schools. We have compared grade progressions in the 1990s with more recent ones, and have found that since 2000 some districts with higher scores (such as Palo Alto Unified and Los Altos Elementary) have had increased numbers of families moving into the communities. In other instances, we have seen increased out-migration from districts with lower test scores (including Oakland Unified and Hayward Unified).

We investigated whether academic articles have been written about the correlation between test scores and enrollments. This is a new area of research, as test scores have only recently become widely available. We suspect more studies will be done in the future, but we did find three that speak to this relationship.

First, Justine Hastings and Jeffrey Weinstein documented from their research about school choice and academic achievement that "parents with high-scoring alternatives nearby were more likely to choose non-guaranteed schools with higher test scores." [13] By "non-guaranteed schools" the authors mean schools outside attendance areas in which students live. This study also points out the importance of parents receiving or having the necessary information to obtain test scores as a factor in determining where their children will attend school.

[13] Information, School Choice, and Academic Achievement: Evidence from Two Experiments, Justine S. Hastings and Jeffrey M. Weinstein, March 2008, http://aida.econ.yale.edu/~jh529/Hastings&Weinstein_InfoChoiceOutcomes.pdf

Second, Escondido High School in California exceeded its growth target as measured by the Academic Performance Index (API) for four straight years from 2000-2003. [14] The District believed that the rise in test scores was responsible for the rise in enrollments. The District needed to add five portables to the school's building inventory to accommodate additional students.

Third, Black River Public School, a small charter school in Holland, Michigan, claims it nearly doubled its enrollment from 1996 to 2002 with high test scores and innovative learning methods such as foreign language classes, art programs and Advanced Placement courses. [15] Although a charter school, this example indicates the relationship between a successful school (evident notably by test scores) and increased enrollments.

EUSD Test Scores

Table 11 shows API base test scores for each school district in Alameda County. The table is sorted by 2007 test score. In two of the past six years, EUSD had the lowest API base score in the county, and in the other four it was second lowest to Oakland Unified. Meanwhile, EUSD test scores increased substantially between 2003 and 2005.

[14] Escondido High School: California School exceeds growth target measured by API, May 15, 2005, http://www.euhsd.k12.ca.us/images/sarcs/ehs_sarc.pdf

[15] Charter School Boasts High Test Scores, Innovative Learning Methods, November 17, 2002, http://www.educationreport.org/pubs/mer/article.aspx?ID=4852

Table 11

Base API Test Scores

	2002	2003	2004	2005	2006	2007	Change: 2002 to 2007
Emery Unified	589	588	627	665	665	656	67
Oakland Unified	568	592	601	634	651	658	90
Hayward Unified	623	633	652	679	681	674	51
San Lorenzo Unified	652	669	661	674	694	700	48
San Leandro Unified	665	682	678	697	696	710	45
Newark Unified	700	708	710	716	727	739	39
Berkeley Unified	719	731	722	736	752	746	27
New Haven Unified	712	734	730	742	756	754	42
Livermore Valley Joint Unified	769	774	760	785	792	790	21
Alameda City Unified	733	755	758	784	807	805	72
Castro Valley Unified	796	811	809	810	826	830	34
Dublin Unified	781	802	804	816	827	833	52
Fremont Unified	797	817	817	833	839	836	39
Albany City Unified	845	862	854	858	862	860	15
Sunol Glen Unified	798	818	821	857	874	879	81
Pleasanton Unified	841	858	861	877	881	893	52
Piedmont City Unified	900	905	902	920	917	915	15

Emery's Small Size

The District's small size is probably quite appealing to many parents. Interviews with District staff members suggest that some families feel an attachment to the District that is evidenced by the fact that many former residents continue to enroll in its schools. Also, we found several students who were once enrolled in EUSD, left for a few years, then came back to The District, often as out-of-district students. When these families returned to the area, we assume that they wanted to make sure they enrolled in Emery. A sense of community is more easily fostered in small school districts than in large ones.

Research has confirmed that smaller districts and the schools within them are preferable to larger districts for a variety of reasons. In an extensive "Review of Research on School District Size," Sibyll Carnochan summarizes the findings in several studies that reach such conclusions as: "Where the size of the district, school or class is controllable, smaller seems to be better"; "Recent research indicates that small schools can be highly effective in providing quality education"; "recommended school sizes have been declining over time"; and "the smaller the district, the higher achievement when

[socioeconomic status] and per-student expenditures were taken into account."[16] In addition, several newspaper articles have reported that parental decisions hinged on the size of a district (or school), with small districts having a strong appeal.[17]

A small district means that teachers know many of the students and their families, not just those students that are currently in their classrooms. The faculty and administration's familiarity with individual students may make at-risk students less isolated and anonymous than similar students in a larger district. Teachers in smaller districts may have greater flexibility to design classes and curricula to meet the individual students' particular needs.

How and Why Emery's Enrollments Could Change if Test Scores Improved Dramatically and/or The City of Emeryville Became More Attractive to Families with Children

We believe there is a huge potential for increased enrollments if the District can boost its test scores substantially and/or the city becomes more family-friendly.

When families living in Oakland want to move to a better school district, they may choose Hayward, San Lorenzo, and San Leandro. If Emery's test scores were better than scores in those districts, families would be more likely to choose EUSD instead, particularly when they considered the District's small size.

Because there are so few resident students in Emeryville, even a small number of families moving into the area could have a proportionately large impact on enrollments. Currently, there are only about 400 resident students. Of the many Oakland families who may wish to move to a different school district, only a small fraction would need to choose Emery to have a large impact on District enrollments.

We wondered whether the housing mix in Emeryville made it so unattractive to families with children that even high test scores would not draw families to the District's schools. The city has a large number of condominiums and lofts that are not particularly appealing to large households. We agree with this sentiment for the most part, especially with respect to lofts. In most other districts, we have found low yields in condominiums (less than .10 students per unit). We believe the low yield is because families need substantial resources to purchase condos: families with the financial wherewithal to *buy* a condominium (but not a house) might well choose to *rent* a house instead.

We have found that as condominium developments age, units are increasingly likely to be rentals. When this happens, the possibility of more families living in the condominiums increase, for the developments are now like apartment complexes. Finally, as we

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[16] See Sibyll Carnochan, "Review of Research on School District Size," Winter 1997, part of *Policy Issues and Prospects: Regarding the Potential Breakup of the Los Angeles Unified School District.* http://www.gseis.ucla.edu/gseisdoc/study/biblio.html.

[17] See, for instance, http://www.districtadministration.com/newssummary.aspx?news=yes&postid=16803.

reported earlier, Albany Unified has student yields around .20 in the high-rise condominiums on Pierce Street. It is possible for such units to contain many students, but the draw to the district must be strong.

Currently, Emery's condominium student yields are *very* low, well below the .10 found in some districts. There are substantial numbers of condominiums, such as Watergate and Pacific Park Plaza, that are not lofts or loft-like, and these units could house students in the future.

The fact that student yields in EUSD's many condominiums are so low means that even a small increase in yields could result in many more students. If we included the future housing assumed under the Full Housing Forecast, Emeryville would soon contain over 4,000 non-loft condominium units. The current yield is about .01. If the student yield were to rise just a little bit, to .02 per unit, 40 additional student residents would result (4,000 multiplied by .01). If the yield were to rise to .10, 360 additional student residents would result (4,000 multiplied by .09).

Alternative Scenarios Under the Full Housing Forecast

Table 12 shows how enrollments would change if student yields increased under the Full Housing Forecast. Alternative 0 (meaning "no change in yields") shows enrollments based on the District's average student yield during the last nine years. Under this scenario, there are 530 resident students, compared to 470 students projected using the standard cohort method. The slightly higher forecast produced by the alternative method is a result of using average yields over the nine-year period, which are greater than current yields.[18]

Alternative 1 uses *slightly* higher student yields in condominiums and large apartments, but keeps all other yields the same as in Alternative 0. These alternative yields are what we would expect if Emery's test scores exceeded those in Oakland, Hayward, and San Leandro. Alternative 1 results in 843 resident enrollments.

Alternative 2 uses *substantially* higher student yields. These are like yields we have measured in very popular districts, such as Los Altos, Palo Alto, and Albany. These districts have very high test scores, particularly compared with those in neighboring districts. Perhaps the community also would need to be more family-friendly, with amenities for families such as parks, programs for families, and family shopping areas and neighborhoods. In Alternative 2, enrollments reach 1,441 students.

Alternative Scenario Under the Conservative Housing Forecast

Table 13 shows how enrollments would change if student yields increased under the Conservative Housing Forecast. Alternative 0 ("no change in yields") shows 504 students, 26 students less than under the Full Housing Forecast.

[18] Average yields produce somewhat higher enrollments than if we used current yields, since average yields are higher than current ones. Using current yields would mirror more closely the forecast under the cohort survival method, which starts with the current student counts.

The higher the student yields, the greater the impact on enrollments between the two different housing forecasts. Alternative 1, using slightly higher yields, shows enrollments of 748 students, 95 students less than under the Full Housing Forecast. Alternative 2, using substantially higher yields, shows enrollments of 1,232 students, 209 students less than under the Full Housing Forecast.

Effect on Out-of-district Students from Test Score Improvements

Currently, about 100 K-8 students attend Emery schools under the Allen Bill. Though we cannot provide a quantitative estimate, we know that if test scores substantially improved, it is very likely that more Emeryville workers would prefer to send their children to Emery schools, increasing the number of Allen Bill requests.

Table 12

Alternative Enrollment Forecasts, based on Higher Student Yields

Full Housing Forecast

	Emeryville's Housing			Alternative 0		Alternative 1		Alternative 2	
	Existing	Future	Total	Avg Yield 99-07	Enrollments	Higher Yields	Resulting Enrollments	Substantially Higher Yield	Resulting Enrollment
Market Rate Units									
Condominiums/THs	235	116	351	0.07	25	0.10	35	0.15	53
Condominiums/Lofts	293		293	0.00	0	0.00	0	0.00	0
Condominiums	2628	1455	4083	0.007	29	0.05	204	0.10	408
Units in Small Apt Buildings	296		296	0.23	68	0.23	68	0.30	89
Units in Large Apt Buildings	835	414	1249	0.01	12	0.05	62	0.20	250
Senior Housing	117		117	0.02	2	0.02	2	0.02	2
Single Family Units (Houses)	197		197	0.53	105	0.53	105	0.58	114
Duplexes	142		142	0.21	30	0.21	30	0.26	37
Triplexes	99		99	0.22	22	0.22	22	0.27	27
Fourplexes	132		132	0.26	35	0.26	35	0.31	41
Low quality Housing	130		130	0.23	29	0.23	29	0.28	36
Subtotal	5,104	1,985	7,089		356		592		1,057
Units Affordable to Moderate Income Households									
Housing that is 100% Affordable	5		5	0.31	2	0.31	2	1.00	5
Condominium/THs	18	18	36	0.10	4	0.10	4	0.20	7
Condominiums/Lofts	48		48	0.00	0	0.00	0	0.00	0
Condominiums	29	129	158	0.10	16	0.10	16	0.20	32
Units in Small Apt Buildings	8		8	0.23	2	0.23	2	0.35	3
Units in Large Apt Buildings	62	34	96	0.10	10	0.10	10	0.25	24
Subtotal	170	181	351		32		32		71
Units Affordable to Low or Very Low Income Households									
Housing that is 100% Affordable	70		70	0.87	61	0.87	61	1.00	70
Condominium/THs	16	11	27	0.13	4	0.13	4	0.25	7
Condominiums/Lofts	10		10	0.20	2	0.20	2	0.00	0
Condominiums	60	151	211	0.05	11	0.10	21	0.25	53
Units in Large Apt Buildings	198	22	220	0.25	55	0.35	77	0.35	77
Subtotal	354	184	538		132		208		304
Students not categorized					10		10		10
TOTAL	**5,628**	**2,350**	**7,978**		**530**		**843**		**1,441**

Table 13

Alternative Enrollment Forecasts, based on Higher Student Yields
Conservative Housing Forecast

	Emeryville's Housing			Alternative 0		Alternative 1		Alternative 2	
	Existing	Future	Total	Avg Yield 99-07	Enrollments	Higher Yields	Resulting Enrollments	Substantially Higher Yield	Resulting Enrollment
Market Rate Units									
Condominiums/THs	235	116	351	0.07	25	0.10	35	0.15	53
Condominiums/Lofts	293		293	0.00	0	0.00	0	0.00	0
Condominiums	2628	421	3049	0.007	21	0.05	152	0.10	305
Units in Small Apt Buildings	296		296	0.23	68	0.23	68	0.30	89
Units in Large Apt Buildings	835	254	1089	0.01	11	0.05	54	0.20	218
Senior Housing	117		117	0.02	2	0.02	2	0.02	2
Single Family Units (Houses)	197		197	0.53	105	0.53	105	0.58	114
Duplexes	142		142	0.21	30	0.21	30	0.26	37
Triplexes	99		99	0.22	22	0.22	22	0.27	27
Fourplexes	132		132	0.26	35	0.26	35	0.31	41
Low quality Housing	130		130	0.23	29	0.23	29	0.28	36
Subtotal	5,104	791	5,895		347		532		921
Units Affordable to Moderate Income Households									
Housing that is 100% Affordable	5		5	0.31	2	0.31	2	1.00	5
Condominium/THs	18	18	36	0.10	4	0.10	4	0.20	7
Condominiums/Lofts	48		48	0.00	0	0.00	0	0.00	0
Condominiums	29	62	91	0.10	9	0.10	9	0.20	18
Units in Small Apt Buildings	8		8	0.23	2	0.23	2	0.35	3
Units in Large Apt Buildings	62	17	79	0.10	8	0.1	8	0.25	20
Subtotal	170	97	267		24		24		53
Units Affordable to Low or Very Low Income Households									
Housing that is 100% Affordable	70		70	0.87	61	0.87	61	1.00	70
Condominium/THs	16	11	27	0.13	4	0.13	4	0.25	7
Condominiums/Lofts	10		10	0.20	2	0.20	2	0.00	0
Condominiums	60	28	88	0.05	4	0.10	9	0.25	22
Units in Large Apt Buildings	198	11	209	0.25	52	0.35	73	0.35	73
Subtotal	354	50	404		123		182		247
Students not categorized					10		10		10
TOTAL	**5,628**	**938**	**6,566**		**504**		**748**		**1,232**

Comparing the Conventional and Alternative Forecast Scenarios

Table 14 summarizes and compares the forecast scenarios under the conventional and alternative models, and using the Full or Conservative Housing Forecasts. Using the conventional forecast model, resident enrollments under the Medium forecast are 425 to 470, depending on the housing forecast. Alternative 0 is intended to mimic the conditions under the conventional forecast. Slightly higher enrollments arise under the alternative forecast because average conditions during the 1999-2007 period are used, rather than the current counts used in the conventional model.

Alternative 1 enrollments range from 748 to 843, depending on which housing forecast is used. We believe this scenario is likely if Emery's test scores were to exceed those in Oakland, Hayward, San Leandro, and San Lorenzo.

Alternative 2 enrollments range between 1,232 and 1.441, depending on which housing forecast is used. The yields used in this forecast suggest that Emery would need to become very attractive, similar to yields we have seen in very high-performing districts.

Table 14

Summary of Resident Enrollment Forecast Scenarios

Forecast Scenario	Assumptions about District's future reputation	Forecast Under Conservative Housing Forecast	Forecast under Full Housing Forecast
Conventional Forecast (Medium)	no change in District's reputation	425	470
Alternative 0	no change in District's reputation	504	530
Alternative 1	District's test scores exceed those of Oakland, Hayward, San Leandro	748	843
Alternative 2	District has test scores similar to high-performing districts.	1,232	1,441

As we noted earlier, resident enrollments in 1999 were nearly 600 students. As the District plans for new facilities, we recommend that the District plan to accommodate at least 600 students, since it has been demonstrated in the past that resident enrollments can reach this level.

For facilities purposes, whichever forecast is used, the District might want to add an additional 100 students for former residents and another 100 students (at least) to accommodate Allen Bill students.

Appendix A: Private School Enrollments

Each decennial U.S. Census through 2000 asked a sample of the population whether the children in the household attended public or private schools. These data show that Emeryville has had low rates of private school attendance. Table A-1 shows the private school rates in 1970, 1980, 1990 and 2000, and compares the rate to that in other Alameda County cities. (The table is sorted by private school rate in 2000.) In 1990 and 2000, Emeryville's K-12 private school enrollment rate dropped from nine to five percent. In 2000, Emeryville had the lowest private school rate of any city in the County.

Table A-1

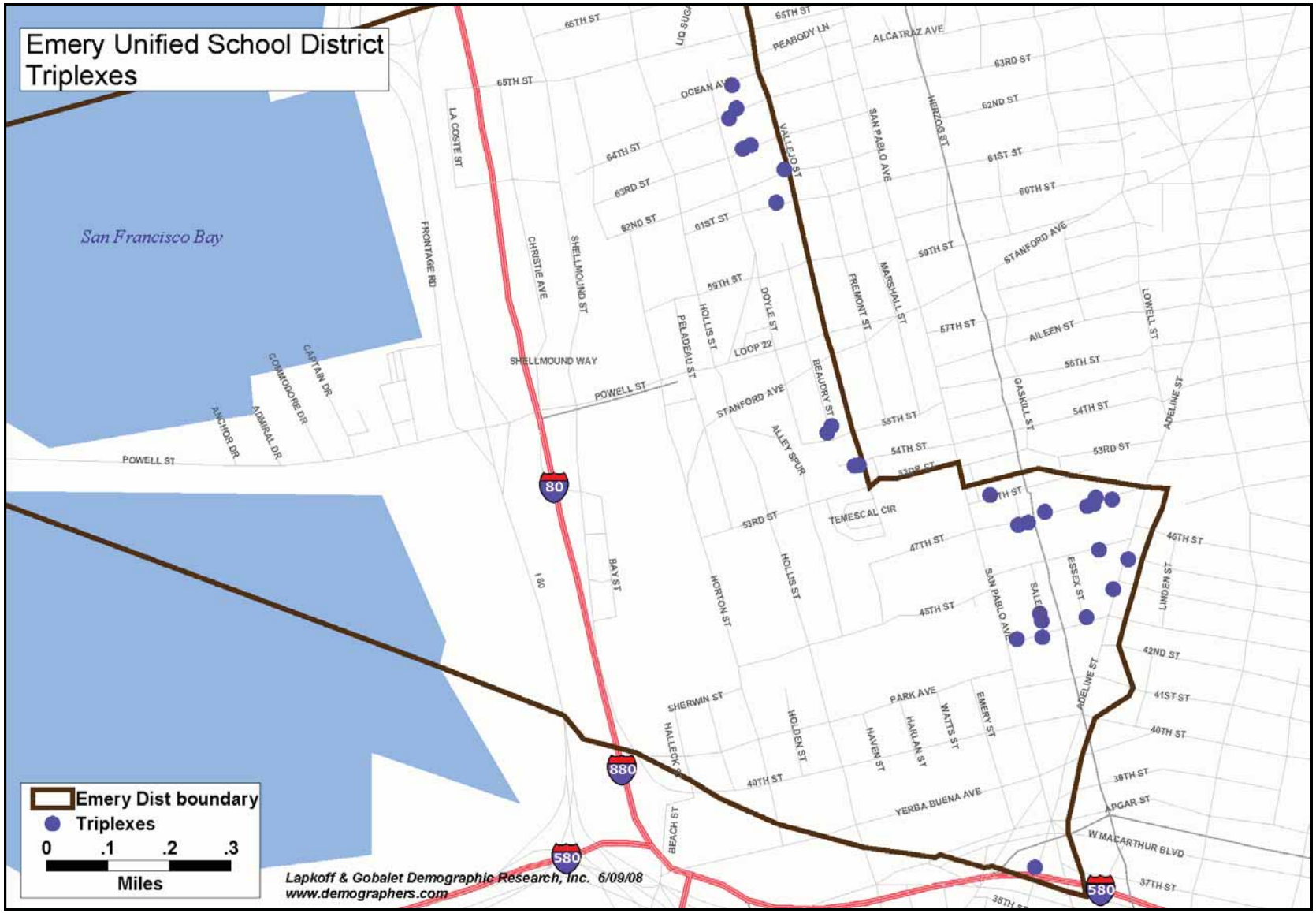
Percent of Enrollments Attending Private School

Cities in Alameda County	1970	1980	1990	2000	Change between 1990 and 2000
Emeryville	**2.5%**	**10.1%**	**9.0%**	**5.3%**	**-3.7%**
Pleasanton	n.a.	3.1%	4.3%	6.8%	2.5%
Livermore	3.2%	5.9%	7.8%	7.7%	-0.1%
Union City	n.a.	12.5%	7.4%	9.1%	1.7%
Dublin	n.a.	6.5%	10.9%	9.8%	-1.1%
Albany	n.a.	12.9%	7.2%	10.3%	3.1%
Hayward	6.0%	11.3%	9.1%	10.3%	1.2%
Newark	3.0%	9.3%	8.0%	10.4%	2.4%
Piedmont	n.a.	4.9%	9.0%	11.2%	2.2%
Castro Valley	7.7%	16.2%	12.4%	11.5%	-0.9%
Fremont	4.9%	9.6%	9.5%	12.8%	3.3%
Oakland	12.1%	14.4%	13.3%	13.6%	0.3%
San Leandro	10.6%	13.0%	11.5%	14.2%	2.7%
San Lorenzo	n.a.	14.3%	15.3%	14.5%	-0.8%
Alameda	10.6%	11.1%	12.4%	15.3%	2.9%
Berkeley	9.2%	18.5%	24.2%	24.7%	0.5%
Alameda County	8.3%	11.8%	10.8%	11.9%	1.1%

Sources: 1970, 1980, 1990 and 2000 U.S. Decennial Censuses

Appendix B: Additional Maps and Tables


Emery Unified School District
Duplexes
San Francisco Bay
Emery Dist boundary
Duplexes
0 .1 .2 .3
Miles
Lapkoff & Gobalet Demographic Research, Inc. 6/09/08
www.demographers.com


Emery Unified School District
Triplexes
San Francisco Bay
Emery Dist boundary
Triplexes
0 .1 .2 .3
Miles
Lapkoff & Gobalet Demographic Research, Inc. 6/09/08
www.demographers.com
80
880
580
POWELL ST
SHELLMOUND WAY
STANFORD AVE
TEMESCAL CIR
YERBA BUENA AVE
PARK AVE
SHERWIN ST
OCEAN AVE
PEABODY LN
ALCATRAZ AVE
FRONTAGE RD
LA COSTE ST
CHRISTIE AVE
SHELLMOUND ST
VALLEJO ST
SAN PABLO AVE
HERZOG ST
FREMONT ST
MARSHALL ST
BEAUDRY ST
ALLEY SPUR
PELADEAU ST
HOLLIS ST
DOYLE ST
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WATTS ST
EMERY ST
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ANCHOR DR
ADMIRAL DR
COMMODORE DR
CAPTAIN DR
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37TH ST


Emery Unified School District
Fourplexes
San Francisco Bay
Emery Dist boundary
Fourplexes
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Lapkoff & Gobalet Demographic Research, Inc. 6/09/08
www.demographers.com
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ADMIRAL DR
COMMODORE DR
CAPTAIN DR


Emery Unified School District
SFU Housing Units
San Francisco Bay
Emery Dist boundary
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Lapkoff & Gobalet Demographic Research, Inc. 6/09/08
www.demographers.com
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ADMIRAL DR
COMMODORE DR
CAPTAIN DR


Emery Unified School District
Poor Residential Housing
San Francisco Bay
Emery Dist boundary
Poor Residential
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Miles
Lapkoff & Gobalet Demographic Research, Inc. 6/09/08
www.demographers.com
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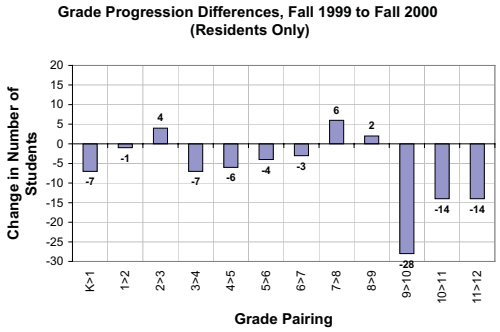
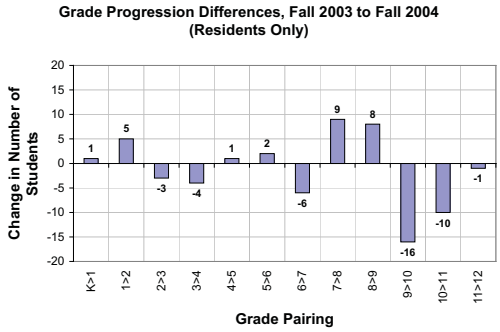
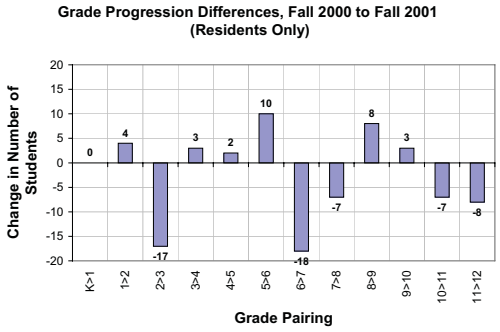
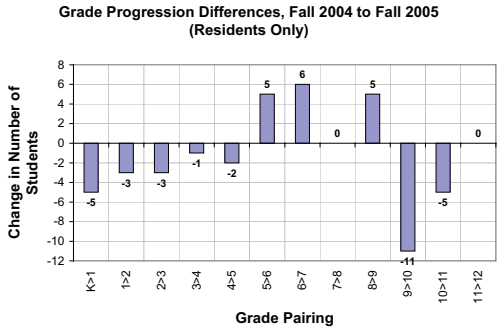
37TH ST

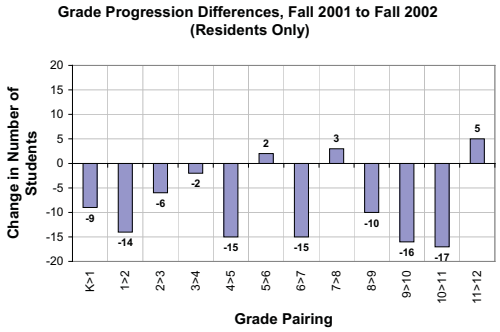
Historical Annual Grade Progressions of Resident Enrollments

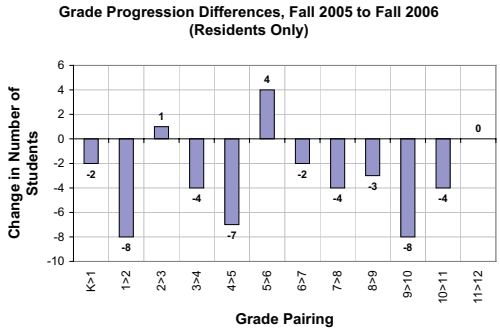


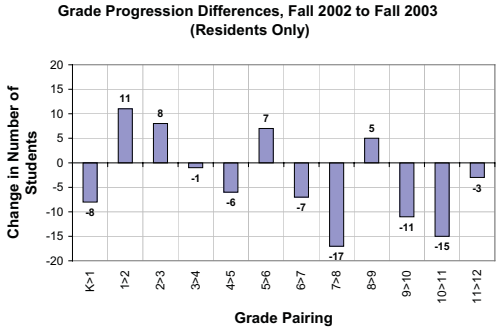


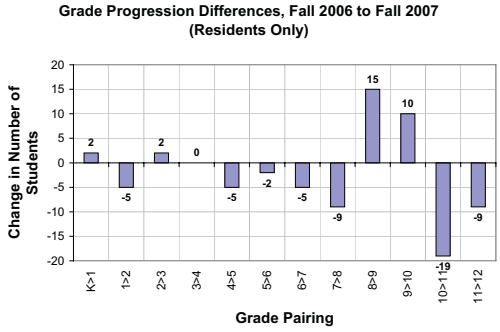












Historical Enrollments, Resident and Out-of-district Students

CBEDS Enrollments (District total)

Year	1999	2000	2001	2002	2003	2004	2005	2006	2007
K	**65**	**72**	**66**	**57**	**52**	**57**	**58**	**55**	**64**
1	**76**	**61**	**75**	**59**	**53**	**53**	**58**	**57**	**60**
2	**76**	**75**	**75**	**63**	**70**	**59**	**62**	**54**	**60**
3	**81**	**83**	**61**	**65**	**63**	**68**	**55**	**63**	**59**
4	**93**	**76**	**84**	**66**	**66**	**54**	**73**	**55**	**60**
5	**74**	**87**	**74**	**73**	**60**	**60**	**55**	**60**	**58**
6	**101**	**81**	**117**	**84**	**76**	**62**	**63**	**59**	**66**
7	**75**	**89**	**65**	**91**	**71**	**72**	**62**	**62**	**61**
8	**62**	**65**	**85**	**61**	**80**	**79**	**85**	**62**	**54**
9	**96**	**83**	**87**	**66**	**63**	**90**	**96**	**79**	**79**
10	**76**	**71**	**88**	**72**	**49**	**51**	**75**	**92**	**81**
11	**68**	**66**	**55**	**58**	**50**	**37**	**40**	**68**	**64**
12	**34**	**53**	**59**	**66**	**44**	**46**	**40**	**36**	**56**
K-5	**465**	**454**	**435**	**383**	**364**	**351**	**361**	**344**	**361**
6-8	**238**	**235**	**267**	**236**	**227**	**213**	**210**	**183**	**181**
9-12	**274**	**273**	**289**	**262**	**206**	**224**	**251**	**275**	**280**
K-12	**977**	**962**	**991**	**881**	**797**	**788**	**822**	**802**	**822**

Resident Enrollments

Year	1999	2000	2001	2002	2003	2004	2005	2006	2007
K	**39**	**39**	**40**	**36**	**33**	**39**	**34**	**34**	**33**
1	**58**	**32**	**39**	**31**	**28**	**34**	**33**	**32**	**36**
2	**49**	**57**	**37**	**25**	**42**	**33**	**31**	**25**	**27**
3	**46**	**53**	**41**	**30**	**33**	**40**	**30**	**32**	**28**
4	**64**	**39**	**56**	**39**	**29**	**29**	**40**	**26**	**32**
5	**50**	**58**	**41**	**41**	**33**	**30**	**27**	**33**	**21**
6	**60**	**46**	**68**	**43**	**48**	**35**	**35**	**31**	**32**
7	**38**	**57**	**28**	**53**	**36**	**42**	**40**	**33**	**26**
8	**34**	**44**	**50**	**31**	**36**	**45**	**41**	**36**	**24**
9	**58**	**36**	**50**	**40**	**36**	**44**	**50**	**38**	**52**
10	**41**	**30**	**38**	**35**	**29**	**20**	**33**	**42**	**48**
11	**34**	**27**	**23**	**22**	**20**	**19**	**15**	**29**	**24**
12	**16**	**20**	**19**	**28**	**19**	**19**	**19**	**15**	**20**
K-5	**306**	**278**	**254**	**202**	**198**	**205**	**195**	**182**	**177**
6-8	**132**	**147**	**146**	**127**	**120**	**122**	**116**	**100**	**82**
9-12	**149**	**113**	**130**	**125**	**104**	**102**	**117**	**124**	**144**
K-12	**587**	**538**	**530**	**454**	**422**	**429**	**428**	**406**	**403**

Out-of-District Students

Year	1999	2000	2001	2002	2003	2004	2005	2006	2007
K	**26**	**33**	**26**	**21**	**19**	**18**	**24**	**21**	**31**
1	**18**	**29**	**36**	**28**	**25**	**19**	**25**	**25**	**24**
2	**27**	**18**	**38**	**38**	**28**	**26**	**31**	**29**	**33**
3	**35**	**30**	**20**	**35**	**30**	**28**	**25**	**31**	**31**
4	**29**	**37**	**28**	**27**	**37**	**25**	**33**	**29**	**28**
5	**24**	**29**	**33**	**32**	**27**	**30**	**28**	**27**	**37**
6	**41**	**35**	**49**	**41**	**28**	**27**	**28**	**28**	**34**
7	**37**	**32**	**37**	**38**	**35**	**30**	**22**	**29**	**35**
8	**28**	**21**	**35**	**30**	**44**	**34**	**44**	**26**	**30**
9	**38**	**47**	**37**	**26**	**27**	**46**	**46**	**41**	**27**
10	**35**	**41**	**50**	**37**	**20**	**31**	**42**	**50**	**33**
11	**34**	**39**	**32**	**36**	**30**	**18**	**25**	**39**	**40**
12	**18**	**33**	**40**	**38**	**25**	**27**	**21**	**21**	**36**
K-5	**159**	**176**	**181**	**181**	**166**	**146**	**166**	**162**	**184**
6-8	**106**	**88**	**121**	**109**	**107**	**91**	**94**	**83**	**99**
9-12	**125**	**160**	**159**	**137**	**102**	**122**	**134**	**151**	**136**
K-12	**390**	**424**	**461**	**427**	**375**	**359**	**394**	**396**	**419**