Harvard
Community Unit School District 50

Demographic Trends
and
Enrollment Projections

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Contents

Preface

This report updates population and housing trends within Harvard Community Unit School District 50 and assesses implications of these trends for future enrollment. Like the prior report, its objective is fourfold. First, I shall summarize both historic and more recent housing development patterns and demographic dynamics underlying enrollment changes in the District. Next, I focus on annual enrollment changes in District 50 from 2000–01 to 2018–19 and analyze student migration patterns and other sources of these changes. I shall then discuss new housing development potential, housing turnover, and other factors that will shape future enrollment. Finally, I shall project District 50 enrollment, by grade and by year, through school year 2028–29 for each CUSD 50 school and for the District as a whole.

All enrollment projections will be in the form of three separate series based on different assumptions about new residential development, housing turnover, and family migration to the District. These three series will provide forecasts by year and by grade of (A) the absolute minimum number of students that may be anticipated, (B) the most likely number of students to be expected, and (C) the absolute maximum number of students that can possibly be foreseen.

In conducting the analysis that follows, I benefited from data provided by administrative staff of the District and local municipal officials. I would like

especially to acknowledge CUSD 50 Chief Financial Officer, Michael Prombo, who assembled much of the information upon which this demographic study is based. For his fine assistance, and that of all the others who contributed to this endeavor, I am most appreciative.

Overview of School District 50

Harvard Community Unit School District 50 is located in McHenry County, about 75 miles northwest of Chicago's Loop. Set in a largely rural area of the County, the District covers 106 square miles that includes Harvard, Chemung and Lawrence. District 50 was formed in 1954 when numerous county schools were closed or consolidated. Before 2010, District 50 schools included Washington (ECE, pre-K, kindergarten), Central (grade 2), Jefferson (grades 1, 3, and 4), Harvard Junior High (grades 5 through 8), and Harvard High School (grades 9 through 12). In 2010, Central was shuttered, Crosby Elementary was opened, and there were structural changes in the grade levels served by the schools. Today, Washington school serves three to five-year-old students in a half-day Pre-K program, Crosby Elementary School houses the district's kindergarten through third grade classes, Jefferson hosts the fourth and fifth grades classes, Harvard Junior High serves grades 6 through 8, and Harvard High serves grades 9 through 12.

District Housing and Population Trends

Like many of Chicago's outermost northern and western suburbs, the Harvard area experienced considerable new housing construction from 1990 to 2006. Table 1 shows that more than 40 percent of Harvard's housing units were built between 1990 and 2009, which was a major uptick from the 1970s and 1980s.

Table 2 provides a finer grain analysis showing year-by-year building permit figures between 1990 and August 2018 for single-family residential dwellings and multi-family dwellings, the former typically the primary yielder of preschool and school-age children. Observe the sharp decline in new housing construction permits during the 2008–2012 financial crisis with, at least in Harvard, essentially no recovery through the first half of 2018. Other data do indicate some new housing construction in outlying areas of the District after 2012, a modest recovery in turnover of existing housing, and growth of the District's Hispanic population, reaching two-thirds of its residents in 2017 (see Appendix A on race/ethnicity and Appendix B on quarterly housing dynamics).

A traditionally strong attraction of Harvard area housing has been its reasonable price. For example, as late as 2000, the median value of owner-occupied housing units in Harvard was only $114,700. After rising to $149,000 in 2010, median housing values dropped back to $114,400 in 2016. Relatively

inexpensive housing in the area attracted younger households with preschool and school-age children to CUSD 50, especially in the last three years.

Table 3 describes population trends from 1950 to 2016 for the City of Harvard. Observe that not only did overall population growth continues to increase since 2010, but much of this growth occurred in the preschool (under age 5), and age 5–9 and 10–14 categories. The U.S. Bureau of the Census current population surveys for the Harvard area indicate an especially large jump in under age 5 residents by 2016.

Table 1

Housing Units in Harvard, IL, by Year Structure Built

Year Structure Built	Units	Percent
2010 to 2013	22	0.7%
2000 to 2009	744	22.5%
1990 to 1999	599	18.1%
1980 to 1989	158	4.8%
1970 to 1979	190	5.7%
1960 to 1969	398	12.0%
1950 to 1959	345	10.4%
1940 to 1949	134	4.0%
1939 or earlier	723	21.8%
Total	3,313	100.0%

Source: U.S. Bureau of the Census. 2012-2016 American Community Survey 5-Year Estimates.

Table 2

Residential Dwellings Authorized by Building Permits in City of Harvard:
1990 to August 2018

Year	Single-family	Multi-family
1990	2	14
1991	6	100
1992	7	4
1993	2	30
1994	1	2
1995	11	61
1996	16	8
1997	14	8
1998	32	2
1999	54	23
2000	40	50
2001	52	9
2002	65	24
2003	73	16
2004	80	8
2005	119	78
2006	65	18
2007	17	2
2008	11	0
2009	0	0
2010	2	0
2011	0	0
2012	0	0
2013	1	0
2014	2	0
2015	0	0
2016	0	0
2017	1	0
–Aug '18	1	0

Source: U.S. Bureau of the Census. Current Construction Reports. Housing Units Authorized by Building Permits, Annual 1990–2017, and August 2018 year to date.

Table 3

Population in City of Harvard by Age: 1950 to 2016

Age Group	1950	1960	1970	1980	1990	2000	2010	2016
< 5	338	416	450	389	558	763	977	1,122
5–9	293	383	509	371	490	654	888	911
10–14	232	381	488	410	449	610	738	853
15–19	214	332	464	478	410	647	728	633
20–24	184	231	361	457	486	753	714	748
25–29	201	220	348	398	546	730	802	729
30–34	239	233	262	358	493	646	757	805
35–39	231	225	272	296	434	582	688	623
40–44	235	257	239	259	364	543	551	662
45–49	204	285	270	222	306	460	563	384
50–54	218	260	298	232	235	375	509	336
55–59	207	207	293	250	222	273	411	499
60–64	186	215	274	264	211	232	335	403
65 +	482	603	649	742	771	728	786	881
Total	3,464	4,248	5,177	5,126	5,975	7,996	9,447	9,589

Source: U.S. Bureau of the Census. Decennial Census of Population and Housing, 1950, 1960, 1970, 1980, 1990, 2000 and 2010; 2012–2016 American Community Survey 5-Year Estimates

Enrollment Trends and Student Migration

Enrollment trends in District 50 mirrored new housing construction trends, housing turnover, and family migration patterns. Table 4 shows considerable enrollment growth in the 1960s. After relative stability in the first half on the 1970s, enrollment declines characterized the latter half of the 1970s and first half of the 1980s, with total district enrollment bottoming out at 1,742 students in school year 1985–86. Relatively steady enrollment growth occurred in the late 1980s and early 1990s, with, after a period of stability in the late 1990s, the total reaching 2,259 students in fall 2000. Total district enrollment continued to grow to 2,368 students in 2002–03 and then stayed around that number through 2007–08. Growth resumed after that school year reaching 2,520 students in 2009–10, then fluctuated again near that number through school year 2016–17.The last two years saw increases of 114 and 81 students, respectively, to 2,713 students this fall.

Table 4

Summary of Enrollment History in Harvard Community Unit School District 50: 1961–62 to 2018–19

School Year	PK/ECE	K–5	6–8	9–12	Sp. Ed.	Total
1961–62	0	801	391	431	0	1,623
1962–63	0	817	355	489	0	1,661
1963–64	0	873	363	522	0	1,758
1964–65	0	866	383	527	0	1,776
1965–66	0	881	420	533	0	1,834
1966–67	22	917	446	548	0	1,933
1967–68	23	945	452	574	0	1,994
1968–69	27	929	482	612	0	2,050
1975–76	—	—	—	—	—	2,070
1976–77	—	—	—	—	—	2,012
1977–78	0	802	458	648	36	1,944
1978–79	0	818	413	619	46	1,896
1979–80	0	810	395	582	41	1,828
1980–81	0	789	416	568	44	1,817
1981–82	0	780	411	582	63	1,836
1982–83	6	744	426	566	73	1,815
1983–84	0	777	381	559	72	1,789
1984–85	9	770	365	554	66	1,764
1985–86	9	782	359	529	63	1,742
1986–87	29	818	337	506	93	1,783
1987–88	29	839	362	493	69	1,792
1988–89	34	849	377	476	85	1,821
1989–90	74	894	415	448	112	1,943
1990–91	63	876	420	494	101	1,954
1991–92	79	895	438	525	71	2,008
1992–93	80	909	452	508	121	2,070
1993–94	80	928	414	561	96	2,079
1994–95	86	962	412	572	89	2,121
1995–96	96	977	396	561	103	2,133
1996–97	108	964	430	581	79	2,162
1997–98	113	986	455	580	—	2,134
1998–99	112	967	474	573	—	2,126
1999–00	90	987	453	597	—	2,127

Continued. . .

Table 4—*Continued*

Summary of Enrollment History in Harvard Community Unit School District 50: 1961–62 to 2018–19

School Year	PK/ECE	K–5	6–8	9–12	Sp. Ed.	Total
2000–01	98	1,051	493	617	—	2,259
2001–02	84	1,048	520	642	—	2,294
2002–03	76	1,075	596	621	—	2,368
2003–04	36	1,027	554	629	—	2,246
2004–05	31	1,027	508	694	—	2,260
2005–06	80	1,073	473	698	—	2,324
2006–07	35	1,050	542	712	—	2,339
2007–08	37	1,081	554	672	—	2,344
2008–09	37	1,130	552	689	—	2,408
2009–10	103	1,132	562	723	—	2,520
2010–11	97	1,125	522	687	—	2,431
2011–12	91	1,189	525	732	—	2,537
2012–13	97	1,216	504	724	—	2,541
2013–14	96	1,221	490	710	—	2,517
2014–15	99	1,230	496	699	—	2,524
2015–16	88	1,186	537	691	—	2,502
2016–17	106	1,154	570	688	—	2,518
2017–18	134	1,208	604	686	—	2,632
2018–19	148	1,218	596	751	—	2,713

Determinants of Enrollment Change

School districts are open demographic systems whose growth, stability, or decline is affected by three basic factors. The first is the difference between the size of the kindergarten class that enters each September and the size of the previous June's graduating twelfth grade class. The second is the net migration/ transfer of school-age children in the district as they progress through the grades over the years. The third is the annual change in pre-kindergarten enrollment.

Tables 5, 6, and 7 show how total enrollment change in District 50 since September 2000 may be decomposed into these component parts. Table 5 provides the grade-by-grade and year-by-year enrollment for the District between 2000–01 and 2018–19. Table 6 decomposes the annual total enrollment changes into the component parts. Thus, between September 2017 (school year 2017–18) and September 2018 (school year 2018–19) District 50 enrollment increased by 81 students (from 2,632 to 2,713; see Table 5). The 162 twelfth graders who left the District in June 2018 (see Table 5) were replaced this past September by 194 kindergarten students for a net class size difference of 32. In addition, 35 more students migrated into District 50 schools or transferred from private or parochial schools than migrated out of the District, dropped out, or transferred to private or parochial schools between September 2017 and September 2018 while pre-K expanded from 134 to 148 (+14). These three

components (+32, +35, +14) sum to the exact 81-student increase between September 2017 and September 2018 for District 50.

Note that during the past two years net positive student migration/ transfer was the primary driver of enrollment growth. Table 7 describes how these net student migration/transfer numbers are computed from enrollment data. The bottom left cell of "21" means that the kindergarten class of September 2017 progressed to the first grade in September 2018, it added twenty-one students (see Table 5 where kindergarten in school year 2017–18 was 201 and first grade in school year 2018–19 is 222 students). Conversely, as the third grade class of September 2017 progressed to the fourth grade in September 2018, it lost twenty-nine students. Summing across the bottom row in Table 7, one obtains +35, which is the net student migration/transfer gain shown in Table 6.

Table 5

Enrollment History by Grade in Harvard Community Unit School District 50:
2000–01 to 2018–19

School Year	K	1	2	3	4	5	6	7	8	9	10	11	12	K–12	Pre-K	Total
2000–01	214	178	141	146	183	189	181	142	170	154	168	144	151	2,161	98	2,259
2001–02	171	206	166	165	151	189	196	187	137	185	154	167	136	2,210	84	2,294
2002–03	187	185	210	169	168	156	206	204	186	144	173	142	162	2,292	76	2,368
2003–04	171	160	184	199	163	150	151	205	198	189	146	158	136	2,210	36	2,246
2004–05	168	171	154	178	196	160	149	155	204	230	179	139	146	2,229	31	2,260
2005–06	168	184	174	166	183	198	170	152	151	216	189	176	117	2,244	80	2,324
2006–07	165	175	179	168	176	187	207	183	152	192	172	184	164	2,304	35	2,339
2007–08	208	168	182	182	171	170	177	195	182	177	154	161	180	2,307	37	2,344
2008–09	194	217	180	175	189	175	171	183	198	219	155	146	169	2,371	37	2,408
2009–10	194	218	181	175	189	175	172	186	204	230	164	153	176	2,417	103	2,520
2010–11	196	209	207	167	167	179	173	166	183	207	185	159	136	2,334	97	2,431
2011–12	229	203	218	202	169	168	185	172	168	211	184	189	148	2,446	91	2,537
2012–13	201	226	207	215	200	167	165	170	169	195	181	183	165	2,444	97	2,541
2013–14	192	201	225	201	209	193	154	165	171	181	169	192	168	2,421	96	2,517
2014–15	218	195	197	213	204	203	187	149	160	180	161	172	186	2,425	99	2,524
2015–16	191	212	193	193	196	201	196	184	157	182	168	176	165	2,414	88	2,502
2016–17	174	190	215	196	187	192	194	192	184	174	168	169	177	2,412	106	2,518
2017–18	201	191	191	220	211	194	202	201	201	201	162	161	162	2,498	134	2,632
2018–19	194	222	197	194	191	220	202	196	198	207	198	183	163	2,565	148	2,713

Table 6

Decomposition of Annual Sources of Enrollment Change in Harvard Community Unit School District 50: September 2000 to September 2018

Transition Year Sept. to Sept.	Change Total Enrollment	Entering K vs. Exiting 12	Net Migration/ Transfer	Change Pre-K
2000 to 01	35	20	29	−14
2001 to 02	74	51	31	−8
2002 to 03	−122	9	−91	−40
2003 to 04	14	32	−13	−5
2004 to 05	64	22	−7	49
2005 to 06	15	48	12	−45
2006 to 07	5	44	−41	2
2007 to 08	64	14	50	0
2008 to 09	112	25	21	66
2009 to 10	−89	20	−103	−6
2010 to 11	106	93	19	−6
2011 to 12	4	53	−55	6
2012 to 13	−24	27	−50	−1
2013 to 14	7	50	−46	3
2014 to 15	−22	5	−16	−11
2015 to 16	16	9	−11	18
2016 to 17	114	24	62	28
2017 to 18	81	32	35	14

Table 7

Net Annual Student Migration/Transfer in Harvard Community Unit School District 50:
September 2000 to September 2018

Transition Year Sept. to Sept.	Grade Transition												
	K–1	1–2	2–3	3–4	4–5	5–6	6–7	7–8	8–9	9–10	10–11	11–12	Total
2000 to 01	−8	−12	24	5	6	7	6	−5	15	0	−1	−8	29
2001 to 02	14	4	3	3	5	17	8	−1	7	−12	−12	−5	31
2002 to 03	−27	−1	−11	−6	−18	−5	−1	−6	3	2	−15	−6	−91
2003 to 04	0	−6	−6	−3	−3	−1	4	−1	32	−10	−7	−12	−13
2004 to 05	16	3	12	5	2	10	3	−4	12	−41	−3	−22	−7
2005 to 06	7	−5	−6	10	4	9	13	0	41	−44	−5	−12	12
2006 to 07	3	7	3	3	−6	−10	−12	−1	25	−38	−11	−4	−41
2007 to 08	9	12	−7	7	4	1	6	3	37	−22	−8	8	50
2008 to 09	24	−36	−5	14	−14	−3	15	21	32	−55	−2	30	21
2009 to 10	15	−11	−14	−8	−10	−2	−6	−3	3	−45	−5	−17	−103
2010 to 11	7	9	−5	2	1	6	−1	2	28	−23	4	−11	19
2011 to 12	−3	4	−3	−2	−2	−3	−15	−3	27	−30	−1	−24	−55
2012 to 13	0	−1	−6	−6	−7	−13	0	1	12	−26	11	−15	−50
2013 to 14	3	−4	−12	3	−6	−6	−5	−5	9	−20	3	−6	−46
2014 to 15	−6	−2	−4	−17	−3	−7	−3	8	22	−12	15	−7	−16
2015 to 16	−1	3	3	−6	−4	−7	−4	0	17	−14	1	1	−11
2016 to 17	17	1	5	15	7	10	7	9	17	−12	−7	−7	62
2017 to 18	21	6	3	−29	9	8	−6	−3	6	−3	21	2	35

The Enrollment Future of District 50

The critical question now becomes, what exactly will happen to enrollment in District 50 during the next decade? Will significant enrollment growth that has characterized the District during the past two years continue? How long will it last? At what size will it peak? Which of your schools will it impact the most and by how much? My analysis of birth trends for the residents of the Harvard and Chemung Township, preschool population estimates from the Census Bureau's American Community Survey of the Harvard area, new housing development potential, population forecasts for Harvard and Chemung Township, and student migration/transfer patterns lead me to forecast overall slow enrollment growth for the next five years, reaching approximately 2,850 students in 2023–24 and then leveling off. Before elaborating this projection and those for the individual schools, let me describe the factors underlying them.

Table 8 provides information on birth trends for residents of the City of Harvard and Chemung Township. Note that births to residents of Harvard, which rose sharply in the 1990s, stabilized thereafter through 2006. Births to Harvard's residents then declined until 2010 before again stabilizing through 2016. These birth trends, by themselves, would suggest modest declines in the sizes of entering kindergarten classes and elementary school enrollments over the next three years. However, recent American Community Survey data show

an actual increase in preschool-age children in Harvard through 2016 that counters this (Table 3). In-migration of families with preschool-age children to Harvard likely contributed to that increase. Thus, kindergarten enrollment has been relatively stable for the past seven years.

New housing development is expected to be modest. Less than 50 single-family units are forecasted by local officials to be constructed in the immediate Harvard area during the next five years and about the same number between 2023 and 2027 (as reported by Dave Nelson of the City of Harvard). There is considerable open land beyond the city limits that could be developed as residential. If this takes place in a substantial manner, significant population growth could occur.

The latest long-term population and housing forecasts by the Chicago Metropolitan Agency for Planning (CMAP) for Harvard and Chemung Township are fairly aggressive. These forecasts, conducted in late 2014, are presented in Table 9. They suggest that the City of Harvard population could grow from 9,447 in 2010 to 18,976 in 2040, while the number of its households is forecasted to expand from 3,052 in 2010 to 6,186 in 2040. (In my opinion the CMAP forecasts are too high, especially in light of limited residentially developable land within the city.) Chemung Township is forecasted to grow from 9,134 residents in 2010 to 15,024 in year 2040, while households in the Township are forecasted by CMAP to expand from 3,048 to 5,050. These

aggressive population and household forecasts will be considered in my "high" (Series C) projections for District 50 and its schools whose methodology I discuss in the next section.

Table 8

Births to Residents of Selected Areas Served by Harvard Community Unit School District 50: 1976 to 2016

Year	Harvard	Chemung Twp.
1976	87	20
1977	73	19
1978	83	33
1979	103	30
1980	104	29
1981	76	21
1982	102	35
1983	92	30
1984	104	20
1985	112	19
1986	98	18
1987	108	30
1988	112	21
1989	119	24
1990	140	29
1991	135	20
1992	124	13
1993	153	13
1994	158	11
1995	183	17
1996	183	13
1997	171	7
1998	186	12
1999	234	9
2000	253	9
2001	230	2
2002	220	7
2003	217	7
2004	228	7
2005	221	7
2006	221	7
2007	215	7
2008	200	6
2009	195	6
2010	178	6
2011	178	5
2012	179	5
2013	175	5
2014	186	5
2015	175	5
2016	176	5

Source: Illinois Department of Public Health. Automated Vital Records System, 1976–2001. Estimates 2002–2016.

Table 9

Forecasted Population and Households in Selected Areas
Served by Harvard Community Unit School District 50: 2010 to 2040

Population				
Area	2010[a]	2040[b]	Change	% Change
Harvard	9,447	18,776	9,329	98.8
Chemung Twp.	9,134	15,024	5,890	64.5
Households				
Area	2010[a]	2040[b]	Change	% Change
Harvard	3,052	6,186	3,134	102.7
Chemung Twp.	3,048	5,050	2,002	65.7

Source: [a] Bureau of the Census. Decennial Census of Population and Housing 2010.
[b] Chicago Metropolitan Agency for Planning 2040 Forecast of Population, Households and Employment. October 10, 2014.

Projection Methodology

In projecting enrollment for District 50, two sets of interrelated factors play central causal roles. The first is future fertility rates and resulting family sizes. Any changes in fertility rates during the next five years will not affect either junior high school or high school enrollment projections until after 2028–2029. They will not affect the elementary school until after 2023–24. This is because children who will be reaching kindergarten during the next five years are already born, as are those who will reach sixth grade and above through 2028. Fertility rate changes during the next five years could affect the elementary school enrollments, beginning with school year 2023–24. However, recent demographic surveys of young adults (regardless of race or ethnicity) do not lead one to expect significant changes in their fertility rates (births each woman has on average) during the coming years. For this reason, all projections will assume that area fertility rates remain relatively stable through 2023, though the actual number of births to residents could increase as population (including Hispanics) increases.

The second, and most critical factor for future enrollment in the schools is net student in-migration resulting from new housing development in the District and turnover of existing housing units to younger households. Because future student migration patterns could vary substantially, predicated on the degree of

new housing development and housing turnover, three sets of enrollment projections by grade and by year through 2028–29 will be provided for District 50 and its individual schools. These projections will be presented in the form of separate series, based on the following assumptions:

Series A Enrollment projection assuming future fertility rates remain relatively stable (through 2023) and both turnover of existing housing units and future new residential development *are less than anticipated* through 2028–29;

Series B Enrollment projection assuming future fertility rates remain relatively stable (through 2023) and both turnover of existing housing units and future new residential development *occur as anticipated* through 2028–29;

Series C Enrollment projection assuming future fertility rates remain relatively stable (through 2023) and both turnover of existing housing units and future new residential development a*re greater than anticipated* through 2028–29.

The basic methodology used to make the three series of enrollment projections is a modified cohort survival procedure. Average survival progressions were computed for each grade transition for the past four years. These average survival progressions were adjusted for inconsistencies and were then applied to compute baseline enrollment projections (via conventional cohort survival techniques) for the District and its individual schools. The sizes of future preschool and entering kindergarten classes were estimated using recent preschool and kindergarten trends along with birth registration data from Harvard and surrounding areas, preschool-age resident counts from recent

population surveys, and anticipated future housing construction and housing turnover in the District during the coming decade.

The next step was to adjust projected enrollment each year in grades 1 through 12 (and pre-kindergarten classes) for anticipated new residential development. New residential construction estimates by local officials noted previously were used. It was also assumed for Series B projections that turnover of existing housing would be similar to the average of the past four years.

Series A projections were made assuming new housing development and housing turnover would be approximately 15 percent less than in Series B. Series C projections assume that new housing development and housing turnover would be approximately 15 percent greater than in Series B.

Pre-kindergarten classes are extremely difficult to forecast. My experience with numerous districts in the Chicago suburban area suggests that such enrollment changes are not correlated with any school district attribute and are often established by Board of Education policies and available space. In the projections that follow, pre-kindergarten class sizes are forecast to roughly track projected K–12 enrollment in the District.

Enrollment Projections

Table 10 presents the grade by grade, year by year enrollment projections for District 50 with the assumptions that future new residential development, housing turnover, and resulting family in-migration are less than currently anticipated. Under these Series A assumptions, total District enrollment will dip from 2,713 students at present to 2,437 in 2026–27, then level off just below that number. While this low projection series may be considered too conservative by many, the possibility of its occurring should not be dismissed entirely. If we reenter a prolonged recession or if mortgage interest rates rise considerably, Series A could become reality for District 50.

Should new development and housing turnover occur as currently anticipated, however, Table 11 shows that District 50 enrollments will continue to slowly expand, reaching 2,862 students in school year 2024–25. Total enrollment will then stabilize near that count through school year 2028–29. It is my professional judgment that Series B is the most likely set of projections for District 50.

If future housing development and housing turnover are actually greater than presently anticipated, Series C projections presented in Table 12 reveal total District 50 enrollment rising more quickly to almost 3,200 students in 2025–26, after which stability will set in. My judgment is that this upper limit (Series C)

enrollment parameter for the District is unlikely to be attained. However, given substantial open land in outlying areas that could go residential over the coming decade, potential for such enrollment growth does exist.

Turning the projections for the District's individual schools, Washington's pre-K projections under Series A, Series B, and Series C assumptions were shown in Tables 10, 11, and 12. Projections for Crosby Elementary School, Jefferson Elementary School, Harvard Junior High School, and Harvard High School are presented in Tables 13 through 24. Since detailed grade-by-grade, year-by-year projection numbers are provided in all tables, I will focus on Series B enrollment projections for each school, which I consider the most likely.

Under the most likely (Series B) set of assumptions, Crosby Elementary School will edge up from 807 students at present to 824 next year then essentially stabilize. Jefferson Elementary School will dip next year to 383 students from its current 411 enrollment, after which its enrollment will slowly rise to 428 students in 2022–23. Total enrollment at Jefferson will modestly dip again to 412 student in 2023–24 and stabilize close to that number through 2028–29. Harvard Junior High School's enrollment, which presently stands at 596, will climb to 622 students next year and fluctuate near that number through 2028–29. Harvard High School will see its total enrollment climb slowly from 751 students this year to 851 students in 2023–24, after which it will remain close to that number.

Tables 25, 26, and 27 summarize the Series A, Series B, and Series C projections by individual school grade aggregates through school year 2028–29. Figure 1 charts the actual and projected District 50 total enrollments between 1968–69 and 2028–29 under Series A, Series B, and Series C assumptions. Figures 2, 3, and 4 provide analogous historical trends and the Series A, Series B, and Series C projections for aggregate elementary (K–5), junior high school (6–8), and high school (9–12) enrollments through school year 2028–29.

Concluding Remarks

In this report I have assembled the best information presently available and applied professional techniques and judgment to generate the enrollment projections for CUSD 50 and its individual schools. These projections should be monitored and updated regularly to insure that policy decisions are based on the latest and most reliable figures. At this time, it is my hope that the projections and other demographic information contained in this report will be helpful to the District 50 Board of Education, administrators, teachers, and concerned citizens as plans are made for future space and staff needs in the District and its schools.

John D. Kasarda, Ph.D.
San Diego, California
November 2018

Table 10

Enrollment Projection Assuming Future Fertility Rates Remain Relatively Stable (through 2023) and Both Turnover of Existing Housing Units and Future New Residential Development Are Less than Anticipated through 2028–29

Harvard Community Unit School District 50

Series A Projection											
Grade	2018–19	2019–20	2020–21	2021–22	2022–23	2023–24	2024–25	2025–26	2026–27	2027–28	2028–29
K	194	180	176	182	174	178	173	179	172	178	174
1	222	199	185	181	187	179	184	179	185	178	184
2	197	220	197	183	179	185	179	184	179	185	178
3	194	196	219	196	182	178	185	179	184	179	185
4	191	181	183	206	183	169	171	178	172	177	172
5	220	190	180	182	205	182	170	172	179	173	178
6	202	219	189	179	181	204	182	170	172	179	173
7	196	196	213	183	173	175	200	178	166	168	175
8	198	193	193	210	180	170	174	199	177	165	167
9	207	205	200	200	217	187	182	186	211	189	177
10	198	190	188	183	183	200	170	165	169	194	172
11	183	198	190	188	183	183	202	172	167	171	196
12	163	175	190	182	180	175	178	197	167	162	166
K–12	2,565	2,542	2,503	2,455	2,407	2,365	2,350	2,338	2,300	2,298	2,297
Pre-K	148	135	140	133	137	133	137	132	137	133	135
Total	2,713	2,677	2,643	2,588	2,544	2,498	2,487	2,470	2,437	2,431	2,432

Table 11

Enrollment Projection Assuming Future Fertility Rates Remain Relatively Stable (through 2023) and Both Turnover of Existing Housing Units and Future New Residential Development Occur as Anticipated through 2028–29

Harvard Community Unit School District 50

Series B Projection											
Grade	2018–19	2019–20	2020–21	2021–22	2022–23	2023–24	2024–25	2025–26	2026–27	2027–28	2028–29
K	194	196	193	200	192	198	194	201	195	202	199
1	222	204	206	203	210	202	206	202	209	203	210
2	197	224	206	208	205	212	204	208	204	211	205
3	194	200	227	209	211	208	214	206	210	206	213
4	191	188	194	221	203	205	203	209	201	205	201
5	220	195	192	198	225	207	208	206	212	204	208
6	202	224	199	196	202	229	209	210	208	214	206
7	196	200	222	197	194	200	227	207	208	206	212
8	198	198	202	224	199	196	201	228	208	209	207
9	207	212	212	216	238	213	209	214	241	221	222
10	198	195	200	200	204	226	198	194	199	226	206
11	183	203	200	205	205	209	230	202	198	203	230
12	163	181	201	198	203	203	206	227	199	195	200
K–12	2,565	2,620	2,654	2,675	2,691	2,708	2,709	2,714	2,692	2,705	2,719
Pre-K	148	146	152	146	150	147	153	148	153	151	152
Total	2,713	2,766	2,806	2,821	2,841	2,855	2,862	2,862	2,845	2,856	2,871

Table 12

Enrollment Projection Assuming Future Fertility Rates Remain Relatively Stable (through 2023) and Both Turnover of Existing Housing Units and Future New Residential Development Are Greater than Anticipated through 2028–29

Harvard Community Unit School District 50

Series C Projection											
Grade	2018–19	2019–20	2020–21	2021–22	2022–23	2023–24	2024–25	2025–26	2026–27	2027–28	2028–29
K	194	207	204	211	203	209	206	214	209	217	215
1	222	209	222	219	226	218	219	216	224	219	227
2	197	228	215	228	225	232	222	223	220	228	223
3	194	204	235	222	235	232	236	226	227	224	232
4	191	193	203	234	221	234	230	234	224	225	222
5	220	200	202	212	243	230	239	235	239	229	230
6	202	230	210	212	222	253	234	243	239	243	233
7	196	205	233	213	215	225	253	234	243	239	243
8	198	203	212	240	220	222	228	256	237	246	242
9	207	217	222	231	259	239	236	242	270	251	260
10	198	200	210	215	224	252	226	223	229	257	238
11	183	208	210	220	225	234	258	232	229	235	263
12	163	186	211	213	223	228	233	257	231	228	234
K–12	2,565	2,690	2,789	2,870	2,941	3,008	3,020	3,035	3,021	3,041	3,062
Pre-K	148	157	163	157	161	159	165	161	167	166	167
Total	2,713	2,847	2,952	3,027	3,102	3,167	3,185	3,196	3,188	3,207	3,229

Table13

Enrollment Projection Assuming Future Fertility Rates Remain Relatively Stable (through 2023) and Both Turnover of Existing Housing Units and Future New Residential Development Are Less than Anticipated through 2028–29

Crosby Elementary School

Series A Projection											
Grade	2018–19	2019–20	2020–21	2021–22	2022–23	2023–24	2024–25	2025–26	2026–27	2027–28	2028–29
K	194	180	176	182	174	178	173	179	172	178	174
1	222	199	185	181	187	179	184	179	185	178	184
2	197	220	197	183	179	185	179	184	179	185	178
3	194	196	219	196	182	178	185	179	184	179	185
Total	807	795	777	742	722	720	721	721	720	720	721

Table 14

Enrollment Projection Assuming Future Fertility Rates Remain Relatively Stable (through 2023) and Both Turnover of Existing Housing Units and Future New Residential Development Occur as Anticipated through 2028–29

Crosby Elementary School

Series B Projection											
Grade	2018–19	2019–20	2020–21	2021–22	2022–23	2023–24	2024–25	2025–26	2026–27	2027–28	2028–29
K	194	196	193	200	192	198	194	201	195	202	199
1	222	204	206	203	210	202	206	202	209	203	210
2	197	224	206	208	205	212	204	208	204	211	205
3	194	200	227	209	211	208	214	206	210	206	213
Total	807	824	832	820	818	820	818	817	818	822	827

Table 15

Enrollment Projection Assuming Future Fertility Rates Remain Relatively Stable (through 2023) and Both Turnover of Existing Housing Units and Future New Residential Development Are Greater than Anticipated through 2028–29

Crosby Elementary School

Series C Projection											
Grade	2018–19	2019–20	2020–21	2021–22	2022–23	2023–24	2024–25	2025–26	2026–27	2027–28	2028–29
K	194	207	204	211	203	209	206	214	209	217	215
1	222	209	222	219	226	218	219	216	224	219	227
2	197	228	215	228	225	232	222	223	220	228	223
3	194	204	235	222	235	232	236	226	227	224	232
Total	807	848	876	880	889	891	883	879	880	888	897

Table 16

Enrollment Projection Assuming Future Fertility Rates Remain Relatively Stable (through 2023) and Both Turnover of Existing Housing Units and Future New Residential Development Are Less than Anticipated through 2028–29

Jefferson Elementary School

Series A Projection											
Grade	2018–19	2019–20	2020–21	2021–22	2022–23	2023–24	2024–25	2025–26	2026–27	2027–28	2028–29
4	191	181	183	206	183	169	171	178	172	177	172
5	220	190	180	182	205	182	170	172	179	173	178
Total	411	371	363	388	388	351	341	350	351	350	350

Table 17

Enrollment Projection Assuming Future Fertility Rates Remain Relatively Stable (through 2023) and Both Turnover of Existing Housing Units and Future New Residential Development Occur as Anticipated through 2028–29

Jefferson Elementary School

Series B Projection											
Grade	2018–19	2019–20	2020–21	2021–22	2022–23	2023–24	2024–25	2025–26	2026–27	2027–28	2028–29
4	191	188	194	221	203	205	203	209	201	205	201
5	220	195	192	198	225	207	208	206	212	204	208
Total	411	383	386	419	428	412	411	415	413	409	409

Table 18

Enrollment Projection Assuming Future Fertility Rates Remain Relatively Stable (through 2023) and Both Turnover of Existing Housing Units and Future New Residential Development Are Greater than Anticipated through 2028–29

Jefferson Elementary School

Series C Projection											
Grade	2018–19	2019–20	2020–21	2021–22	2022–23	2023–24	2024–25	2025–26	2026–27	2027–28	2028–29
4	191	193	203	234	221	234	230	234	224	225	222
5	220	200	202	212	243	230	239	235	239	229	230
Total	411	393	405	446	464	464	469	469	463	454	452

Table 19

Enrollment Projection Assuming Future Fertility Rates Remain Relatively Stable (through 2023) and Both Turnover of Existing Housing Units and Future New Residential Development Are Less than Anticipated through 2028–29

Harvard Junior High School

Series A Projection											
Grade	2018–19	2019–20	2020–21	2021–22	2022–23	2023–24	2024–25	2025–26	2026–27	2027–28	2028–29
6	202	219	189	179	181	204	182	170	172	179	173
7	196	196	213	183	173	175	200	178	166	168	175
8	198	193	193	210	180	170	174	199	177	165	167
Total	596	608	595	572	534	549	556	547	515	512	515

Table 20

Enrollment Projection Assuming Future Fertility Rates Remain Relatively Stable (through 2023) and Both Turnover of Existing Housing Units and Future New Residential Development Occur as Anticipated through 2028–29

Harvard Junior High School

Series B Projection											
Grade	2018–19	2019–20	2020–21	2021–22	2022–23	2023–24	2024–25	2025–26	2026–27	2027–28	2028–29
6	202	224	199	196	202	229	209	210	208	214	206
7	196	200	222	197	194	200	227	207	208	206	212
8	198	198	202	224	199	196	201	228	208	209	207
Total	596	622	623	617	595	625	637	645	624	629	625

Table 21

Enrollment Projection Assuming Future Fertility Rates Remain Relatively Stable (through 2023) and Both Turnover of Existing Housing Units and Future New Residential Development Are Greater than Anticipated through 2028–29

Harvard Junior High School

Series C Projection											
Grade	2018–19	2019–20	2020–21	2021–22	2022–23	2023–24	2024–25	2025–26	2026–27	2027–28	2028–29
6	202	230	210	212	222	253	234	243	239	243	233
7	196	205	233	213	215	225	253	234	243	239	243
8	198	203	212	240	220	222	228	256	237	246	242
Total	596	638	655	665	657	700	715	733	719	728	718

Table 22

Enrollment Projection Assuming Future Fertility Rates Remain Relatively Stable (through 2023) and Both Turnover of Existing Housing Units and Future New Residential Development Are Less than Anticipated through 2028–29

Harvard High School

Series A Projection											
Grade	2018–19	2019–20	2020–21	2021–22	2022–23	2023–24	2024–25	2025–26	2026–27	2027–28	2028–29
9	207	205	200	200	217	187	182	186	211	189	177
10	198	190	188	183	183	200	170	165	169	194	172
11	183	198	190	188	183	183	202	172	167	171	196
12	163	175	190	182	180	175	178	197	167	162	166
Total	751	768	768	753	763	745	732	720	714	716	711

Table _23

Enrollment Projection Assuming Future Fertility Rates Remain Relatively Stable (through 2023) and Both Turnover of Existing Housing Units and Future New Residential Development Occur as Anticipated through 2028–29

Harvard High School

Series B Projection											
Grade	2018–19	2019–20	2020–21	2021–22	2022–23	2023–24	2024–25	2025–26	2026–27	2027–28	2028–29
9	207	212	212	216	238	213	209	214	241	221	222
10	198	195	200	200	204	226	198	194	199	226	206
11	183	203	200	205	205	209	230	202	198	203	230
12	163	181	201	198	203	203	206	227	199	195	200
Total	751	791	813	819	850	851	843	837	837	845	858

Table 24

Enrollment Projection Assuming Future Fertility Rates Remain Relatively Stable (through 2023) and Both Turnover of Existing Housing Units and Future New Residential Development Are Greater than Anticipated through 2028–29

Harvard High School

Series C Projection											
Grade	2018–19	2019–20	2020–21	2021–22	2022–23	2023–24	2024–25	2025–26	2026–27	2027–28	2028–29
9	207	217	222	231	259	239	236	242	270	251	260
10	198	200	210	215	224	252	226	223	229	257	238
11	183	208	210	220	225	234	258	232	229	235	263
12	163	186	211	213	223	228	233	257	231	228	234
Total	751	811	853	879	931	953	953	954	959	971	995

Table 25

Summary of Enrollment Projection Assuming Future Fertility Rates Remain Relatively Stable (through 2023) and Both Turnover of Existing Housing Units and Future New Residential Development Are Less than Anticipated through 2028–29

Harvard Community Unit School District 50

Series A Projection											
Grades	2018–19	2019–20	2020–21	2021–22	2022–23	2023–24	2024–25	2025–26	2026–27	2027–28	2028–29
Pre-K	148	135	140	133	137	133	137	132	137	133	135
K–5	1,218	1,166	1,140	1,130	1,110	1,071	1,062	1,071	1,071	1,070	1,071
6–8	596	608	595	572	534	549	556	547	515	512	515
9–12	751	768	768	753	763	745	732	720	714	716	711
K–12	2,565	2,542	2,503	2,455	2,407	2,365	2,350	2,338	2,300	2,298	2,297
Total	2,713	2,677	2,643	2,588	2,544	2,498	2,487	2,470	2,437	2,431	2,432

Table 26

Summary of Enrollment Projection Assuming Future Fertility Rates Remain Relatively Stable (through 2023) and Both Turnover of Existing Housing Units and Future New Residential Development Occur as Anticipated through 2028–29

Harvard Community Unit School District 50

Series B Projection											
Grades	2018–19	2019–20	2020–21	2021–22	2022–23	2023–24	2024–25	2025–26	2026–27	2027–28	2028–29
Pre-K	148	146	152	146	150	147	153	148	153	151	152
K–5	1,218	1,207	1,218	1,239	1,246	1,232	1,229	1,232	1,231	1,231	1,236
6–8	596	622	623	617	595	625	637	645	624	629	625
9–12	751	791	813	819	850	851	843	837	837	845	858
K–12	2,565	2,620	2,654	2,675	2,691	2,708	2,709	2,714	2,692	2,705	2,719
Total	2,713	2,766	2,806	2,821	2,841	2,855	2,862	2,862	2,845	2,856	2,871

Table 27

Summary of Enrollment Projection Assuming Future Fertility Rates Remain Relatively Stable (through 2023) and Both Turnover of Existing Housing Units and Future New Residential Development Are Greater than Anticipated through 2028–29

Harvard Community Unit School District 50

Series C Projection											
Grades	2018–19	2019–20	2020–21	2021–22	2022–23	2023–24	2024–25	2025–26	2026–27	2027–28	2028–29
Pre-K	148	157	163	157	161	159	165	161	167	166	167
K–5	1,218	1,241	1,281	1,326	1,353	1,355	1,352	1,348	1,343	1,342	1,349
6–8	596	638	655	665	657	700	715	733	719	728	718
9–12	751	811	853	879	931	953	953	954	959	971	995
K–12	2,565	2,690	2,789	2,870	2,941	3,008	3,020	3,035	3,021	3,041	3,062
Total	2,713	2,847	2,952	3,027	3,102	3,167	3,185	3,196	3,188	3,207	3,229

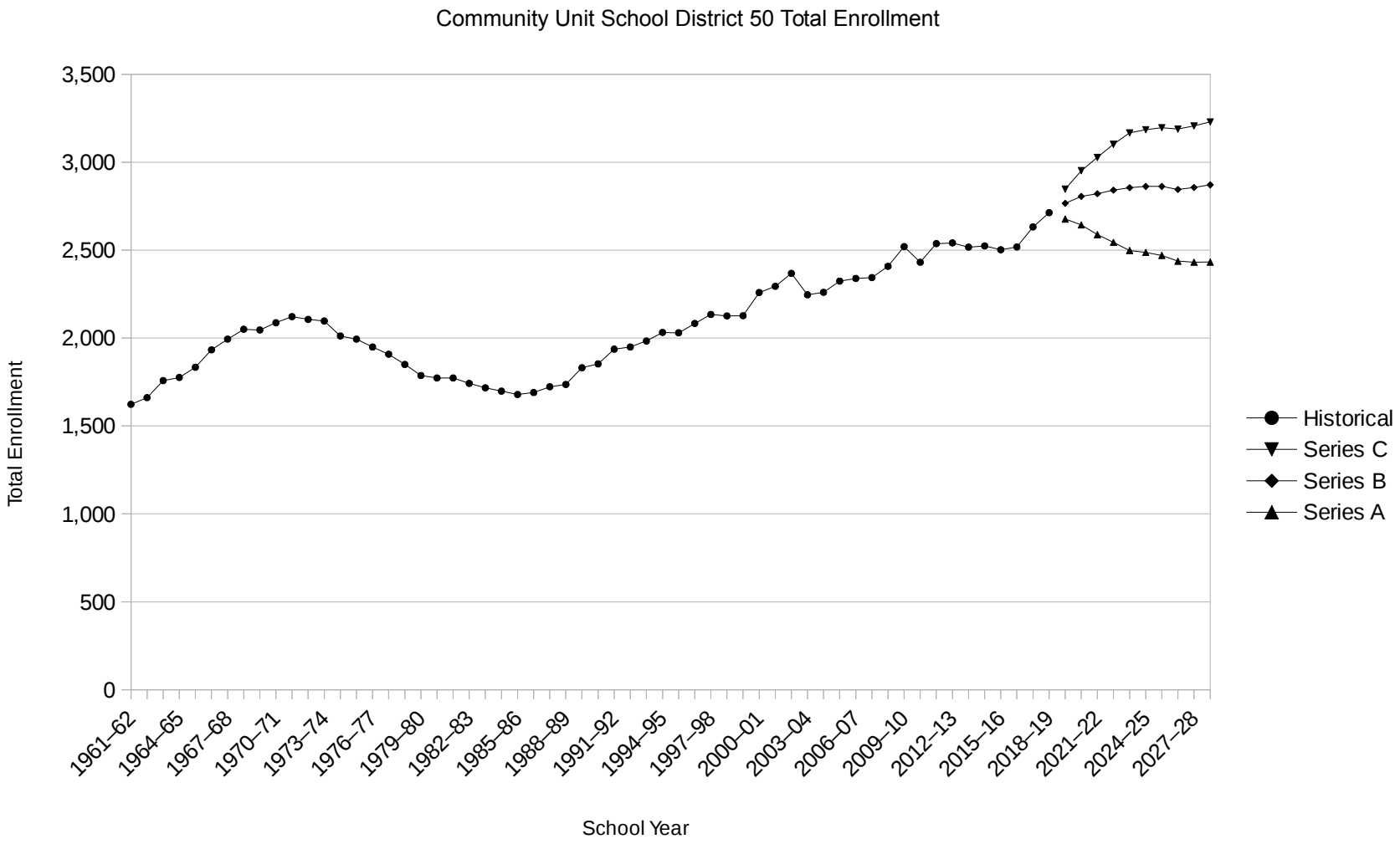


Figure 1. Total Enrollment for Harvard Community Unit School District 50: Historical (1961–62 to 2018–19) and Projected (2019–20 to 2028–2029) under Series A, Series B, and Series C Assumptions

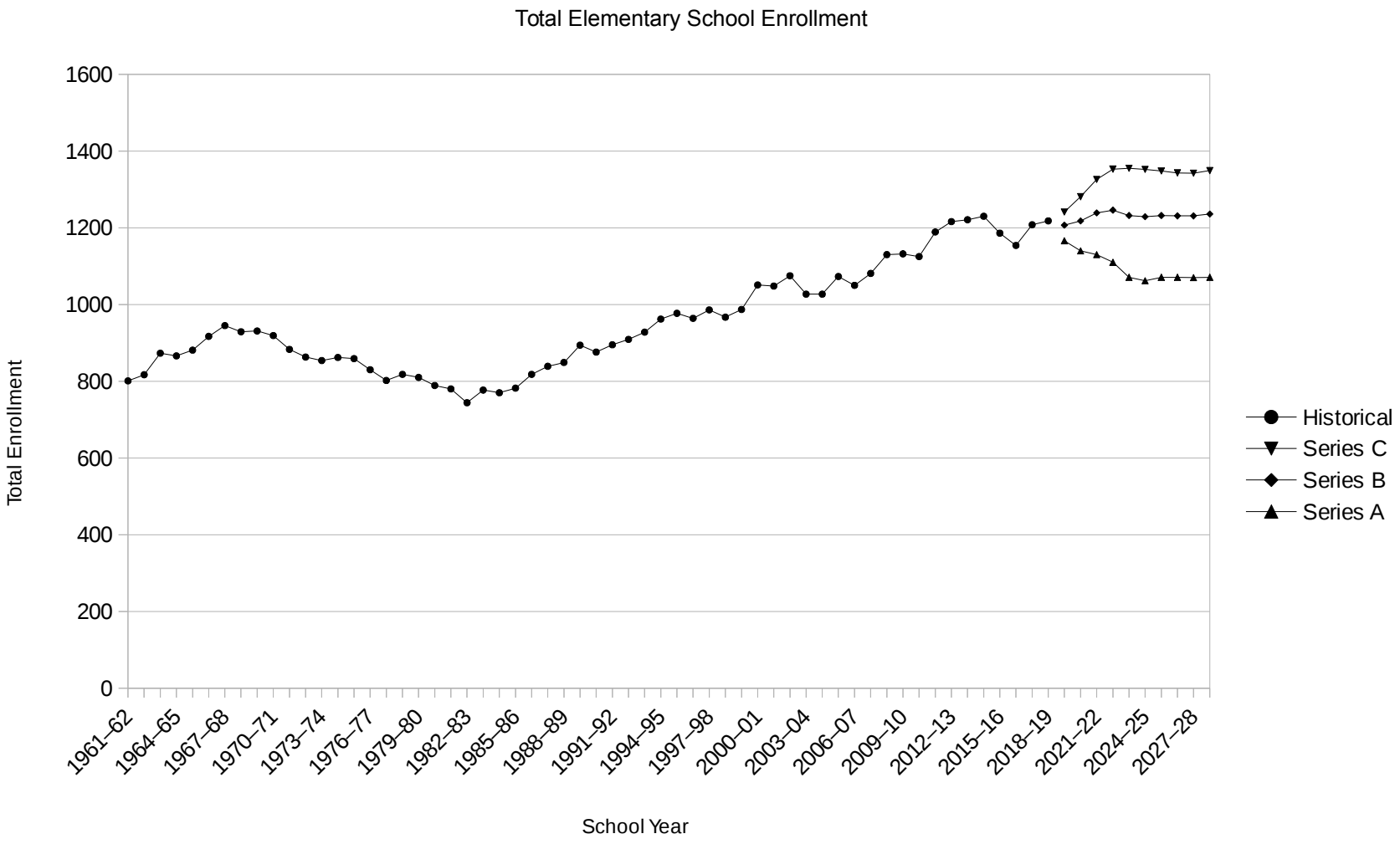


Figure 2. Total Elementary School (K–5) Enrollment for Harvard Community Unit School District 50: Historical (1961–62 to 2018–19) and Projected (2019–20 to 2028–2029) under Series A, Series B, and Series C Assumptions

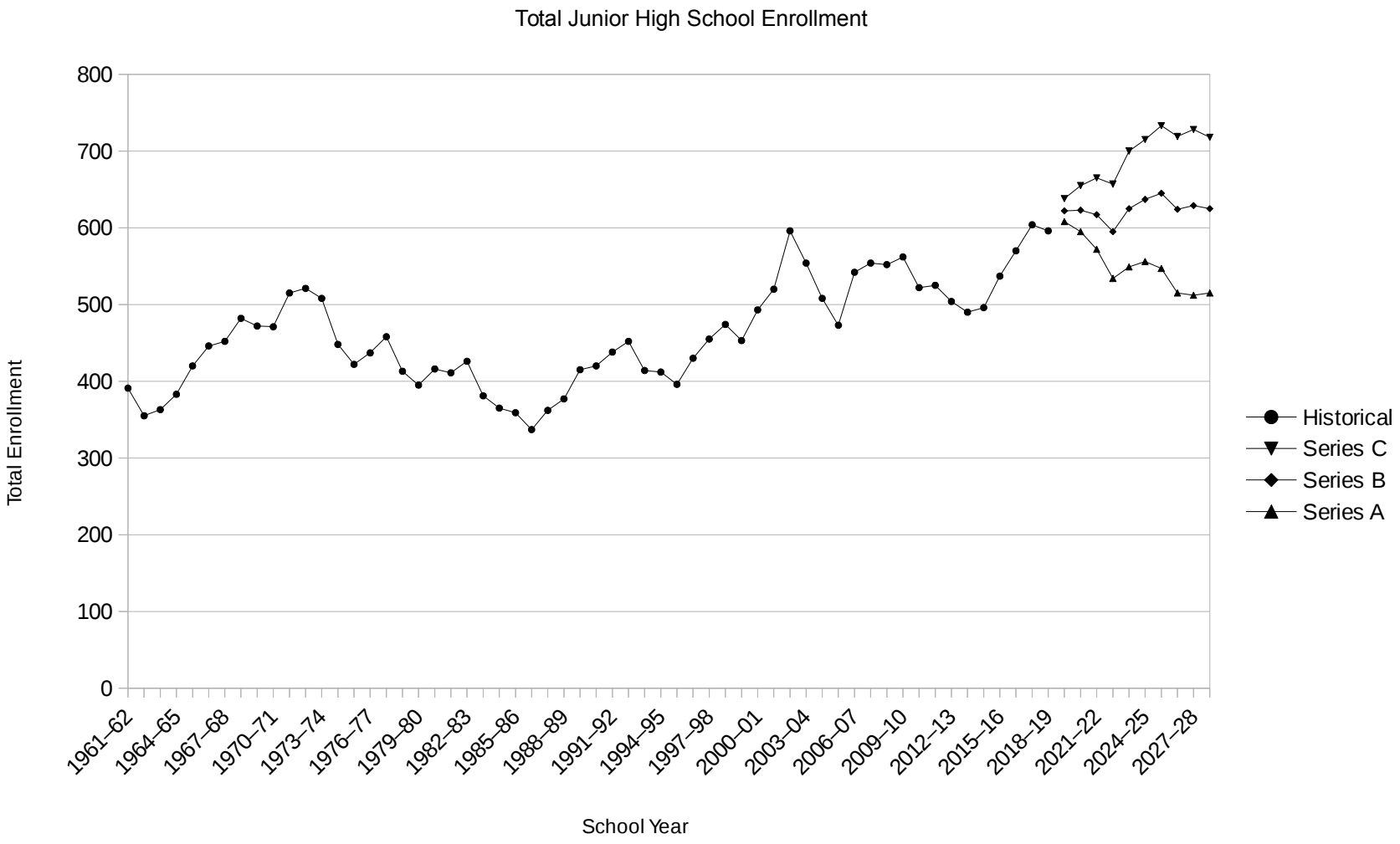


Figure 3. Total Junior High School (6–8) Enrollment for Harvard Community Unit School District 50: Historical (1961–62 to 2018–19) and Projected (2019–20 to 2028–2029) under Series A, Series B, and Series C Assumptions

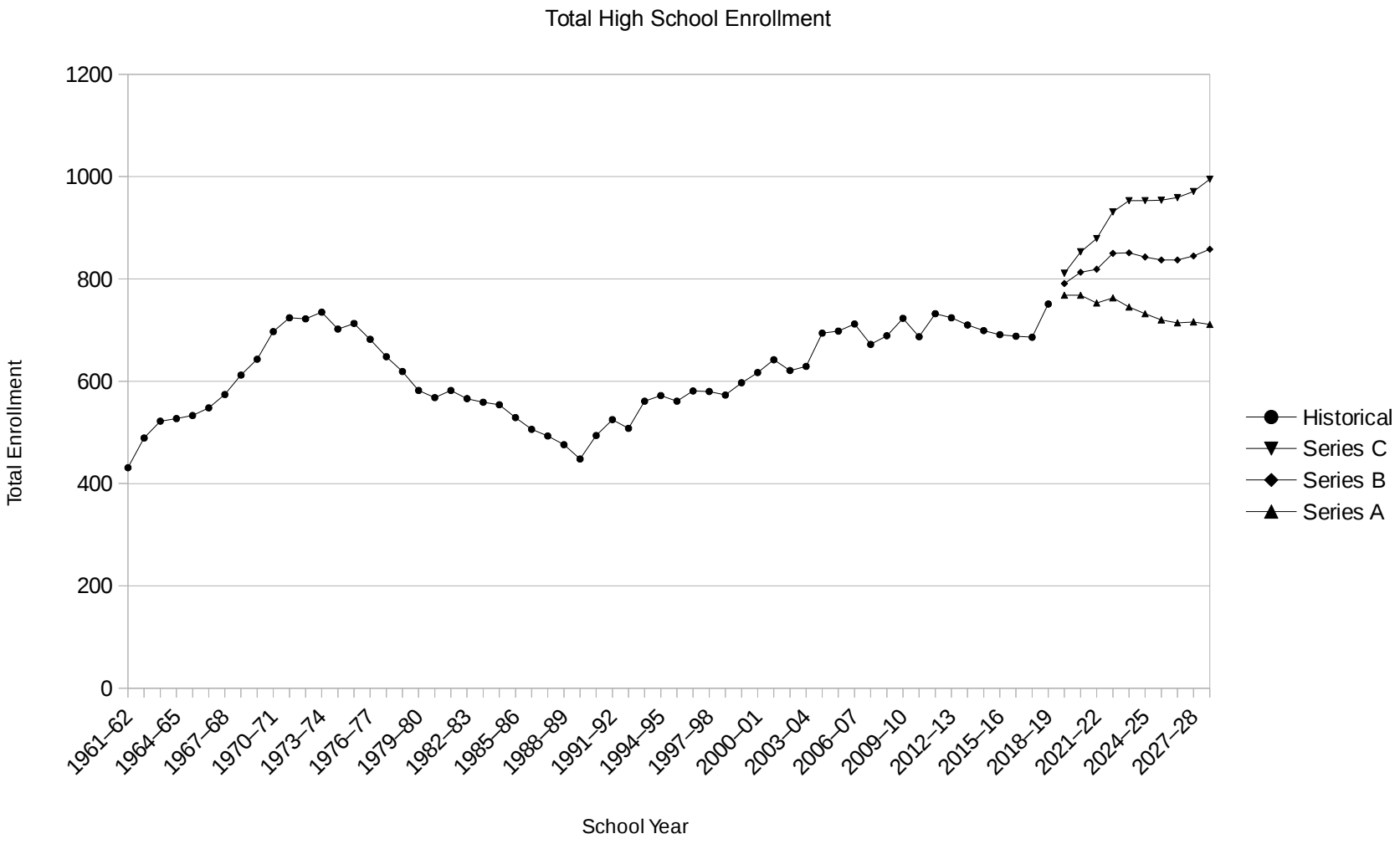


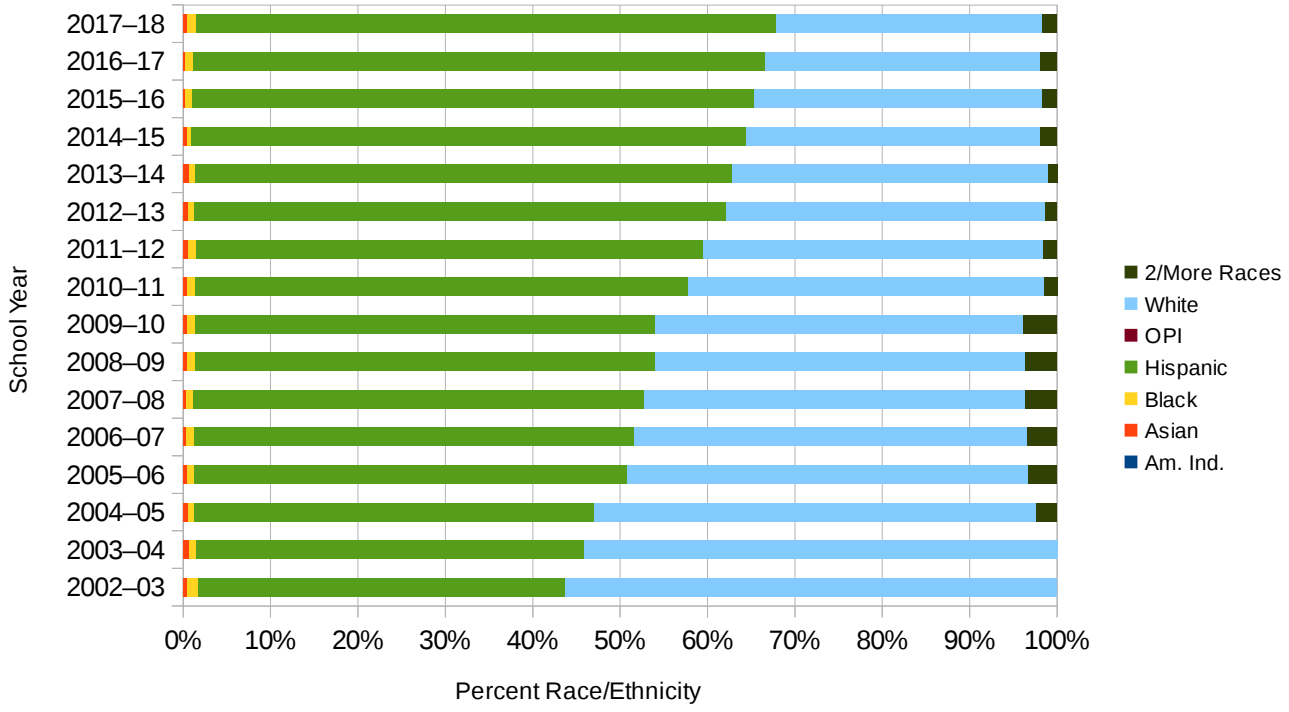
Figure 4. Total High School (9–12) Enrollment for Harvard Community Unit School District 50: Historical (1961–62 to 2018–19) and Projected (2019–20 to 2028–2029) under Series A, Series B, and Series C Assumptions

Appendix A

Race/Ethnicity
in
Harvard Community Unit School District 50
2002–03 to 2017–18

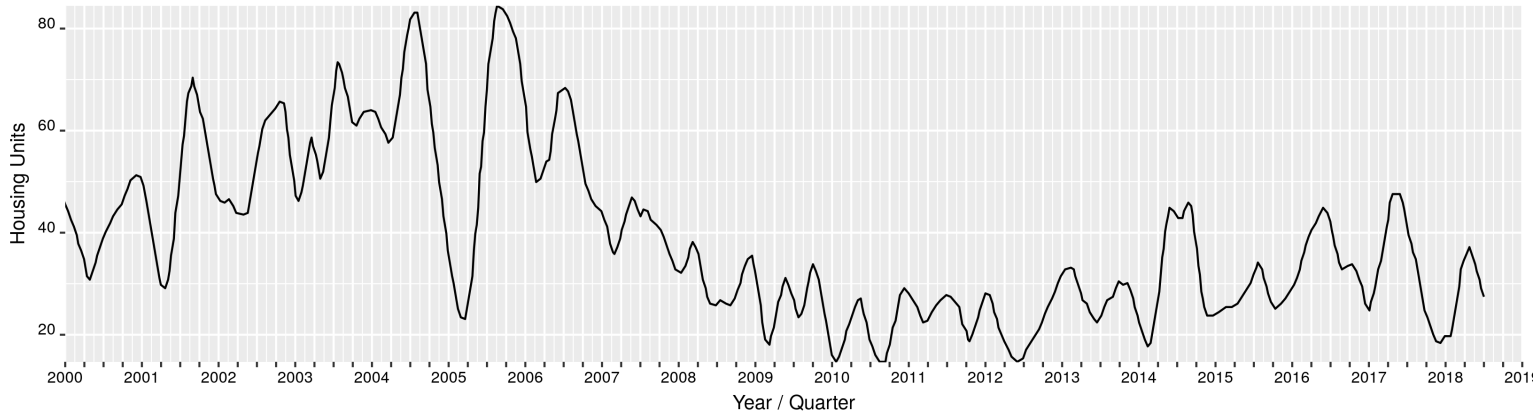
Race/Ethnicity
Harvard Community Unit School District 50: 2002–03 to 2017–18

School Year	Am. Ind.	Asian	Black	Hispanic	OPI	White	2/More Races
2002–03	0.0%	0.5%	1.2%	42.0%	0.0%	56.3%	0.0%
2003–04	0.0%	0.7%	0.8%	44.4%	0.0%	54.1%	0.0%
2004–05	0.0%	0.6%	0.7%	45.8%	0.0%	50.7%	2.3%
2005–06	0.0%	0.5%	0.7%	49.6%	0.0%	45.9%	3.3%
2006–07	0.0%	0.4%	0.9%	50.3%	0.0%	45.0%	3.4%
2007–08	0.0%	0.3%	0.8%	51.6%	0.0%	43.7%	3.6%
2008–09	0.0%	0.4%	1.0%	52.6%	0.0%	42.4%	3.6%
2009–10	0.0%	0.5%	0.9%	52.6%	0.0%	42.1%	3.8%
2010–11	0.0%	0.5%	0.9%	56.4%	0.0%	40.7%	1.5%
2011–12	0.0%	0.6%	1.0%	58.0%	0.0%	38.9%	1.5%
2012–13	0.0%	0.5%	0.8%	60.8%	0.0%	36.6%	1.3%
2013–14	0.0%	0.7%	0.7%	61.4%	0.0%	36.1%	1.0%
2014–15	0.0%	0.5%	0.4%	63.5%	0.0%	33.7%	1.9%
2015–16	0.0%	0.2%	0.7%	64.4%	0.0%	32.9%	1.7%
2016–17	0.0%	0.3%	0.8%	65.6%	0.0%	31.5%	1.9%
2017–18	0.0%	0.4%	1.0%	66.5%	0.0%	30.4%	1.7%

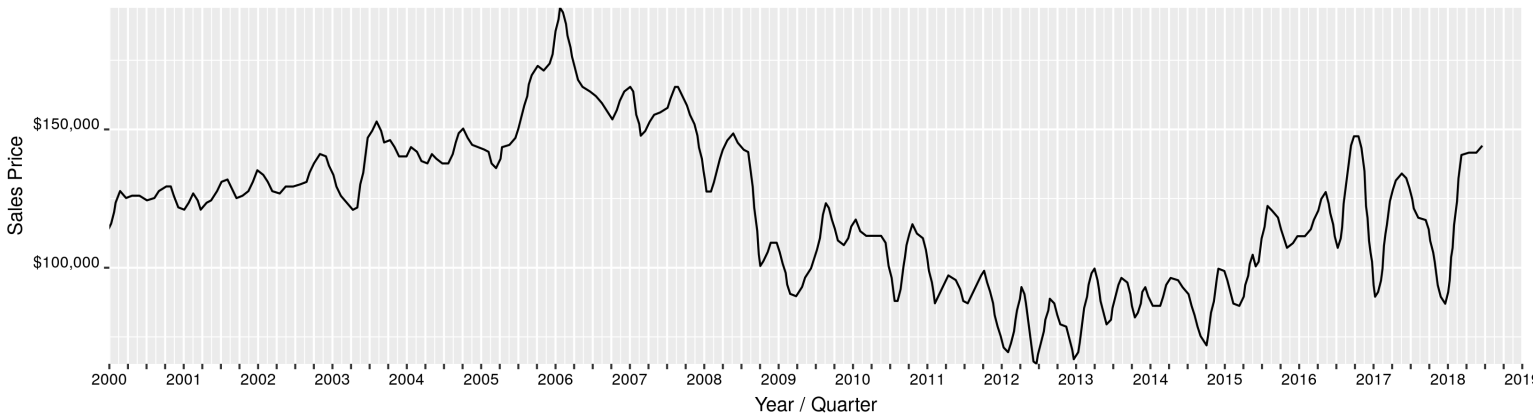


Appendix B

Quarterly Home Sales and Median Prices
in
Harvard, Illinois
2000 to 2018



Quarterly Number of Home Sales in Harvard, Illinois: 2000 to 2018



Quarterly Median Home Sale Price in Harvard, Illinois: 2000 to 2018

Source: Adapted from Trulia.com.