Unfulfilled Promise:

The Dimensions and Characteristics of Philadelphia's Dropout Crisis, 2000–2005

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EXECUTIVE SUMMARY

A young person in the United States who embarks on adulthood without a high school diploma faces a grim economic future: an annual income that is likely to be insufficient to support a family, a greater likelihood of long stretches of unemployment, and restricted opportunities for occupational advancement. Cities with large percentages of youth who lack high school diplomas suffer as well: they can take advantage of fewer economic development opportunities, garner less tax revenue, and experience higher social service costs, more crime, less civic participation, and high levels of concentrated and inter-generational poverty. A city of the 21st century cannot prosper when large numbers of its young people lack this basic academic credential.

Despite the serious individual and collective costs that result when youth fail to complete high school, until now we have not had a clear picture of how many students in the Philadelphia public schools earn their high school diplomas and how many drop out of school. Data are critical for assessing the numbers of dropouts and their characteristics, and ultimately for determining whether we are succeeding in our efforts to retain students in school and to reconnect dropouts with educational opportunities.

This Study

This report uses a unique set of data obtained from the Kids Integrated Data System (KIDS), which is housed at the University of Pennsylvania's Cartographic Modeling Laboratory. The KIDS system merges individual-level data on young people from the School District of Philadelphia and the city's social service agencies, including the Department of Public Health, the Department of Human Services, and the Office of Emergency Shelter and Services. The resulting de-identified data allow us to follow cohorts of students over multiple years, examining their educational outcomes as well as the predictors of graduation and dropout.




This report addresses three central sets of questions:

- How many students in grades 6 through 12 drop out of Philadelphia's public schools in a single year? What are the key characteristics of these students, including their age, grade, race/ethnicity, gender, type of school attended, and neighborhood of residence?
- What percentage of 9th graders graduates within four years, five years, or six years of starting high school? What has been the trend in these cohort graduation rates over the past 5 years? What are the trends in cohort graduation rates for males and females and for students of different racial/ethnic backgrounds?
- Which student characteristics, knowable or potentially knowable by school personnel and agency staff, can identify students as being at high risk of dropping out of high school?

Findings

Dropout During a Single School Year: 2003–2004

- During the 2003–2004 school year, approximately 6% of the students in grades 6–12 in the city's public schools (including charter schools) dropped out of school. An additional 4% of students in grades 6–12 were technically enrolled but were absent from school more than half the time; we call these students the "near-dropouts." In all, over 13,000 students became dropouts or near-dropouts during 2003–2004.
- Almost two-thirds of the students who dropped out of school in 2003–2004 were in grade 10 or lower; about one-third were in grade 9 or lower. However, there is no grade at which high school students are immune to dropping out: over one-third of the students who dropped out were in 11th or 12th grade. Despite being considerably younger than the legal school-leaving age, more than 500 students in grades 6–8 were officially listed as having dropped out of school.
- During 2003–2004, 20% of the Latino students at the city's publicly supported high schools were either dropouts or near-dropouts, as were 18% of African American students, 15% of White students, and 12% of Asian students. Males were more likely to be dropouts or near-dropouts than females. Despite differences in severity, high school dropout in Philadelphia is a serious problem in each of the above racial/ethnic groups, and it is a problem for both males and females.

Trends in Cohort Graduation Rates

- For cohorts of first-time freshmen who form the Classes of 2000 through 2005, the four-year ("on-time") graduation rates range from 45% to 52%. For the four cohorts for which we have six-year graduation data, the percentage of students earning a high school diploma ranges from 54% to 58%. If we include all of the dropouts from the Classes of 2000 through 2005, about 30,000 students who began 9th grade in Philadelphia's public high schools left without earning a diploma.
- In the six cohorts for which we have data, not a single racial or ethnic group had an on-time graduation rate greater than 71%. Consistent with the annual dropout rate for 2003–2004, Asian students were most likely to graduate on-time, followed by Whites, African Americans, and Latinos.
- For the Classes of 2000 through 2003, only about 40% of Latino males earned a high school diploma within six years; only about half of African American and White males finished high school; and about 65% of Asian males graduated. Among females, just over half of Latino females graduated, about 65% of African Americans and Whites graduated, and 75% of Asians earned a diploma.

Predictors of Dropping Out

- Two 8th grade factors gave students at least a 75% probability of dropping out of school: 1) attending school less than 80% of the time in 8th grade (that is, missing at least 5 weeks of school), and 2) receiving a failing final grade in mathematics and/or English during 8th grade. Of those 8th graders who attended school less than 80% of the time, 78% became high school dropouts. Of those 8th graders who failed mathematics and/or English, 77% dropped out of high school. Importantly, gender, race, age, and test scores did not have the strong predictive power of attendance and course failure.
- A second group of dropouts, who were not classified as at-risk in 8th grade according to our definition, were *at-risk 9th graders*. These students 1) attended less than 70% of the time during 9th grade, and/or 2) earned fewer than 2 credits during 9th grade, and/or 3) were not promoted to 10th grade on time. A ninth grader with just one of these characteristics (who was not at-risk in 8th grade) had at least a 75% probability of dropping out of school.
- About half of the dropouts in the city's public schools can be identified in 8th grade, prior to their entrance to high school. Eighty percent of the students who dropped out of school were either at-risk 8th graders or at-risk 9th graders.

- The probability of dropping out decreases dramatically for students who arrive at 10th grade on time after entering high school. It is more difficult to predict who will drop out among upper-grades students, suggesting that the factors that precipitate dropout may be more personal and idiosyncratic than those affecting dropout in earlier grades.

- Agency-involved students had especially high rates of high school dropout. Fully 90% of the students who had a juvenile justice placement during their high school years ultimately dropped out. About 70% of the students who had a substantiated case of abuse or neglect during the high school years, had a foster care placement, or who gave birth within four years of starting high school, became out-of-school youth.

Implications for Policy

- A broad-based coalition needs to be mobilized to meet the challenge of high school dropout in Philadelphia. This coalition needs to be able to sustain itself for the long term. Because the overwhelming proximal cause of dropping out in Philadelphia is failing in school and student disengagement, the public schools of Philadelphia must be the locus of the campaign to end the dropout crisis. But the school system alone cannot be expected to solve this problem. Getting adolescents to come to school and to work hard to succeed will require a substantial effort from community, as well as families.

- Along with continual improvements at the elementary school level and an expansion of early childhood education, it is necessary to have an integrated and coordinated effort to reform education in grades 6–12. During the onset of adolescence, substantial numbers of students begin to disengage from school, stop attending school regularly, and fail their courses. Because students who are at highest risk of dropping out are concentrated in the highest-poverty middle grades schools and high schools, these schools will require additional reforms, supports, and resources beyond system-wide efforts.

- Even the most effective school-based reforms will not prevent all students from dropping out of school. About 20% of Philadelphia's students drop out late in high school, when they are relatively close to obtaining their diploma. Moreover, it is more difficult to predict which students in the 11th or 12th grade are likely to drop out and, as a result, it is more difficult to target them with needed supports. An effective system of credit recovery, second chance schools, and alternative means of securing a high school diploma will be required.

- The agencies that provide social services to the city's youth need to be deeply involved in the effort to stop the dropout crisis in Philadelphia. Currently the adolescents who are in their care drop out in alarming numbers. For high school students who have been abused and neglected, are in foster care, or receive an out-of-home placement in the juvenile justice system, the probability of dropping out is 75% or even higher. Similarly, two out of three females who give birth within four years of the start of high school drop out. Social service agencies will need to determine how the resources they have at their disposal can be most effectively marshaled to help ensure that adolescents in their charge graduate from high school.

INTRODUCTION

What is the graduation rate in Philadelphia's public schools? How many students leave school without earning a high school diploma? What do we know about those who leave? And what can we do to keep students from dropping out of high school and re-engage in education those who do? The answers to these questions are of critical importance for the youth of Philadelphia, and ultimately, for the economic and civic health of the entire city. Unlike the industrial Philadelphia of the 19th century—or even the Philadelphia of the mid-20th century—ample employment opportunities are no longer available for individuals who have not earned at least a high school diploma (Brookings, 2003). A city of the 21st century cannot prosper when large numbers of its young people lack this basic academic credential.

A young person who has left high school without earning a diploma faces a grim economic future: an annual income that is unlikely to be sufficient to support a family, a greater likelihood of long stretches of unemployment, and restricted opportunities for occupational advancement (Rouse, 2005). Young people without high school diplomas are effectively blocked from post-secondary training opportunities needed for success in an information economy. Further, high school dropouts experience the social marginalization that arises from lacking an educational credential possessed by most of their fellow citizens. For the City of Philadelphia, large numbers of high school dropouts lead to fewer economic development opportunities as a result of the weak educational credentials of the workforce, less tax revenue, higher social service costs, more crime, less civic participation, and high levels of concentrated and inter-generational poverty (Junn, 2005; Moretti, 2005; Rouse, 2005; Waldfogel et al., 2005).

The question of how many students graduate from Philadelphia's public schools and how many drop out of school appears to be a simple one, but estimates of graduation and dropout rates have conflicted wildly. Standard and Poor's "School Matters" website, which provides data on school districts across the United States, lists the School District of Philadelphia's 2004–2005 graduation rate as 68.1%[1]; the School District of Philadelphia reported that the 2003–2004 graduation rate in Philadelphia's public schools was 63.1%[2]; and in June 2006, *Education Week* estimated that the 2002–2003 graduation rate was considerably lower, at 55.5%. In this report, we explore why these estimates are so different and propose some estimates of our own. *Yet, while the methodologies vary for calculating the specific dropout and graduation figure for Philadelphia, there is agreement on one central fact: Philadelphia has a dropout crisis.* Even the most optimistic estimates paint a disturbing picture in which large numbers of young people attending Philadelphia's public schools fail to graduate from high school.

Finding answers to the questions of how many students graduate, how many drop out of school, and why they drop out is critical to shaping a policy response. As we emphasize throughout this report, dropouts come in many shapes and sizes, figuratively speaking. Until we are clear about the many pathways to dropout—for example, how many students drop out shortly before graduation, how many leave school after having earned very few credits, how many have struggled academically for years, and how many have good grades and high test scores but were thrown off-track by an unforeseen life event, such as pregnancy—we will have difficulty crafting a set of interventions that meet the various needs of out-of-school youth in Philadelphia.

Data are critical for assessing the numbers of dropouts and their characteristics, and ultimately for determining whether we are succeeding in our efforts to retain students in school and to reconnect dropouts with educational opportunities. This report draws on KIDS (Kids Integrated Data System), a database infrastructure housed at the Cartographic Modeling Laboratory at the University of Pennsylvania. KIDS enabled us to analyze an exceptional set of merged data files, including data from the School District of Philadelphia, the Department of Public Health, and the Department of Human Services. These data enable us to follow students over time as they move through Philadelphia's public schools—or drop out of school. The data permit us to focus on students with particular characteristics, for example, students who drop out but eventually return to a public school, students who are served by Philadelphia's social service agencies, female students who have children, students who drop out in the 9th grade or before, or students who make it almost all the way through to the 12th grade but leave school before obtaining a diploma. We are also able to consider a single year in detail to examine who drops out and from which types of schools. In short, the KIDS data set provides a window onto the dropout crisis in Philadelphia with sufficient detail so that informed public policy can result.

This report has three chapters. The first chapter examines a basic question—*what are the high school graduation and dropout rates in Philadelphia's public schools?*—for which good data, including data for key racial/ethnic and gender subgroups, have been sorely lacking. This chapter shows how these rates have changed over time and how they vary by age, race/ethnicity, and gender, as well as by high school type and poverty level. We look in depth at a single school year (2003–2004) and also follow multiple cohorts of students as they progress through high school from the mid 1990s to the spring of 2005. The second chapter explores the characteristics of the students who drop out. Specifically, it examines pre-high school characteristics of dropping out and assesses which factors are most predictive. It looks at how students who drop out in the early grades of high school (9th and 10th grade) differ from students who drop out in the later high school grades (11th and 12th grade). Further, it shows the relationship between dropping out of high school and social service involvement (for example, foster care or juvenile justice placements), and for females, the relationship between having a child and leaving school without a diploma. The concluding chapter synthesizes the key findings and highlights implications for policy and practice.

CHAPTER 1: High School Graduation and Dropout Trends in Philadelphia

In this chapter, we use recent data from the School District of Philadelphia to provide basic information on high school completion: how many students graduate and drop out, demographic characteristics of graduates and dropouts, and graduation and dropout trends over time. We present several analyses, each of which provides a complementary picture about student progress through high school. When we combine these pictures, we develop a much more sophisticated image of graduation and dropout in Philadelphia. Before we present this analysis, however, we address two key methodological questions: Which is the best way to calculate graduation rates? And which students should be classified as high school dropouts?

Which Is the Best Way to Determine the Graduation and Dropout Rates?

The "best way" to determine rates of high school completion and non-completion involves two things: 1) high-quality data and 2) a method of calculating graduation and dropout that is appropriate to the question being asked. The "gold standard" for graduation and dropout calculations uses data about individual students that allow their progress through high school to be followed over time. These are the kind of data that are typically available to school districts and, increasingly, to states. Beginning in the 2006–2007 school year, for example, each student attending a Pennsylvania public school will have a unique, anonymous identification number that will allow the state to keep more accurate records of graduation and dropout.[3] The National Governors Association has issued a call for states to upgrade their data collection systems so that they can track individual students over time.[4]

Graduation rate calculation methods generally fall into one of two types: *annual rates* and *cohort rates*. The *annual rate* (sometimes called the "event rate") provides information on the number of students who graduate or drop out of school in a single year. When Pennsylvania reports a statewide dropout rate of 1.9% for students in grades 7 through 12, as it did for the 2003–2004 school year,[5] it is using an annual rate. In contrast, the *cohort rate* provides information about the graduation and/or dropout rate of a single cohort of students, for example, a group of students who all started 9th grade in a given year.

Both methods have their advantages and disadvantages. The annual method provides a window on the magnitude of the dropout challenge that a district or state faces in any given year. It can provide information, for example, on how many students might need a dropout recovery program or intervention. At the same time, the annual method has some drawbacks. It only provides information on the number of dropouts in a given year, and some of those dropouts may return to school the next year. In theory, if all of the dropouts who left a district in a given year were to return to school the next year and stay until they graduate, the district would have a high annual dropout rate even though 100% of its students ultimately earn a high school diploma. In practice, however, one of the drawbacks of the annual high school graduation rate is that it tends to make things seem better than they are. Assuming that many dropouts do not return to school, a district's consistent annual dropout rate of 10% means that each year the district loses 10% of its high school students. As a single cohort of freshmen passes through high school, it might lose 10% in Year 1, 10% in Year 2, and so on, until 40% of the cohort has dropped out by the end of four years.

The *cohort rate* (sometimes called the "status rate") corrects for some of the problems associated with the annual method. Calculating a cohort rate requires that a cohort be defined, usually either students in a particular grade or of a particular age, such as age 13.[6] This group of students is then tracked for at least four years to determine how many have graduated, how many are still enrolled in school, and how many have dropped out. In urban districts like Philadelphia, it is important to track cohorts for more than four years to get a good picture of the cohort graduation rate. As we show later in this report, a substantial subgroup of students who earn high school diplomas take more than four years to do so.

The cohort method, too, has drawbacks, one of the most serious being that it can be complicated to track individual students over multiple years. But in general, researchers and policymakers agree that the cohort rate provides better information than the annual rate about how well schools, districts, and states are doing in terms of graduation. For example, both Florida and Virginia, the two states identified by the National Governors Association as leading the way in calculating graduation and dropout rates, both calculate four-year graduation rates using the cohort method. The public arguments among researchers about how to best calculate the dropout rate are arguments about how the *cohort rate* is best determined (see Appendix 2 for a discussion of different methods of estimating the graduation rate).

Who Is a Dropout?

Deciding whether a student should be classified as not having completed high school is more complex than it may first appear. Most people could probably agree that a student who is over the school-leaving age (in Pennsylvania, 17 years) who formally withdraws from school, and who reports that she will work full-time without pursuing any additional education, has dropped out of high school. But how should we classify a student who has been sent to a juvenile justice facility that is outside the jurisdiction of the school district? What about a student who simply stops coming to school and for whom no further information is available? The choices that are made about whether students in these kinds of circumstances should be counted as high school dropouts can have a substantial effect on the graduation and dropout rates that are reported.

In the analyses for this report, we made decisions about coding students as "graduates," "dropouts," or some other category that accord with new guidelines from the National Governors Association. Our goal is to make our decisions and our reasoning transparent so that others can assess the quality of our decisions (for a detailed discussion of our coding, see Appendix 1).

In sum, we categorized students as graduates if they earned a regular high school diploma from the School District of Philadelphia. Because we use only school district records to track students' educational progress, we do not have information about students who may have dropped out of school and subsequently earned a GED. In any case, many economists suggest that the GED has less value in the labor market than a regular high school diploma (Cameron and Heckman, 1993; Boesel et al., 1998; Murnane et al., 2000).

We defined students as high school dropouts if they fell into one of the following categories:

- *Students who withdrew from the School District of Philadelphia to go into the workforce, the military, or Job Corps, or because they were pregnant or were needed to assist at home.* Some students who withdraw from school provide this kind of information about their plans for the future.
- *Students who did not formally withdraw from school but who were removed from the school rolls for non-attendance.* This category includes students who are under the legal school-leaving age but who have stopped attending school, have not given a reason for leaving, and cannot be located.
- *Students with incomplete information, namely a) those who were removed from the district rolls but are lacking an indication of why they withdrew (or were withdrawn) and b) those who have neither officially been removed from the rolls nor are listed as being enrolled. In essence, the second group of students has "vanished," with no indication of enrollment or disenrollment.* Our categorization of these students as high school dropouts is in accordance with the recommendation of the National Governors Association that students without information on their whereabouts be counted as dropouts[7] and the Pennsylvania Department of Education's instructions to districts on how to count dropouts.[8]
- *Students who were expelled from school.* Because it is unclear whether these students will be able to continue their education, we coded them as dropouts. Only a few students each year are expelled, however, so coding them one way or another does not make much difference in our estimates of graduation or dropout.

- *Students who were incarcerated in a juvenile justice facility not under the jurisdiction of the public schools.* Incarcerated students are perhaps the most difficult to assess. Pennsylvania's reporting guidelines for school districts call for students who are in detention centers *without* secondary educational programs to be classified as dropouts, while those in facilities with educational programs are not to be coded as dropouts even though they have left the school system.[9] However, the data we use for this report do not provide information on whether the facility has an educational program; for example, we have no information on whether the student was being held in an adult or juvenile facility. Further, because many students who are incarcerated never return to the public schools, it is reasonable to assume that a substantial percentage have not earned a high school diploma.

We classified as "incapacitated" any student who was deceased or was withdrawn from school because of mental or physical illness. In addition, for any student who was coded in district data as having transferred to a private school or to another public school district, we accepted the district's designation and classified them as "transfers" in our analyses. In order to get the best picture of the graduation and dropout rates among students who were a) without physical or mental impediments to obtaining schooling and b) not enrolled in another high school diploma-granting institution, we often exclude the "incapacitated" and "transfer" students from our subsequent analyses. Each analysis indicates which students are included.

What Happened to Philadelphia Students in 2003–2004? Dropout Rates Using the Annual Method

In this section, we examine data for the approximately 130,000 students who were enrolled in grades 6 through 12[10] in Philadelphia public schools, *including charter schools*, at any point during the 2003–2004 school year.

From September 2003 through June 2004, 26,224 students left the rolls of Philadelphia's public schools.[11] Of those who left, 41% (10,653 students) were graduating seniors. An additional 27% transferred to another school or school district.[12] Transferring to another educational institution was most common in the middle grades and in 9th grade; 70% of the transfers were in grades 6 through 9 when they left. Less than 15% of the students who were coded as transferring were in 11th or 12th grade. About one-half of one percent of the students were removed from the rolls for involuntary reasons such as illness.

The rest of the school leavers—more than 8,000 students or about 30% of all students in grade 6 through 12 who left during the year—exited the district without earning a diploma or giving any indication that they were transferring to a private school or another school district. Some of these students re-enrolled in the district in a subsequent school year, but most did not.

There is a great deal to learn about dropouts simply by looking at descriptive data from school district records. One instructive type of information is the particular explanation ("code") that the school provides about why the student is being removed from the rolls. Of the students classified as dropouts, less than 5% had withdrawal codes indicating that the student had formally withdrawn (e.g., "voluntary withdrawal" or "Job Corps"). Instead, two-thirds of the dropouts had a code indicating that they were over the compulsory school age and were being dropped from the rolls because of non-attendance. Twenty-two percent of the dropouts had a code of "whereabouts unknown," indicating that they were less than 17 years old but were not attending school and could not be located. While it is possible that the schools tended to under-use the "voluntary withdrawal" code, assigning instead the code indicating non-attendance, it is hard to imagine why that would be the case. We suggest that a more logical explanation is that *most dropouts do not announce that they are leaving school. They simply stop coming.*

When they leave school, *most of Philadelphia's dropouts have earned few credits toward graduation.* If the "ungraded" students are removed from the analysis,[13] almost two-thirds of the students who dropped out were in grade 10 or lower; about one-third were in grade 9 or lower (Table 1). It is also worth noting that more than 500 students in grades 6 through 8 were officially listed as having dropped out of school, despite being considerably younger than the legal school-leaving age.

Table 1

Grade Distribution of Official Dropouts, 2003–2004 School Year (Ungraded students not included)

Grade	*Percentage*
6th–8th	7.4%
9th	25.1%
10th	31.4%
11th	20.4%
12th	15.7%
Total	100%
n=7,441	

At the same time, it is clear that there is no grade at which high school students are immune to dropping out. Over one-third of the students who dropped out were in 11th or 12th grade. Among students who were in 11th grade in 2003–2004, 11% dropped out by the end of the school year. Notably, 8% of the high school seniors dropped out, when graduation would appear to be almost within reach.

Because Pennsylvania requires students to attend school until they reach their 17th birthday, it is not surprising that about two-thirds of the students who dropped out were at least 17 years old at the beginning of the school year (Table 2). An additional 21% were 16 years old in September 2003 and could have reached their 17th birthday before June 2004. Fully one-fifth of the dropouts—about 1,750 students in total, or enough to fill a medium-sized high school—were at least 19 years old at the beginning of the school year. It is also notable that 15% of those who were officially listed as having dropped out were no more than 15 years old. Some of these younger students ultimately return to school, and some even graduate, but the larger point is that students can and do stop coming to school before they are legally allowed to do so.

Table 2

Age Distribution of Dropouts, 2003–2004 School Year

Age	*Percentage*
15 years or less	15.02%
16 years	21.4%
17 years	27.1%
18 years	15.3%
19 years or older	21.2%
Total	100%
n=8,278	

In fact, some students effectively drop out of school months or even years prior to being listed as dropouts in school district records. *Dropouts come in two varieties: the "formal" kind and the "informal" kind.* In addition to the 8,278 students who officially became dropouts during the 2003–2004 school year, there were another 5,188 students who were technically enrolled but who came to school so infrequently during the year that they were more often absent than present. We call these students the *near-dropouts* and define them as students who attended school less than 50% of the time.[14] As was the case with the formal dropouts, the vast majority (about 70%) of the near dropouts were in 9th or 10th grade. But in contrast to formal dropouts, who tended to be at least 17 years old, most of the near-dropouts were 15 years old or younger at the start of the school year—too young to drop out of school officially. These students are an important group for schools to track and target for intervention. Without a change in their attendance behavior, they almost certainly become formal dropouts when they reach the legal school-leaving age, but until that point, schools still have enough contact with many of them that intervention may be possible to redirect them onto a path to graduation.

In sum, more than 13,000 students in grades 6–12 became out of school youth—that is, either dropouts or near-dropouts—during the 2003–2004 school year. Table 3 shows the distribution of enrollment statuses for students in 9th through 12th grades (who comprise the majority of dropouts and near-dropouts), as well as for the high school grades combined.[15] Among the 2003–2004 9th graders, for example, 81% were enrolled and attending school at least half of the time; an additional 10% were enrolled but attending less than half the time; and 8% dropped out of school during the year. Of all students who were enrolled in grades 9 through 12 during the year, 16% were either dropouts or near-dropouts, with 10% having dropped out and 6% being near-dropouts. An out-of-school population this large (about 11,000 students in grades 9–12), produced during just one school year, would fill at least seven medium-sized high schools. This fact points to the scale and seriousness of the high school dropout crisis in Philadelphia.

Among 9th and 10th graders, almost 20% of the students were dropouts or near-dropouts. While the percentages of dropouts or near-dropouts are smaller in 11th and 12th grade, even in these grades more than 10% of the students could be so designated.

Variation in Annual Dropout Rates by Race/Ethnicity and Gender

Table 4 shows the percentage of students in four major racial/ethnic groups who became dropouts or near-dropouts during the 2003–2004 school year. Within each group, the data are also presented by gender.

There are three key points to note in this table. First, *some racial/ethnic groups are at greater risk of leaving high school without a diploma.* Consistent with national data (Fry, 2003; Laird et al, 2006), and consistent with the cohort rates that we show in a subsequent section of this report, Latino students and African American students were more likely than Asian or White students to drop out of school. These students were also more likely to be near-dropouts. Overall, almost 20% of the city's Latino youth who were enrolled in public high schools at the beginning of the school year fell into one of these two dropout categories, as did about 18% of African American high school students. Because these two groups represent over three-quarters of the students in the public high schools, their elevated dropout rates mean that the sheer size of the out-of-school youth population in Philadelphia is quite large. The figures for Whites and Asians were approximately 15% and 12%, respectively—somewhat lower than those of Latinos and African Americans, but still quite high by almost any standard. It is important to remember that these are *annual dropout rates*; as we show later in this chapter, the *cohort dropout rates*—that is, the dropout rates for students who started high school at the same time—are much higher.

Within each racial and ethnic group, *males are considerably more likely than females to drop out of school but only somewhat more likely to be near-dropouts.* The greater tendency of males to drop out of school has been documented for decades in the United States and is apparent in recent national statistics (Rumberger, 1983; Greene and Winters, 2006). The pattern described above, with Latinos having the highest probability of dropout, followed by African Americans, Whites, and Asians, is repeated within in each gender category.

Although there are differences in high school dropout between racial and ethnic groups, and between males and females, the data also show clearly that *high school dropout in Philadelphia is a serious problem in each of the racial and ethnic groups we identified, and it is a problem for both males and females.* At the end of the school year, no racial or ethnic group could claim that more than 90 percent of the students who started the year were a) still enrolled in school and b) had attendance greater than the very low standard of 50%.

Table 3

Distribution of Enrollment/Attendance Status and Dropout Status, by Grade Level, 2003–2004 School Year

	All students in grades 9–12	*9th*	*10th*	*11th*	*12th*
Enrolled, attendance at least 50%	83.8%	81.2%	81.1%	85.4%	89.7%
Enrolled, near-dropouts	6.2%	10.4%	6.4%	3.5%	2.2%
Dropped out	10.0%	8.4%	12.5%	11.1%	8.2%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
n	68,731	22,098	18,685	13,668	14,280

Table 4

Dropout Rates, by Race/Ethnicity and Gender, 2003–2004 School Year

Race/ethnicity			
African American	*All Students*	*Males*	*Females*
Grades 6–12 (n=80,104)			
% who became dropouts	7.1%	8.3%	5.6%
Grades 9–12 (n=46,384)			
% who became dropouts	11.4%	13.3%	9.4%
% who were near-dropouts	6.3%	6.5%	6.2%
Total % dropouts or near-dropouts	17.7%	19.8%	15.5%
Asian	*All Students*	*Males*	*Females*
Grades 6–12 (n=6,214)			
% who became dropouts	4.9%	6.3%	3.5%
Grades 9–12 (n=3,932)a			
% who became dropouts	7.3%	9.2%	5.1%
% who were near-dropouts	4.6%	4.8%	4.3%
Total % dropouts or near-dropouts	11.8%	13.9%	9.4%
Latino	*All Students*	*Males*	*Females*
Grades 6–12 (n=15,990)			
% who became dropouts	7.1%	8.4%	5.8%
Grades 9–12 (n=8,827)			
% who became dropouts	12.1%	14.3%	9.7%
% who were near-dropouts	7.3%	7.6%	7.1%
Total % dropouts or near-dropouts	19.4%	21.8%	16.8%
White	*All Students*	*Males*	*Females*
Grades 6–12 (n=18,107)			
% who became dropouts	6.3%	6.9%	5.8%
Grades 9–12 (n=11,077)			
% who became dropouts	9.8%	10.7%	8.8%
% who were near-dropouts	4.8%	5.2%	4.3%
Total % dropouts or near-dropouts	14.6%	16%	13.1%

School Type and Dropout

Among students in grades 9 through 12, dropouts and near-dropouts are much more likely to be found in the city's neighborhood high schools and disciplinary schools than in special admissions ("magnet") schools or vocational schools. Table 5 shows the breakdown by school type for students who were in grades 9 through 12 (or who were classified as "ungraded") during the 2003–2004 school year and who attended neighborhood, vocational, special admissions, or disciplinary schools.

Table 5, *in and of itself*, is evidence neither for censure nor compliment for any particular school type. It certainly may be the case that some schools or types of schools, because of their size, mission, or dysfunctional climate, are extremely good at producing high school dropouts. At the same time, some types of schools are able to avoid dropout-prone students by screening applicants carefully before offering admission or by "returning" students to their neighborhood high schools when they under-perform; this is certainly true of the special admissions high schools such as Central or Girls. Further, the neighborhood high schools that serve students not admitted to the special admissions or vocational schools may simply be overwhelmed by the magnitude of the academic and personal challenges that these students bring with them. A study of the effectiveness of certain schools or school types at promoting graduation and discouraging dropout would require a sophisticated analysis with careful controls that is beyond the scope of this report.

Table 5

Annual Dropout Rates, by School Type, for Students in Grades 9–12 (and Ungraded), 2003–2004 School Year

	High School Type			
	Special Admissions ("Magnet")	*Vocational*	*Neighborhood*	*Disciplinary*
% who became dropouts	0.7%	2.9%	12.8%	36.1%
% who were near-dropouts	0.4%	2.0%	8.3%	9.1%
Total % dropouts or near-dropouts	1.1%	4.8%	21.1%	45.2%
Total n (all students)	6,573	4,836	43,810	4,143

Of all of the school types, special admissions schools have the lowest percentage of students who leave high school without graduating. Vocational schools also have a relatively low percentage of students who are dropouts or near dropouts. On average, neighborhood high schools—that is, large comprehensive high schools that serve primarily students from their surrounding geographic areas—had about 13% of their students drop out in 2003–2004. An additional 8% of students at neighborhood high schools were near-dropouts. *In total, then, about one-fifth of the students at neighborhood high schools who were enrolled at any point in the 2003–2004 school year did not attend school on a regular basis.*

Disciplinary schools—that is, schools that serve students who have been involved with the justice system or who need special assistance to work on their behavior—had the highest annual dropout rate of any of the school types. Given the serious challenges that students at disciplinary schools face, it is not surprising that the dropout rates at these schools are higher than at the other school types. But because the mission of these schools is to educate effectively some of the school district's most challenging students, the extremely high dropout rates in the disciplinary schools is also cause for concern. Thirty-six percent of the students at disciplinary schools became dropouts during the year, and an additional 9% were near-dropouts. As we show in Chapter 2, the high annual dropout rate for these students—70% of whom are male, and 90% of whom are minority—contributes to a cohort dropout rate in disciplinary schools that is very close to 100%.

Table 6

Annual Dropout Rates, by School Percent Low Income, for Students in Grades 9–12 (and Ungraded), 2003–2004 School Year

	Moderate Poverty Less than 40% low income students	*High Poverty low 40%–74% low income students*	*Very High Poverty 75% or more low income students*
% who became dropouts	5.9%	8.9%	16.8%
% who were near-dropouts	4.2%	5.6%	8.9%
Total % dropouts or near-dropouts	10.0%	14.6%	25.7%
Number of schools in this income category	13	8	24
Number of students at these schools	17,563	10,842	29,630

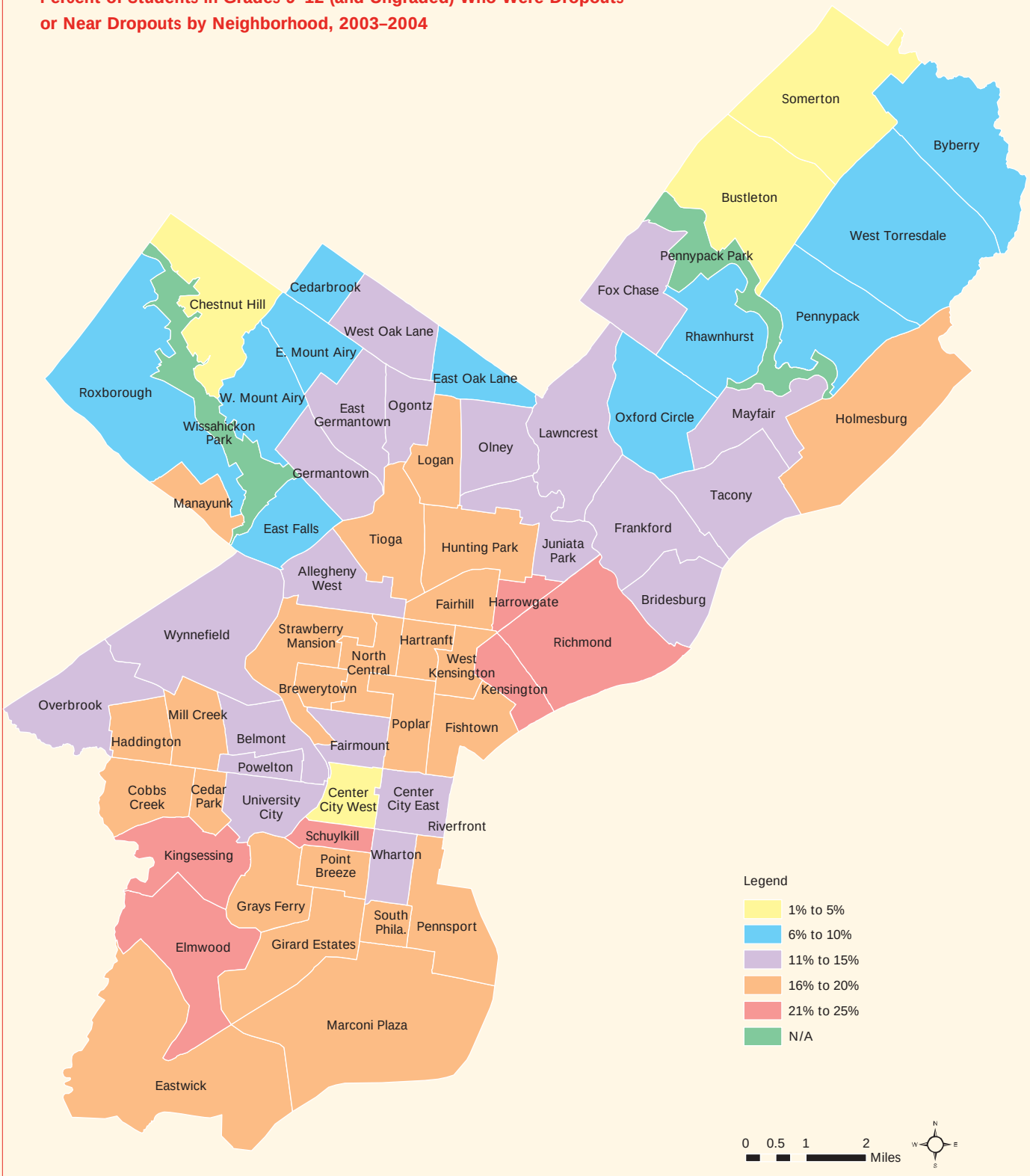
Table 6 provides another perspective on the types of high schools with the most severe dropout and near-dropout problems. While none of Philadelphia's public high schools can be described as serving an affluent student population, Table 6 shows that schools with the highest concentrations of low income students also have the highest percentages of students who have dropped out of school or who attend infrequently. Among schools serving a student population with a moderate degree of poverty (less than 40% low income students[16]), 10% of the students became dropouts or near dropouts, while at the schools serving a very high poverty population (75% or more low income students), more than one-quarter of the students were dropouts or near-dropouts. *Although these very high poverty schools (24 in all) serve half of the city's 9 through 12 graders, they contribute 71% of the dropouts and 66% of the near-dropouts.*

Annual Dropout Rates by Neighborhood

To some extent, nearly every neighborhood in Philadelphia experiences the problem of their young residents becoming dropouts or near-dropouts. Figure 1 shows that neighborhoods in which more than 15% of high school students were official dropouts or near-dropouts are clustered primarily in South Philadelphia, Southwest Philadelphia, North Philadelphia, and some areas of West Philadelphia. In most of Center City and neighborhoods like Wynnefield, Germantown, Frankford, Olney, and Mayfair, the percentage of students who are official dropouts or near-dropouts ranges from 10% to 15%. The northeast and northwestern areas of the city have the lowest percentages of students that are official or near-dropouts (generally below 10%). *It is important to note that, despite neighborhood differences in the severity of the dropout crisis, at least 10% of students in nearly every neighborhood in Philadelphia are dropouts or near-dropouts.*

Figure 1

Percent of Students in Grades 9–12 (and Ungraded) Who Were Dropouts or Near Dropouts by Neighborhood, 2003–2004



Trends in Cohort Graduation and Dropout Rates: The Classes of 2000 Through 2005

Much of the debate among policymakers and researchers focuses on how best to estimate a *cohort graduation rate* (for a discussion of these debates and methods, see Appendix 2). Cohort graduation rates enable us to determine the percentage of students in a given group—for example, all students who started high school in a particular year—who have earned a high school diploma within a specified period of time (for example, within four years or five years of entering 9th grade).

For this analysis, we consider only students attending non-charter public high schools and examine trends in Philadelphia's cohort graduation rates in two different ways.[17]

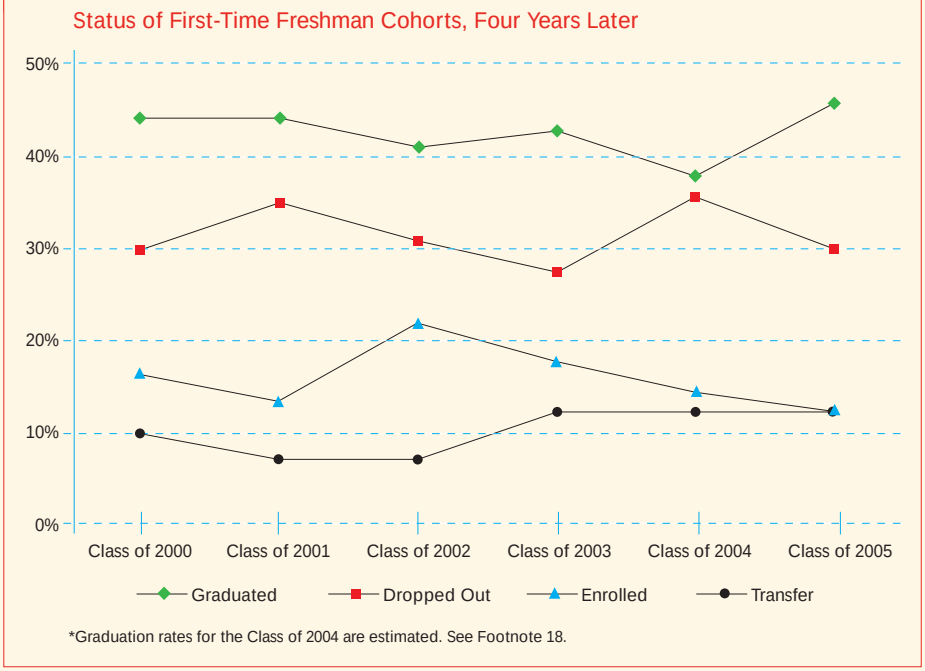
First, we consider just students whom we know to be first-time freshmen (that is, we can observe that they were in 8th grade in the Philadelphia public schools in one year and in 9th grade in Philadelphia during the next year). We then determine the percentage of these students who graduated from the Philadelphia public schools within four years, five years, and/or six years of starting high school, depending on how many years of data are available for the cohort. We call the cohorts we construct in this way the *first-time freshman cohorts*.

Second, we conduct a set of comparison analyses in which we define the freshman class as any 9th grader not known to be a repeater—that is, not known to have been in 9th grade previously—as well as any new student entering the Philadelphia public schools in subsequent years who was in an on-track grade. For example, the Class of 2001 analysis includes any 9th grader not known to be a 9th grade repeater in 1997–1998; any 10th grader transferring into the district during 1998–1999; any 11th grader transferring into the district in 1999–2000; and any 12th grader entering in 2000–2001. While it is possible that we have captured in this set of cohorts students who are repeater 9th graders transferring into the district, or students in the upper grades who were already off-track to finish high school in four years when they entered the district, the advantage of this type of analysis is a broader picture of all of the high school students in Philadelphia, including transfers. We refer to the cohorts in this second analysis as the *freshmen and transfer cohorts*.

The First-Time Freshman Cohorts

Four years after beginning high school, the majority of Philadelphia's first-time freshmen were no longer enrolled in the city's public schools. Figure 2 shows the educational status of first-time freshmen in six cohorts, four years after entering high school.[18] In each of the cohorts, approximately 10% of the students were listed in school district records as transferring to a private school or to another school district.[19] Between 12% and 20% of the cohorts remained enrolled in the public schools at the end of four years (that is, technically still trying to earn a high school diploma), and as we show later, some of those students are able to graduate in subsequent years. Among *all students* who began 9th grade together (including those who ultimately transferred to other schools), between 41% and 46% graduated from a Philadelphia public high school four years later. Likewise, 27% to 35% of the students had dropped out within four years of starting high school. There are no strong trends in the data, with the possible exception of the increase in students transferring to other

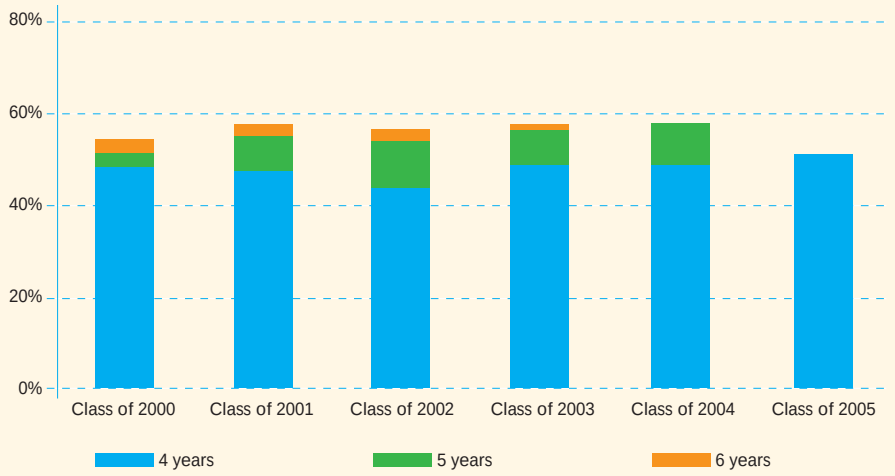
Figure 2*



*Graduation rates for the Class of 2004 are estimated. See Footnote 18.

Figure 3*

Percentage of Students Graduating in Four, Five, or Six Years for Six Cohorts of First-Time Ninth Graders



*Graduation rates for the Class of 2004 are estimated. See Footnote 18.

schools, perhaps as a result of the increase in the number of charter high school options.[20] The highest on-time graduation rate is for the Class of 2005. At 46%, it is about 3 percentage points greater than the average for the preceding five years.

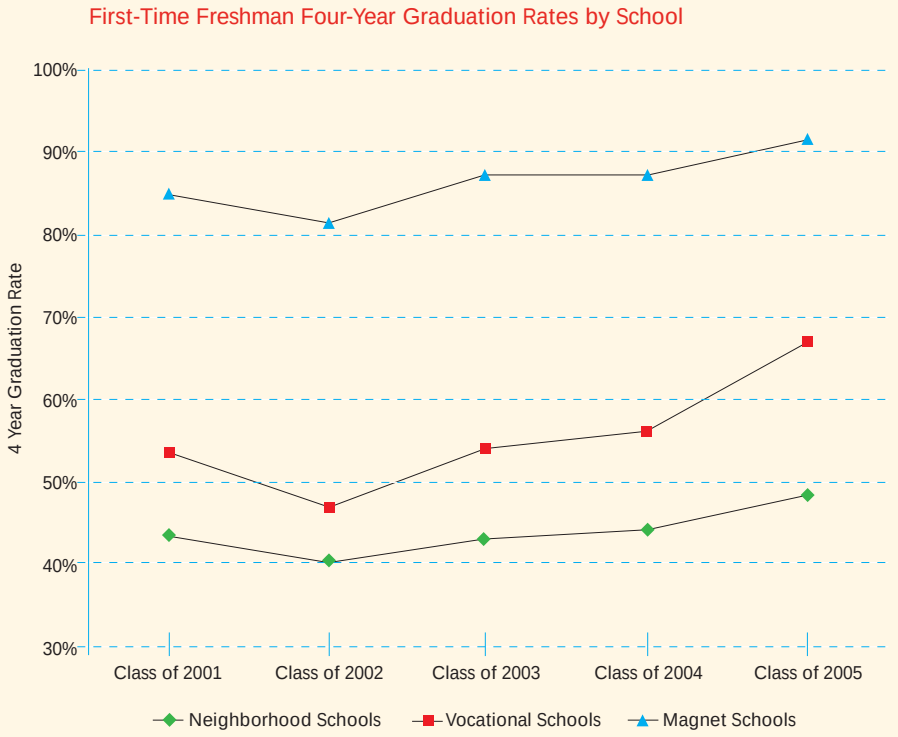
Figure 3 shows the on-time, five-year, and six-year graduation rates for students who did not transfer to other districts or to private schools or who were not removed from the system due to death or serious illness. For the four cohorts for which we have six-year graduation data, the percentage of students earning a high school diploma ranges from 54% to 58%. The percentage of students who had earned diplomas by the six-year mark is higher than the four-year percentage by about 8 percentage points to 10 percentage points. Generally, the increase from the four-year to the five-year graduation rate is greater than that from the five-year to the six-year rate. After six years in high school, while some students continue to earn diplomas, the probability of graduating is very low.

The Class of 2005—the most recent cohort for which we have data—is the only first-time freshman cohort in our analysis in which at least 50% of the students graduated in four years. Their on-time graduation rate (52.4%) is about four percentage points higher than the average for the preceding four cohorts. As Figure 4 shows, this gain in graduation rates occurred across magnet, vocational, and neighborhood high schools.[21] Vocational high schools saw the greatest upswing, and magnet high schools crossed the 90% threshold for the first time in the years for which we have data. Notably, even with a small gain, the on-time graduation rate in Philadelphia's neighborhood high schools remained below 50%.

Among recent cohorts, the Class of 2005 is tied for the highest percentage of students listed as transferring out of the district to other schools, and it also has the fewest students still enrolled in school at the end of four years. Thus, it is possible that the gains in the four-year graduation rate could reflect a higher percentage of students graduating on time, rather than improvements in the total number of students who will graduate within six years; it will be important to see whether the gains in the on-time graduation rate carry over to its five- and six-year graduation rates. Further, graduation rates generally fluctuate somewhat from year to year, so it will be important to see whether the Class of 2006 is able to continue the higher graduation rate of the previous cohort.

It is important to celebrate small successes, such as the higher on-time graduation rate for the Class of 2005—after all, it is very difficult to change large institutions like public school districts and to create the social conditions in families and communities that encourage students to stay in school. At the same time, it is also necessary to face just how far Philadelphia has to go. A six-year graduation rate of 58% (as was the case for the Class of 2003) means that 42% of the class had not yet graduated and probably would not graduate from Philadelphia's public schools. Put differently, about 5,000 Philadelphia students from the Class of 2003 alone embarked on adulthood without the minimal academic credential of a high school diploma. *If we include all of the students from the Classes of 2000 through 2005, about 30,000 students who began 9th grade in Philadelphia's public high schools dropped out without earning a diploma.*

Figure 4*



*Graduation rates for the Class of 2004 are estimated. See Footnote 18.

The Freshmen and Transfer Cohorts

The *first-time freshman* cohorts that we describe above and that we primarily focus on in this report include only students who attended 8th grade in the Philadelphia public schools and who were promoted to 9th grade. As a result, these cohorts do not include students who transferred into the Philadelphia public schools in 9th grade or later. One advantage of using first-time freshman cohorts is that we have information on attendance and academic achievement in the middle grades that we can use in an analysis of the predictors of dropout (see Chapter 2). However, a disadvantage of defining the cohort in this way is that we exclude some students who entered the School District of Philadelphia after 8th grade and spent their entire high school careers in the public schools, for example, students who transferred into the public school system to attend special admissions schools like Central or Girls.

The *freshmen and transfer* cohorts that we examine below include any 9th grade student not known to be a 9th grade repeater (and therefore assumed to be a first-time freshman) and any student transferring into the district in a grade that would make him or her on-time to graduate. Table 7 shows the on-time, five-year, and six-year graduation rates for these freshmen and transfer cohorts, with the first-time freshman cohorts for comparison.

Table 7*

Cohort Graduation Rates Calculated in Two Ways

	Freshmen and Transfer Cohorts				First-Time Freshman Cohorts		
Class of	*On-time graduation rate*	*5-year graduation rate*	*6-year graduation rate*	*Total n for cohort*	*On-time graduation rate*	*5-year graduation rate*	*6-year graduation rate*
2001	50.7%	58.7%	61.0%	20,706	47.9%	55.8%	57.8%
2002	49.3%	59.1%	61.4%	20,986	44.2%	53.6%	55.9%
2003	53.8%	62.1%	63.0%	21,029	48.3%	55.7%	57.9%
2004	48.0%	56.7%	n/a	22,382	42.9%	50.9%	n/a
2005	54.0%	n/a	n/a	22,068	52.3%	n/a	n/a

*Graduation rates for the Class of 2004 are estimated. See Footnote 18.

In all cases, the graduation rates for the freshmen and transfer cohorts are three to four percentage points *lower* than those for the first-time freshman cohorts. A full analysis of what drives the differences in these rates is beyond the scope of this report. However, some part of the explanation may lie in the fact that the freshmen and transfer cohorts are numerically dominated by students who transfer into the district's neighborhood high schools. Many of these students who transfer into the district are 9th graders, but substantial numbers of the transfers are in the upper grades. We do not have access to data on the academic histories of these students prior to their entry into the Philadelphia public schools, however, we can observe that they have lower graduation rates than students at neighborhood high schools who did *not* transfer into the district after 8th grade. It is possible that many of the "transfer-in" students experienced academic difficulty at their prior high schools and transferred to Philadelphia public schools for a second chance.

Most importantly, what we learn from a comparison of these different ways of defining cohorts is that the graduation rates are not radically different. The rates are within a few percentage points of each other. Therefore, in the following sections of this chapter, we will continue to base our analyses on the *first-time freshman cohorts* for consistency. Further, our analysis of the predictors of dropping out, presented in the next chapter, requires that we have data on students prior to entering high school.

Trends in the "Graduation Gap": Cohort Graduation Rates by Gender and Race/Ethnicity for First-Time Freshman Cohorts

Gender

In each of the *first-time freshman* cohorts, a higher percentage of female than male students graduated from high school on-time. As Figure 5 shows, females have had at least a 10 percentage point advantage in on-time high school graduation in these cohorts, and in the Classes of 2000 through 2003, their advantage was almost 15 percentage points.[22]

The gender gap was narrowest for the Class of 2005. Of all of the cohorts, the Class of 2005 had the highest on-time graduation rates for both males and females, but males had a particularly large percentage point increase. Their graduation rate, 47%, was six percentage points higher than that of any other cohort. The "lines of best fit," which show the linear trends in the data, also show a modestly upward trend for males.

The gender gap narrows somewhat when graduation rates are measured at the six-year mark. But in none of the cohorts for which we have data does the female graduation advantage fall below 12 percentage points (see Table 8 for a summary of cohort graduation rates by gender).

Figure 5

Gender Differences in Graduation: Percentage of First-Time 9th Graders Graduating in Four Years for Six Cohorts

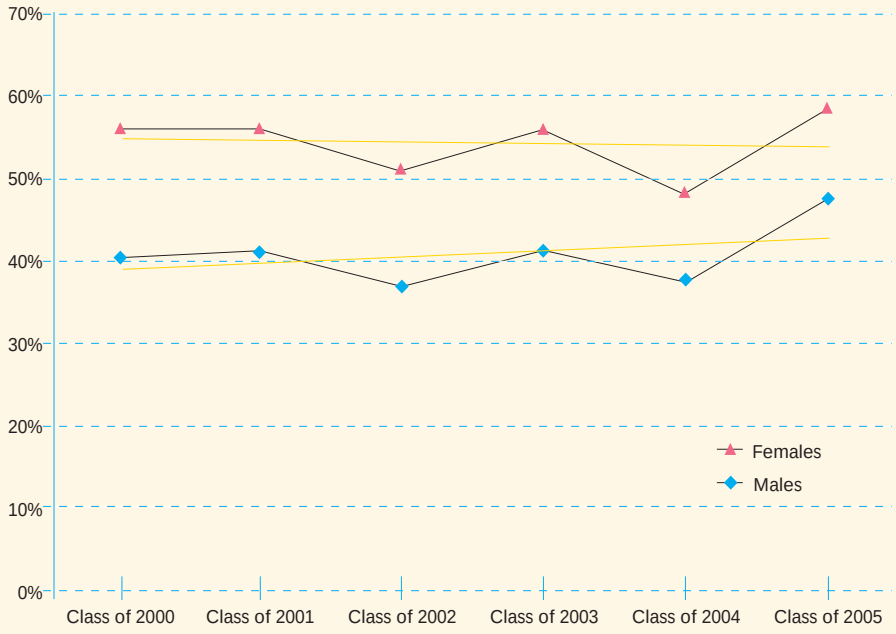


Table 8*

On-Time, 5-Year, and 6-Year Graduation Rates for 6 First-Time Freshman Cohorts, by Gender

	Males			*Females*		
Class of	*On-time %*	*5-year %*	*6-year %*	*On-time %*	*5-year %*	*6-year %*
2000	40.9%	43.8%	47.2%	55.5%	57.4%	60.0%
2001	41.2%	50.2%	52.2%	55.6%	62.5%	64.6%
2002	37.1%	47.0%	49.7%	51.5%	60.5%	62.4%
2003	41.2%	49.4%	51.9%	55.9%	62.6%	64.5%
2004	37.6%	46.3%	not yet available	48.2%	55.6%	not yet available
2005	47.0%	not yet available	not yet available	58.3%	not yet available	not yet available

*Graduation rates for the Class of 2004 are estimated. See Footnote 18.

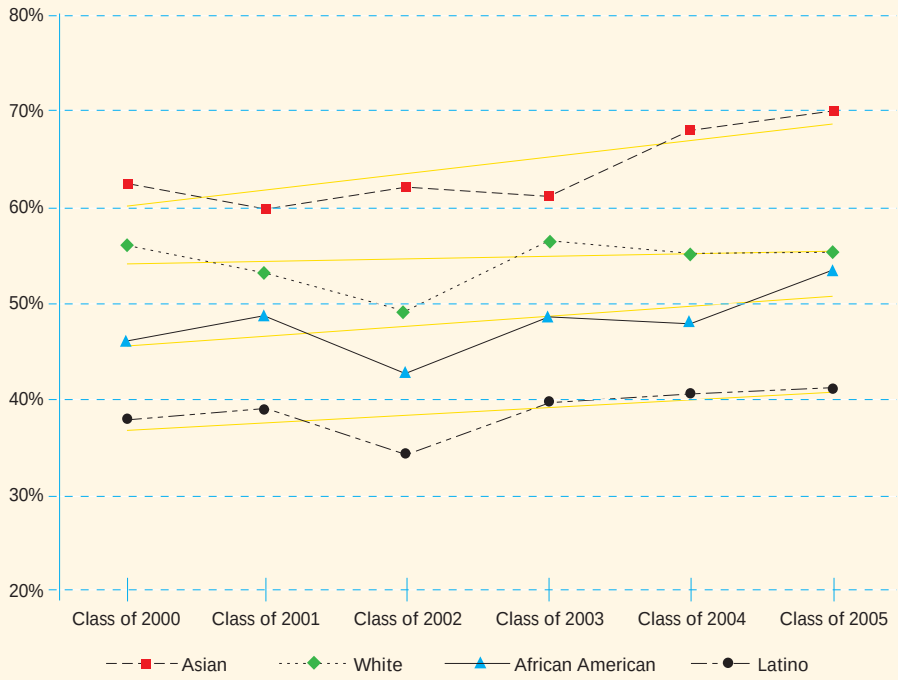
Race and ethnicity variation

In the six *first-time freshman* cohorts for which we have data, not a single racial or ethnic group had an on-time graduation rate greater than 71%. Consistent with the annual dropout rate for 2003–2004, Asian students were most likely to graduate on-time, followed by Whites, African Americans, and Latinos. Figure 6 breaks down the on-time graduation rates by race or ethnicity, for six cohorts of first-time freshmen. The figure also includes the linear trend for each group.

A shorthand description of the on-time graduation rates prior to the Class of 2005 is that Asian graduation rates tended to be in the 60-percent range; White rates were in the 50-percent range; African American rates were in the 40-percent range; and Latino rates were in the high 30-percent and low 40-percent range. The linear trend for the six cohorts is modestly upward for Asian, African American, and Latino students, driven primarily by the sharp increase in on-time graduation rates for the Class of 2005. African Americans in the Class of 2005, in particular, experienced a substantial increase in on-time graduation rates, breaking the 50% mark for the first time in the six cohorts for which we have data. The trend for Latino students has been very modestly upward. While graduation rates for Whites show some year-to-year variation, the on-time graduation trend for this group is approximately flat.

Figure 6*

On-Time Graduation Rates for Males in Six Cohorts: Percentages by Race/Ethnicity



*Graduation rates for the Class of 2004 are estimated. See Footnote 18.

Driven by the increase in African American and Latino graduation rates, the on-time graduation gap between White students and these two groups was narrower for the more recent cohorts than for the earlier cohorts. In fact, on-time graduation rates for Whites and African Americans in the Class of 2005 were within two percentage points of each other. However, the sharp increase in the percentage of Asian students graduating on-time in the Class of 2005 meant that the gap between Asians and other racial or ethnic groups was wider at the end of the time period under consideration than at the beginning. As Figure 6 shows, on-time graduation rates bounce around from year to year, and it may be the case that the gap has narrowed again for the Class of 2006.

Table 9

Six-Year Graduation Rates for Four Cohorts, by Race/Ethnicity

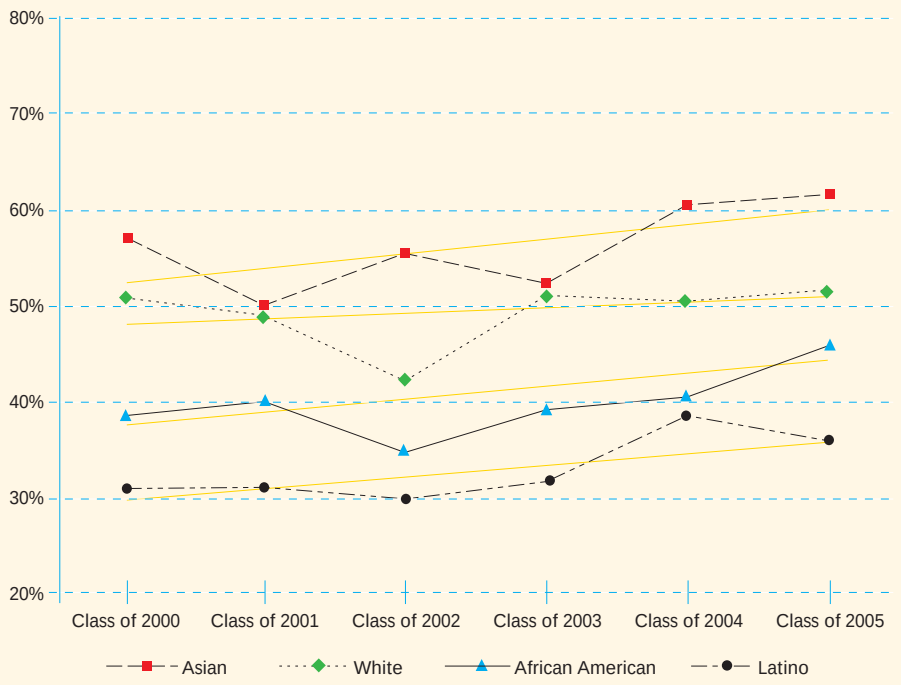
	African American	*Asian*	*Latino*	*White*
Class of 2000	52.4%	66.7%	42.3%	59.2%
Class of 2001	59.0%	66.8%	47.5%	60.5%
Class of 2002	57.0%	70.6%	44.0%	56.3%
Class of 2003	58.2%	70.2%	47.8%	61.7%

Within each racial or ethnic group, additional students earn diplomas within 5 or 6 years after starting high school. Table 9 shows the six-year graduation rates for the four cohorts for which we have these data. The percentage-point increases in graduation rates from four years to six years are greatest for African American and Latino students: typically, graduation rates for these groups increase by about 10 percentage points. It is notable that African American and White graduation rates become quite similar at the six-year mark; in fact, a slightly higher percentage of African Americans than Whites in the Class of 2002 earned high school diplomas.

For the cohorts for which we have six-year graduation data, *more than half of the Latino students did not earn a high school diploma in six years; about 40% of White and African American students did not graduate; and about 30% of Asians did not complete high school.*

Figure 7*

On-Time Graduation Rates for Males in Six Cohorts: Percentages by Race/Ethnicity



*Graduation rates for the Class of 2004 are estimated. See Footnote 18.

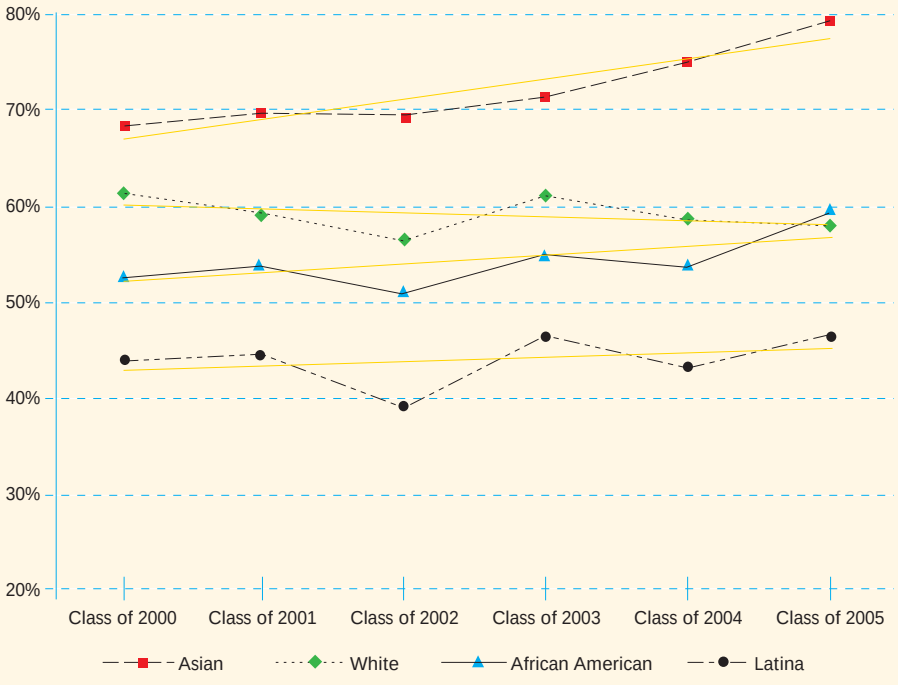
The intersection of race/ethnicity and gender

In the six *first-time freshman* cohorts for which we have on-time graduation data, the linear trend in on-time graduation has been modestly upward for males in each of the four racial/ethnic groups we examine even though the on-time graduation rate for Latino males declined somewhat from 2004 to 2005. Figure 7 shows that on-time graduation rates for Asian males moved from 56% for the Class of 2000 to 62% for the Class of 2005; for African American males, the comparable figures are 38% and 47%; and for Latino males, 31% and 37%. The trend for White males, although slightly positive, is flatter than for other groups, with 51% graduating on-time in 2000 and 52% in 2005.

For females, the graduation trends are flatter than those for males, with the exception of Asian females, who widened their already considerable advantage during the period from 2000 to 2005 (Figure 8).

Figure 8*

On-Time Graduation Rates for Females in Six Cohorts: Percentages by Race/Ethnicity



*Graduation rates for the Class of 2004 are estimated. See Footnote 18.

In the Class of 2005, 79% of Asian females graduated on-time, nearly 20 percentage points above the next-highest groups—African American females and White females—who graduated at rates of 60% and 59%, respectively. The Asian female on-time graduation rate was 33 percentage points above that of Latina females, 46% of whom graduated on time. It is important to note that while the linear trend is approximately flat (or in the case of Whites, slightly negative) for females in all groups except Asians, African American females in the Class of 2005 had higher on-time graduation rates than their counterparts in the previous five cohorts.

Despite the lack of any substantial improvement in graduation rates for females during the years under consideration (with the exception of Asian females), the gender gap continues to exist within each racial/ethnic group. For some cohorts, that gap is quite large. For example, in the Class of 2005, which had some of the smallest graduation gaps, African American females had an on-time graduation rate that was 13 percentage higher than African American males; for Latinos, the female advantage was 9 percentage points; for Whites, 7 points; and for Asians, an astounding 17 percentage points.

The within-race gender graduation gap typically narrows somewhat but does not disappear when we consider six-year graduation rates. Table 10 shows six-year graduation rates by race/ethnicity and gender for the four cohorts for which we have these data. Among African Americans, females "out-graduated" males by between 13 and 15 percentage points; for Asians, the difference was between 7 and 15 percentage points; for Latinos, between 9 and 14 percentage points; and for Whites, between 7 and 11 percentage points.

This table also identifies some sobering facts about six-year graduation rates in recent cohorts. In these four cohorts, only about 40% of Latino males earned a high school diploma within six years; only about half of African American and White males finished high school; and about 65% of Asian males graduated. Among females, just over half of Latino females graduated, about 65% of African Americans and Whites graduated, and 75% of Asians earned a diploma. While it is true that *some* students earn diplomas within 7 or 8 years after starting high school, the seven- and eight-year rates are not dramatically different from the six-year rates.

In 2006, these students are mostly in their mid-twenties, and as we document in the next chapter, many have started families. They are in the unenviable position of needing to support themselves and their children without a basic academic credential: the high school diploma. In the next chapter, we examine some of the predictors of high school dropout with the intent of helping schools and parents to identify students at highest risk of leaving school without a diploma and to help youth-serving institutions—schools and social service agencies—plan strategies to reconnect out-of-school youth with education.

Table 10

Six-Year Graduation Rates for Four Cohorts, by Race/Ethnicity and Gender

	Class of 2000	Class of 2001	Class of 2002	Class of 2003
African American				
Male	45.5%	52.4%	50.4%	50.2%
Female	60.6%	65.9%	64.2%	64.6%
Female advantage (percentage point)	15.1	13.1	13.8	14.4
Asian				
Male	63.5%	59.5%	64.1%	63.2%
Female	70.7%	74.3%	76.2%	75.0%
Female advantage (percentage point)	7.2	14.8	12.1	11.8
Latino				
Male	38.2%	42.0%	39.3%	41.0%
Female	47.2%	53.6%	49.8%	54.7%
Female advantage (percentage point)	9.0	11.6	10.5	13.7
White				
Male	54.8%	55.8%	51.0%	58.6%
Female	64.5%	66.0%	62.2%	65.3%
Female advantage (percentage point)	9.7	10.2	11.2	6.7

CHAPTER 2: Who Does Not Graduate from High School? The First-Time Freshman Class of 2000

Over the past several decades, scholars have developed a large body of literature identifying predictors of dropping out of high school. Many of the predictors have been demonstrated so often, in so many different studies, that they are widely considered to be settled findings. For example, it is well-known that, in the United States, males, lower-income students, members of racial or ethnic minority groups, those with lower academic achievement, and students who are older than the typical student in their grade (usually the result of being held back in elementary school) are more likely than students without these characteristics to leave high school without graduating (Rumberger, 2004). There is also a general consensus among scholars that dropping out of school is the culmination of a process of disengaging from the academic or social aspects of school, or both; students who ultimately drop out tend to give "warning signals," such as attending school less frequently or letting their grades slip (Finn, 1989; Newmann et al., 1992; Wehlage et al., 1989). Finally, there is growing evidence that many dropouts can be identified prior to entering high school (Alexander et al., 1997) and that the rocky transition to 9th grade often aggravates academic problems that students have been accumulating over their school years (Roderick and Camburn, 1999).

In this report, we take a slightly different approach, examining factors that are knowable about students by school personnel or by staff at social service agencies. These factors could be used to identify students who are at greatest risk of dropping out based on what happened to similar students in earlier cohorts. The variables that we examine are gleaned from student records kept by the public schools and the social service agencies with which some of the students are involved.

The Hazard of Dropping Out Within Eight Years of Starting High School

To understand who does not graduate, we employ an analytical method known as *hazard analysis*. The idea behind this type of analysis is simple: given that a student has reached a certain point in his or her education, we ask what the probability ("hazard") is of not graduating. Specifically, we ask the following questions:

What is the probability of not graduating, given that:

- A student is a first-time freshman?
- A student has reached 10th grade?
- A student has reached 11th grade?
- A student has reached 12th grade?

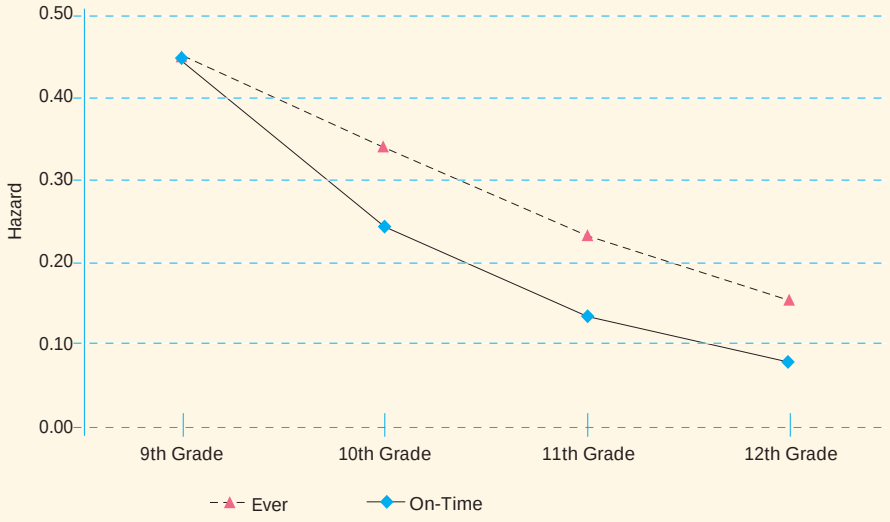
In this case, it is important to note that when we say "10th grade," we do not mean simply "the second year in which a student is enrolled in high school." Rather, we refer to those students who have earned enough credits to be classified by their school as 10th graders.

This type of analysis is important for a better understanding of who drops out and why they drop out because although the majority of students who drop out of high school do so when they are still in 9th or 10th grade, there is a substantial subgroup of students who leave school in 11th or 12th grade, when graduation would seem to be around the corner. Our motivation in examining students who drop out at different points in their high school careers is to see whether there are distinct differences between "early-grade leavers" and "late-grade leavers." From a policy and intervention point-of-view, such information is critical to tailoring programs that will serve students' unique needs. A student who leaves school at age 17 with almost no credits toward graduation will need a different sort of program that will enable him or her to earn a high school diploma from a student who leaves at the same age lacking just a few credits.

For simplicity's sake, we use only the *first-time freshman Class of 2000* in this analysis. Further, we use an eight-year dropout rate rather than a six-year rate; by the end of eight years after starting high school, almost every student has exited the district in one way or another. We have no reason to believe that the general patterns and relationships observed in the Class of 2000 data would be appreciably different for any of the other cohorts for which we have data (even though the overall levels of graduating or dropping out may be different, as Chapter 1 demonstrates).

Figure 9

The Hazard of Dropping Out: Two Hazard Functions for the Class of 2000



Without question, the probability of dropping out of school is greatest for 9th graders. Figure 9 plots two *hazard functions*. The first, represented by the dashed line, indicates the probability of dropping out for a student who was ever promoted to a particular grade—that is, he was ever that grade regardless of how many years it took him to get there. The second, represented by the solid line, indicates the probability of dropping out for a student who arrived at 10th, 11th, or 12th grade on-time—that is, a student who never spent more than one year in 9th, 10th, or 11th grade. Because our cohort is defined as all identifiable first-time 9th graders, all students have, by this definition, arrived at 9th grade on time.

For example, of the 13,393 members of the Class of 2000 who did not transfer out of the district or exit the cohort through death or illness, 8,674 (or 65%) were promoted to 10th grade on time. Of these 8,674 students, 2,183 dropped out, yielding a *hazard probability* of .25 (2183/8674). Not all of the students who made it to 10th grade on time subsequently were promoted to 11th grade on time; in fact, only 7,118 did. This 11th grade group had a hazard probability of .13 (946/7118).

As Figure 9 shows, the probability of dropping out of school decreases with each grade. For 9th graders, the hazard rate was .45 (the same as the 8-year dropout rate); for students in the cohort who ever were promoted to 10th grade, the rate was .34; for those who made it to 11th grade, .23; and for those who got to 12th, the rate was .16—about one-third the rate of the 9th grade group. For those who arrived at the upper grades on time, the hazard rates were lower: .25 for 10th, .13 for 11th, and .08 for 12th. The on-time hazard rates are lower because students who arrive at a grade on time are a more academically select group than those who take at least one more year to arrive at the same grade.

While the probability of dropout decreases in the upper high school grades, it does not go away entirely. Among those who were ever promoted to 11th grade, for example, almost one-quarter left school without a diploma. And among those who became 12th graders—within a few credits of graduation—16% dropped out of school. These data remind us that schools, parents, and youth-serving agencies need to be vigilant about keeping students on-track to graduation regardless of their grade.

Identifying Students at Highest Risk of Dropping Out

Forty-five percent of the first-time 9th graders dropped out of school but, of course, 55% did not. Which factors heighten the probability that a first-time 9th grader ultimately will drop out of high school?

In this analysis, we examine the predictive power of factors that are known—or could be known—by school and agency personnel, as well as by parents. We begin by examining information that is knowable about students when they are in 8th grade: school attendance, report card grades, test scores, age, and demographic factors such as gender and race/ethnicity. We continue by assessing which factors among 9th graders and upperclassmen are most predictive of dropout. We do not argue that these particular variables are the "root causes" of dropout, which involve complex issues related to the student's academic history, family and school environment, community factors, and individual personality. For example, "poor grades" is a factor that may be directly linked to dropping out of school; researchers sometimes call these kinds of factors *proximal variables*. But the "root cause," which produces the low grades, may be more *distal*—for example, an undiagnosed learning disability or a family situation that makes it difficult for a child to concentrate on schoolwork. Proximal factors are relevant to our analysis, however, because they serve as signals that a child has a heightened probability of leaving high school without a diploma.

Which 8th grade factors are strong predictors of dropout?

For this analysis, we examine 8th grade data for our entire *first-time freshman cohort* that made up the Class of 2000; by definition, these students had attended Philadelphia public schools during the 1995–1996 school year. Eighth graders in this cohort who had lower attendance, weaker test scores, who failed core academic courses, were overage for their grade, and/or who were male were more likely to drop out of school. Each of these factors exerted a statistically independent effect on the odds of dropping out. However, while each of these factors contributed something (in a statistical sense) to dropping out, we were most interested in factors that were strongly predictive of dropping out.

We identified two factors from 8th grade that gave students at least a 75% probability of dropping out of school: 1) attending school less than 80% of the time in 8th grade (that is, missing at least 5 weeks of school), and 2) receiving a failing final grade in mathematics and/or English during 8th grade. Of those 8th graders who attended school less than 80% of the time, 78% became high school dropouts.[23] Of those 8th graders who failed mathematics and/or English, 77% dropped out of high school. Importantly, gender, race or ethnicity, age, and test scores did not have the strong predictive power of attendance and course failure.

Clearly, there are numerous factors that contribute to the risk of dropping out. But in this analysis, we define *"at-risk 8th graders"* as those who attended less than 80% of the time and/or who failed mathematics and/or English in 8th grade. *Fifty-four percent of the dropouts in the Class of 2000 were at-risk 8th graders according to this definition, even though they made up only 34% of the entire cohort. These data indicate that about half of the dropouts in the city's public schools can be identified in 8th grade, prior to their entrance to high school.*

In fact, a separate analysis of a cohort of middle grades students in the Philadelphia public schools during the 1996–1997 school year shows that many of the students who became dropouts could be identified as early as 6th grade using similar data on

Table 11

Percentage of Students At-Risk in 8th Grade and Percentage of At-Risk 8th Graders Who Dropped Out, by Key Categories, Class of 2000

	% of students in this category who were at-risk 8th graders	*% of at-risk 8th graders in this category who dropped out*
African American	35.1%	74.1%
Asian	15.8%	83.8%
Latino	40.8%	77.3%
White	27.6%	78.4%
Females	31.4%	70.3%
Males	35.6%	79.8%
13 and under	27.7%	70.4%
14 and over	53.0%	84%

attendance and course grades (Balfanz and Herzog, 2006). These data suggest that for a substantial group of dropouts, academic trouble and disengagement from school has been building for years.

Who were the *at-risk 8th graders*? Table 11 shows the percentage of students in key categories (race/ethnicity, gender, and age) that met our definition of being at-risk in 8th grade. Among Asian students, about 16% were defined as at-risk, along with 28% of Whites, 35% of African Americans, and 41% of Latino students. About one-third of both males and females fell into this category. More than half of the students who were overage for 8th grade (defined here as 14 years or older at the start of the school year) could also be so classified. The dropout rates for the at-risk 8th graders in these groups are all at least 70%, and some are as high as 84%.

Freshmen who attended 8th grade less than 80% of the time and/or failed 8th grade mathematics or English are concentrated in certain types of public high schools in the city (Table 12). The special admissions magnet schools, which accept students on the basis of previous academic achievement, have by far the lowest percentage (about 6%) of these at-risk students. In contrast, about one-quarter of the freshmen at the city's four vocational schools were at-risk 8th graders, and across the city's neighborhood high schools, more than one-third of the students had either missed at least 5 weeks of school in 8th grade and/or failed 8th grade math and/or English. In general, neighborhood high schools in the lowest-income areas had the highest proportions of at-risk 8th graders, *for example, about half of the incoming freshmen in the Class of 2000 cohort at Strawberry Mansion High School, Benjamin Franklin High School, Gratz High School, and West Philadelphia High School were at-risk 8th graders in the way we have defined them.*

By the end of the first year of high school, one-fifth of the students who were at-risk in 8th grade had effectively dropped out of school—that is, they were either classified by the school district as official dropouts, or they were still enrolled but attending less than half of the time (and in any subsequent school year before being listed as a dropout, they never attended more than half the time). More than half of the students at-risk in 8th grade had effectively dropped out by the end of their third year in high school. Further, most of these students accumulated few credits toward graduation when they attended high school. More than one-third of the students who were at-risk in 8th grade were never promoted beyond ninth grade, and more than half were not promoted beyond 10th grade.

Table 12

Percentage of Incoming Freshmen At-Risk in 8th Grade, by School Type, Class of 2000

	Percent of incoming freshman at-risk in 8th grade
Special admissions magnets	5.7%
Vocational	24.5%
Neighborhood	37.6%
Disciplinary	83.3%

Ninth grade: The rocky transition to high school

Ninth grade is a treacherous year for students in urban districts (Roderick and Camburn, 1999; Legters et al., 2002). A second group of dropouts, who were not classified as at-risk in 8th grade according to our definition, were knocked off-track by their first year of high school. We call these students the *at-risk 9th graders* and define them as those who 1) were not at-risk in 8th grade and 2) who attended less than 70% of the time during 9th grade and/or 3) earned fewer than 2 credits during 9th grade and/or 4) were not promoted to 10th grade on time.[24] A ninth grader with just one of these characteristics (who was not at-risk in 8th grade) had at least a 75% probability of dropping out of school.

About 14% of the Class of 2000 cohort could be characterized as *at-risk 9th graders*, and of these students, about three-quarters did not finish high school, a percentage that is very close to that of the at-risk 8th graders. Fourteen percent of the at-risk 9th graders had already effectively dropped out by the end of their first year of high school; a total of 29% had dropped out by the second year of high school; and about half had left by the end of the third year. About 30% of the at-risk 9th graders never were promoted beyond 9th grade; about 50% were never promoted beyond 10th grade.

Who were the *at-risk 9th graders*? Table 13 presents breakdowns by key groups. Higher proportions of Latino students than students of other racial/ethnic backgrounds fall into the at-risk 9th grader category, as do males and those who were 15 or older at the start of their freshman year. The final column in the table shows the percentage of students in these key groups who were either at-risk in 8th grade or 9th grade according to our definitions. The percentages are striking: about 60%

Table 13

Percentage of Students At-Risk in 9th Grade and Combined Percentage of At-Risk in 8th or 9th Grade, by Key Categories

	% of students in this category who were at-risk 9th graders	% of students in this category who were at-risk 8th graders or at-risk 9th graders
African American	16.6%	51.7%
Asian	14.5%	30.3%
Latino	21.3%	62.1%
White	14.6%	42.2%
Females	15.3%	46.7%
Males	18.1%	53.8%
14 and under at beginning of 9th grade	16.5%	44.2%
15 and over at beginning of 9th grade	17.4%	70.4%

of Latinos, 50% of African Americans, 40% of Whites, and 30% of Asians were at-risk. More than half of the males, and close to half of the females, were at-risk. And 70% of those who were at least 15 years or older at the start of the school year had one or more of the risk factors we have identified.

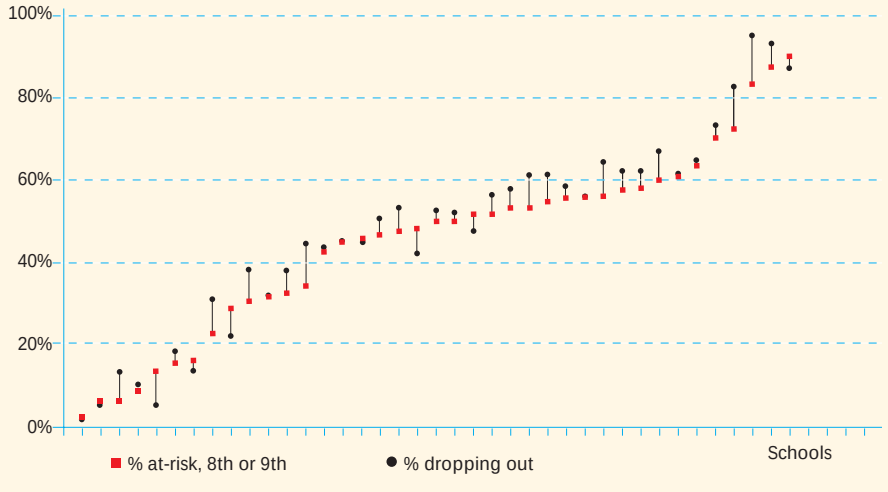
Eighty percent of the students who dropped out of school were either at-risk 8th graders or at-risk 9th graders, in the way we have defined them. Given this statistic, it is not surprising that when we break down the data by school (that is, by the high school attended during the 9th grade) we find that the percentage of the cohort who dropped out closely tracks the percentage of students in the cohort who were either at-risk in 8th grade or 9th grade. Figure 10 presents in a graph the close correspondence between these two figures. Each school is represented by a vertical line. In most cases, the percentage of students at-risk in 8th or 9th grade in the Class of 2000 was greater than the percentage of students dropping out, a reminder that some of the at-risk students completed high school despite the odds.

The data in Figure 10, in and of themselves, are not evidence that particular high schools are especially good at producing dropouts—or that they are powerless to reduce the number of dropouts because of the academic weaknesses that entering students bring with them. How students perform in high school, and ultimately whether they drop out, is the result of the interaction of factors operating before high school and students' experiences during high school. *What we are saying is that, given our description of the risk factors in recent cohorts, the vast majority of potential dropouts can be identified—and perhaps targeted for intervention—at the start of high school.*

In fact, many at-risk 9th graders who are running into trouble can be identified as early as the end of the first marking period of the freshman year. For example, of the at-risk 9th graders who had an overall attendance rate for the year of less than 70%, almost half (49%) attended school less than 70% of the time during the first marking period. And 80% had attendance rates of less than 70% during the first and/or second marking periods. These data, along with similar recent findings from Chicago (Allensworth and Easton, 2005), suggest that high schools need not wait until the end of the year to identify a large percentage of their dropouts—data from 8th grade plus the information from the first and/or second marking period will suffice.

Figure 10

By High School: Percentage of Dropouts and Percentage At-Risk in 8th or 9th Grade, Class of 2000



Predicting Dropout Among Upper-Grades Students

While four out of five students who leave school without a diploma have experienced substantial academic difficulty during 8th and/or 9th grade, or demonstrated their disengagement from school by being absent frequently, about 20% of the students in the Class of 2000 who dropped out of high school did not have any of these risk factors. Further, there are some students who were at-risk in 8th grade who defied the odds and reached the upper high school grades on time.

In this section, we shift gears a bit to identify predictors of dropout for students who arrive at 10th grade, 11th grade, and/or 12th grade on-time. For the Class of 2000, that means that we examined the group of students who were in 10th grade in the 1997–1998 school year; the group of students who were 11th graders in 1998–1999; and the students who were seniors in 1999–2000. The overarching question of the analysis in this section is: which factors predict dropout among students who appear to be on-track to an on-time high school graduation?

When the focus shifts to sophomores, juniors, and seniors who have been promoted to these grades on time after entering high school, it becomes much more difficult to find strong predictors of dropping out. Table 14 presents factors that result in at least a *50% probability* of dropping out of school in at least one of the upper high school grades. The factors that we assessed for this table include age, gender, race or ethnicity, 8th grade math and reading scores, school attendance, credits earned during the year, out-of-home juvenile justice placement, and (for females) giving birth during the year. *Only the factors that produce at least a 50% probability of high school dropout are represented in the table.* Note that a 50% probability of dropout is a considerably lower threshold than the 75% cutoff we used to determine at-risk status in 8th grade or 9th grade; the only factor that gave on-track students at least a 75% probability of not earning a diploma within 8 years was experiencing an out-of-home juvenile justice placement.

We find that there are several factors that predict dropout for students who have reached 10th grade on time. Students who scored extremely low on the reading section of their 8th grade standardized test—in this case, at the 2nd grade or below on the Stanford Achievement Test—had at least a 50% chance of dropping out. Notably, however, math test scores could not meet our 50% cutoff for any of the years, and reading scores could not meet the cutoff for students who arrived at 11th or 12th grade on time.

It is notable that while on-time 10th graders who attended school less than 80% of the time had over a 50% probability of dropping out, on-time 11th graders had to attend less than 60% of the time to reach this probability, and among on-time 12th graders only those with less than 30% attendance had a greater likelihood of dropping out than graduating. An explanation for the declining attendance threshold may be that the students who arrive at 11th and 12th grade on time are a more select group that includes individuals who have learned to manage their absences so that they can still earn credits despite weak attendance.

Table 14

Factors Associated with Being More Likely to Drop Out Than to Graduate, for Three Sets of On-Time Students

	10th grade on-time	11th grade on-time	12th grade on-time
Test scores	8th grade reading scores at the 2nd grade level or below	--*	--*
School attendance	Attendance less than 80% during 10th grade	Attendance less than 60% during the year	Attendance less than 30% during the year
Credits earned	Earning fewer than 5 credits during 10th grade	Earning fewer than 5 credits during 11th grade	Earning fewer than 3 credits during 12th grade
Birth (for females)	Had a baby during the year	--*	--*
Juvenile justice	Experiencing an out-of-home juvenile justice placement during this year	--**	--**
Total n of students	8,694	7,120	7,474

*Does not meet the 50% threshold for this grade.

**Only one student reached this grade on time and experienced a juvenile justice placement during the year.

In each year, the number of credits earned is a good predictor of whether the student will drop out of school. Among on-time 10th and 11th graders, students who earned fewer than 5 credits during the year had a higher probability of dropping out than graduating within eight years of starting high school. Among 12th graders, it is only those who earn fewer than 3 credits during the year who have more than a 50% probability of dropping out; seniors may not need to earn 5 credits in order to graduate and, if they do, they may be more likely to return for another year to acquire the classes they need to graduate.

We find two non-academic factors that also give students more than a 50% probability of dropping out of high school. Of the 104 young women in the Class of 2000 who reached 10th grade on time but who give birth to a baby during the school year (or following summer), 55% left high school without graduating. However, the 141 on-time 11th graders and the 135 12th graders who gave birth during the year or who had ever had a baby by that point had relatively high probabilities of graduating (70% or above). Finally, we also find that students who had a scrape with the law and were assigned by the courts to an out-of-home juvenile facility dropped out of high school at very high rates. In this case, of the 411 on-time 10th graders who had one of these placements during 10th grade (or during the previous summer), 93% did not earn a high school diploma from the School District of Philadelphia.

Table 15

Social Service Agency Contact After Starting High School, for Students Who Dropped Out of School

	Percent of all dropouts	*Percent of all graduates*	*Percent of all students**
Substantiated case of abuse or neglect	2.8%	.89%	1.8%
Foster care placement	7.4%	2.0%	4.5%
Juvenile justice placement (all students)	14.4%	1.3%	7.2%
Juvenile justice placement (males only)	22.6%	2.2%	12.8%
Gave birth within 4 years of starting high school (females)	32.8%	9.7%	18.7%
Gave birth within 5 years of starting high school (females)	41.4%	15.2%	25.5%
Number of students (male and female)	6,053	7,296	13,393

*including those still enrolled in school

Non-Academic Predictors of Dropout

The vast majority of the Class of 2000 who dropped out of school struggled academically and/or attended infrequently, sometimes prior to entering high school, sometimes after entering high school, and sometimes both. Some of these students also had contact with the city's social service agencies and/or gave birth to at least one child. Table 15 shows the percentage of students who had a substantiated case of abuse or neglect[25] after starting high school, a foster care placement,[26] a placement in a juvenile justice facility,[27] or who gave birth in Philadelphia within four years of starting high school. The percentages for dropouts are presented, along with percentages for graduates and dropouts, for sake of comparison.

Students who dropped out of school were more likely to have given birth to a child and/or to have had contact with social service agencies. Even among the dropouts, however, relatively few—less than 3%—had a substantiated case of abuse or neglect during their high school years. Less than 10% of the dropouts had a foster care placement. However, close to one-quarter of the males who dropped out had been placed in a juvenile justice facility for some period of time after starting high school. One-third of the young women who dropped out of school had a baby within four years of starting high school, and 40% had a child within five years.

Table 16

Educational Outcomes for Agency-Involved Youth in Philadelphia, Class of 2000

	Percent dropping out	*Percent graduating*	*N of students in this condition*
Substantiated case of abuse or neglect	71.3%	27.4%	237
Foster care placement	75.2%	24.6%	597
Juvenile justice placement (all students)	90.1%	9.5%	965
Gave birth within 4 years of starting high school (females)	68.3%	31.5%	1,262

While just a minority of the dropouts had this kind of contact with social service agencies during high school, of those who *did* have contact with these agencies, the majority left high school without earning a diploma. For students with each type of agency contact and for those who gave birth within specified time periods, Table 16 shows the percentage that dropped out and the percentage that graduated. Fully 90% of the students in the Class of 2000 who had a juvenile justice placement ultimately left high school without earning a diploma. About 70% of the students who had a substantiated case of abuse or neglect during their high school years, had a foster care placement, or who gave birth within four years of starting high school became out-of-school youth.

It is important to be clear that these high rates of dropping out of school do not necessarily mean that contact with these social service systems *caused* these students to drop out, nor does it imply that pregnancy, birth, or juvenile justice placements preceded dropping out of school. But the data do highlight the magnitude of the challenge facing the city's social service agencies as they attempt to support students through adolescence to earn their high school diploma. The educational supports provided to the adolescents involved with the City of Philadelphia's social service agencies are currently insufficient to stem the tide of agency-involved youth who embark on adult life without a high school diploma.

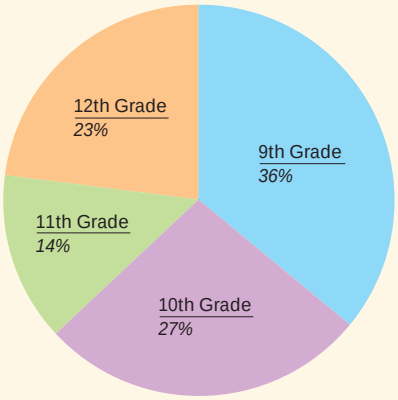
Re-engaging Students with School: The Class of 2000 in June 2004

The previous sections have made clear that there are different pathways to dropping out. While the risk of dropping out is greatest when students are in 9th grade, some students drop out when they are just a few credits away from graduation. In this section, we examine characteristics of students who dropped out from the perspective of what it might take to re-engage dropouts with school and help them to earn their high school diplomas.

One of the clear lessons of this chapter is that the majority of dropouts have earned relatively few credits toward graduation. As Figure 11 shows, 36% of the students who dropped out were in 9th grade when they left school, and an additional 27% were 10th graders. Approximately one-third of the students were in 11th or 12th grade when they dropped out of school. As a result, re-engaging these youth in school will require different kinds of opportunities. Students who are 17 or 18 years old when they drop out of school and who still need to earn three or four school years' worth of credits in order to earn a high school diploma are unlikely to be well-served by traditional high school programs, or even by non-traditional programs, offered in the afternoon or evening that require several years of classwork. Instead, they may need programs that allow them to earn high school credits in a more expeditious way.

Figure 11

Highest Grade of Students Who Dropped Out, Class of 2000



Other cities—Portland, Boston, and New York City among them—currently have a broad array of these types of options for students wishing to return to school. In addition, the School District of Philadelphia has opened a number of small schools for youth over age 17 who have few high school credits. These schools are a strategic part of the overall high school reform agenda. Slots in these schools are being expanded annually.

Many of the dropouts with few credits have not demonstrated the academic skills needed to succeed in high school. The most recent standardized test data that we have for these students is from their 8th grade year,[28] and students may have experienced some academic advances during their time in high school, making these data an underestimate of their academic skill when they dropped out. Nevertheless, it is instructive to see that many students who dropped out as 9th or 10th graders had a grade equivalent of 5th grade or below on the SAT-9 reading and/or mathematics tests when they were in 8th grade and that the vast majority scored below grade level (Table 17). In order to enable these students to produce high school-level work to earn a diploma, high school completion programs will need to help a large proportion of dropouts develop the reading comprehension skills and middle grade mathematical knowledge assumed by high school level work.

It is important to remember, however, that a substantial subgroup of students dropped out when they were not far from high school graduation. These students also scored higher on the standardized math and reading tests in 8th grade than the 9th and 10th grade dropouts did, and they are more likely to be candidates for post-secondary education. These students, too, need a program tailored to their needs. An example of a program that works with such students is the Gateway to College Program, which allows students who 1) are within 10 credits of high school graduation and 2) score at the 8th grade level or above on an adult education test to earn high school and community college credits simultaneously. This model is based on one at Portland Community College and has been replicated in several cities, including Philadelphia. Dual enrollment legislation at the state level in Pennsylvania was also specifically designed to include this population of youth.

Table 17

Grade Equivalents on 8th Grade SAT-9 Reading and Math Tests, for Three Groups of Students, Class of 2000

	Dropped out in 9th grade		*Dropped out in 10th grade*		*All 8th graders*	
	% at this Reading level, 8th grade	*% at this Math level, 8th grade*	*% at this Reading level, 8th grade*	*% at this Math level, 8th grade*	*% at this Reading level, 8th grade*	*% at this Math level, 8th grade*
5th grade or below	57.9%	48.5%	49.5%	43.1%	34.4%	30.6%
6th–7th grade	20.4%	35.1%	22.7%	36.6%	22.4%	33.9%
8th grade or above	21.7%	16.4%	27.8%	20.3%	43.2%	35.6%
n	1,321	1,056	1,199	1,078	11,987	11,164

CONCLUSION

By looking in depth at a single year, 2003–2004, and by following multiple cohorts of students as they progress—and all too often, fail to progress—through high school in Philadelphia, we have been able to establish a clear and detailed picture of high school dropouts and graduates in Philadelphia. This information provides a starting point for informed public policy and the formulation of an effective response to the dropout crisis in Philadelphia.

Synthesis of Key Findings

Dropout and graduation rate in Philadelphia

After four years in high school, 46% of the Class of 2005 had graduated, 30% had dropped out, 12% were still enrolled in school, and 12% had transferred to a private school or another school district. Once we remove from the analysis students who transferred to private schools or other school districts or who left the district due to illness or death, we find that during the period 2000–2005, Philadelphia's on-time graduation rate has hovered from a little below to a little above 50%. Up to 10% of students take an extra year or two to graduate. Thus, Philadelphia's total cohort graduation rate is close to 60%. *Ultimately, we estimate that about 40% of the students who begin high school in Philadelphia and do not transfer to another school drop out.*

There is some indication in the most recent data (the Class of 2005) that the graduation rate may have begun to inch upward. The on-time graduation rate for 2005 was 52%—about four percentage points higher than the average rate of the prior five years. However, it will be important to see whether results for 2006 continue this trend and whether the six-year total graduation rate sustains the gains registered for the on-time graduation rate.

The number of out-of-school youth

In any given year, approximately 8,000 Philadelphia students in the middle grades or in high school drop out of the public schools. Nearly 5,000 additional students are "half way to dropout," attending school less than 50% of the time.

By examining the number of students who have dropped out of high school from 2000 to 2005 (and the number who did not return to a public school in Philadelphia), we can estimate that there are approximately 30,000 out-of-school youth in Philadelphia. This means that for every five students currently attempting to earn a high school diploma in Philadelphia, there are at least three out-of-school youth (or, in some cases, now young adults) who could have completed high school, and should have completed high school but did not.

Age and grade of dropouts/distance from graduation

More than half of Philadelphia's dropouts are not promoted past the 9th or 10th grade. In most cases these students spend several years attempting to succeed and are 17 years old or older when they become official dropouts. This means that the majority of dropouts in Philadelphia are far away from graduation, needing to earn three to four years worth of high school credits. When they leave school, a substantial subgroup of dropouts are beyond the traditional age of high school students (21% of all dropouts are 19 years old or older). If these dropouts were to start again in a traditional high school program they would in many cases be in their early twenties before they could graduate, the age at which many of their peers have graduated from college and/or are starting families.

A third of Philadelphia's dropouts, however, persist until the 11th or 12th grade before dropping out. In some cases, these students are only a few credits shy of graduating.

School type and dropout

During the years examined in this report, nearly all of Philadelphia's students graduated or dropped out from three types of schools. Philadelphia's academically selective public high schools educate about 10% of the high school students in the non-charter public schools. Collectively, from 2000 to 2005, these schools had six-year cohort graduation rates near 80%. The school district's vocational high schools, which educate another 8% of the enrolled high school students, had collective six-year graduation rates in the 60-percent range. During this time period, nearly three-quarters of the district's high school students attended neighborhood high schools, where the collective on-time graduation rate from 2000 to 2005 was in the upper 40-percent range and the six-year graduation rate in the 50-percent range. This average rate obscures considerable variation among the neighborhood high schools.

Dropout and graduation rates are highly correlated with a high school's poverty level. Twenty-nine thousand students in Philadelphia attend 24 high schools in which 75% or more of the students are eligible for free or reduced price lunch. These high-poverty high schools have an annual total dropout rate (formal dropouts and near dropouts combined) of 25%.

Dropout rates by gender and race/ethnicity

Depending on the year and the specific comparison being made, there is a 10 to 15 percentage point graduation gap between males and females in Philadelphia. This gap holds true across all racial and ethnic groupings, and while the female advantage reflects national and historical trends, the gender gap in Philadelphia is considerably greater than the national average. The gender gap for the four-year, on-time graduation rate appears to have slightly narrowed from 2000 to 2005, with males obtaining their highest graduation rate in 2005. But even with this gain, males in Philadelphia had a 47% on-time graduation rate compared to 58% for females.

Asian students have the highest graduation rates and lowest dropout rates in the school district. Whites and African Americans have similar rates. Latinos, who according to the recent U.S. census data are the fastest growing population in the Philadelphia region, have the lowest graduation rates and high dropout rates. Graduation rates, however, are much too low across all racial and ethnic groups. For the cohorts for which we have six-year graduation data, more than half of the Latino students, 40% of White and African American students, and about 30% of Asians did not earn a high school diploma in six years.

Early identification of dropouts

Over half the eventual dropouts from Philadelphia's public schools can be identified prior to the start of high school. The majority of the students who become drop outs failed their English or mathematics courses or attended school less than 80% of the time when they were in the middle grades. Another 15% do not show this level of academic difficulty or disengagement from school during the middle grades but have a rocky transition to high school and earn poor grades and/or attend school infrequently in the 9th grade. This means that by the first year of high school, 80% of the students who eventually drop out have signaled clearly that they have fallen off the path to graduation. Students who attend the 9th grade less than 70% of the time or earn fewer than two credits, for example, have dropout rates of over 75%. Sixty percent of Latino and half of African American high school students signal either at the start of high school or by the end of their first year in high school that they are on the way to dropping out.

About 20% of eventual dropouts cannot be readily identified by the first year in high school. These are the students who make it to 10th, 11th, or 12th, often on time, before they dropout. Once a student has advanced to the upper grades of high school, it becomes more difficult to identify who ultimately will drop out or graduate. However, one constant remains: students who do not earn sufficient credits in a given grade to be promoted to the next grade on time are at increased risk of dropping out.

Relationship of social service involvement and dropping out

Only a very small percentage of students who drop out of high school are involved with the city's social service agencies. About 3% of dropouts have a documented case of abuse or neglect while they are in high school, and 7% are in foster care during their high school years. Fourteen percent of all dropouts, and 22% of male dropouts, receive an out-of-home placement within the juvenile justice system during high school.

Yet, while most dropouts are not agency-involved, those students who are involved with the city's social service agencies during high school have extremely high dropout rates. In the Class of 2000, 71% of the high school students with a documented case of abuse or neglect, 75% of the high school students in foster care, and 90% of the students with an out-of-home placement in the juvenile justice system did not earn a diploma from the School District of Philadelphia nor did they have a record of transferring to another school.

When combined with the very high annual and cohort dropout rates for the school district's disciplinary schools, the fact that *nearly every student* who received an out-of-home juvenile justice placement eventually dropped out indicates that the current systems are not working. Annually, approximately 1,000 high school students who have attended a disciplinary school or received an out-of-home juvenile justice placement become out-of-school youth.

Relationship of teenage pregnancy and dropping out

There is a strong relationship between dropping out of high school and teenage pregnancy. Thirty-three percent of female dropouts gave birth within four years of starting high school, and 41% gave birth within five years of starting high school.

Overall 68% of females from the Class of 2000 who had a child within four years of the start of high school ultimately dropped out of school. Females who have a child early in high school are more likely to drop out than females who have a child in the 11th or 12th grade.

Implications for Policy and Practice

A clearer and deeper understanding of who drops out and who graduates in Philadelphia shows that in order to solve the dropout crisis in Philadelphia *four policy challenges will need to be overcome.*

First, a broad-based coalition needs to be mobilized to meet the challenge and this coalition must be able to sustain itself for the long term. The dropout crisis is not a small problem, and it does not have quick or easy answers. Among the cohorts we examined in this report, dropping out of high school was almost as common as graduation. Routinely, less than half the students who start high school in Philadelphia walk across the stage four years later to receive a diploma. This graduation deficit continues to occur despite nearly continuous school reform efforts and the existence of many dedicated and effective organizations concerned with out-of-school youth.

Because the overwhelming proximal cause of dropping out in Philadelphia is failing in school and student disengagement, the public schools of Philadelphia must be the locus of the campaign to end the dropout crisis. But the school system cannot be expected to solve this problem alone. Getting adolescents to come to school and to work hard to succeed will require a substantial effort from the community, as well as from families. Given that high school graduation is not common in many neighborhoods, it needs to be recognized that expectations and outlooks have been adjusted to this grinding reality. Simple exhortations and promises will not suffice. Students and families need to be shown that a clear path to graduation exists and that increased attendance and effort on their part will be met with the necessary supports and educational experiences that all students need to succeed. Out-of-school youth, as well as students still enrolled in the school district's high poverty secondary schools, need to be supported by a greater number of adults who are committed to their success and have the skills

needed to help them achieve it. This means that a sustained campaign to end the dropout crisis in Philadelphia will also require an infusion of human and fiscal capital and legislative support.

Second, a sustained effort to end Philadelphia's dropout crisis will require profound changes in how adolescents who live in the city's high poverty neighborhoods are educated. Given that over half of the city's dropouts can be identified before they enter high school, it is clear that, as critical as they are, more effective high schools will not alone end the dropout crisis. Along with continued improvements in elementary school education and an expansion of early childhood programs, an integrated and coordinated grade 6–12 secondary reform effort is needed. There is abundant evidence that early adolescence is the time when substantial numbers of students begin to seriously disengage from school, stop attending school regularly, and start failing their courses. Thus, the middle grades and high schools need to be reformed together.

It is also important to recognize, however, that not every middle grades school and high school in Philadelphia will need the same reforms. While all students benefit from and require strong instructional programs, effective teachers, safe schools, and good learning environments, students who are falling off the graduation track need additional supports that are targeted to them and in some cases are intensive. Because the students most at-risk of dropping out are concentrated in the highest-poverty middle grades schools and high schools, these schools will require additional reforms, supports, and resources beyond system-wide efforts. Finally, organizational reforms are needed so no school is overwhelmed by the sheer number of students who are not attending school or failing their courses. In this regard the effort to end the dropout crisis in Philadelphia may be able to learn from the public health field, which seeks to locate the source of a problem and then develops a multi-tiered, integrated, and comprehensive solution including broad-based prevention, additional targeted supports for those in need, and finally intensive support for the most challenging cases.

Third, even the most effective school-based reforms will not prevent all students from dropping out of school. As we have shown, about 20% of students drop out late in high school when they are relatively close to obtaining a degree. Moreover, it is more difficult to predict which students in the 11th or 12th grade are likely to drop out and more difficult to target them with needed supports. Thus, an effective system of credit recovery, second-chance schools, and alternative means of securing a high school diploma will be required. Many of those who drop out when they are juniors or seniors are already in their late teens and even their early twenties; these young people will need programs that not only offer a second chance to obtain a high school diploma but also provide direct avenues to post-secondary schooling or training. Finally, while the "late dropouts" are just a small subset of dropouts, the sheer scale of the dropout crisis in Philadelphia means that serving just 20% of students who leave school in 11th or 12th grade would require a significant scale up of existing second-chance opportunities. Using our data, it is possible to estimate that currently there might be 6,000 out-of-school youth who could benefit from these opportunities.

Finally, the agencies that provide social services to the city's youth need to be deeply involved in the effort to stop the dropout crisis in Philadelphia. Currently, the adolescents who are in their care drop out in alarming numbers. For high school students who have been abused and neglected, are in foster care, or receive an out-of-home placement in the juvenile justice system, the odds of dropping out are not 1 in 2 but 3 out of 4 or even higher. Similarly, 2 out of 3 females who give birth within four years of the start of high school drop out. Social service agencies will need to determine how the resources they have at their disposal can be most effectively marshaled to help ensure that adolescents in their charge graduate from high school.

APPENDIX 1: Defining Dropout

We use two pieces of data kept by the School District of Philadelphia to categorize a student as a dropout, a graduate, still enrolled, or withdrawn from the district as a result of illness, death, or enrollment in another school. The first piece of information is the status code, which indicates, in sum, whether the student is enrolled in Philadelphia's public schools or has been withdrawn. Students who have a status code of "withdrawn" are given a drop code, which indicates the general reason why the student is no longer enrolled. Students who are withdrawn also receive a drop date—the month, day, and year when they left the school system.

There are approximately 30 "drop codes" that can be assigned to Philadelphia students when they leave the public schools. However, during the 2003–2004 school year, about 90% of those who left the district were assigned one of just four drop codes: graduated, "over the compulsory school age," "moved from Philadelphia," or "transferred to a non-public school in Philadelphia." Forty-two percent of all drop codes assigned indicated graduation; 21% of the students who left the district were given the code "over the compulsory school age," implying that they had dropped out of school; 18% were coded as "moved from Philadelphia," indicating that they had left the city and presumably were enrolled in another school district; and 10% were identified as enrolling in a private school in the city. Other codes, such as "emotional disturbance" (.66%) or "migrants"(.03%), are used, but relatively infrequently, and others appear never to be used at all.

The table below provides detail on the codes that we categorized as indicating a) dropout or b) school transfers or non-voluntary removal from the system. In most of the analyses in this report, we remove from the analysis students who were coded as having transferred to another school or having been removed from the school rolls due to illness or death.

Categorization of Drop Codes

Dropped out	*School transfers and non-voluntary removal*
◆ Parents in Philadelphia or office roll	◆ Deceased
◆ Job Corps	◆ Emotional disturbance
◆ Runaway	◆ Hospital roll
◆ Whereabouts unknown	◆ Went to private school
◆ Voluntary withdrawal	◆ Moved from Philadelphia
◆ Marriage (over age 17)	◆ Migrants
◆ Probable employment	
◆ Needed at home	
◆ Other (over compulsory school age)	
◆ General employment certificate	
◆ Correctional institution	
◆ Involuntary withdrawal	
◆ Beyond 2-mile limit – no transportation	

In addition to students who were withdrawn from the district and received codes indicating why they dropped out, some students a) withdrew from the district but received no drop code or b) were not formally withdrawn from the district, but were not listed as enrolled either. *We code these students with incomplete enrollment/dropout information as high school dropouts, consistent with recommendations from the National Governors Association and the Pennsylvania Department of Education for the 2004–2005 reporting period.*

The reason a school district gives for why a student leaves can make all the difference in the dropout rate. Should a district intentionally try to be deceptive, as was alleged about some districts in Texas (Dobbs, 2003), there is plenty of opportunity for gaming the statistics, particularly when students have not formally withdrawn from the district. Even without the intent to deceive, dropout codes can be assigned in different ways in different schools, using different levels of evidence for a student's whereabouts (Hammack, 1986). For example, districts contend with the question of whether the statement from a student's friends that he or she moved from the district is sufficient evidence to have him count as a transfer (National Forum on Education Statistics, 2006). A recent report on dropout in the Pittsburgh Public School system by RAND tries to correct for the slipperiness of district data on dropout by assessing the probability that a student who is listed as transferring is actually a dropout (Engberg and Gill, 2006). Our understanding is that, like many districts in the United States, the guidance given to Philadelphia schools about how to assign codes is relatively weak.

We cannot independently verify whether the codes that have been assigned to students are the best descriptors of why they left the district. We do note that, in the 2003–2004 cohort, students in grades 9–12 who were assigned a code indicating transfer to another school tended to be younger (that is, not older than 15), and almost half were listed as 9th graders. Further, those who transferred were disproportionately White: 27% of the transfers were White, while 16% of all high school students were White. Because White students in the district are less likely to be low-income, and thus more likely to attend private schools, this statistic may be an indication of some level of veracity in the data on student transfers.

In the end, there are likely two kinds of forces at work in the coding: students who actually dropped out of school but were mistakenly coded as transferring to another school (which would bias the graduation rates upward), and students who transferred to another school but were given a code indicating dropout or whose information was never entered into the computer and so have been counted as dropouts in this analysis (which would bias the graduation rates downward). We suggest that these two forces cancel each other to some degree, although the extent to which they cancel each other cannot be determined definitively from these data.

APPENDIX 2: Comparing Graduation Rate Estimates

Clearly, one of the fundamental challenges that districts and states face is coding students' whereabouts accurately. Earlier this year, the National Forum on Education Statistics released a report outlining a suggested taxonomy of dropout codes, as well as an exhortation to districts to clarify their standards of evidence for assigning codes to students (National Forum on Education Statistics, 2006).

Over the past year, three different graduation rate estimates for Philadelphia have been published in various studies and news reports. In its *Graduation Counts* issue, the newspaper *Education Week* estimated a graduation rate for Philadelphia's Class of 2003 of 55.5%. Jay Greene and Marcus Winters, in their recent updating of their series of graduation rate reports for the Manhattan Institute, estimated Philadelphia's graduation rate at 58% in 2003. The Commonwealth of Pennsylvania, by contrast, reports Philadelphia's 2005 No Child Left Behind (NCLB) graduation rate as 68.6%.

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Why Do These Estimated Graduation Rates Differ?

Graduation rate estimates sometimes differ because they are measuring rates among different cohorts, and there is almost always some year-to-year variation. The fundamental reason why the estimates vary, however, is that different researchers (or in the case of NCLB graduation rate, the particular formula the state uses to calculate graduation rates) are making different choices on how best to estimate graduation rates. Without access to the individual-level, longitudinal data we use for this report, researchers typically must rely on numbers of enrolled students and diplomas granted at the aggregate level, either district or state. A simple example of how these numbers could be used to estimate a graduation rate would be to divide the number of diplomas granted in a district in a given year by the number of 9th graders enrolled in the district four years earlier.

These estimates, however, face two potentially confounding data problems. The number of students enrolled in a particular grade in a given year includes those who are in that grade for the first time and those who are repeating the grade (for example, the 9th grade numbers would include first-time 9th graders and 9th grade repeaters). Further, the number of students earning a diploma in a given year includes students who are on-time graduates and those who took an extra high school year or two or even more to obtain their diploma. In addition, students transfer in and out of high school between the initial year the enrollments were calculated and the year of the diploma count. If the number of 9th grade repeaters does not "balance" the number of extra-time graduates, or the number of "transfer ins" does not "balance" the number of "transfer outs," then graduation rate estimates comparing the number of students enrolled in one year to the number of graduates in another will either over- or under-estimate the actual graduation rate. Because these variables can fluctuate from year to year, graduation rate estimates calculated using enrollment and diploma data can be fairly accurate one year, an under-estimate the next year, and an over-estimate the following year.

The researchers who make graduation rate estimates are aware of these data issues and make different choices on how to correct or control for them. As seen in the following charts and tables, the end result is that some graduation rate estimates end up being better estimates of Philadelphia's six-year or total cohort graduation rate and others better estimates of Philadelphia's four-year or on-time graduation rate.

How Do Graduation Rate Estimates Compare to Our Longitudinal Cohort Graduation Rates?

Figure A compares graduation rates calculated in five ways:

1) The six-year graduation rate that we calculated in Chapter 1 of this report for the *first-time freshmen cohorts;*

2) The six-year graduation rate that we calculated for the *freshmen and transfer cohorts;*

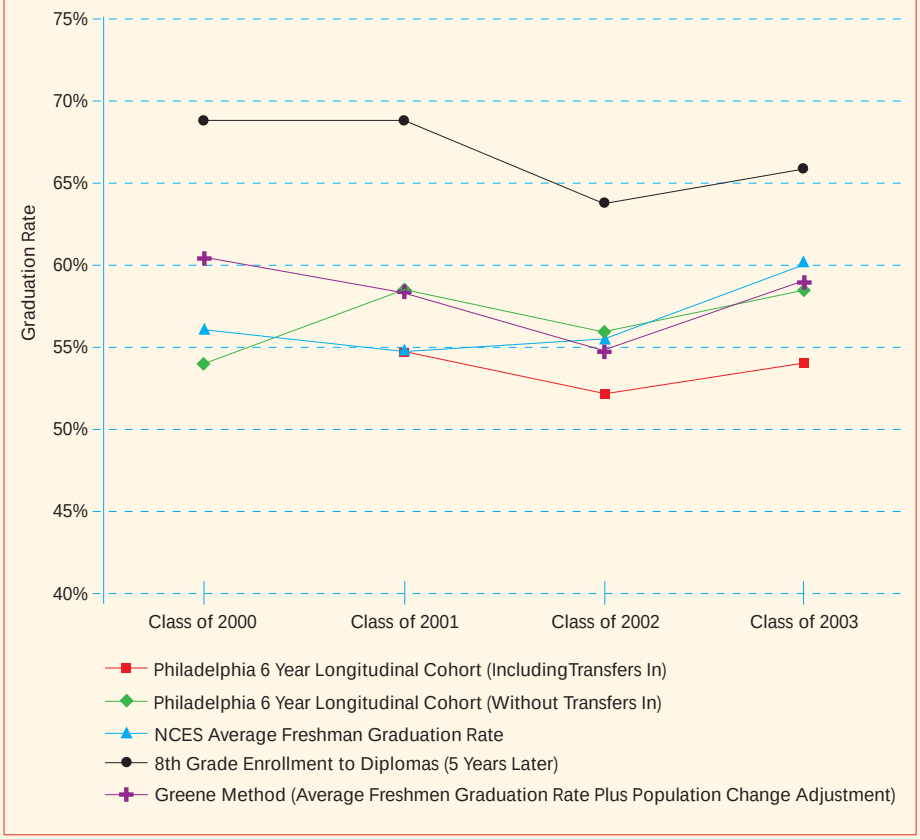
3) The Average Freshman Graduation rate, used by the U.S. Department of Education National Center on Educational Statistics;

4) The Greene Method; and

5) The method that compares 8th grade enrollment to diplomas.

Figure A

Comparing Graduation Rate Estimates to Philadelphia's Six-Year Graduation Rate



The *Average Freshman Graduation Rate* method, used by the U.S. Department of Education, divides the number of diplomas issued in a Year Y by the average of the number of 8th, 9th, and 10th graders enrolled in Year Y-4, Year Y-3, and Year Y-2, respectively. *The Greene Method*, used in reports issued by the Manhattan Institute, follows a similar methodology but adds a population change correction. The *"8th grade enrollment to diplomas"* method divides the number of diplomas issued in Year Y by the number of 8th graders in Year Y-5.

Figure B

Comparing Graduation Rate Estimates to Philadelphia's Four-Year (On-Time) Graduation Rate

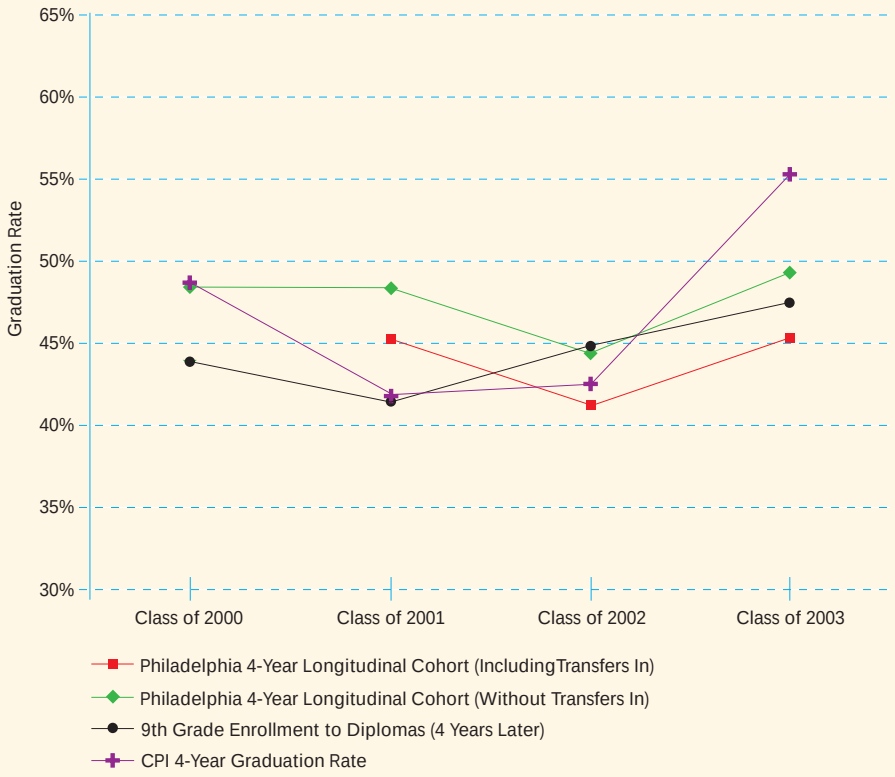


Figure B compares the four-year graduation rates for *first-time freshman* and *freshmen and transfers* with two additional common methods of estimating graduation rates:

1) The Cumulative Promotion Index or CPI (used by *Education Week*).

2) A method that compares the number of 9th graders in a given year to the number of diplomas issued four years later.

Both the Average Freshman Graduation Rate method and the Greene method produced estimates that in nearly all cases were within 5 percentage points of the six-year graduation rates we calculated for first-time freshman and freshmen with transfers cohorts. However, the "8th grade enrollments to diplomas" method led to a consistent over-estimate of the six-year graduation rate.

While the NCES Average Freshman Graduation Rate and the Greene method produced estimates close to the six-year graduation rate that we calculated for first-time freshman, they produced consistent over-estimates of the four-year graduation rate. The averaging of 8th, 9th, and 10th grade enrollments corrected for the impact of grade repeaters on 9th grade enrollment, but none of the methods correct for students who take more than four years to graduate. As a result, in the case of Philadelphia, these methods are much better estimates of the total graduation rate than the four-year rate. It should be noted that Greene clearly indicates that his method is not a measure of the four-year graduation rate.

Both of these methods produced estimates that are typically within 5 percentage points of our calculated four-year longitudinal graduation rate. The CPI and the 9th grade-to-diploma measure, however, consistently produce substantial under-estimates of Philadelphia's six-year cohort graduation rate. In this case it should be noted that the CPI was designed to estimate four-year graduation rates.

Figure C

Comparing State NCLB Graduation Rates to Philadelphia's 4-Year (On-Time) Graduation Rate

The method of calculating the graduation rate that appears to be the most inaccurate is the graduation rate currently used by the Commonwealth of Pennsylvania under No Child Left Behind accountability. As seen in Figure C, the Pennsylvania NCLB rate substantially overestimates the four-year graduation rate for students in both our first-time freshman cohorts and our freshmen and transfer cohorts. This overestimation occurs because the Commonwealth's method compares the total number of graduates in a given year to the number of 12th grade dropouts from that year, the number of 11th grade dropouts from the year before, and so on. But as we have shown, the total number of graduates in a given year includes significant numbers of students who take five or six years to graduate. As a result, the method really compares the total number of graduates in a cohort to just four years of dropouts, rather than six. This is significant because the stated intention of the No Child Left Behind legislation is to measure the percent of students graduating with a regular diploma in the standard number of years—that is, within four years of starting high school.

Using the Average Freshman Graduation Rate Estimate to Contextualize Philadelphia's Graduation Rate

As noted above, the NCES Average Freshman Graduation Rate appears to closely track our six-year cohort graduation rate for first-time freshmen. As a result, we feel more comfortable using this method to compare Philadelphia's current graduation rate with graduation rates in the city a decade ago. In addition, we can use this method to compare estimates of Philadelphia's graduation rates with estimates from other cities. *As seen in Table A, this comparison suggests that Philadelphia's current graduation rate is comparable to its graduation rate a decade ago; it has not gotten much worse nor has it gotten better.* The table also indicates that Philadelphia's graduation rate has been on par with graduation rates in large cities such as New Orleans, Los Angeles, Dallas, and Houston. Even though the graduation rate in Philadelphia is low, the city appears to have higher graduation rates than New York, Detroit, and Cleveland.

Table A

Estimated Average Freshman Graduation Rates for Philadelphia and Similar Cities

NCES Averaged Freshman City	*NCES Averaged Freshman Graduation Rate, mean for three years (2003, 2002, and 2001)*	*Graduation Rate, mean for three years (1993, 1992, and 1991)*	*Percentage-Point Change*
Washington, DC	66.4%	59.5%	6.9%
New Orleans	56.8%	53.3%	3.5%
Philadelphia	56.7%	57.7%	-1.0%
Columbus	56.4%	50.9%	5.5%
Los Angeles	56.4%	52.3%	4.1%
Dallas	55.9%	52.2%	3.7%
Houston	54.9%	54.8%	0.1%
Baltimore	53.0%	45.2%	7.8%
Chicago	50.6%	51.9%	-1.3%
Milwaukee	49.7%	52.1%	-2.4%
Atlanta	47.5%	63.2%	-15.7%
New York City	43.8%	48.6%	-4.8%
Detroit	41.0%	42.0%	-1.0%
Cleveland	40.3%	42.8%	-2.5%

Data Source: NCES, Common Core of Data

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ENDNOTES

[1]Standard and Poor's data for Philadelphia may be accessed at www.schoolmatters.com.

[2]No Child Left Behind report cards published by the School District of Philadelphia may be accessed at http://phila.schoolnet.com/outreach/philadelphia/nclbschoolreports/.

[3]Additional information about PAsecureID may be found on the website of the Pennsylvania State Department of Education: http://www.pde.state.pa.us/ed_tech/cwp/view.asp?A=169&Q=117631. (Retrieved July 10, 2006).

[4]*Graduation Counts: A Report of the National Governors Association Task Force on State High School Graduation Data* (2005) may be accessed at http://www.nga.org/Files/pdf/0507GRAD.PDF. (Retrieved July 10, 2006).

[5]The state report on 2003–2004 high school dropout in Pennsylvania may be accessed at http://www.pde.state.pa.us/k12statistics/lib/k12statistics/2003–04DROPOUTLISTINGrev1.pdf. (Retrieved July 10, 2006). The state calculates the annual dropout rate as the total number of dropouts in grade 7–12 divided by the total number of enrollments in those grades. The state uses data reported by districts.

[6]An example of using an age cohort is found in Elaine Allensworth's *Graduation and Dropout Trends in Chicago: A Look at Cohorts of Students from 1991 Through 2004*, published by the Consortium on Chicago School Research. To take into account stricter promotion standards in the elementary grades (which might have discouraged students to such a point that they dropped out before entering high school), Allensworth used an age 13 cohort to track changes in graduation rates over time.

[7]National Governors Association, page 15.

[8]*Electronic Dropout/Graduate Report (EDGR): Dropout Instructions for School Year 2004–2005.* (2005). p. 4. The document can be accessed at: http://www.pde.state.pa.us/k12statistics/lib/k12statistics/2004-05dropinstrmanr.pdf.

[9]*Ibid.*

[10]A few schools are "ungraded." These schools include Franklin Learning Center (a magnet high school) and some disciplinary schools. We have included these students in the analysis because, were they attending a school with a conventional system of grades, they would be in 6th grade or above. These "ungraded" students make up 1.3% of the cross-sectional data set.

[11]Students who left the district during the 2003–2004 school year but returned before the end of the school year are classified as not having left the district. For example, a student who dropped out in March but returned in May and continued to be enrolled through June is classified as "enrolled."

[12]In this analysis, students who left a Philadelphia charter school for a non-charter public school in Philadelphia are coded as transferring.

[13]Other analyses indicate that students at disciplinary schools (like the one that contributes most of the ungraded students to this analysis) have earned few credits. If they were assigned to a grade, they would almost certainly substantially increase the percentage of dropouts who were in 9th and 10th grade.

[14]Students who miss school for 10 consecutive school days can be disenrolled by the school. To stay enrolled, then, the truant-dropouts would most likely have had an uneven pattern of showing up to school here and there, but not being absent for more than 10 days in a row.

[15]This table does not include students who were listed as transferring to another school or who were withdrawn from school because of death or illness.

[16]The percentage of students who are low income is defined as the percentage receiving free or reduced price lunch. Data obtained from the Common Core of Data for 2003–04.

[17]During the time period covered in this analysis, a small but growing number of Philadelphia high school students attended new, typically smaller high schools or charter schools. Charter schools are included in our annual dropout rate analysis, because its goal was to understand how many students become out-of-school youth in Philadelphia in a single year. However, we do not include charter schools in our longitudinal cohort analysis because of uneven data collection procedures with charter schools, particularly in their initial years. In the longitudinal cohort analysis, students who moved to charter schools are considered transfers. The movement to create new and typically smaller high schools in Philadelphia is too young to have impacted our analysis as only two of these schools (off-shoots of Bartram High School) have been in existence long enough to have high school graduates in the time period we examined.

[18]Graduation and dropout rates for the Class of 2004 are estimated. Between the Class of 2003 and the Class of 2004, there was a more than fivefold increase in the number of students in vocational and disciplinary schools who did not have a reported graduation/dropout/enrollment outcome—their data in key fields was simply missing. We imputed four- and five-year graduates for vocational and disciplinary school students using the change in neighborhood school graduation rates between 2003 and 2004 for both first-time freshmen and students who transferred in after 9th grade. Seven hundred sixty-one students attending vocational or disciplinary schools are imputed as four-year graduates, and a total of 781 students in these types of schools are imputed as graduating within five years. These imputed graduates were added to the raw totals of students already coded as "graduates" from the Class of 2004 to create the adjusted Class of 2004 graduation rates. These imputed graduates were then subtracted from the dropout category in Figure 1. For all other cohorts, the percentages of students whose educational status was unknown are similar. Because of the relatively small number of imputed graduates, this estimate should not have a large margin of error.

[19]We cannot verify the percentage of students who were coded as transferring to another educational institution who actually did so. Our analysis of the distribution of withdrawal codes in these cohorts suggests that the modal year for transferring was, with one exception (Class of 2002), the first year of high school; we suggest that many of these transfers occurred at the beginning of the year when parents informed the district that their 9th graders would be attending private or charter high schools. For each cohort, more than half of the student transfers occurred within two years of entering high school. However, it is likely that some of the students coded as transfers were dropouts, which would bias downward our estimate of dropout and bias graduation rates upward. But this bias is likely offset, at least to some degree, by our designation as dropouts of all students lacking withdrawal codes.

[20]A student transferring to a Philadelphia charter school from a non-charter school in Philadelphia is counted as a transfer.

[21]Here, we define a student's school as the school he or she attended for 9th grade. A student who attended a magnet school for 9th grade but enrolled in a neighborhood high school for 10th–12th grade would be counted in the "magnet" category.

[22]Graduation rates for the Class of 2004 are estimated. See Footnote 18 for estimation methods. Because the Class of 2004 has nearly a 50/50 split in gender, we added half of imputed graduates to the raw number of male graduates and half to the raw number of female graduates.

[23]That is, their status was "dropout" in June 2004, eight years after starting high school.

[24]During the 1996–1997 school year, 9th graders needed to earn at least 5 credits to be promoted to 10th grade, including one credit each in science, math, and English.

[25]"Substantiated abuse or neglect" is defined as abuse or neglect that has been investigated by a social worker, who has determined that there is evidence that the abuse or neglect took place and who initiates court-ordered oversight and services to the child or family.

[26]A "foster care placement" includes traditional foster care placements in a family, as well as placement in a group home, a shelter, or an independent living arrangement.

[27]Students who were arrested but had the charges dismissed, were placed on probation, or had some outcome other than being placed in a juvenile justice facility are *not counted* as being in contact with a juvenile justice agency in this analysis.

[28]The next testing year for this cohort was 11th grade, which most dropouts did not reach.

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