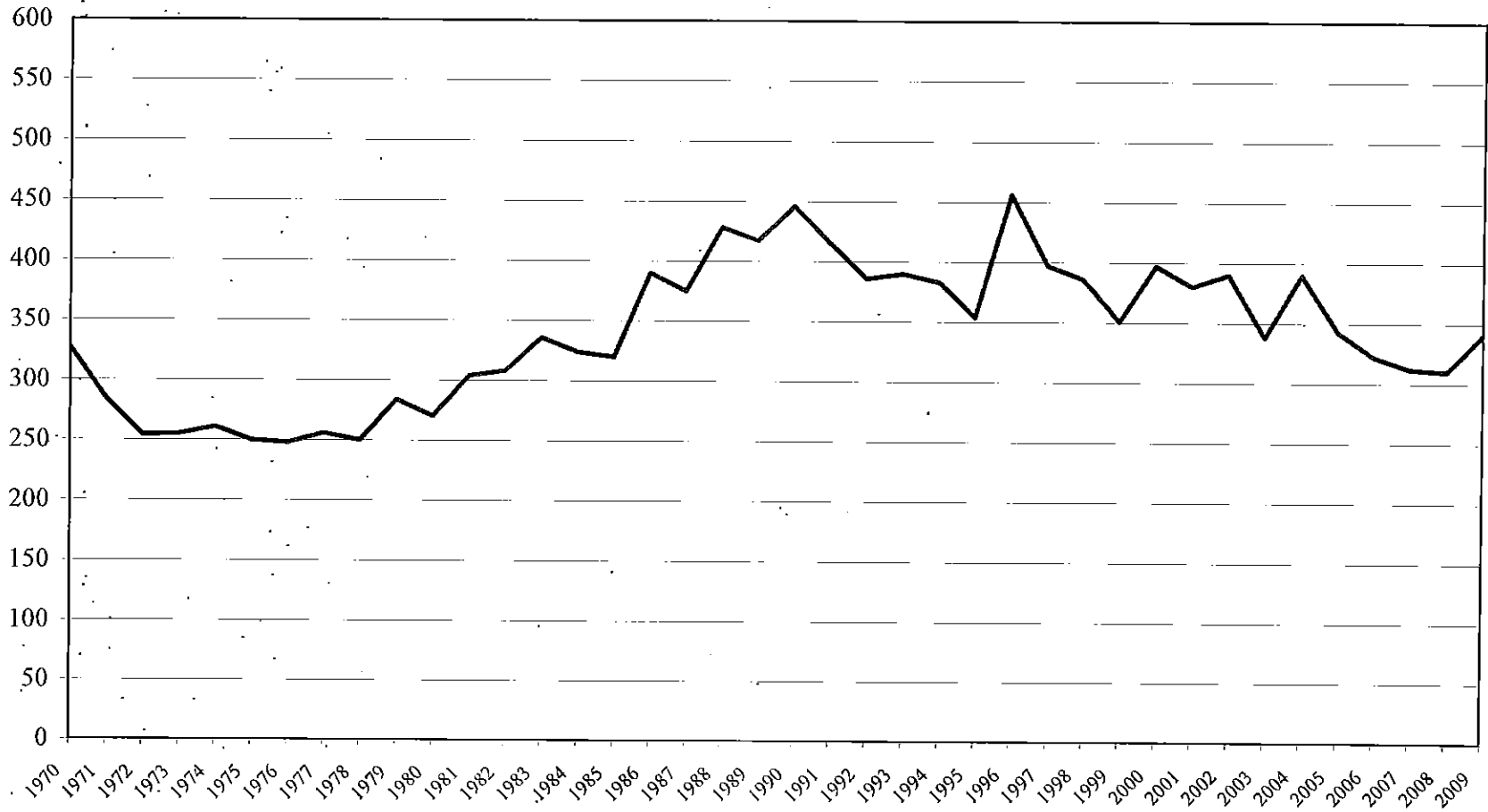
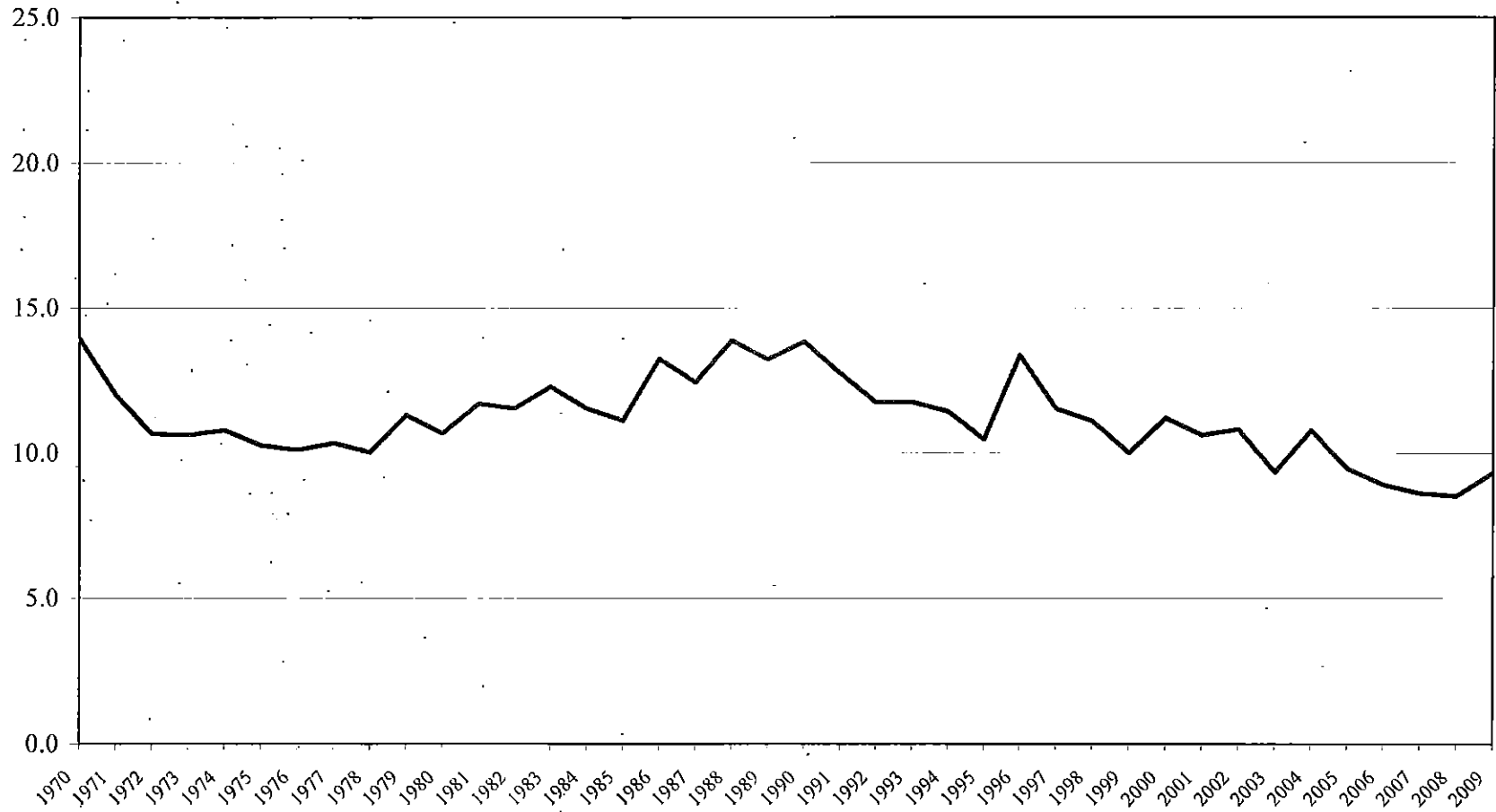


APPENDIX 3

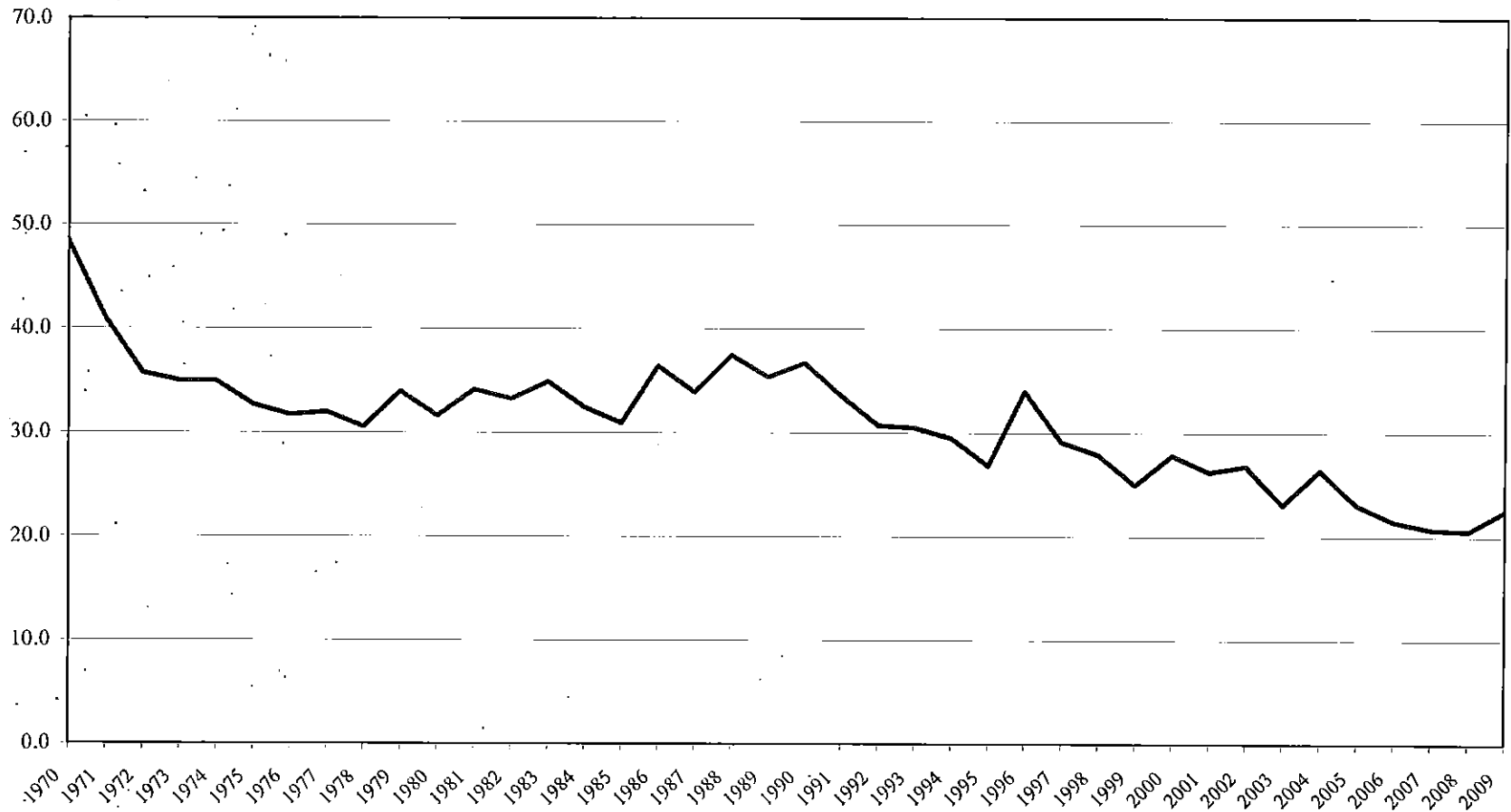
Graph 3-1
Wissahickon School District
Births
1970 to 2009



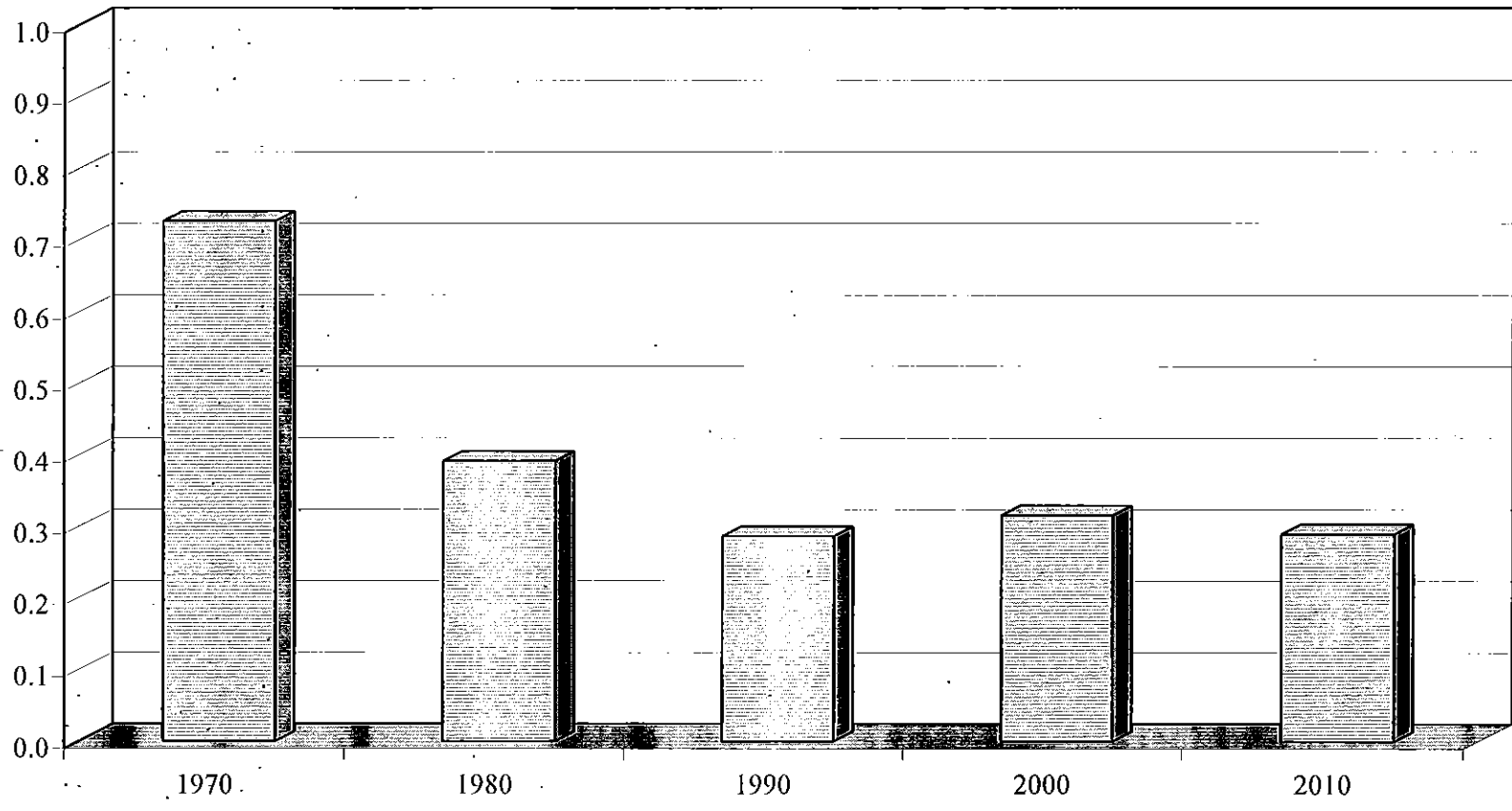
Graph 3-2
Wissahickon School District
Births Per 1,000 Population
1970 to 2009



Graph 3-3
Wissahickon School District
Births Per 1,000 Housing Units
1970 to 2009



Graph 3-4
Wissahickon School District
Ratio of Public School Children Per Housing Unit
1970 to 2010



CHAPTER 4
MIGRATION PATTERNS

During the 1970s resident births in the Wissahickon School District totaled 2,669; deaths of district residents during this period totaled 2,270. This produced a “natural” increase in population of 399. The actual change in population between 1970 and 1980, however, was an increase of 1,846, suggesting that a net in-migration of 1,447 people had occurred during this period. Between 1980 and 1990, there were 3,472 births in the district and 2,963 deaths. This resulted in another natural increase in population of 509. The district’s actual population count grew by 6,938 during the 1980s, indicating that a net in-migration of 6,429 people had occurred. During the period 1990 to 2000, births totaled 3,964 and deaths totaled 3,621 producing still another natural increase of 343. The district’s total population was up by 3,170 during the 1990s suggesting that a net in-migration of 2,827 occurred. Between 2000 and 2008 (the most recent year for which data on births, deaths, and estimated population are available), there were 3,182 births and 3,891 deaths, producing a natural loss in population of 709. Wissahickon’s population is estimated to have grown by 1,028 during this period indicating that a net in-migration of 1,737 residents had occurred through the first nine years of the past decade. (See Table 4-1.)

Table 4-1

WISSAHICKON SCHOOL DISTRICT

Resident Births, Deaths, and Population Change
1970 to 2008

	1970 to 1979	1980 to 1989	1990 to 1999	2000 to 2008	1970 to 2008
Births	2,669	3,472	3,964	3,182	13,287
Deaths	<u>2,270</u>	<u>2,963</u>	<u>3,621</u>	<u>3,891</u>	<u>12,745</u>
Natural Pop. Change	+399	+509	+343	-709	+542
Total Population (start)	23,456	25,302	32,240	35,410	23,456
Total Population (end)	<u>25,302</u>	<u>32,240</u>	<u>35,410</u>	<u>36,438</u>	<u>36,438</u>
Total Population Change	+1,846	+6,938	+3,170	+1,028	+12,982
Less Natural Change	+399	+509	+343	-709	+542
Net Migration	<u>+1,447</u>	<u>+6,429</u>	<u>+2,827</u>	<u>+1,737</u>	<u>+12,440</u>

SOURCE: U.S. Bureau of the Census and State Health Data Center, Pennsylvania Department of Health, Harrisburg Pennsylvania. The Department specifically disclaims responsibility for any analyses, interpretations, or conclusions.

Overall, for the period 1970 to 2008 resident births in Wissahickon totaled 13,287; deaths during this period totaled 12,745. This produced a natural increase in population of just 542. The actual and estimated population change during this period, however, was a increase of 12,982, indicating an overall net in-migration of 12,440. Noticeable in-migration occurred in each of the four decades reviewed, and it was most pronounced—by far—during the 1980s. In fact, that decade accounted for slightly more than one-half of the overall net migration recorded in the district during the period reviewed.

The significance of migration for purposes of this examination lies in its effect on school-age children and public school enrollments, and it can be highlighted by using birth data and actual enrollments.

A review of the relationship between enrollments in the district and births in the years corresponding to the ages of children in school provides a perspective on the effect of migration. A figure of greater than 100 percent indicates an enrollment that is higher than that resulting solely from the cumulative total of births in the district during the corresponding time period (due to net in-migration in this age grouping); conversely, a figure of less than 100 percent indicates an enrollment that is lower than the cumulative number of births (due primarily to net out-migration and/or parents and children opting for nonpublic schools or participation in special programs).

The cumulative number of births recorded in the Wissahickon School District during calendar years 1993 through 2005 (which roughly corresponds to children in grades K-12 for the 2010-11 school year) was 4,955; the number of children enrolled in the district in this school year is 4,441, or 89.6 percent of the corresponding births—somewhat below the “neutral” figure of 100 percent. In 2000-01 the relationship of public school pupils to the sum of the births totaled 91.0 percent—the highest point during the period reviewed. In two of the three subsequent years the relationship dropped and the low point low point (86.8 percent) was recorded in 2003-04. In the seven most recent years five increases, one decrease, and one year without a change were recorded. The relationship of children in public school to the sum of the births in the appropriate years averaged 88.7 percent throughout the review period—88.6 percent for the period 2000-01 to 2005-06 and 88.9 percent for the period 2006-07 through 2010-11.

The number of children residing in the Wissahickon School District who were reported to be attending nonpublic schools (based only on children enrolled in home schools, charter

schools, and cyber schools plus just those in private/parochial schools who were transported by the district) in 2000-01 was 1,713 (34.5 percent of the corresponding births—its highest point during the period reviewed period reviewed). In 2010-11 there were 1,556 district children attending nonpublic schools—31.4 percent of cumulative births. In the interim years, the lowest proportion of district children attending nonpublic schools (29.9 percent) was recorded in 2007-08. The relationship of children in nonpublic schools to the sum of the births in the appropriate years—on average—was fairly stable. It averaged 31.6 percent throughout the review period—31.6 percent for the period 2000-01 to 2005-06 and 31.5 percent for the period 2006-07 to 2010-11.

Further insight with respect to migration patterns can be gained by analyzing the relationship between cumulative births and total district children reported to be enrolled in schools. In 2010-11, there were 5,997 district children attending public and nonpublic schools (as defined above). Based on these figures, the number of school-age children in the district was 121.0 percent of the number of births that occurred in the district during the corresponding years—well above the neutral figure of 100. Total public and nonpublic enrollments during the period 2000-01 through 2010-11 averaged 120.3 percent of cumulative births—120.2 percent for the period 2000-01 to 2005-06 and 120.4 percent for the period 2006-07 to 2010-11. The relationship of the school-age population to births was at its highest point during this period in 2000-01 (125.5 percent); its lowest point (117.0 percent) was in 2003-04.

The overall relationship between cumulative births and total reported public and nonpublic enrollments appears to be influenced by migration patterns, but it may also be affected by any changes over time in the way the number of nonpublic pupils is recorded as well as by any changes over time in the relative number of nonpublic children who are transported by the district to private/parochial schools. However, the figures presented are likely to represent a valid measure of the general relationship between cumulative births and public and reported nonpublic pupils during the period 2000-01 through the current school year—recognizing that the private/parochial figures are limited to those children transported by the district and other nonpublic pupils include just those involved in home schools, charter schools, and cyber schools. If figures on all nonpublic enrollments were available and factored in, the demonstrated relationship between total enrollments and cumulative births would likely be slightly higher. (See Table 4-2.)

Table 4-2

WISSAHICKON SCHOOL DISTRICT

Relationship of Cumulative Births to Public and Nonpublic
Enrollments in the Corresponding Years
 2000-01 to 2010-11

	Cumulative Births ^{1/}	WSD Enrollments		Nonpublic Enrollments ^{2/}		Total Enrollments ^{2/}	
		#	as a % of Cumulative Births	#	as a % of Cumulative Births	#	as a % of Cumulative Births
2000-01	4,964	4,517	↑91.0	1,713	↑34.5	6,230	↑125.5
2001-02	5,084	4,520	88.9	1,691	33.3	6,211	122.2
2002-03	5,157	4,596	89.1	1,552	30.1	6,148	119.2
2003-04	5,223	4,535	↓86.8	1,575	30.2	6,110	↓117.0
2004-05	5,184	4,546	87.7	1,558	30.1	6,104	117.7
2005-06	5,206	4,583	88.0	1,643	31.6	6,226	119.6
2006-07	5,158	4,554	88.3	1,631	31.6	6,185	119.9
2007-08	5,131	4,531	88.3	1,533	↓29.9	6,064	118.2
2008-09	5,023	4,483	89.2	1,670	33.2	6,153	122.5
2009-10	4,998	4,455	89.1	1,570	31.4	6,025	120.5
2010-11	4,955	4,441	89.6	1,556	31.4	5,997	121.0

1/ Cumulative births represents the sum of births for the 13-year period corresponding to the school year. For example, pupils in school year 2010-11 reflect births during the years 1993 through 2005.

2/ Includes district children enrolled in home schools, charter schools, and cyber schools, plus just those private/parochial school pupils who are transported by the district.

3/ Includes district children enrolled in public schools, home schools, charter schools, and cyber schools, plus just those private/parochial school pupils who are transported by the district. It should be noted that the overall relationship between cumulative births and total reported enrollments may be influenced not only by migration patterns but also by any changes over time in the way the number of children in nonpublic schools is recorded as well as any changes over time in the relative number of private/parochial pupils who are transported by the district.

Note: Highest point marked by ↑; lowest point marked by ↓.

SOURCE: Wissahickon School District

Changes in enrollments by grade within the public school system can reflect many factors in addition to migration; e.g., promotion policies, shifts to and from special classes, shifts to and from nonpublic schools and/or a full-time vocational-technical program, and withdrawals—particularly in the high school grades. However, any large migration would be reflected in a comparison of the number of pupils in corresponding grades over a period of years. In 2004-05 there were 1,029 pupils in grades 1-3 in the district. Three years later (2007-08) when the bulk of this group was in grades 4-6, the number was 1,050 (21 pupils or 2.0 percent higher than in 2004-05). In the current school year (three years later—when these pupils are in grades 7-9), the

number is 1,082—32 (3.0 percent) higher than in 2007-08, and 53 (5.2 percent) above the 2004-05 level. In 2010-11 the number of pupils in grades 4-6 totals 982—12 (1.2 percent) more than in grades 1-3 three years earlier.

In 2004-05 the number of pupils in grades 4-6 totaled 1,034; three years later when these children were in grades 7-9, the total was 1,100—up by 66 or 6.4 percent. When these children reached grades 10-12 in 2010-11, the number had fallen to 1,089—down by 11 or 1.0 percent from three years prior. This figure was still 55 pupils or 5.3 percent higher than in 2004-05, when these pupils were in grades 4-6. A decrease (20 pupils or 1.8 percent) was also recorded in the number of pupils in grades 10-12 in 2007-08 from the levels in the three lower grades three years earlier. (See Table 4-3.)

Another factor that can be an indicator of the pattern of future enrollments in a school district is the relationship between senior classes and the first grade classes that replace them in the following school year. For example, in the current school year 327 first graders replaced 364 seniors in the prior school year, producing a loss of 37 pupils or 10.2 percent. In Wissahickon, first grade classes were smaller than the senior classes they replaced in each of the past five years. During the first five years of this period there was an overall increase of 127 pupils (8.3 percent) between senior classes and the following years' first graders—an annual average gain of 25 pupils. During the most recent five years, the number of first graders was lower than the number of 12th graders in the prior year by 213 (11.9 percent), resulting in an average loss of 43 pupils per year—a noticeable reversal from the prior five years. (See Table 4-4 and Graph 4-1.)

Table 4-3

WISSAHICKON SCHOOL DISTRICT

Migration Reflected in Public School Enrollments, By Grade
2004-05, 2007-08, and 2010-11

<u>2004-05</u>		<u>2007-08</u>		<u>Change 2004-05 to 2007-08</u>		<u>2010-11</u>		<u>Change 2007-08 to 2010-11</u>		<u>Change 2004-05 to 2010-11</u>	
<u>Grade</u>	<u>Number</u>	<u>Grade</u>	<u>Number</u>	<u>#</u>	<u>%</u>	<u>Grade</u>	<u>Number</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>
-	-	1	313	-	-	4	324	11	3.5	-	-
-	-	2	325	-	-	5	332	7	2.2	-	-
-	-	3	<u>332</u>	-	-	6	<u>326</u>	<u>-6</u>	<u>-1.8</u>	-	-
-	-	Total				Total					
-	-	1-3	970	-	-	4-6	982	12	1.2	-	-
1	343	4	359	16	4.7	7	367	8	2.2	24	7.0
2	331	5	343	12	3.6	8	357	14	4.1	26	7.9
3	<u>355</u>	6	<u>348</u>	<u>-7</u>	<u>-2.0</u>	9	<u>358</u>	<u>10</u>	<u>2.9</u>	<u>3</u>	<u>0.8</u>
Total		Total				Total					
1-3	1,029	4-6	1,050	21	2.0	7-9	1,082	32	3.0	53	5.2
4	344	7	372	28	8.1	10	359	-13	-3.5	15	4.4
5	352	8	367	15	4.3	11	370	3	0.8	18	5.1
6	<u>338</u>	9	<u>361</u>	<u>23</u>	<u>6.8</u>	12	<u>360</u>	<u>-1</u>	<u>-0.3</u>	<u>22</u>	<u>6.5</u>
Total		Total				Total					
4-6	1,034	7-9	1,100	66	6.4	10-12	1,089	-11	-1.0	55	5.3
7	380	10	383	3	0.8	-	-	-	-	-	-
8	402	11	388	-14	-3.5	-	-	-	-	-	-
9	<u>352</u>	12	<u>343</u>	<u>-9</u>	<u>-2.6</u>	-	-	-	-	-	-
Total		Total									
7-9	1,134	10-12	1,114	-20	-1.8						

Table 4-4

WISSAHICKON SCHOOL DISTRICT

Relationship Between Senior Classes and
Entering First Grade Classes in the Following Year
 2000-01 to 2010-11

Senior Class		First Grade Class		Change	
Year	No. of Pupils	Year	No. of Pupils	Pupils	%
2000-01	311	2001-02	324	13	4.2
2001-02	290	2002-03	346	56	19.3
2002-03	312	2003-04	329	17	5.4
2003-04	309	2004-05	343	34	11.0
2004-05	311	2005-06	318	7	2.3
2005-06	349	2006-07	328	-21	-6.0
2006-07	361	2007-08	313	-48	-13.3
2007-08	343	2008-09	305	-38	-11.1
2008-09	380	2009-10	311	-69	-18.2
2009-10	364	2010-11	327	-37	-10.2



In-migration of total population in the Wissahickon School District is evident in each of the four decades reviewed, and it was most pronounced—by far—during the 1980s. In fact, that decade accounted for slightly more than one-half of the overall net migration recorded in the district during the period reviewed. The relationship between cumulative births and public school enrollments in the district suggest modest annual growth in migration in most of the years since the early part of the decade just ended. When reported nonpublic figures are factored in (based only on children enrolled in home schools, charter schools, and cyber schools plus just those in private/parochial schools who were transported by the district), the impact of in-migration is quite positive, and it, too, shows a modest growth in most of the years of the past decade. Analysis of the movement of children through the public school system during the past several years reveals noticeable annual net in-migration in the elementary grades and more modest net in-migration at the middle school level. In the high school grades, however, overall net out-migration has been recorded. As a result of migration, birth patterns, and other factors, first grade classes were larger than the prior

years' senior classes during the first five years of the decade just ended. However, a reversal has occurred and during each of the most recent five years first grade classes have been smaller than the senior classes they replaced. These relationships and indicators as well as a variety of others will be further explored in Chapter 5.