

**Student Characteristics and
Outcomes in Alternative and
Neighborhood High Schools in
Philadelphia**

Final Report

April 14, 2010

Hanley Chiang
Brian Gill



MATHEMATICA
Policy Research, Inc.

Contract Number:
461/F10

Mathematica Reference Number:
06716

Submitted to:
Office of Accountability and Assessment
School District of Philadelphia
Education Center
Rm. 2124, 440 North Broad Street
Philadelphia, PA 19130
Project Officer: Michael D. Schlesinger

Submitted by:
Mathematica Policy Research
955 Massachusetts Avenue
Suite 801
Cambridge, MA 02139
Telephone: (617) 491-7900
Facsimile: (617) 491-8044
Project Director: Brian Gill

**Student Characteristics and
Outcomes in Alternative and
Neighborhood High Schools in
Philadelphia**

Final Report

April 14, 2010

Hanley Chiang
Brian Gill

MATHEMATICA
Policy Research, Inc.

ACKNOWLEDGMENTS

We are grateful to a number of individuals for their contributions to this report. Mike Schlesinger (at the School District of Philadelphia [SDP]) and Ken Wong (at Brown University) provided important support and input throughout this study. Carnell Baugh, Daniel Piotrowski, Sean McGrew, and Yijing Huang at SDP were very helpful in providing the data needed for this study and in answering our questions about the data as well as the ways in which the district uses this data.

At Mathematica, Eric Lundquist provided excellent research assistance in cleaning and analyzing the data. This report benefited considerably from Neil Seftor's careful review and feedback. John Kennedy and Dale Anderson provided editing support, and Eileen Curley provided administrative and production support.

CONTENTS

	EXECUTIVE SUMMARY.....	xi
I	INTRODUCTION	1
	A. Programmatic Context.....	1
	B. Objectives of the Study.....	5
	C. Data and School Type Classifications.....	6
	D. Overview of Report.....	8
II	PATTERNS OF ENROLLMENT	11
	A. Enrollment Size	11
	B. Enrollment Durations in Alternative Schools	15
	C. Reentry of Alternative Students into Regular Schools	17
	D. Summary of Findings.....	21
III	STUDENT BACKGROUND CHARACTERISTICS	23
	A. Characteristics of Enrollees of Nonselective High Schools	24
	B. Summary of Findings.....	28
IV	PERFORMANCE ON STATE ASSESSMENTS AND ATTRIBUTION OF SCORES.....	29
	A. Prevalence of Recorded 11th-Grade Scores	31
	B. PSSA Performance of Enrollment Groups.....	34
	C. Attribution of PSSA Scores Earned by Alternative Students.....	38
	D. Summary of Findings.....	45
V	GRADUATION RATES	47
	A. Cohort Graduation Rates	47
	1. Basic Calculation Method.....	48
	2. Findings from the Basic Calculation Method.....	49
	3. Alternative Calculations	52
	B. Graduation After Entry into Accelerated Schools	54

Contents (continued)

V (cont'd)

C.	Anomalous Exit Patterns from Disciplinary Schools.....	57
D.	Summary of Findings.....	59
VI	CONCLUSION.....	61
	REFERENCES.....	69
	APPENDIX A: STUDENT COUNTS BY COHORT AND ENROLLMENT PATTERN	
	APPENDIX B: REASONS FOR FINAL EXITS THAT IDENTIFY DROUPOUTS AND OUT-TRANSFERS	

TABLES

I.1	Accelerated and Disciplinary Schools Serving High School Students in SDP, 2002-2009	3
II.1	Number of High Schools and High School Students in SDP in 2009, by School Type	12
II.2	Type of School in Which Students Are Observed for the Final Time, Among Students Who Ever Enroll in Alternative Schools	18
II.3	Percentage of Students Who Reenter Regular Schools Within Specified Numbers of Years After Entering Disciplinary Schools, by First Disciplinary School in Which Student Enrolls	20
III.1	Race or Ethnicity of Enrolled Students in Selected Years, by School Type	25
IV.1	Decomposition of the Prevalence of Recorded Grade 11 PSSA Scores	33
IV.2	PSSA Performance in Math Prior to and During High School, by Enrollment Pattern Within Six Years of Entering 9th Grade	35
IV.3	PSSA Performance in Reading Prior to and During High School, by Enrollment Pattern Within Six Years of Entering 9th Grade	36
IV.4	Number of Neighborhood School-Year Performance Units that Meet Annual Measurable Objectives for Subject Proficiency, With and Without PSSA Scores of Alternative Students.....	43
IV.5	Number of Neighborhood School-Year Performance Units that Satisfy AYP Criteria by Attaining Annual Measurable Objectives or Achieving Safe Harbor, With and Without PSSA Scores of Alternative Students	45
V.1	Cohort Graduation Rates, by Enrollment Pattern After Entering 9th Grade	50
V.2	Six-Year Graduation Rates of Alternative Students, by Enrollment Duration in Alternative Education and Reentry Status into Regular Schools	51
V.3	Six-Year Graduation Rates, by Gender and Race	52
V.4	Six-Year Graduation Rates Based on Various Student Populations and Outcome Classification Schemes.....	53
V.5	Percentage of Students Who Graduate Within Two or Three Years After Entering Accelerated Schools, by First Accelerated School in Which Student Enrolls.....	57
V.6	Pre-June Exits Among Students Who Ever Enrolled in Disciplinary Schools During 2008 and 2009.....	58

FIGURES

I.1	Number of Alternative Schools Serving High School Students in SDP, by Year	2
II.1	Distribution of Student-Years of Enrollment in 2009	12
II.2	Number of Students in Each School Year Ever Enrolled in Alternative Schools During the Year, 2002-2009	13
II.3	Percentage of Students Who Ever Enroll in Alternative Schools Within Six Years of Entering 9th Grade	14
II.4	Average Years of Enrollment in Various Types of High Schools, by Enrollment Pattern Within Six Years of Entering 9th Grade	15
II.5	Distribution of Total Enrollment Durations in Accelerated Schools, Among Students Who Ever Enroll in Accelerated Schools Within Six Years of Entering 9th Grade	16
II.6	Distribution of Total Enrollment Durations in Disciplinary Schools, Among Students Who Ever Enroll in Disciplinary Schools Within Six Years of Entering 9th Grade	17
III.1	Gender and Race or Ethnicity of Students, by Enrollment Pattern Within Six Years of Entering 9th Grade	25
III.2	Average Age of Enrolled Students, by Year and School Type	26
III.3	Prevalence of Socioeconomic and Academic Disadvantages, by Enrollment Pattern Within Six Years of Entering 9th Grade	27
IV.1	Percentage of Students with Recorded Grade 11 PSSA Scores, by Enrollment Pattern Within Six Years of Entering 9th Grade	31
IV.2	Percentage of Students Scoring at Basic or Above on the Grade 8 Math PSSA, by Presence of Recorded Score for Grade 11 Math PSSA	34
IV.3	Percentage of Students Scoring at Basic or Above on the Grade 11 Math PSSA, by Year and School Type of Enrollment	37
IV.4	Percentage of Students Scoring at Basic or Above on the Grade 11 Reading PSSA, by Year and School Type of Enrollment	37
IV.5	School Type of Enrollment for Students Whose Grade 11 Math PSSA Scores Are Attributed to Neighborhood Schools	39
IV.6	Percentage of Students Scoring at Proficient or Above on the Grade 11 PSSA, by Subpopulation of Students Whose Scores Are Attributed to Neighborhood Schools	40

Figures (continued)

V.1 Percentage of Students Graduating Within Two or Three Years of Entry into Accelerated Schools **56**

EXECUTIVE SUMMARY

High school students in the School District of Philadelphia (SDP) are served by a diverse set of schools. The majority of SDP’s high school students are enrolled in schools that do not use academically selective criteria for admission. These schools—including comprehensive, neighborhood-zoned high schools and alternative high schools—serve students who are likely to face greater academic challenges than those who enroll in the district’s academically selective high schools. In particular, the district’s system of alternative education serves two distinct populations of students who are at high risk of failing to graduate. Alternative *disciplinary schools*—currently called *transition schools* in SDP—are intended as an educational setting for students who have committed serious disciplinary violations, and the district’s aim is for these enrollees to eventually reenter regular—that is, nonalternative—schools. Alternative *accelerated schools* are intended for students who have previously dropped out or accumulated high school credits at an insufficient rate to be on track for graduation; while the SDP website indicates that the objective of accelerated schools is for enrollees to graduate within two years of entry, SDP staff have indicated that the current objective aims for graduation within three years.

SDP seeks to enhance the size and quality of its alternative education system. In particular, increasing enrollment in accelerated schools is part of the district’s broader strategy for bringing dropouts back into educational settings. The district also seeks to improve the support services that are provided to disciplinary students who reenter regular schools. Despite these policy goals, there have been no previous, formal analyses of the characteristics and outcomes of students in SDP’s alternative schools. Given that enrollees of alternative schools typically spend a significant portion of their high school education in neighborhood schools—regular, nonselective high schools that are open to all students in geographically-based feeder patterns—developing a fuller understanding of the characteristics and outcomes of neighborhood students is also important for understanding the students who enroll in alternative education.

This report examines the following questions:

- How many and what proportion of students enroll in neighborhood and alternative schools in a given year and over the course of their high school experience?
- How long do students stay enrolled in alternative settings?
- What proportion of students who enroll in alternative settings eventually reenter regular schools?
- What are the demographic and socioeconomic characteristics of students who enroll in neighborhood and alternative schools?
- How well do enrollees of neighborhood and alternative schools perform on Pennsylvania’s state assessments, the Pennsylvania System of School Assessment (PSSA), prior to and during high school?
- To what extent does attributing the PSSA scores of alternative students to neighborhood schools, as done in the state’s current accountability system, affect the neighborhood schools’ likelihood of meeting performance targets under No Child Left Behind (NCLB)?
- What are the graduation rates of students who enroll in neighborhood and alternative high schools?

To address these questions, we analyze data from SDP’s administrative database of student-level records for the school years 2001–2002 through 2008–2009 (henceforth referred to as the school years of 2002 through 2009). We examine annual cross-sections or “snapshots” of the enrollees in neighborhood, accelerated, and disciplinary schools and document trends over time within each school type. Other analyses follow cohorts of students from their first entry into 9th grade over the course of follow-up periods spanning four, five, or six years after 9th-grade entry. For most of the latter analyses, cohorts that entered 9th grade in the 2003 and 2004 school years are followed for a six-year follow-up period.

A. Summary of Key Findings

1. Patterns of Enrollment

An increasing number of students in SDP are being served by the district’s alternative schools. The number of students who enrolled in either accelerated schools or disciplinary schools at any point during a given year grew by 436 percent from 2002 to 2009. Over the course of their high school education, more than one of ten students in the 9th-grade cohorts of 2003 and 2004 ever enrolled in an alternative school.

To some extent, patterns of enrollment reflect the distinct objectives of accelerated and disciplinary schools. Because accelerated schools are aimed at allowing students to earn enough credits to graduate, it is not surprising that few accelerated students (9 percent) reenter regular schools. In accordance with disciplinary schools’ focus on enabling their students to reenter regular education, a greater share of disciplinary students (32 percent) reenter regular educational settings; nevertheless, this share still represents a minority of all disciplinary students.

2. Student Background Characteristics

The background characteristics of alternative students differ from those of neighborhood students in several ways. Disciplinary and accelerated students have higher rates of socioeconomic disadvantage, as measured by receipt of Temporary Assistance for Needy Families, than neighborhood students. In addition, disciplinary students are disproportionately male and black, and accelerated students are older, on average, than neighborhood and disciplinary students.

3. Performance on State Assessments and Attribution of Scores

Alternative students enter high school with lower academic achievement than neighborhood students, and these achievement gaps expand during high school. In the 9th-grade cohorts of 2003 and 2004, accelerated and disciplinary students were 8 to 13 percentage points more likely than neighborhood students to score below basic on the 8th-grade PSSA tests in reading and math; by 11th grade, these gaps ranged from 17 to 24 percentage points. In addition, enrollment groups differ with respect to the share of students who have 11th-grade PSSA scores recorded in SDP’s data. Within six years of 9th-grade entry, 11th-grade PSSA scores were recorded for one-half of neighborhood students but only for about a quarter of accelerated and disciplinary students; these differences stem from alternative students’ greater likelihood of dropping out prior to 11th grade and lower PSSA participation rates while enrolled in 11th grade.

Although the rules of Pennsylvania’s accountability system under NCLB attribute the test scores of alternative students to neighborhood schools, this attribution scheme has little effect on

the likelihood that neighborhood schools meet NCLB performance targets. If the rules were changed to exclude alternative students' scores, the number of cases in which a neighborhood school met NCLB standards for levels or changes in proficiency rates would have increased by only one in reading and three in math during the years 2007 through 2009. In contrast, in 87 cases in reading and another 87 cases in math from 2007 to 2009, excluding the scores of the alternative students would have made no difference to whether the neighborhood school met NCLB standards for levels or changes in proficiency rates. This is because only a small share (4.5 percent) of the scores attributed to neighborhood schools comes from alternative students.

4. Graduation Rates

Graduation rates are considerably lower for alternative students than for neighborhood students. In the 9th-grade cohorts of 2003 and 2004, the six-year graduation rate for neighborhood students, 59 percent, was more than double the corresponding rates for accelerated students (23 percent) and disciplinary students (26 percent). Variation in graduation rates was also observed within enrollment groups. Disciplinary students who reentered regular schools were more likely to graduate than those who were last observed in disciplinary schools. Accelerated students who enrolled in accelerated schools for more than one year had a higher likelihood of graduating than those who enrolled for no more than one year. Moreover, consistent with the finding that short durations of enrollment in accelerated schools are often not sufficient for graduation, accelerated students' rate of graduation within three years of entering accelerated schools (21 percent) was substantially higher than their graduation rate within two years (5 percent). Across individual accelerated schools, the rate of graduation within three years of entry ranged from 12 to 64 percent.

B. Implications

The findings of this report identify various features of alternative education that merit attention as SDP further develops its system of alternative schools. First, given that most accelerated students who graduate do so in their third year after entry into accelerated schools, it appears that this population has been largely unable to attain graduation at a quick pace—that is, within SDP's original goal of two years after entry. Determining whether there are effective ways to enhance the pace of progress toward graduation may merit further study. Second, although accelerated students who graduate largely fulfill the current objective of completion within three years, a larger segment of enrollees does not graduate at all; finding ways to serve the latter group more effectively poses a key challenge for accelerated schools. Third, for disciplinary students, our findings indicate that a majority of such students do not reenter regular schools and, hence, do not take an important step that would signal progress toward graduation. Monitoring and supporting the progress of disciplinary students prior to—and not only after—reentry deserves further consideration. Finally, many of the outcomes examined by this report can be measured only after students have already been enrolled in a particular type of school for a significant period of time; for some outcomes, such as 11th-grade PSSA performance, a large share of students in neighborhood and alternative schools never reach the point at which performance can even be measured. Additional outcome measures should be identified to complement existing measures and provide a means for monitoring students' progress throughout their time in neighborhood and alternative schools. As various outcome measures useful for early monitoring of student progress, such as credit accumulation and attendance, were not recorded by alternative schools reliably and consistently during the analysis period of this report, steps should be taken to ensure systematic, accurate collection of data on these and other measures of student progress.

I. INTRODUCTION

A. Programmatic Context

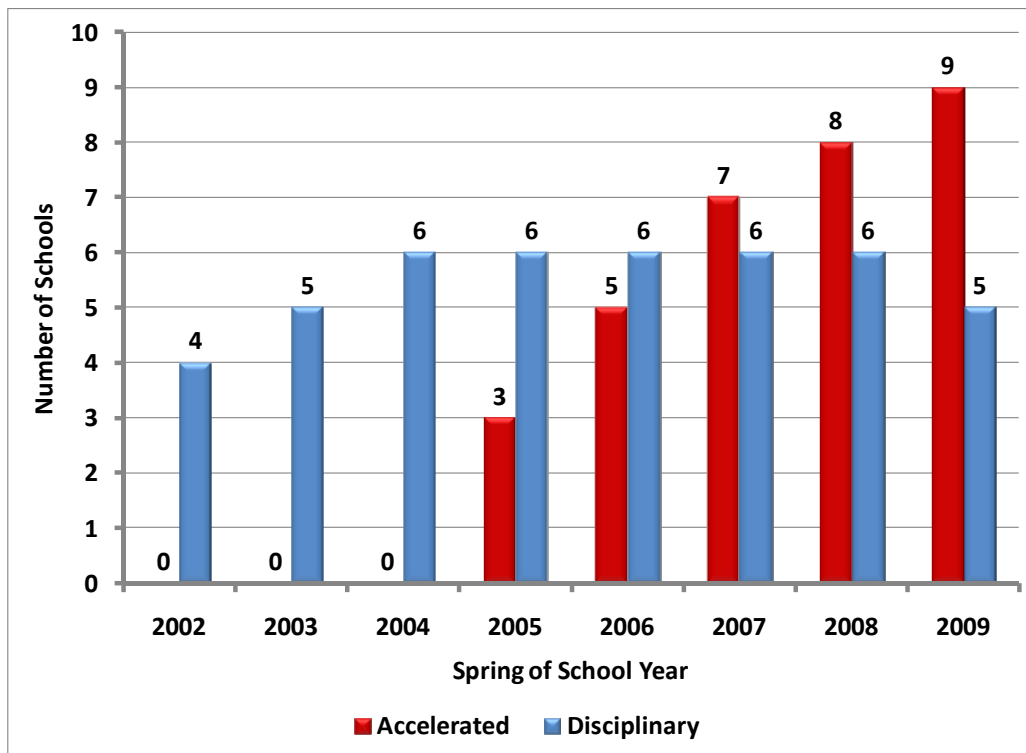
High school students in the School District of Philadelphia (SDP) are served by a diverse set of schools. Among the features that distinguish the various types of high schools in SDP, one prominent distinction lies in the presence and stringency of academically selective criteria for admission. Two types of high schools—*special admission* schools, commonly known as magnet schools, and *citywide admission* schools—specify requirements for prior academic performance that students must demonstrate in order to be eligible for the lotteries by which final admissions decisions are determined. Other types of high schools in SDP do not use academically selective criteria for admissions. Admission to *neighborhood high schools*—also known as *comprehensive high schools*—is open to all students whose middle school is designated as a geographically based feeder school for the particular neighborhood high school, and *alternative schools* serve target populations with specific challenges, including those with behavioral problems or low credit accumulation. Given these differences in admission criteria, each type of high school is likely to face a unique set of factors affecting the academic outcomes of its enrollees.

The Accountability Review Council (ARC) of SDP seeks to develop a greater understanding of the characteristics and outcomes of students who enroll in nonselective high schools—that is, the alternative and neighborhood high schools. Students in alternative schools are at high risk of failing to graduate. In particular, two distinct student populations are served by alternative education in SDP. Alternative *disciplinary schools* provide a program of “educational, social, and emotional development” to students who have committed major violations of the district’s Student Code of Conduct (School District of Philadelphia 2010). These schools are currently called *transition schools* in SDP but were referred to as disciplinary schools during the analysis period of this report. Alternative *accelerated schools* are intended for students who have previously dropped out or accumulated high

school credits at an insufficient rate to be on track for graduation. While the SDP website indicates that the objective of these schools is for enrollees to earn enough credits to graduate in less than two years (School District of Philadelphia 2010), SDP staff have indicated that graduation within three years is the currently recognized objective.

The number of alternative schools in SDP has grown in recent years, and most of the new alternative schools have been accelerated schools. The first three accelerated schools in SDP were established in the 2004-2005 school year, and by the 2008-2009 school year the number of accelerated schools had risen to nine (Figure I.1). In each school year from 2001-2002 to 2008-2009, there were four to six disciplinary schools in operation that served high school enrollees. Table I.1 lists all accelerated and disciplinary schools that served high school students at any time from 2001–2002 to 2008–2009, the period covered by this report. Note that the operations of nearly all disciplinary and accelerated schools in SDP are managed by private contractors.

Figure I.1 Number of Alternative Schools Serving High School Students in SDP, by Year



Source: SDP administrative data.

Table I.1 Accelerated and Disciplinary Schools Serving High School Students in SDP, 2002-2009

Name of School	First School Year (If After 2001-2002)	Final School Year (If Before 2008-2009)
Accelerated Schools		
Accelerated Learning Academy	2005-2006	
Accelerated Learning Academy - Southern	2007-2008	
Excel Academy	2004-2005	
Fairhill Community High School	2004-2005	
Gateway to College at Community College of Philadelphia	2006-2007	
North Philadelphia Community High School	2007-2008	
Open Door High School	2008-2009	
Opportunities Industrialization Center of America's Career and Academic Development Institute	2004-2005	
Southwest Accelerated Learning Academy	2006-2007	
Youthbuild Alternative School	2005-2006	2006-2007
Disciplinary Schools		
Allegheny Community Education Partners School		2007-2008
Daniel Boone School		
Delaware Valley High School	2003-2004	
E. Spencer Miller School		
Huntington Park Community Education Partners School	2002-2003	
The Camelot School at Friends Hospital		

Source: SDP administrative data.

The student population served by neighborhood schools includes students who could not meet criteria for admission into magnet or citywide admission schools. For instance, to be eligible for the lotteries determining admission into citywide admission schools in September 2010, students typically needed to meet at least three of four conditions on their most recent final report card: (1) no grade lower than C; (2) no more than 10 absences; (3) no more than 5 tardies; and (4) no negative disciplinary reports (School District of Philadelphia 2009a). Magnet schools typically have criteria for eligibility that are school-specific and more stringent than citywide admission schools, with many

magnet schools conditioning eligibility on students' prior grades, scores on the Pennsylvania System of School Assessment (PSSA), and performance on nationally normed standardized tests. For students whose academic performance in middle school does not meet the standards set by either type of selective school, their remaining option within SDP is to enroll in their neighborhood school. As a nonselective type of school, neighborhood schools thus serve enrollees who are likely to face a greater prevalence of academic challenges than students in the selective high schools.

Interest in nonselective high school settings stems, in part, from SDP's policy goals related to expanding and improving alternative education in the district. The district's most recent five-year strategic plan, *Imagine 2014*, calls for increasing enrollment in accelerated schools as part of the district's broader strategy for bringing dropouts back into the system (School District of Philadelphia 2009b). The strategic plan also calls for ensuring that students reentering regular schools—that is, nonalternative schools—from disciplinary schools receive sufficient support, including guidance counseling and up to six months of transitional support services.¹ Finally, ARC has expressed interest in ensuring a high quality of education for students during, and not only after, their time in alternative settings.

Examining neighborhood and alternative schools together, as we do in this report, has a number of advantages that stem from the links between these school types. As we show in Chapter II, students who ever enroll in alternative settings still spend a substantial portion of their high school experience in neighborhood schools; indeed, their durations of enrollment in neighborhood schools exceed their durations in any other type of regular school. Thus, the characteristics and outcomes of neighborhood school enrollees provide a context and reference point for the characteristics and outcomes of alternative school enrollees. In addition, neighborhood and

¹ The strategic plan actually states that these support services should be provided to “students returning to district schools from Alternative Education.” However, as we show in Chapter II, most of the alternative students who reenter regular schools come from disciplinary schools.

alternative schools are linked through Pennsylvania’s accountability system under No Child Left Behind (NCLB). The accountability rules specify that the PSSA scores of a student enrolled in an alternative setting are attributed to the neighborhood school that serves his or her geographic area of residence. For these reasons, there is a benefit to examining the various types of nonselective schools jointly.

B. Objectives of the Study

In this report we provide a descriptive analysis of various characteristics and outcomes of students who enroll in neighborhood, accelerated, and disciplinary schools. These analyses are intended to facilitate an initial understanding of the types of students who enroll in nonselective schools and their levels of academic performance. In particular, this report addresses the following questions:

- How many and what proportion of students enroll in neighborhood and alternative schools in a given year and over the course of their high school experience?
- How long do students stay enrolled in alternative settings?
- What proportion of students who enroll in alternative settings eventually reenter regular schools?
- What are the demographic and socioeconomic characteristics of students who enroll in neighborhood and alternative schools?
- How well do enrollees of neighborhood and alternative schools perform on the PSSA prior to and during high school?
- To what extent does attributing the PSSA scores of alternative students to neighborhood schools affect the neighborhood schools’ likelihood of meeting performance targets under NCLB?
- What are the graduation rates of students who enroll in neighborhood and alternative high schools?

To our knowledge, there has been no previous, formal analysis of these questions in SDP. Neild and Balfanz (2006) calculated single-year dropout rates in the 2003–2004 school year separately for magnet, neighborhood, and disciplinary schools but did not examine other outcomes by school type;

moreover, their analysis examines dropout rates from a year that lies in the earlier part of the sample period examined by this report.

As the analyses of this report are descriptive, they are not intended to demonstrate the causal impact of any particular school type on student outcomes. Differences in student outcomes across different school types may be due to a range of factors beyond school quality, including underlying differences in the students they serve. Nevertheless, the findings of this report can illuminate the scope of the challenges facing Philadelphia’s alternative and neighborhood high schools and the students they serve.

C. Data and School Type Classifications

Data for this study come from SDP’s administrative database of student-level records for the school years 2001–2002 through 2008–2009. Throughout the remainder of this report, we refer to school years by the year of the spring semester (when PSSA tests are administered and when most students graduate); thus, our sample period consists of the school years 2002 through 2009. The data available for this study cover the population of students enrolled in 3rd grade through 12th grade within SDP schools and Philadelphia’s charter schools during the sample period; the data on charter school students are used primarily in assigning students to 9th-grade cohorts more accurately and in documenting the eventual outcomes of students who transfer from neighborhood or alternative schools to charter schools.² For each student in each year, the dataset contains information on the student’s dates of entry into and exit from all schools in which the student was enrolled; the number of days the student was enrolled in each school; the reason for the student’s exit from each school and his or her enrollment status at that time; various demographic and socioeconomic characteristics of the student; and the student’s scores on the PSSA, as well as the school to which those scores are

² However, the PSSA scores of most charter school students are not available for the 2002 school year.

attributed for NCLB. Records for the same student can be linked over time through the student's unique identification number.

All analyses are based on students in 9th through 12th grades who enroll in neighborhood, accelerated, or disciplinary schools during the sample period. To describe the characteristics and outcomes of students in each school type, we classify students into school types in two different ways. First, some analyses examine a cross-section or “snapshot” of the student population separately in each year. For these analyses, when the variable of interest (for instance, PSSA performance) is measured at a specific point in time, students are classified by the type of school in which they were enrolled at the time of measurement; when the variable of interest (for instance, race or ethnicity) is a student background characteristic, all students who ever enrolled in the given school type during the specified year are used to calculate the group's statistics, with each student weighted by the fraction of the year enrolled in that school type.

Second, some other types of analyses follow cohorts of students from the time of their first entry into 9th grade over the course of their high school education in a specified follow-up period—typically, for four to six years after 9th-grade entry. Such analyses examine three groups of students, defined by their overall pattern of enrollment within the follow-up period: (1) those who ever enrolled in neighborhood schools, but never enrolled in any type of alternative school (“neighborhood students”); (2) those who ever enrolled in accelerated schools (“accelerated students”); and (3) those who ever enrolled in disciplinary schools (“disciplinary students”).³ (Together, those last two groups are sometimes referred to as “alternative students.”) There are a number of advantages to this type of analysis. Some outcomes, such as graduation, are defined as a

³ The latter two groups are not necessarily mutually exclusive; however, as we show in Chapter II, students typically enroll in at most one type of alternative school. Also, note that students who spend a portion of the follow-up period in selective SDP schools, charter schools, or schools outside of SDP may still be classified into any of the three groups of interest. For instance, a student who spends one year in a citywide admission school, three years in a neighborhood school, and no time in any alternative setting is classified as a neighborhood student.

particular event within a specified number of years after 9th-grade entry. Moreover, given the policy goals of ensuring that disciplinary schools contribute to successful student transitions back into regular education, the eventual outcomes of students who ever enrolled in alternative education may be of interest irrespective of whether those outcomes occurred during their actual time in alternative schools.

For the cohort-based analyses, each student is assigned to a 9th-grade cohort based on the student's first enrollment in 9th grade within the combined SDP–charter population of high schools from 2002 through 2009; cohorts are labeled by the year of the spring semester corresponding to the student's first 9th-grade school year. Moreover, students in 10th grade or above who transfer into the combined SDP–charter population of high schools from elsewhere are assigned to a 9th-grade cohort based on on-time grade progression; for instance, a student whose first appearance in the data is as a 10th grader in the 2005–2006 school year is assigned to the 2005 9th-grade cohort.

The cohort-based analyses must use follow-up periods and cohorts covered by the sample period, which ends in 2009. Many of the analyses use six-year follow-up periods to account for students whose rate of grade progression is slower than on-time progression; with a six-year follow-up period, the analysis sample consists of the 2003 and 2004 9th-grade cohorts. Some analyses of graduation outcomes also use four- and five-year follow-up periods, in which case the analysis samples encompass, respectively, the 2003 through 2006 9th-grade cohorts and the 2003 through 2005 9th-grade cohorts. We exclude the 2002 9th-grade cohort from the cohort-based analyses because, as 2002 is the first year of the available data, we cannot distinguish 9th-grade repeaters from first-time 9th graders in that year.

D. Overview of Report

The remainder of the report is structured as follows. Chapter II documents patterns of enrollment in neighborhood and alternative schools, including enrollment size, the duration for

which students enroll in alternative schools, and the proportion of alternative students who reenter regular schools. In Chapter III, we describe the average demographic and socioeconomic characteristics of students in each school type. In Chapter IV, we examine the PSSA performance of neighborhood and alternative students and the extent to which attribution rules under NCLB affect neighborhood schools' attainment of performance benchmarks. Chapter V documents the graduation rates of students in each of the school types. Chapter VI concludes the report, summarizing findings and discussing implications.

II. PATTERNS OF ENROLLMENT

A number of SDP policy goals for the alternative education system, as described in Chapter I, are directly related to the size or duration of enrollment in alternative schools. In particular, the district aims to increase enrollment in accelerated schools (by enrolling students who would otherwise be dropouts) and to enable students in accelerated schools to graduate within two or three years after entry into the accelerated schools. Meanwhile, SDP's goal of supporting disciplinary students' reentry into regular schools implicitly means that disciplinary schools are not intended to be students' terminal school in their secondary education.

This chapter documents various features of students' enrollment in neighborhood and alternative high schools. We first describe the number of students who enroll in these school types in each year and over the course of students' high school education. We then examine the durations of students' enrollment in alternative schools and the proportions of alternative students who reenter regular schools.

A. Enrollment Size

In 2009, neighborhood schools had the largest enrollment of any type of high school in SDP. At some point that year, a total of 36,723 students enrolled in at least one of the 31 neighborhood high schools (Table II.1). The alternative schools, meanwhile, served fewer students than the neighborhood, magnet, or citywide admissions schools. The 9 accelerated schools in SDP served 2,505 high school students at some point in 2009, and the 5 disciplinary schools in SDP served 3,159 high school students. Similar patterns are seen when aggregate enrollment is measured in student-years, determined by setting each student's contribution to the enrollment count as the fraction of the school year in which he or she is enrolled in a specified school type (Figure II.1). Neighborhood schools accounted for 60 percent of all student-years of high school enrollment in 2009, and the two types of alternative schools accounted for 3 percent each. The remaining high school enrollment in

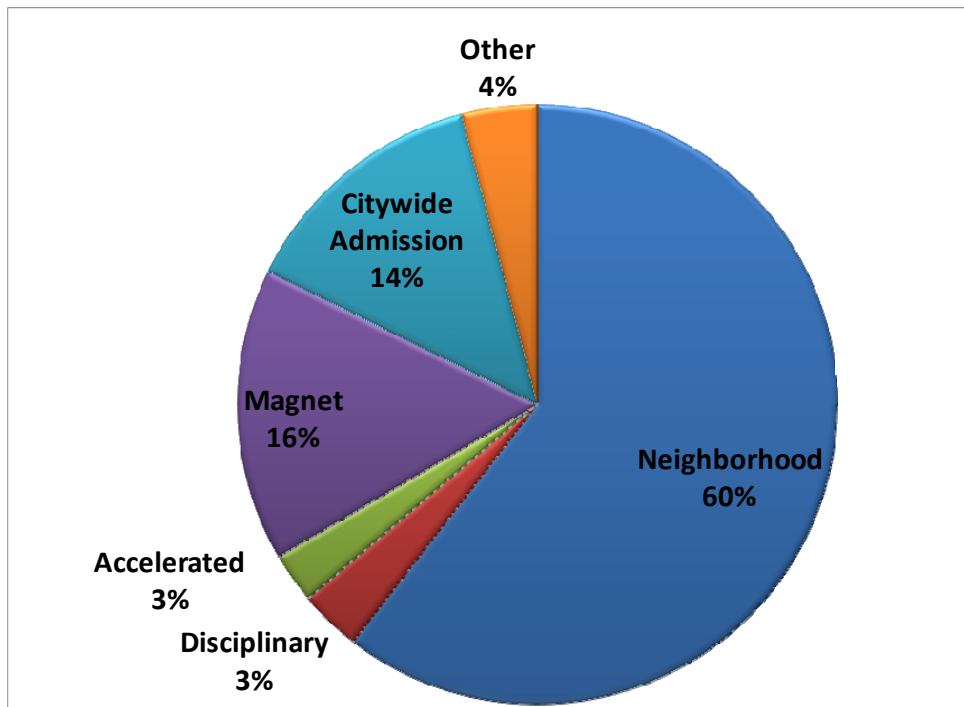
Table II.1 Number of High Schools and High School Students in SDP in 2009, by School Type

Type of High School	Number of Schools in 2009	Number of Students Ever Enrolled During 2009
Neighborhood	31	36,723
Citywide Admission	16	7,540
Magnet	14	8,260
Alternative (All)	14	5,573
Accelerated	9	2,505
Disciplinary	5	3,159
Other (Educational Options Programs)	9	3,875

Source: SDP administrative data.

Note: Counts of schools pertain to schools with any enrollment in grades 9 through 12. Counts exclude charter schools.

Figure II.1 Distribution of Student-Years of Enrollment in 2009



Source: SDP administrative data.

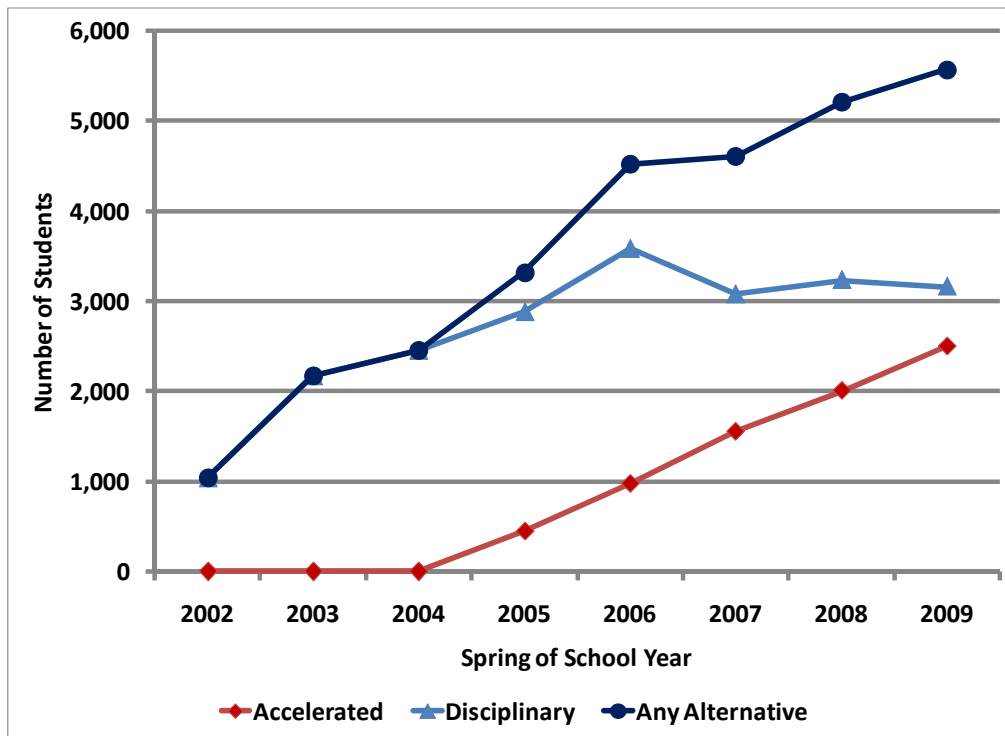
Note: One student-year of enrollment is equal to one student enrolled for a full academic year. Charter school enrollment is excluded from the analysis.

2009 was observed in the two types of selective high schools, citywide admission and magnet schools, as well as in other types of educational programs called educational options programs (EOPs)—outside the focus of this report—that provide classes to adults in the late afternoons. In

all, the types of nonselective schools examined by this report—neighborhood, accelerated, and disciplinary schools—contained two-thirds of all student-years of high school enrollment in 2009.

Despite accounting for a small share of total high school enrollment, both accelerated and disciplinary schools have had proportionally rapid increases in enrollment since 2002. From 2002 to 2009, the number of students enrolling in disciplinary schools at any point during the year grew from 1,040 to 3,159; enrollment in accelerated schools grew from 442 in 2005, the first year in which accelerated schools were in operation, to 2,505 in 2009 (Figure II.2). Together, the number of students ever enrolled in either type of alternative school during a given year grew by 436 percent from 2002 to 2009. In contrast, the number of students enrolled in neighborhood schools at any point during the school year declined from 48,650 in 2002 to 36,723 in 2009, a 25 percent decrease

Figure II.2 Number of Students in Each School Year Ever Enrolled in Alternative Schools During the Year, 2002–2009



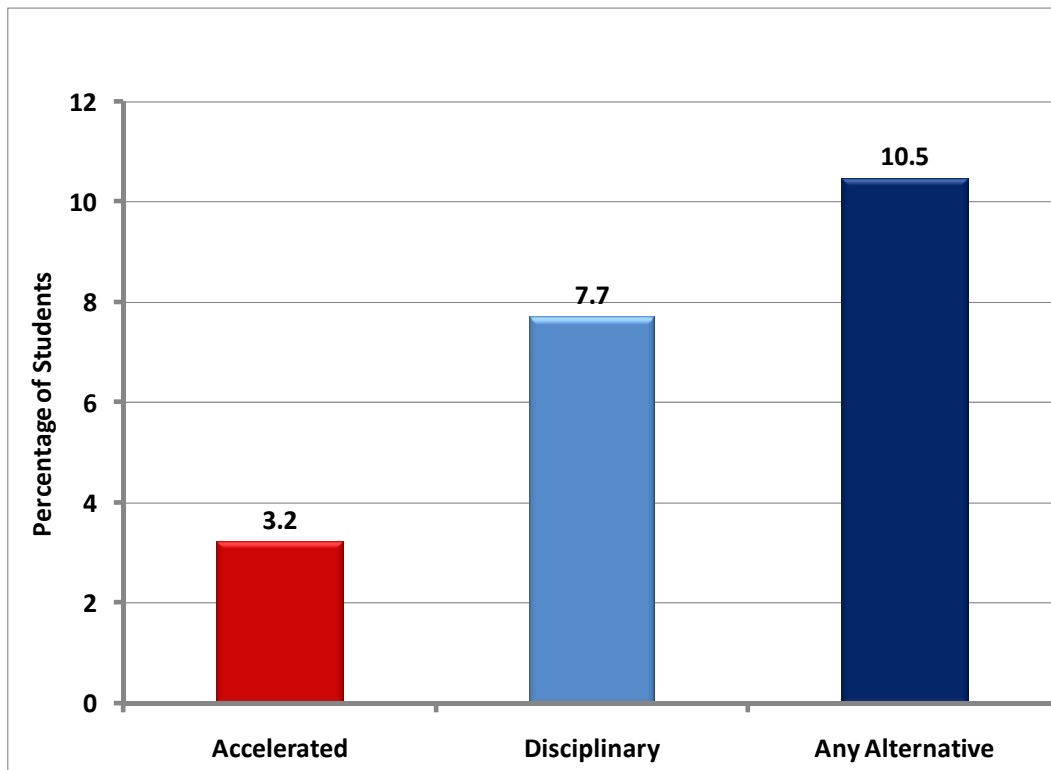
Source: SDP administrative data.

Note: The corresponding enrollment counts in neighborhood schools declined from 48,650 in 2002 to 36,723 in 2009.

(not shown in Figure II.2). Alternative schools’ share of SDP’s total high school enrollment (in student-years) increased from 1 percent in 2002 to 6 percent in 2009.

While Figure II.1 indicates that alternative schools contained 6 percent of all student-years of enrollment in 2009, a larger proportion of students are exposed to alternative education at some point during their entire high school education. Figure II.3 summarizes SDP students’ exposure to alternative education.⁴ Of all students in the 9th-grade cohorts of 2003 and 2004—that is, of the

Figure II.3 Percentage of Students Who Ever Enroll in Alternative Schools Within Six Years of Entering 9th Grade



Source: SDP administrative data.

Note: Analyses are based on the 9th-grade cohorts of 2003 and 2004. The denominators for the percentages include only students who ever enrolled in an SDP high school within six years of 9th-grade entry.

students in those cohorts who ever enrolled in any SDP high school—3.2 percent of students enrolled in accelerated schools at some point within six years of entering 9th grade, and 7.7 percent

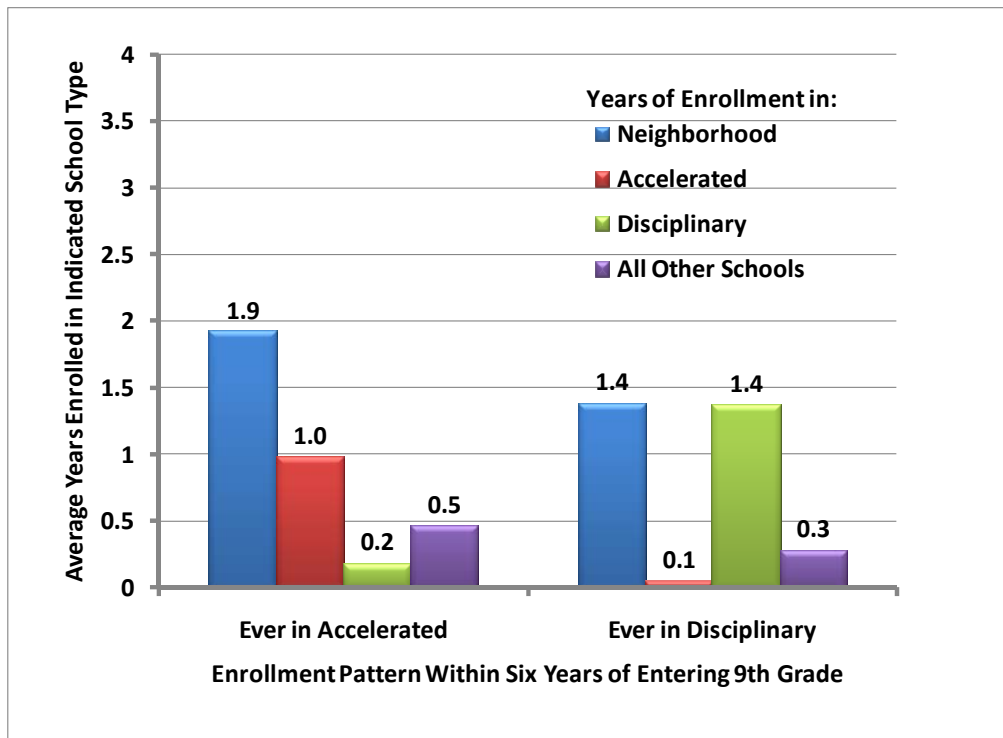
⁴ Appendix Table A.1 provides counts of the total number of students in each 9th-grade cohort, as well as the number of students who ever enrolled in each type of nonselective high school within four, five, or six years of entering 9th grade.

of students enrolled in disciplinary schools. In all, more than one of every 10 students in these cohorts were exposed to alternative education within six years of 9th-grade entry.

B. Enrollment Durations in Alternative Schools

Among those students who ever enrolled in alternative schools during a six-year follow-up period, Figure II.4 shows the average amount of time they were enrolled in each type of high school. Students who ever enrolled in accelerated schools spent, on average, one year in those schools; hence, students’ average duration of enrollment in accelerated schools is much lower than the maximum duration—three years—that is intended for these students to accumulate sufficient credits for graduation. Students who ever enrolled in accelerated schools had a longer average duration

Figure II.4 Average Years of Enrollment in Various Types of High Schools, by Enrollment Pattern Within Six Years of Entering 9th Grade



Source: SDP administrative data.

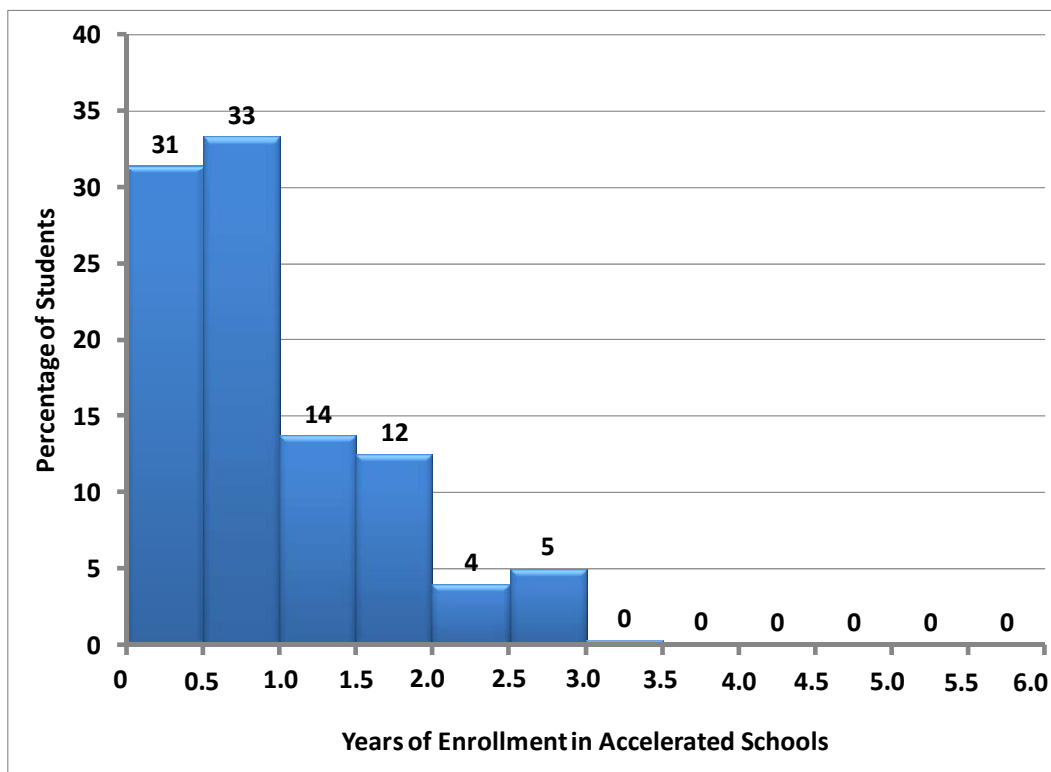
Note: Analyses are based on the 9th-grade cohorts of 2003 and 2004. “All other schools” consist of magnet, citywide admission, and charter schools, as well as educational options programs and Philadelphia Regional High School.

in neighborhood schools—1.9 years—than in accelerated schools. On the other hand, for students who ever enrolled in disciplinary schools, their average duration in those schools—1.4 years—was

the same as their average duration in neighborhood schools. Thus, the typical disciplinary school student spends a substantial portion of his or her high school education in disciplinary schools. For both groups of alternative students, enrollment durations in neighborhood schools, on average, exceeded enrollment durations in any other type of nonalternative setting.

The distributions of enrollment durations in each type of alternative school further confirm that enrollment durations are more likely to be short—for instance, one year or less—in accelerated schools than in disciplinary schools. Sixty-four percent of students who ever enrolled in accelerated schools stayed in those schools no more than one year (Figure II.5); 44 percent of disciplinary

Figure II.5 Distribution of Total Enrollment Durations in Accelerated Schools, Among Students Who Ever Enroll in Accelerated Schools Within Six Years of Entering 9th Grade

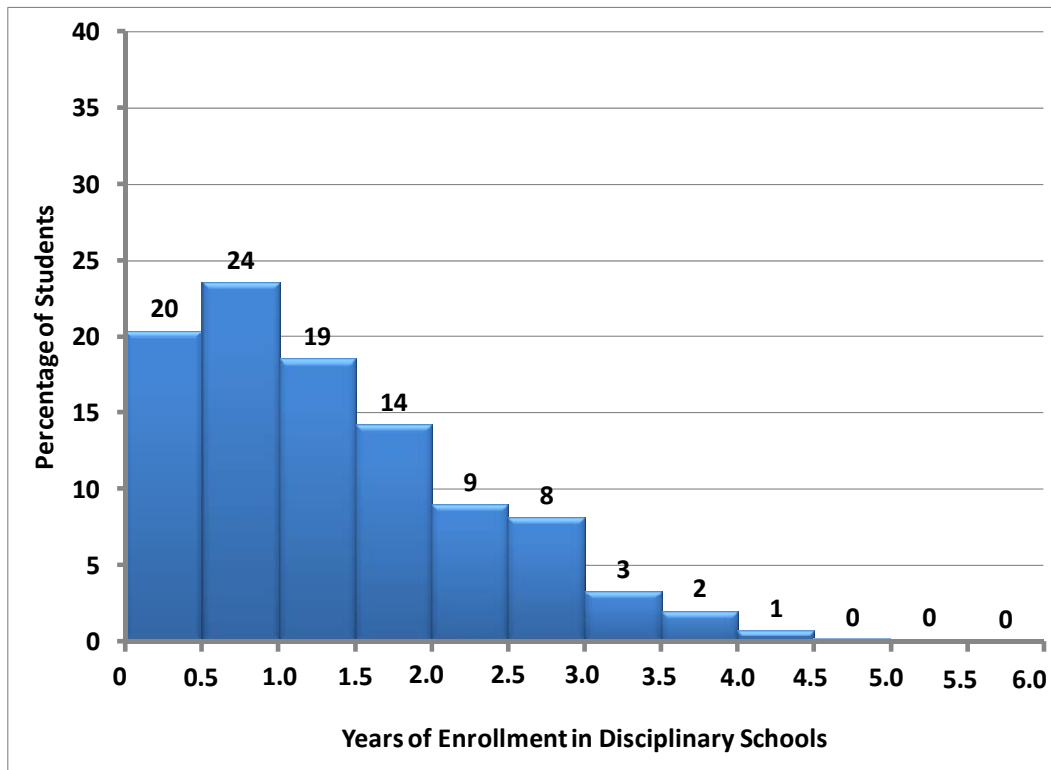


Source: SDP administrative data.

Note: Analyses are based on the 9th-grade cohorts of 2003 and 2004.

school students had enrollment durations in those schools of no more than one year (Figure II.6). Enrollment durations of more than two years were more common for disciplinary students (23 percent) than for accelerated students (9 percent).

Figure II.6 Distribution of Total Enrollment Durations in Disciplinary Schools, Among Students Who Ever Enroll in Disciplinary Schools Within Six Years of Entering 9th Grade



Source: SDP administrative data.

Note: Analyses are based on the 9th-grade cohorts of 2003 and 2004.

C. Reentry of Alternative Students into Regular Schools

Given the district’s goal of supporting the reentry of some alternative students into regular schools, we calculate reentry rates for disciplinary and accelerated students. Among students who ever enroll in alternative education within six years of entering 9th grade, we identify the type of school in which each student is last observed during the six-year follow-up period. Students whose final school is a neighborhood, citywide admission, magnet, or charter school are considered to have reentered regular education.

For accelerated schools, the aim is for students to earn enough credits to graduate, rather than to have them reenter regular schools. Not surprisingly, then, reentry into regular education is not common among accelerated students. For 82 percent of students in the 9th-grade cohorts of 2003 and 2004 who ever enrolled in accelerated schools, accelerated schools were the final schools in which they were enrolled within six years of entering 9th grade (Table II.2).

Table II.2 Type of School in Which Students Are Observed for the Final Time, Among Students Who Ever Enroll in Alternative Schools

Enrollment Pattern Within Six Years of 9th-Grade Entry	Percentage of Students Whose Final School in the Six-Year Follow-Up Period Is in the Indicated School Type			
	Regular	Accelerated	Disciplinary	Other
Ever in Accelerated				
All	9	82	1	8
In Accelerated \leq 1 Year	12	78	1	9
In Accelerated $>$ 1 Year	4	90	0	6
Ever in Disciplinary				
All	32	5	57	7
In Disciplinary \leq 1 Year	44	5	45	6
In Disciplinary $>$ 1 Year	22	5	66	7

Source: SDP administrative data.

Note: Analyses are based on the 9th-grade cohorts of 2003 and 2004. “Regular” denotes neighborhood, citywide admission, magnet, and charter schools. “Other” denotes educational options programs and Philadelphia Regional High School.

Reentry into regular education is more common among disciplinary students than among accelerated students; nevertheless, only a minority of disciplinary students reenter. Among all students in the cohorts of 2003 and 2004 who ever enrolled in disciplinary schools, over half (57 percent) were last observed in disciplinary schools within six years of entering 9th grade (Table II.2). Reentry into regular education was observed for about one-third of disciplinary students. Reentry rates were somewhat higher for students who enrolled in disciplinary schools for one year or less (44 percent) than for students who stayed in disciplinary schools for more than one year (22 percent). As we show in Chapter V, although some disciplinary students graduate from high school while

enrolled in disciplinary schools, the likelihood that disciplinary students graduate is considerably higher if they reenter regular schools.

Because a primary objective of disciplinary schools is for their students to reenter regular schools, we also examine the extent to which this objective has been attained in each individual disciplinary school. For this analysis, disciplinary students are categorized by the first disciplinary school in which they enroll. Thus, we use measures of reentry status based on reference periods with stronger connections to students' time in their first disciplinary schools. In particular, among those students who enter a given disciplinary school in a given school year, we calculate the percentages of students who reenter regular schools by the end of the next school year or the end of the next two school years—that is, whose last school during these follow-up periods is a regular school. To focus the analyses on more recent years, these two analyses are based on all students—regardless of 9th-grade cohort—who entered a given school in the school years 2005-06 through 2007-08 (for the next year analysis) and 2005-06 through 2006-07 (for the next two years analysis).

For each of the six disciplinary schools in operation at some point in 2005-06 through 2007-08, Table II.3 presents the rates at which the enrolled students reentered regular education. In the pooled sample of all disciplinary schools, 18 percent of disciplinary students returned to regular schools by the end of the next school year after entry into disciplinary schools; 23 percent returned by the end of the next two school years. These reentry rates are lower than the cohort reentry rate of 32 percent (Table II.2) due to the difference in follow-up periods and analysis populations. Across schools, rates of reentry into regular education ranged from 3 to 27 percent when entrants into disciplinary schools were followed through the next school year and from 5 to 34 percent when entrants were followed through the next two school years.

Table II.3 Percentage of Students Who Reenter Regular Schools Within Specified Numbers of Years After Entering Disciplinary Schools, by First Disciplinary School in Which Student Enrolls

Name of School (Number of Students Followed Through the Next School Year; Number of Students Followed Through the Next Two School Years)	By the End of the Next School Year			By the End of the Next Two School Years		
	Percentage Who Reenter Regular Schools	95 Percent Confidence Interval		Percentage Who Reenter Regular Schools	95 Percent Confidence Interval	
		Lower Bound	Upper Bound		Lower Bound	Upper Bound
All Disciplinary Schools (N=4739; N=3267)	18	17	20	23	21	24
Allegheny Community Education Partners School (N=673; 463)	15	13	18	17	14	21
Daniel Boone School (N=449; 324)	27	22	31	34	28	39
Delaware Valley High School (N=169; N=123)	3	0	6	5	1	9
E. Spencer Miller School (N=911; 577)	18	16	21	23	20	26
Huntington Park Community Education Partners School (N=2065; 1455)	18	16	19	21	19	23
The Camelot School at Friends Hospital (N=472; 325)	25	21	29	32	27	37

Source: SDP administrative data.

Note: Analyses of reentry by the end of the next school year and by the end of the next two school years are based on students who entered the indicated school in, respectively, the school years 2005-06 through 2007-08 and 2005-06 through 2006-07. "Regular" denotes neighborhood, citywide admission, magnet, and charter schools.

Care should be exercised when comparing reentry rates across disciplinary schools. Without a more in-depth analysis, these descriptive tabulations of outcome differences cannot discern the relative effectiveness of different disciplinary schools. Indeed, any systematic differences in the types of students who are assigned to the various disciplinary schools can result in differences in

outcomes. Therefore, a further examination of the mechanisms by which students are assigned to disciplinary schools and the characteristics of each school's enrollees—which is beyond the scope of this report—is essential before drawing conclusions from Table II.3 on the relative effectiveness of different disciplinary schools.

D. Summary of Findings

In this chapter, we have described the size of enrollment within neighborhood and alternative schools, the lengths of time for which students enroll in alternative education, and alternative students' rates of reentry into regular education. Key findings include:

- The number of students enrolling in either an accelerated or disciplinary school at some point during a given year grew by 436 percent from 2002 to 2009.
- Within six years of entering 9th grade, more than one of every 10 students in the 9th-grade cohorts of 2003 and 2004 ever enrolled in alternative education.
- Average durations of enrollment in accelerated and disciplinary schools were 1.0 and 1.4 years, respectively, for students who ever enrolled in those types of schools. Durations of one year or less were more common in accelerated schools than in disciplinary schools.
- Within six years of 9th-grade entry, 9 percent of students who ever enrolled in accelerated schools were last observed in a regular school, while 32 percent of students who ever enrolled in disciplinary schools were last observed in a regular school.

III. STUDENT BACKGROUND CHARACTERISTICS

Understanding the background characteristics of students who enroll in neighborhood and alternative schools can be important in the design of program services as well as in the interpretation of student outcomes. For instance, the characteristics of disciplinary students may reflect more broadly the types of students in SDP who are at greater risk of behavioral problems; the characteristics of accelerated students may indicate both the populations that are at greater risk of slow credit accumulation in regular schools as well as those with whom the district has had greater success in reengaging. Moreover, observed differences in student characteristics across school types can provide a context for understanding differences in student outcomes; any outcome differences documented in subsequent chapters might be attributable, at least in part, to differences in the types of students who enroll in the various school types.

In this chapter, we examine the average characteristics of students who enroll in neighborhood, accelerated, and disciplinary schools. Using demographic characteristics available in the SDP data, we describe the composition of the student populations in each school type with respect to gender, race or ethnicity, and age. For measuring socioeconomic status, we do not use receipt of free or reduced-price lunches, a measure typically employed in other districts, as many SDP schools have schoolwide programs—known as Universal Feeding Programs—that provide subsidized lunches to all enrollees. Instead, receipt of Temporary Assistance for Needy Families (TANF) by a student’s household is used as an indicator of socioeconomic disadvantage. Finally, to document the prevalence of academic disadvantages among enrollees, we examine disability rates—that is, the proportion of students classified into special education—and the prevalence of being classified as Limited English Proficient. Chapter IV presents analyses of another background characteristic, students’ performance on state assessments before entering high school.

Our primary analyses follow the 9th-grade cohorts of 2003 and 2004 for six years after 9th-grade entry and tabulate the average characteristics of the three groups of interest defined in Chapter I: those who ever enroll in neighborhood schools but never enroll in any alternative setting (“neighborhood students”), those who ever enroll in accelerated schools (“accelerated students”), and those who ever enroll in disciplinary schools (“disciplinary students”). In addition, some analyses document trends over time in the average characteristics of all students enrolled in a given year within a particular school type, irrespective of cohort; for the calculations of these annual averages, each enrolled student is weighted by the fraction of the year enrolled in the particular school type.

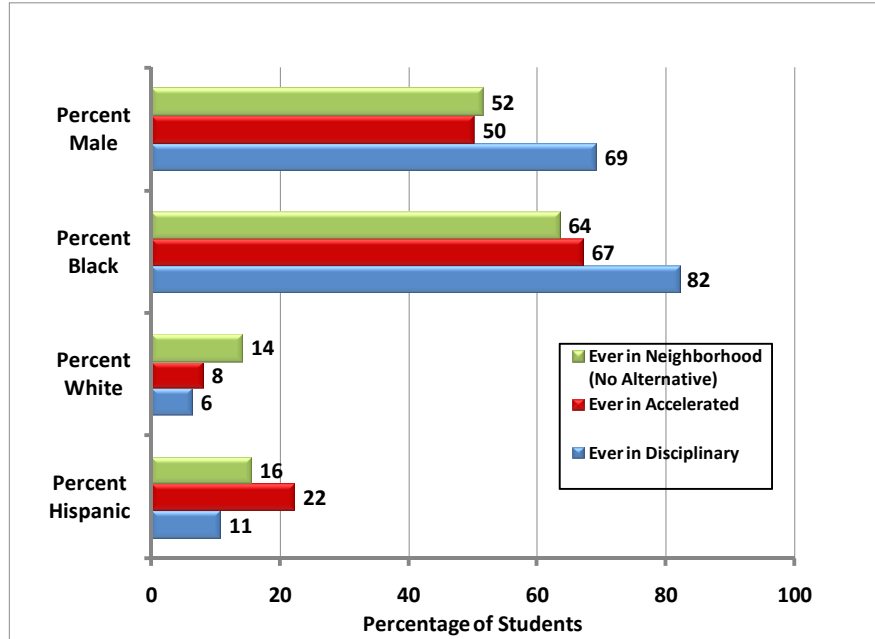
A. Characteristics of Enrollees of Nonselective High Schools

Figure III.1 shows the gender and racial or ethnic composition of the three groups of interest for students in the 9th-grade cohorts of 2003 and 2004. The percentage of students who are male is similar between neighborhood students and accelerated students; in each group, about half of students are male. However, disciplinary students are disproportionately (69 percent) male.

Differences between disciplinary students and the other two groups are also observed with respect to race or ethnicity. The share of students who are black is greater among disciplinary students (82 percent) than among accelerated students (67 percent) and neighborhood students (64 percent) (Figure III.1). Correspondingly, disciplinary students are the least likely to be white or Hispanic among the three enrollment groups.

Over time, there have been only moderate changes in the annual racial or ethnic composition of enrollees in neighborhood and alternative schools. The proportion of neighborhood school enrollees who are Hispanic rose by 5 percentage points from 2002 to 2009, while the proportion who are white dropped by 6 percentage points (Table III.1). The two types of alternative schools have exhibited mildly divergent trends in racial and ethnic composition; whereas the black share

Figure III.1 Gender and Race or Ethnicity of Students, by Enrollment Pattern Within Six Years of Entering 9th Grade



Source: SDP administrative data.

Note: Analyses are based on the 9th-grade cohorts of 2003 and 2004.

Table III.1 Race or Ethnicity of Enrolled Students in Selected Years, by School Type

School Type and Race or Ethnicity Group	Student-Years of Enrollment					
	2002		2005		2009	
	Total Number	Percentage Within School Type	Total Number	Percentage Within School Type	Total Number	Percentage Within School Type
Neighborhood						
Blacks	27,402	66	26,334	68	20,366	66
Hispanics	5,102	12	5,244	14	5,094	17
Whites	6,408	16	4,712	12	3,168	10
Accelerated						
Blacks	-	-	210	68	850	62
Hispanics	-	-	77	25	333	24
Whites	-	-	12	4	153	11
Disciplinary						
Blacks	469	76	1,419	81	1,453	85
Hispanics	67	11	192	11	167	10
Whites	76	12	120	7	74	4

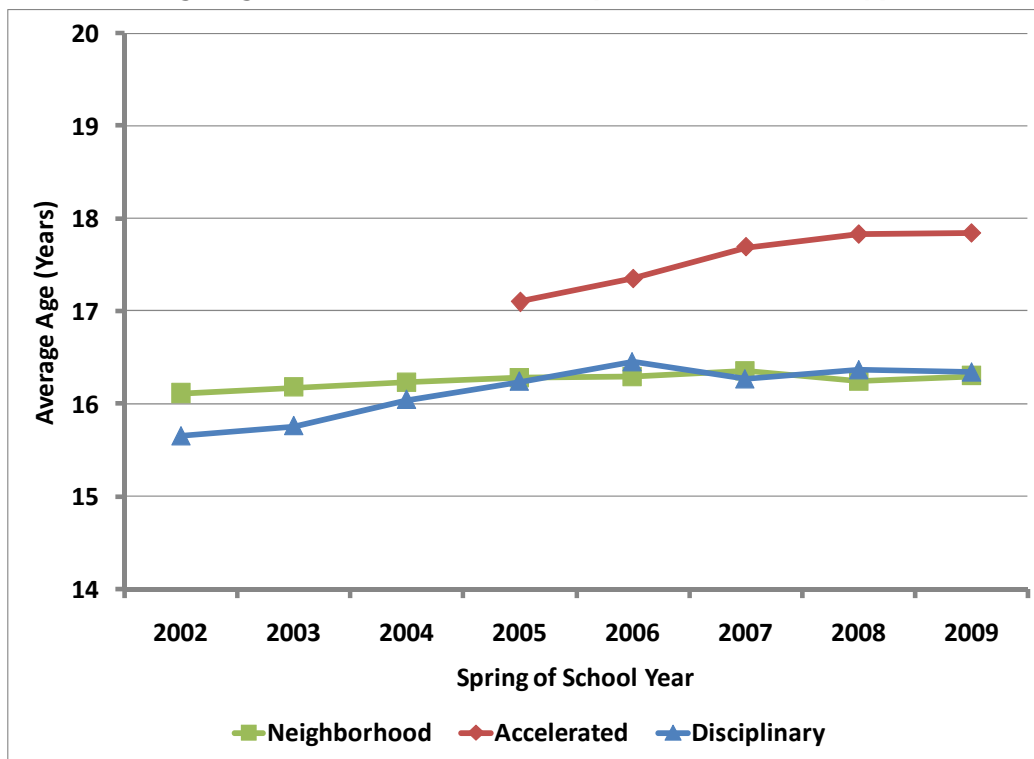
Source: SDP administrative data.

Note: Percentages do not sum to 100 percent within a school type and year due to the presence of students in other racial/ethnic groups.

dropped by 6 percentage points in accelerated schools, it rose by 9 percentage points in disciplinary schools. In none of the three types of nonselective schools did the share of any racial or ethnic group change by more than 9 percentage points from 2002 to 2009.

Differences across school types are also observed with respect to the average age of enrolled students, measured as of October 1 of the school year. Consistent with the accelerated schools' focus on educating overage students with a slow prior rate of credit accumulation, accelerated school enrollees are older, on average, than enrollees in the other two school types. In 2009, the average age of accelerated school enrollees (17.8 years) exceeded that of disciplinary and neighborhood school enrollees (16.3 years) by 1.5 years (Figure III.2). Accelerated schools have been enrolling increasingly older students over time; the average age of enrollees increased by 0.7 years from 2005 to 2009.

Figure III.2 Average Age of Enrolled Students, by Year and School Type

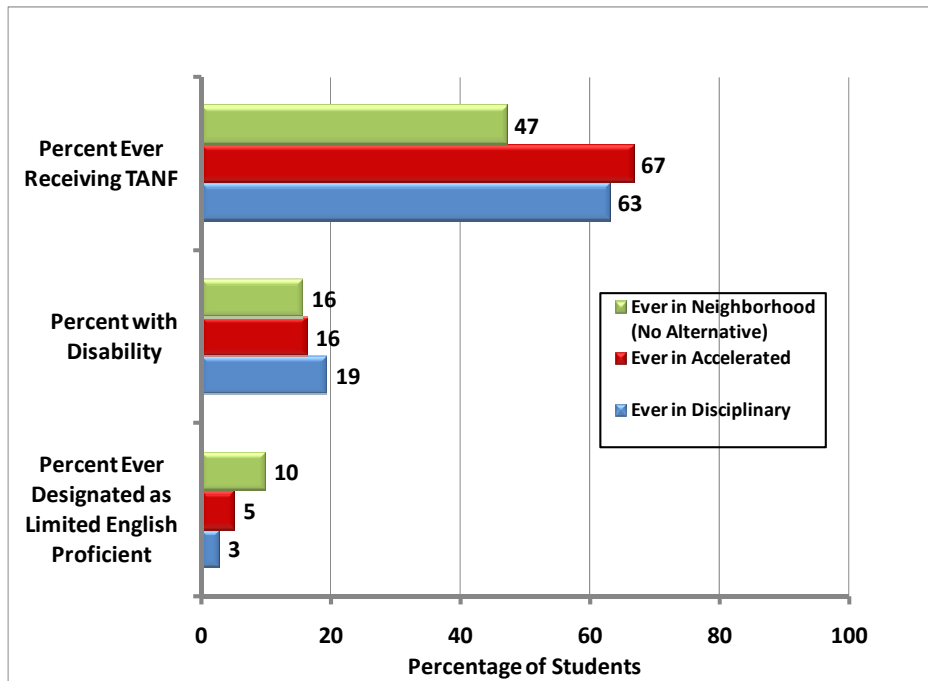


Source: SDP administrative data.

Note: In each school type, students are weighted by the fraction of the year enrolled in the given school type. Age is measured on October 1 of the fall of the indicated school year.

Figure III.3 summarizes the prevalence of socioeconomic and academic disadvantages within groups defined by enrollment patterns during the six-year follow-up period. Students in the 9th-grade cohorts of 2003 and 2004 who ever enrolled in either type of alternative school were more likely to have received TANF during the sample period—and thus, were more socioeconomically disadvantaged—than neighborhood students who never enrolled in alternative education. With regard to academic disadvantages, disability rates do not differ by more than 3 percentage points across the enrollment groups; the percentage of students ever designated as Limited English Proficient is lower for accelerated and disciplinary students than for neighborhood students. Thus, measures of disability and Limited English Proficiency do not indicate that alternative students are particularly academically disadvantaged relative to neighborhood students. Nevertheless, the analyses of Chapter IV will show that alternative students do, in fact, enter high school with lower academic achievement than neighborhood students.

Figure III.3 Prevalence of Socioeconomic and Academic Disadvantages, by Enrollment Pattern Within Six Years of Entering 9th Grade



Source: SDP administrative data.

Note: Analyses are based on the 9th-grade cohorts of 2003 and 2004.

B. Summary of Findings

In this chapter, we have documented the average demographic and socioeconomic characteristics of students who enroll in neighborhood, accelerated, and disciplinary schools, as well as the prevalence of various indicators of academic disadvantage within these enrollment groups.

Key findings include:

- In the 9th-grade cohorts of 2003 and 2004, disciplinary students were more likely to be male and black than neighborhood or accelerated students.
- In 2009, the average age of accelerated school enrollees exceeded that of neighborhood and disciplinary school enrollees by 1.5 years. Accelerated schools enrolled increasingly older students from 2005 to 2009.
- Disciplinary and accelerated students had higher rates of socioeconomic disadvantage, as measured by TANF receipt, than neighborhood students within the 9th-grade cohorts of 2003 and 2004.

IV. PERFORMANCE ON STATE ASSESSMENTS AND ATTRIBUTION OF SCORES

This chapter analyzes the academic performance of neighborhood and alternative students, as measured by reading and math PSSA scores. In high school, the PSSA is administered to all 11th graders enrolled in Pennsylvania’s public schools, with the exception of those who have been classified as severely cognitively disabled, have been granted a religious exemption, or have experienced a medical emergency (U.S. Department of Education 2007).⁵ Therefore, as a measure of academic achievement, PSSA scores have the advantage of being an objective, uniformly defined measure that is applicable irrespective of the type of school in which a student is enrolled.

Despite these advantages to using PSSA scores as a performance measure, this measure has one key limitation: only a subset of students in each 9th-grade cohort have an 11th-grade PSSA score recorded in SDP’s data before exiting the district’s education system. In particular, students do not have an 11th-grade PSSA score in the data if they (1) drop out before taking the test; (2) transfer out of SDP before taking the test; (3) transfer into SDP after 11th grade; or (4) are absent on the testing days. Students with recorded scores, whom we refer to as “PSSA takers,” are thus expected to be less mobile and less at risk of dropping out than those without recorded scores, called “PSSA nontakers.”

Due to the fact that PSSA takers are a nonrandom subset of each cohort, the analyses of this chapter begin with examining the proportion of students for whom an 11th-grade PSSA score is recorded and comparing the pre-high school performance of students with and without 11th-grade scores. These analyses are suggestive of how well or poorly the recorded 11th-grade scores can capture the achievement of all students.

⁵ Students with severe cognitive disabilities are administered assessments under the Pennsylvania Alternate System of Assessment (PASA).

We then describe the PSSA performance of the three enrollment groups defined, as in previous chapters, by enrollment patterns within six years of 9th-grade entry: (1) students who ever enroll in neighborhood schools, but not alternative schools; (2) students who ever enroll in accelerated schools; and (3) students who ever enroll in disciplinary schools. Each student's PSSA performance in a given subject can be summarized by his or her performance level, which can be one of four categories as defined by the state:

- **Below basic:** inadequate performance; little understanding of required skills
- **Basic:** marginal performance; partial understanding of required skills
- **Proficient:** satisfactory performance; solid understanding of required skills
- **Advanced:** superior performance; in-depth understanding of required skills.

To describe the aggregate performance of an entire group, we calculate the percentage of PSSA takers who score at or above specified performance levels. For each enrollment group, we analyze not only students' PSSA performance in 11th grade, but also their PSSA performance in 8th grade—shortly *prior* to entering high school. As with the analysis of student background characteristics in Chapter III, the prior academic performance of each enrollment group can inform the interpretation of outcomes attained in high school. When describing PSSA performance at each grade level, we use all recorded scores at that grade level. In some analyses, we also show trends over time in the annual performance of each school type based on all students—irrespective of cohort—who are enrolled in the specified school type at the time of the 11th-grade PSSA.

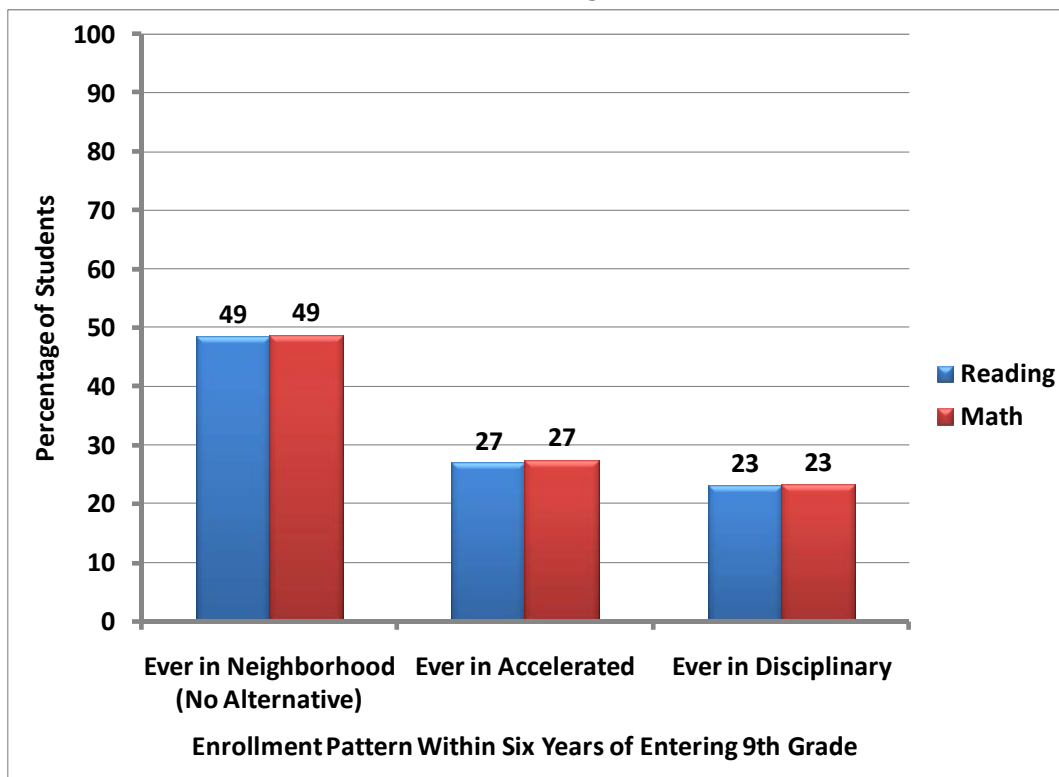
In the final set of analyses in this chapter, we examine current state rules under which alternative students' PSSA scores are attributed to neighborhood schools in the determination of whether neighborhood schools meet NCLB performance targets. In particular, we analyze whether this attribution scheme affects neighborhood schools' likelihood of meeting performance targets. Using PSSA data from the three most recent years (2007–2009), we calculate whether each

neighborhood school meets its reading and math performance targets when alternative students' scores are included (as under current rules) or are excluded from the performance calculations.

A. Prevalence of Recorded 11th-Grade Scores

In none of the three enrollment groups—neighborhood students, accelerated students, or disciplinary students—do over half of students have recorded 11th-grade PSSA scores in reading and math within six years of entering 9th grade. Among neighborhood students, 49 percent have recorded 11th-grade scores; the prevalence of recorded scores is lower for accelerated students (27 percent) and disciplinary students (23 percent) (Figure IV.1).

Figure IV.1 Percentage of Students with Recorded Grade 11 PSSA Scores, by Enrollment Pattern Within Six Years of Entering 9th Grade



Source: SDP administrative data.

Note: Analyses are based on the 9th-grade cohorts of 2003 and 2004.

Possible reasons for the absence of recorded 11th-grade PSSA scores can be broadly grouped into two categories: (1) factors such as dropout and mobility that cause students not to reach the point at which they are administered the 11th-grade PSSA in SDP; and (2) factors such as truancy that lead to the absence of scores for students who were actually enrolled in 11th grade at the time of the PSSA. Table IV.1 evaluates the contribution of each set of factors to the absence of 11th-grade scores. In each enrollment group, we calculate the percentage of students who reach the spring of 11th grade—that is, those who are enrolled continuously in SDP from March 1 to May 1 of the 11th-grade year, the period in which they are required to have been administered the PSSA. For students who reach the 11th-grade spring, the first set of factors cannot account for missing scores; the prevalence of recorded scores in this group thus indicates the importance of the second set of factors in accounting for absent scores.

Across enrollment groups, both differences in the prevalence of reaching the 11th-grade spring and differences in PSSA participation by enrolled 11th-graders contribute to the observed gaps in the prevalence of recorded scores. In the 9th-grade cohorts of 2003 and 2004, accelerated and disciplinary students were, respectively, 18 and 10 percentage points less likely to reach the spring of 11th grade than neighborhood students (Table IV.1). Neighborhood and alternative students differed even more extensively with respect to the PSSA participation of students who were enrolled at the time of PSSA administration. Among students who reached the spring of 11th grade, scores are recorded for 88 percent of neighborhood students, but only for 58 percent of accelerated students and 45 percent of disciplinary students. The latter two participation rates are strikingly low relative to the NCLB requirement of 95 percent participation in state assessments.

Not surprisingly, students with recorded scores for the 11th-grade PSSA have better academic achievement prior to high school than students without recorded 11th-grade scores. For the 9th-grade cohorts of 2003 and 2004, we calculated the percentage of students scoring at basic or above

Table IV.1 Decomposition of the Prevalence of Recorded Grade 11 PSSA Scores

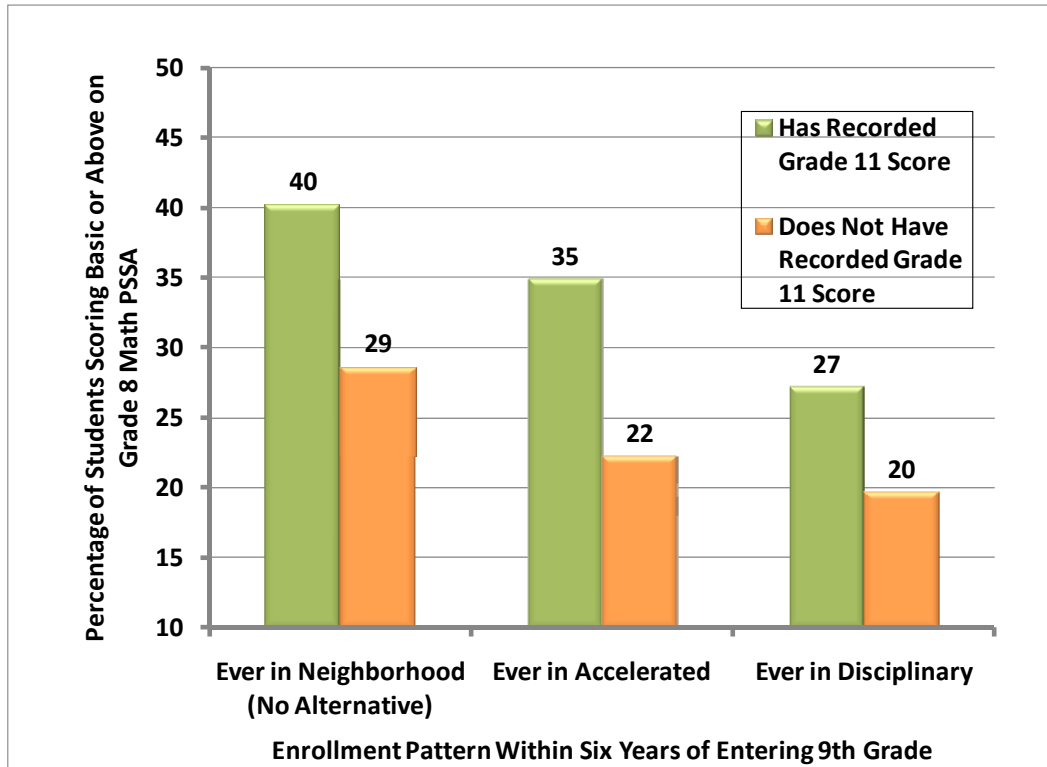
	Enrollment Pattern Within Six Years of Entering 9th Grade		
	Ever in Neighborhood (No Alternative)	Ever in Accelerated	Ever in Disciplinary
Percentage Who Reached 11th Grade Spring	52	34	42
Percentage with Recorded Math Score			
Overall	49	27	23
Reached 11th Grade Spring	88	58	45
Did Not Reach 11th Grade Spring	6	11	8

Source: SDP administrative data.

Note: Analyses are based on students in the 9th-grade cohorts of 2003 and 2004. A student is classified as having reached the 11th grade spring if he or she was ever enrolled continuously in SDP from March 1 to May 1 of the 11th-grade year.

on the 8th-grade math PSSA, according to whether students had recorded scores for the 11th-grade math PSSA. Across enrollment groups, 8th-grade performance was higher for 11th-grade PSSA takers than for 11th-grade PSSA nontakers by 7 to 13 percentage points, and all such differences were statistically significant at the 0.01 level (Figure IV.2). These findings suggest that the observed 11th-grade PSSA performance for each enrollment group, as analyzed in the following subsection, is higher than it would otherwise be if all students in the enrollment groups had taken the 11th-grade tests.

Figure IV.2 Percentage of Students Scoring at Basic or Above on the Grade 8 Math PSSA, by Presence of Recorded Score for Grade 11 Math PSSA



Source: SDP administrative data.

Note: Analyses are based on the 9th-grade cohorts of 2003 and 2004.

B. PSSA Performance of Enrollment Groups

Table IV.2 provides, separately for each enrollment group, the percentages of students who score at the below basic, basic, proficient, and advanced performance levels on the math PSSA. Percentage distributions of scores across these performance levels are shown for each group’s math performance prior to high school (8th grade) and during high school (11th grade), based on students who have recorded scores at the given grade level. Table IV.3 shows corresponding findings for the reading PSSA.

Prior to entering 9th grade, students who eventually enroll in alternative education have lower academic achievement, on average, than students who eventually enroll in neighborhood schools but not alternative schools. In the 9th-grade cohorts of 2003 and 2004, 65 percent of neighborhood students scored below basic on the 8th-grade math PSSA, whereas 74 percent of accelerated

students and 78 percent of disciplinary students scored at this lowest math level (Table IV.2). Similar gaps in prior achievement are observed in reading: compared with neighborhood students, accelerated and disciplinary students were more likely to score below basic in reading by 8 and 13 percentage points, respectively (Table IV.3).

Table IV.2 PSSA Performance in Math Prior to and During High School, by Enrollment Pattern Within Six Years of Entering 9th Grade

Enrollment Pattern Within Six Years of 9th-Grade Entry	Percentage of PSSA Takers Who Earn Specified Performance Level			
	Below Basic	Basic	Proficient	Advanced
Ever in Neighborhood (No Alternative)				
8th Grade PSSA	65	22	11	1
11th Grade PSSA	68	16	11	5
Ever in Accelerated				
8th Grade PSSA	74	20	5	0
11th Grade PSSA	92	5	3	0
Ever in Disciplinary				
8th Grade PSSA	78	15	6	1
11th Grade PSSA	85	9	4	1

Source: SDP administrative data.

Note: Analyses are based on students in the 9th-grade cohorts of 2003 and 2004. Due to rounding, rows may not sum to 100.

Gaps between neighborhood and alternative students in the prevalence of scoring below basic widened from 8th grade to 11th grade. In 11th-grade math, 92 percent of accelerated students and 85 percent of disciplinary students scored below basic, whereas 68 percent of neighborhood students did so (Table IV.2). In particular, the gap of 24 percentage points between neighborhood and accelerated students in 11th-grade math was substantially larger than the corresponding 9 percentage point gap observed in 8th-grade math; the gap between neighborhood and disciplinary students also widened, but by a smaller increment. A similar pattern of widening gaps is found in reading: accelerated and disciplinary students were, respectively, 18 and 19 percentage points more likely than neighborhood students to score below basic in 11th-grade reading, whereas corresponding gaps in 8th grade were 8 and 13 percentage points (Table IV.3).

Table IV.3 PSSA Performance in Reading Prior to and During High School, by Enrollment Pattern Within Six Years of Entering 9th Grade

Enrollment Pattern Within Six Years of 9th-Grade Entry	Percentage of PSSA Takers Who Earn Specified Performance Level			
	Below Basic	Basic	Proficient	Advanced
Ever in Neighborhood (No Alternative)				
8th Grade PSSA	51	28	18	2
11th Grade PSSA	59	19	18	4
Ever in Accelerated				
8th Grade PSSA	59	25	14	2
11th Grade PSSA	77	11	11	2
Ever in Disciplinary				
8th Grade PSSA	64	23	11	1
11th Grade PSSA	78	11	9	2

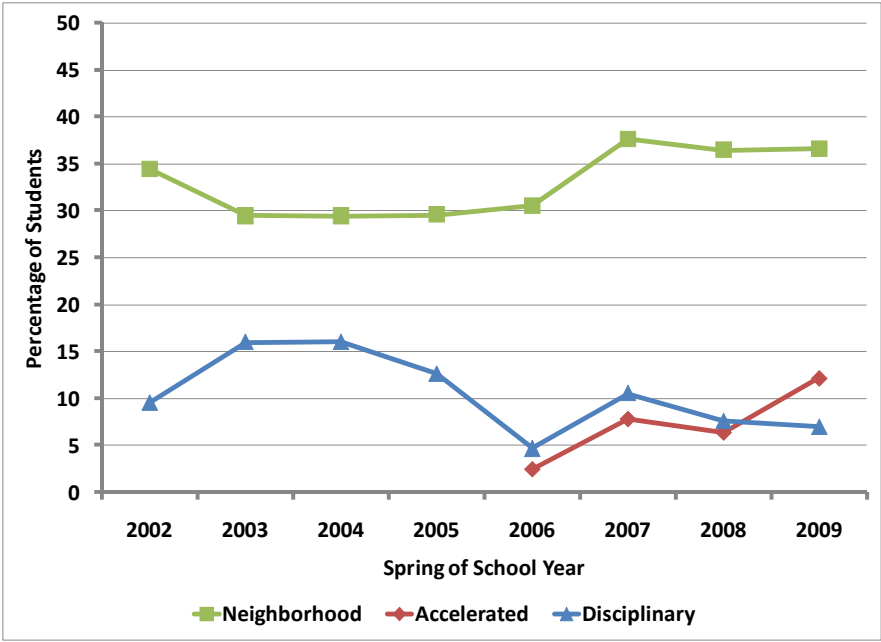
Source: SDP administrative data.

Note: Analyses are based on students in the 9th-grade cohorts of 2003 and 2004. Due to rounding, rows may not sum to 100.

Few clear trends over time can be observed in the annual 11th-grade PSSA performance of neighborhood, accelerated, and disciplinary schools. Among all students enrolled in neighborhood schools who took the 11th-grade math PSSA in a given year, the percentage who scored at basic or above was 34 percent in 2002 and 37 percent in 2009 (Figure IV.3); in both 2002 and 2009, 44 percent of neighborhood students scored at basic or above in 11th-grade reading (Figure IV.4). Similarly, in disciplinary schools, there was no clear trajectory of PSSA performance over the period from 2002 to 2009. Accelerated schools demonstrated noticeable increases in PSSA scores—especially in reading—after 2006, the first year in which accelerated school enrollees had 11th-grade PSSA scores recorded in the SDP data.⁶ However, the trend within accelerated schools is based on only four years of data; additional years of data beyond 2009 will indicate the extent to which recent test score improvements in accelerated schools are sustained.

⁶ No 11th-grade PSSA scores were recorded for accelerated school enrollees in 2005.

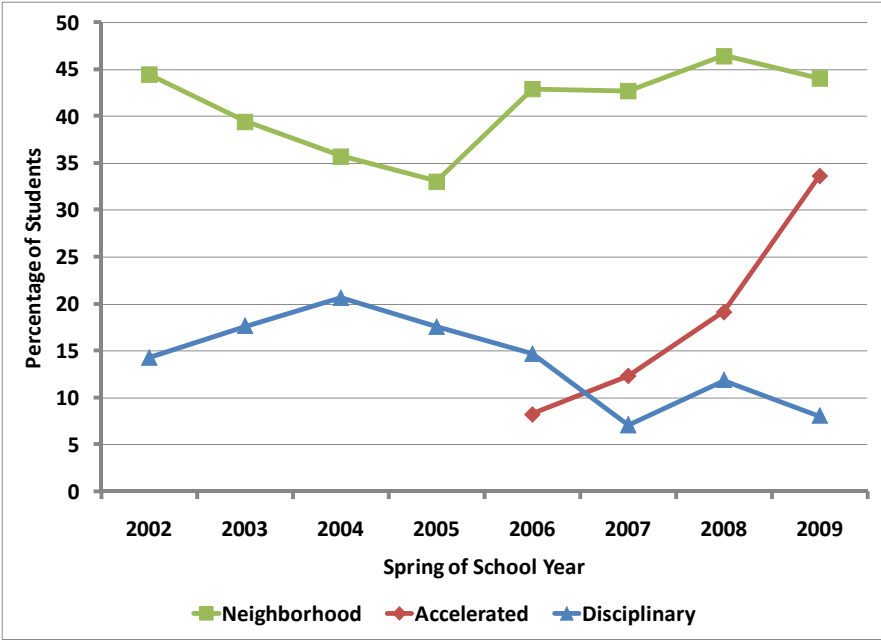
Figure IV.3 Percentage of Students Scoring at Basic or Above on the Grade 11 Math PSSA, by Year and School Type of Enrollment



Source: SDP administrative data.

Note: Analyses are unweighted. “School type of enrollment” is the type of school in which a student is enrolled at the time of PSSA administration.

Figure IV.4 Percentage of Students Scoring at Basic or Above on the Grade 11 Reading PSSA, by Year and School Type of Enrollment



Source: SDP administrative data.

Note: Analyses are unweighted. “School type of enrollment” is the type of school in which a student is enrolled at the time of PSSA administration.

C. Attribution of PSSA Scores Earned by Alternative Students

Under No Child Left Behind (NCLB), each public school in Pennsylvania is evaluated primarily on the basis of the percentage of its students who score at proficient or above on the PSSA—henceforth, referred to as the school’s *proficiency rate*—in reading and math. In each year and subject, a performance target for the proficiency rate—known as an annual measurable objective (AMO)—is set uniformly for all schools in accordance with the state’s accountability plan, and each school is required to demonstrate that the proficiency rates for all of its students as well as for particular subgroups of students meet the AMOs (U.S. Department of Education 2007). For instance, the AMOs in math required a proficiency rate of 45 percent in 2007 and 56 percent in 2008 and 2009; the AMOs in reading required a proficiency rate of 54 percent in 2007 and 63 percent in 2008 and 2009. The determination of whether a school’s proficiency rates meet or fall short of the AMOs is a major—although not the sole—determinant of whether a school is deemed to have made adequate yearly progress (AYP); Title I schools that fail to meet AYP criteria for two consecutive years in the same subject are sanctioned.

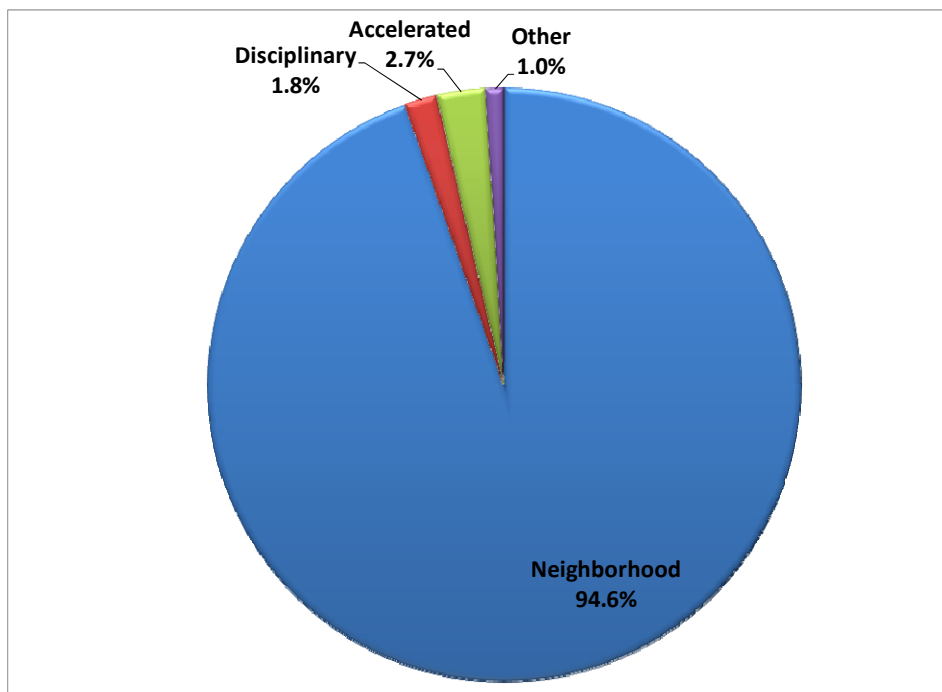
Due to the high stakes attached to PSSA performance, there is interest in current accountability rules that attribute the PSSA scores of alternative students to the neighborhood schools serving the students’ attendance areas. In this section, we examine the PSSA scores that have been attributed to neighborhood schools in the three most recent years—2007 through 2009—to determine whether this attribution rule affects the likelihood that neighborhood schools meet AYP criteria.

Among the scores attributed to neighborhood schools, the proportion that comes from alternative school enrollees determines, in part, the influence of alternative students’ scores on neighborhood schools’ proficiency rates. In 2007 through 2009, alternative students contributed only a small share of the PSSA scores attributed to neighborhood schools. Of the 11th-grade PSSA math scores attributed to neighborhood schools, 1.8 percent were earned by enrollees of disciplinary

schools and 2.7 percent were earned by enrollees of accelerated schools (Figure IV.5). For no neighborhood school during this period did more than 12 percent of the attributed scores come from alternative students. The small share of scores contributed by alternative students is a strong indication that alternative students' scores can have, at most, a very limited influence on the calculated proficiency rates of neighborhood schools.

An examination of aggregate proficiency rates—that is, proficiency rates based on pooling the attributed scores from all neighborhood schools—confirms the limited influence of alternative students' scores. Among all students whose 11th-grade PSSA scores were attributed to neighborhood schools in 2007 through 2009—including alternative students, as under current

Figure IV.5 School Type of Enrollment for Students Whose Grade 11 Math PSSA Scores Are Attributed to Neighborhood Schools

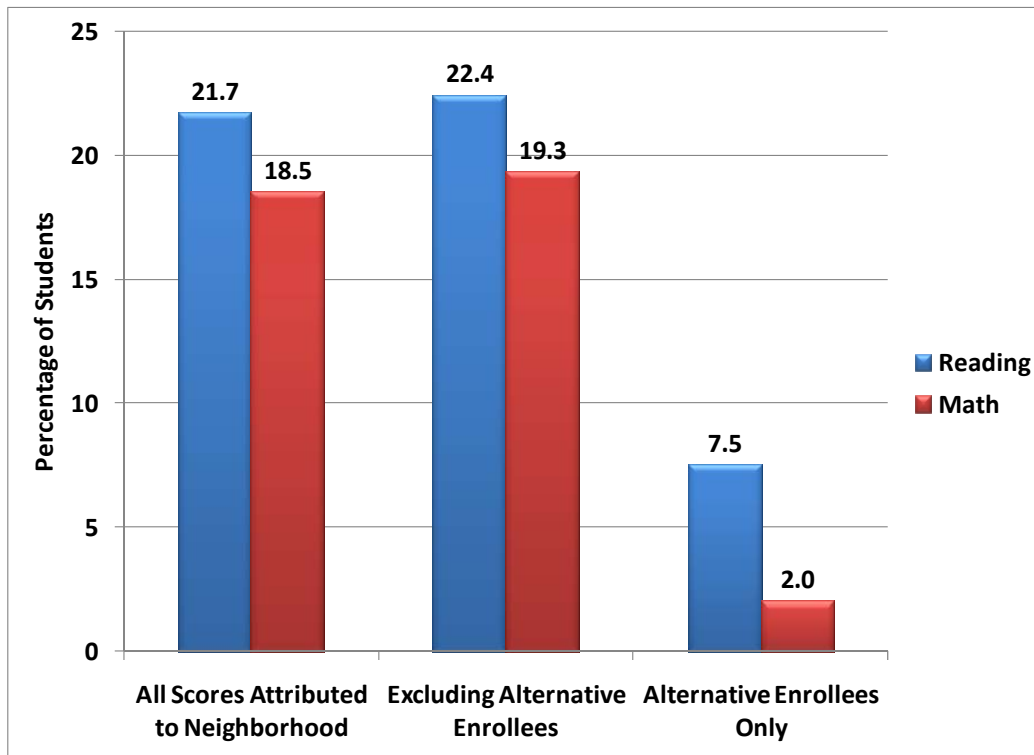


Source: SDP administrative data.

Note: Analyses are based on PSSA scores in 2007 through 2009. "School type of enrollment" is the type of school in which a student is enrolled at the time of PSSA administration.

rules—the aggregate proficiency rate in reading was 21.7 percent (Figure IV.6). If alternative students had been excluded from this calculation, the reading proficiency rate would have been barely higher, at 22.4 percent. The change in the proficiency rate is small despite the fact that alternative students collectively had a much lower proficiency rate, 7.5 percent, than all other students whose scores were attributed to neighborhood schools; the small influence of alternative students’ scores is thus primarily due to the small share of scores contributed by these students. A similar pattern is observed in the calculation of the math proficiency rate.

Figure IV.6 Percentage of Students Scoring at Proficient or Above on the Grade 11 PSSA, by Subpopulation of Students Whose Scores Are Attributed to Neighborhood Schools



Source: SDP administrative data.

Note: Analyses are based on PSSA scores in 2007 through 2009.

We next calculate whether each individual neighborhood school met AYP performance targets in reading and math in each of the years 2007 through 2009 under two separate scenarios: (1) the school’s proficiency rates are based on all scores attributed to the school in the given year, in

accordance with current attribution rules; and (2) the scores of alternative students are excluded from the set of scores attributed to the school. In each of the two scenarios, we explore various approaches for determining whether a school met its performance targets for a given subject in a given year. The most straightforward approach compares the schoolwide proficiency rate, calculated from the school's attributed PSSA scores in that year only, with the AMO in the given subject; the school is classified as having met its performance target if the proficiency rate is at least as high as the AMO. We augment this basic approach in a number of ways. First, following the actual rules of the Pennsylvania accountability system, we construct a right-sided 95 percent confidence interval (CI) for the school's proficiency rate, and a school is deemed to have met its performance target if the upper bound of the CI is at least as high as the AMO. Second, we calculate a school's proficiency rate for a given year based on its attributed scores from both that year and the previous year, and this "two-year average" proficiency rate is compared (with or without a confidence interval) with the AMO for the more recent year. In practice, Pennsylvania takes the higher of a school's single-year and two-year average proficiency rates when evaluating whether a school has met its AMO.

The final variant of these calculations incorporates another key determinant of AYP status known as "safe harbor." Under NCLB rules, even if a school does not attain the AMO in a given subject, the school can still be deemed as having satisfied AYP criteria in that subject if the *change* in the proficiency rate from the previous year to the current year is sufficiently large. In particular, for a school to meet AYP criteria through safe harbor, the realized change in the proficiency rate must not be statistically significantly lower than the change that is required to reduce the nonproficiency rate by 10 percent.⁷ Thus, our final calculation method determines whether each school meets AYP criteria *either* by attaining the AMO *or* by achieving safe harbor.

⁷ The statistical test is a one-sided test at a 0.25 significance level.

We note that our calculations focus on one set of specific but important determinants of a school's AYP status—the schoolwide proficiency rate relative to the AMO and the change in the schoolwide proficiency rate relative to the safe harbor requirement. There are a plethora of other components to the determination of AYP status that are beyond the scope of this report's consideration. For instance, major specified subgroups within each school must meet the AMOs or achieve safe harbor in order for the school to satisfy AYP criteria. Other academic indicators are also used in conjunction with proficiency rates to evaluate school performance. Moreover, under NCLB rules, all of the calculations for a given school are based on students who have been in the school for a full academic year.⁸ We do not consider these and other complexities in the calculations of this report.

Considering each neighborhood school in each of the years 2007 through 2009 as a separate performance unit, Table IV.4 shows the results of determining whether each of the 90 school-year performance units met its AMOs in math and reading, without consideration of safe harbor. Under the most basic approach of comparing a single-year proficiency rate to the AMO without a confidence interval, three school-year performance units met the AMO in math and one met the AMO in reading, regardless of whether or not alternative students' scores are attributed to neighborhood schools. Similarly, when schools are evaluated on the basis of two-year average proficiency rates without a CI or single-year proficiency rates with a CI, exclusion of alternative students' scores yields no change in the number of performance units meeting AMOs in either subject. Under only one type of calculation—the use of a two-year average proficiency rate in conjunction with a CI—the exclusion of alternative students' scores enables exactly one performance unit to attain its AMOs when it otherwise would have failed to meet its targets under

⁸ Because enrollees of alternative schools are generally more mobile than enrollees of neighborhood schools, restricting the calculation to students present for a full academic year would further decrease the share of scores contributed by alternative students.

the current attribution rules;⁹ the sensitivity of this particular school’s status, which occurs in both subjects, is unsurprising, as its CI upper bounds are barely beneath the AMOs in both subjects prior to excluding the alternative students. Overall, the likelihood that neighborhood schools attain their AMOs is largely insensitive to whether they are held accountable for alternative students’ scores.

Table IV.4 Number of Neighborhood School-Year Performance Units that Meet Annual Measurable Objectives for Subject Proficiency, With and Without PSSA Scores of Alternative Students

	Subset of Scores	
	All Scores that Are Attributed to Neighborhood Schools	Excluding Scores of Accelerated and Disciplinary Students
Total Number of Neighborhood School-Year Units	90	90
Number of Neighborhood School-Year Units Whose Math Proficiency Rate Meets the AMO		
Single-Year Calculations, Without CI	3	3
Two-Year Averaging, Without CI	1	1
Single-Year Calculations, With CI	4	4
Two-Year Averaging, With CI	1	2
Number of Neighborhood School-Year Units Whose Reading Proficiency Rate Meets the AMO		
Single-Year Calculations, Without CI	1	1
Two-Year Averaging, Without CI	0	0
Single-Year Calculations, With CI	1	1
Two-Year Averaging, With CI	0	1

Source: SDP administrative data.

Note: “CI” denotes confidence interval. The population of school-year units consists of neighborhood schools separately in each of the years 2007, 2008, and 2009. The AMO for math was 45 percent in 2007 and 56 percent in 2008 through 2009. The AMO for reading was 54 percent in 2007 and 63 percent in 2008 through 2009.

When safe harbor is taken into account, slightly more—but still very few—schools would have experienced a change in their AYP status if attribution rules had been modified. The safe harbor provision expands the number of neighborhood schools that meet AYP criteria. Under current attribution rules, 23 neighborhood performance units satisfied AYP criteria in reading by either

⁹ This performance unit is Strawberry Mansion High School in 2009.

attaining the AMO with a confidence interval or making safe harbor; 16 did so in math (Table IV.5). Given the presence of a safe harbor provision, changing the attribution rules to exclude alternative students from AYP calculations would have changed the AYP status of a small number of schools in either subject. In reading, exclusion of alternative students would have left the AYP status of 87 performance units unchanged and would have improved the AYP status of two performance units; that is, the latter two schools did not satisfy AYP criteria under current attribution rules but would satisfy such criteria if alternative students were excluded. However, one school in 2008 that satisfied AYP criteria in reading under current rules would not have done so if alternative students had been excluded¹⁰; the reason is that the proportion of this school's attributed scores coming from alternative students dropped noticeably from 2007 to 2008, leading to a measured growth in the proficiency rate that was more pronounced than if alternative students were entirely excluded. In math, three performance units would have had an improvement in AYP status from the change in rules, whereas the remaining 87 units would have had no change in AYP status. Therefore, on net, removing alternative students from AYP calculations would have raised the number of performance units meeting AYP criteria by one in reading and by three in math. In general, because it is easier for schools to attain safe harbor than to meet the AMOs, a few more schools are close to the margin of meeting AYP criteria when safe harbor is allowed relative to when the safe harbor provision is absent; these schools are the ones whose AYP status can be influenced by small adjustments to the set of included students. Nevertheless, the number of schools whose AYP status would be affected by a change in the attribution rules is still a small proportion of all neighborhood schools in SDP.

¹⁰ This school is John Bartram High School.

Table IV.5 Number of Neighborhood School-Year Performance Units that Satisfy AYP Criteria by Attaining Annual Measurable Objectives or Achieving Safe Harbor, With and Without PSSA Scores of Alternative Students

	Subject	
	Reading	Math
Total Number of Neighborhood School-Year Units	90	90
Number of Units that Satisfy AYP Criteria on the Basis of All Attributed Scores	23	16
Number of Units, by Change in AYP Status Due to Exclusion of Accelerated and Disciplinary Students		
No Change in AYP Status	87	87
AYP Status Improves Due to Exclusion	2	3
AYP Status Worsens Due to Exclusion	1	0

Source: SDP administrative data.

Note: The population of school-year units consists of neighborhood schools separately in each of the years 2007, 2008, and 2009. Attainment of annual measurable objectives is assessed on the basis of single-year calculations with a confidence interval.

D. Summary of Findings

In this chapter, we have described the performance of neighborhood and alternative students on the PSSA both prior to and during high school, and we have analyzed the extent to which current accountability rules that attribute alternative students’ scores to neighborhood schools affect the neighborhood schools’ attainment of NCLB performance targets. Key findings include:

- In none of the three enrollment groups of interest within the 9th-grade cohorts of 2003 and 2004—neighborhood, accelerated, or disciplinary students—did over half of students have a recorded 11th-grade PSSA score within six years after 9th-grade entry. Relative to neighborhood students, accelerated and disciplinary students had a lower prevalence of recorded scores due to both a lower likelihood of reaching the spring of 11th grade within SDP and a lower PSSA participation rate among enrolled 11th graders.
- Students with a recorded 11th-grade score had better PSSA achievement in 8th grade than students without a recorded 11th-grade score.
- PSSA performance in 8th grade—that is, prior to entering high school—was lower among accelerated and disciplinary students than among neighborhood students.
- Gaps between neighborhood and accelerated students in the percentage of students scoring at basic or above on the PSSA expanded considerably from 8th to 11th grade; gaps between neighborhood and disciplinary students also expanded, but by a smaller increment.

- Although alternative students' PSSA scores are attributed to neighborhood schools for school accountability calculations, alternative students contributed only a small share of the scores attributed to neighborhood schools in 2007 through 2009.
- For most neighborhood schools, their status of attaining or failing to attain NCLB performance benchmarks would remain the same regardless of whether alternative students were included or excluded from their calculated proficiency rates. If current attribution rules were changed to exclude alternative students, the number of cases in which a neighborhood school met NCLB standards for levels or changes in proficiency rates would have increased by only one in reading and three in math during the years 2007 through 2009; for 87 cases in each of the two subjects, there would have been no change in whether a neighborhood school met these standards.

V. GRADUATION RATES

This chapter examines graduation rates among students who enroll in neighborhood and alternative schools. Raising the graduation rate is one of SDP's primary goals with respect to improving student achievement, as specified in *Imagine 2014*. Our analysis of graduation outcomes begins with calculating cohort graduation rates for various 9th-grade cohorts based on follow-up periods of four, five, and six years after 9th-grade entry. We also provide graduation rates based on alternative samples of students and calculation methods. Finally, given that accelerated schools are aimed at enabling graduation within two or three years of entering such schools, we examine the proportion of accelerated students—without regard to 9th-grade cohort—who graduate within time frames that are consistent with these goals.

A. Cohort Graduation Rates

The consensus among policymakers and researchers is that the tracking of 9th-grade cohorts over a specified follow-up period is the methodologically preferred approach to calculating graduation rates (National Governors Association 2005; Engberg and Gill 2006; Neild and Balfanz 2006). Accordingly, within each 9th-grade cohort, we use such an approach to calculate graduation rates separately for the three groups of interest defined by particular enrollment patterns in a specified follow-up period: students who ever enroll in neighborhood schools, but not alternative schools; students who ever enroll in accelerated schools; and students who ever enroll in disciplinary schools. Because both on-time and delayed graduation are of potential interest, we calculate graduation rates based on four-year, five-year, and six-year follow-up periods after 9th-grade entry, as long as the entire follow-up period for a given cohort lies within the available sample period. As our sample period ends in the 2009 school year, six-year graduation rates can be calculated for the 9th-grade cohorts of 2003 and 2004; five-year and four-year graduation rates can be calculated for one and two additional cohorts, respectively.

1. Basic Calculation Method

There are two important components to the calculation of a graduation rate: the scheme that classifies students into graduation status categories and the population of students whose exits are used in the calculation. In our basic approach, we employ the same outcome classification scheme used by SDP. At the end of a specified follow-up period, SDP classifies each student into one of four exit categories: (1) students still enrolled; (2) dropouts; (3) graduates; and (4) students who have transferred out of SDP, whom we refer to as “out-transfers.” As with most typical exit classification schemes, continuing enrollees and graduates can be identified with little ambiguity, but dropouts and out-transfers can be distinguished from each other only on the basis of the recorded reason (or “exit code”) for the student’s final exit from SDP within the follow-up period.

The basic method for calculating graduation rates puts a premium on the accuracy of distinguishing dropouts and out-transfers. In this basic method, we follow SDP’s approach of calculating the graduation rate of a cohort-based group as equal to the number of graduates in the group divided by the total number of group members *excluding* out-transfers. Thus, the accuracy of the calculated graduation rate depends on the accuracy of the stated reasons for students’ final exits. Appendix B lists the reasons for exit that place students into the dropout and out-transfer categories. Various elements of SDP’s classification scheme are in accordance with preferred practices. For instance, students with unknown reasons for their final exits are treated as dropouts. Moreover, because the SDP data encompass Philadelphia’s charter school students, students who transfer from SDP schools to charter schools are not classified as out-transfers; instead, they are treated the same as students who remain within SDP.

Given that out-transfers are ultimately excluded from the calculations, we document the share of out-transfers in the relevant enrollment groups. Our tabulations indicate that 14 percent of neighborhood students, 3 percent of accelerated students, and 9 percent of disciplinary students are

ultimately excluded from calculations of six-year graduation rates as a result of transferring out of SDP. Most students who remain in the calculations are either dropouts or graduates. Very small shares (no more than 3 percent) of neighborhood and disciplinary students remained enrolled in the district at the end of six years after 9th-grade entry, but one in 11 accelerated students was still enrolled.

In our basic approach, graduation rates are based on a broader population of students than the population used in SDP's own calculations. SDP's rates are based on students whose first observed entry into 9th grade occurs in an SDP school; the district's calculations exclude students whose first observed entry into 9th grade occurs in a charter school as well as students who transfer into SDP after 9th grade. Our basic calculations, on the other hand, are based on the same enrollment groups examined in previous chapters; any students who ever enroll in SDP's neighborhood, accelerated, or disciplinary schools at any time in the follow-up period—irrespective of the school in which they enter 9th grade or the grade in which they first appear in SDP—are included in at least one of the three enrollment groups. This approach enables comparability with other analyses in this report and allows inclusion of the broadest possible population of students exposed to SDP's nonselective high school education system. However, as described later, we also show graduation rate calculations based on alternative reference populations and outcome classification methods.

2. Findings from the Basic Calculation Method

Within every combination of cohort and follow-up period, graduation rates are considerably lower for alternative students than for neighborhood students. In the pooled population of students from the 9th-grade cohorts of 2003 through 2006, the four-year graduation rate is 52 percent for neighborhood students but only 16 percent for accelerated students and 19 percent for disciplinary students (Table V.1). Extending the follow-up period raises the calculated graduation rates in all enrollment groups, with the largest increments to the graduation rates resulting from students who

graduate in their fifth year after 9th-grade entry. By the end of six years after entering 9th grade, graduates account for 59 percent of neighborhood students, 23 percent of accelerated students, and 26 percent of disciplinary students among those in the 9th-grade cohorts of 2003 and 2004 who did not transfer out of the district.

Table V.1 Cohort Graduation Rates, by Enrollment Pattern After Entering 9th Grade

Enrollment Pattern and 9th-Grade Cohort	Follow-Up Period After 9th-Grade Entry		
	4 Years	5 Years	6 Years
Ever in Neighborhood (No Alternative)			
All Cohorts	52	58	59
2003 Cohort	51	57	59
2004 Cohort	50	57	59
2005 Cohort	53	59	n/a
2006 Cohort	53	n/a	n/a
Ever in Accelerated			
All Cohorts	16	22	23
2003 Cohort	10	16	21
2004 Cohort	10	20	24
2005 Cohort	17	24	n/a
2006 Cohort	19	n/a	n/a
Ever in Disciplinary			
All Cohorts	19	25	26
2003 Cohort	16	21	24
2004 Cohort	16	26	28
2005 Cohort	25	29	n/a
2006 Cohort	18	n/a	n/a

Source: SDP administrative data.

Note: Cells with “n/a” indicate that the desired window of analysis extends beyond the available sample period.

We also calculated graduation rates for various subsets of alternative students defined by features of their enrollment patterns and by their race and gender. In Chapter II, we documented variation in enrollment durations within alternative education as well as variation in whether alternative students return to regular education. To identify potential signals or indicators of students’ progress in alternative education, it is of interest to evaluate outcome differences among students with different enrollment patterns. Our analysis highlights a number of differences across subgroups of alternative students. In the 9th-grade cohorts of 2003 and 2004, accelerated students

who enrolled in accelerated schools for more than one year were 18 percentage points more likely to graduate than those who enrolled for no more than one year (Table V.2). Graduation rates among disciplinary students did not noticeably differ according to their duration in disciplinary schools. However, the graduation rate was 23 percentage points higher for disciplinary students who reentered regular schools than for disciplinary students who were last observed in disciplinary schools. These differences across subgroups, which are statistically significant at the 0.01 level, are suggestive of the types of enrollment patterns that appear to be positive and negative signals of alternative students' likelihood of graduation.

Table V.2 Six-Year Graduation Rates of Alternative Students, by Enrollment Duration in Alternative Education and Reentry Status into Regular Schools

Subset of Students	Enrollment Pattern Within Six Years of Entering 9th Grade	
	Ever in Accelerated	Ever in Disciplinary
All	23	26
Enrollment Duration in School Type \leq 1 Year	17	24
Enrollment Duration in School Type $>$ 1 Year	35	27
Final Exit Occurred in a Regular School	27	41
Final Exit Occurred in School Type	23	18

Source: SDP administrative data.

Note: Analyses are based on students in the 9th-grade cohorts of 2003 and 2004. "School type" pertains to the type of alternative school indicated in the headers of the final two columns. "Regular schools" consist of neighborhood, citywide admission, magnet, and charter schools.

In addition, graduation rates differed across demographic groups, with differences by gender being among the most prominent. The six-year graduation rate for females exceeded that for males by 10 percentage points among neighborhood students and by 8 percentage points among disciplinary students, while gender gaps were smaller among accelerated students (Table V.3). With regard to racial differences in graduation rates, Hispanics had the lowest likelihood of graduation in each of the three enrollment groups. Contrary to usual expectations, blacks had higher or similar graduation rates relative to non-black, non-Hispanic students—consisting of whites, Asians, and

members of other racial categories—in each of the three enrollment groups. This unexpected pattern is accounted for by the fact that overall racial differences in academic outcomes within the entire district are a combination of racial differences in outcomes within enrollment groups and racial differences in the prevalence of enrollment patterns that are associated with better outcomes. Because non-black, non-Hispanic students were more likely to enroll in selective schools—which had higher graduation rates—than blacks, the former still had higher graduation rates than the latter in the entire 9th-grade cohorts of 2003 and 2004.¹¹

Table V.3 Six-Year Graduation Rates, by Gender and Race

Subset of Students	Enrollment Pattern Within Six Years of Entering 9th Grade		
	Ever in Neighborhood (No Alternative)	Ever in Accelerated	Ever in Disciplinary
All	59	23	26
Females	64	25	31
Males	54	22	23
Blacks	61	24	27
Hispanics	52	21	19
Whites, Asians, and Other Race	58	23	21

Source: SDP administrative data.

Note: Analyses are based on students in the 9th-grade cohorts of 2003 and 2004.

3. Alternative Calculations

Starting from the broader population of students on which our basic graduation rate calculations are based, we pared down the set of included students to align it with the population used by SDP’s calculations. First, we excluded students whose first high school enrollment record occurred in charter schools. Next, we further excluded all students who transferred into SDP after 9th grade. These modifications to the included population did not change the calculated six-year graduation rates within any of the enrollment groups by more than 1 percentage point (Table V.4).

¹¹ In the entire 9th-grade cohorts of 2003 and 2004, the six-year graduation rate was 62 percent for blacks, 52 percent for Hispanics, and 67 percent for non-black, non-Hispanic students.

Table V.4 Six-Year Graduation Rates Based on Various Student Populations and Outcome Classification Schemes

Student Population or Outcome Classification Scheme	Enrollment Pattern Within Six Years of Entering 9th Grade		
	Ever in Neighborhood (No Alternative)	Ever in Accelerated	Ever in Disciplinary
Calculation that Excludes Out-Transfers (Default Method)			
Full Sample (Default Sample)	59	23	26
Exclude Students Whose First High School Observation Is in Charter Schools	59	23	26
Exclude All Students Who Do Not Begin 9th Grade in SDP	58	22	25
Calculation Based on Predicted Graduation Status for Out-Transfers and Actual Status for All Other Students			
	57	22	25

Source: SDP administrative data.

Note: Analyses are based on students in the 9th-grade cohorts of 2003 and 2004.

For determination of graduation status, we also explored alternative schemes that do not necessitate excluding out-transfers from the calculation of graduation rates. If the actual graduation outcomes of out-transfers subsequent to departure from SDP differ substantially from the graduation outcomes of other SDP students, then graduation rates based on excluding out-transfers may not accurately reflect the graduation rates of all students who ever enroll in SDP’s nonselective high schools. Using a method developed by Engberg and Gill (2006), we predict the probability that each out-transfer student graduated based on the known graduation outcomes of demographically similar students who did not transfer out of SDP.¹² The calculated graduation rate within each

¹² Specifically, we used students who did not transfer out of SDP to estimate a multinomial logit regression of exit group classification (still enrolled, dropped out, or graduated) on a set of student characteristics. We then used the estimated coefficients from the multinomial logit regression to predict the probability that each out-transfer student was still enrolled, had dropped out, or had graduated by the end of the follow-up period. The set of covariates included in the multinomial logit regression was similar to the covariate set used by Engberg and Gill (2006): binary variables for race-gender combinations; age upon entry into 9th grade and the square of such age; and a binary variable for changing schools at any time during high school. In addition to those covariates, we also included a set of binary variables for the enrollment groups of interest.

enrollment group—based only on students whose first entry into 9th grade occurred in an SDP school—is a weighted average of the actual graduation rate for students who did not transfer out of SDP and the predicted graduation rate for the out-transfers, with weights equal to population shares within the specified enrollment group. As shown in the final row of Table V.4, including the predicted graduation outcomes of out-transfers has only a small effect on the calculated graduation rates.

B. Graduation After Entry into Accelerated Schools

A particular aim of accelerated schools is to enable enrollees to graduate within a specified duration of time after entering these schools. While the objective identified by SDP’s website is that enrollees graduate within two years of entry (School District of Philadelphia 2010), graduation within three years is now the recognized goal, as indicated by SDP staff. To examine the extent to which these aims have been realized, we provide an additional set of graduation rates for enrollees of accelerated schools. Rather than defining a follow-up period based on a number of years after 9th-grade entry, we instead specify the follow-up period to span two or three years after a student’s first entry into an accelerated school. Thus, the population of interest is now defined without reference to 9th-grade cohorts; instead, the two-year and three-year analyses include all students who entered accelerated schools in, respectively, the school years 2005-06 through 2007-08 and 2005-06 through 2006-07. Defining the analysis population in this manner has two advantages. First, the calculations can be based on enrollees who entered in the more recent, rapid expansions of accelerated enrollment. Second, from information provided by SDP, we are aware that data on graduation outcomes in 2006 and beyond appear to be more reliable than data from 2005 and earlier.

Given this analysis population and range of follow-up periods, we apply our basic approach for calculating graduation rates. In addition, we examine graduation outcomes for subgroups of these accelerated students defined along two different dimensions. First, as there has been interest in

determining whether students who enter accelerated schools at an earlier age attain better outcomes than those who enter at a later age, we calculate graduation rates separately for those whose age at entry is below and above the median entry age of 17.5 years. Second, we categorize students on the basis of the first accelerated school in which they entered and ascertain graduation rates separately by school.

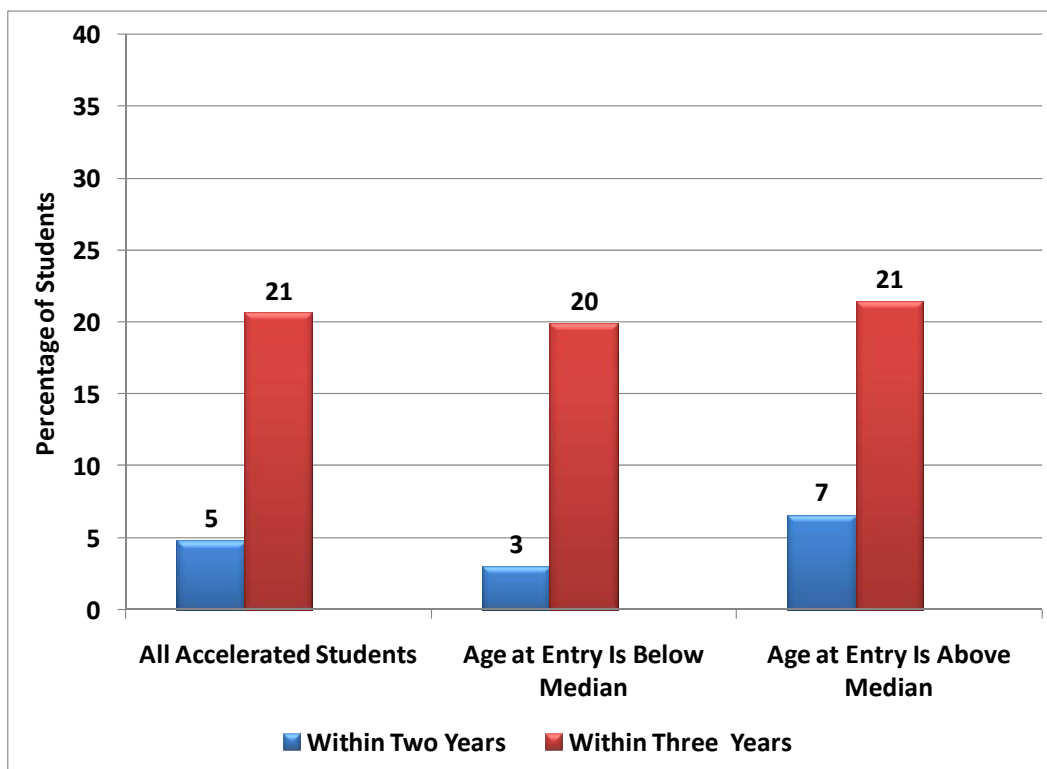
Among students who entered accelerated schools for the first time in 2005-06 through 2007-08, very few (5 percent) graduated within two years of entry (Figure V.1). Most accelerated students who graduated did so in their third year within accelerated schools; by the end of the third year, the graduation rate rose to 21 percent, or about nine-tenths of the six-year (from first entry into 9th grade) cohort graduation rate (23 percent) for accelerated students shown in Table V.1. Graduation outcomes were similar among older and younger entrants into accelerated schools. In general, although the majority of accelerated school enrollees who graduate are able to achieve this goal within the desired three-year time frame set by accelerated schools, most accelerated students do not graduate at all.

Graduation rates for individual accelerated schools are provided in Table V.5. For each school, the table shows the percentage of students who graduate within two or three years of entering the school, as well as the 95 percent confidence interval for the graduation rate; the calculations for each school are based on students whose entry into the school represents their first enrollment in any accelerated setting. Graduation rates could not be calculated for schools that opened after the 2007-08 school year (for the two-year analysis) or 2006-07 school year (for the three-year analysis), or that closed before the 2005-06 school year.

Across schools, the rate of graduation within three years of entry ranges from 12 to 64 percent (Table V.5). These school-specific graduation rates should be interpreted with considerable caution. In particular, we emphasize that differences in school quality or effectiveness are not necessarily the

sole factor—or even the most important factor—that can generate differences in graduation rates across accelerated schools. Any systematic differences in the types of students who enroll in the various accelerated schools can contribute to observed differences in outcomes. Therefore, a rigorous comparison of the effectiveness of individual schools would need to scrutinize the reasons for which students are assigned to particular accelerated schools, which is beyond the scope of this analysis.

Figure V.1 Percentage of Students Graduating Within Two or Three Years of Entry into Accelerated Schools



Source: SDP administrative data.

Note: Two-year and three-year analyses are based on students whose first entry into accelerated schools occurred in, respectively, the school years of 2005-06 through 2007-08 and 2005-06 through 2006-07. The median age at entry was 17.5 years.

Table V.5 Percentage of Students Who Graduate Within Two or Three Years After Entering Accelerated Schools, by First Accelerated School in Which Student Enrolls

Name of School (Number of Students Followed for Two Years; Number of Students Followed for Three Years)	Within Two Years			Within Three Years		
	Percentage Who Graduate	95 Percent Confidence Interval		Percentage Who Graduate	95 Percent Confidence Interval	
		Lower Bound	Upper Bound		Lower Bound	Upper Bound
Accelerated Learning Academy (N=442; 253)	1	0	2	12	8	16
Accelerated Learning Academy - Southern (N=203; 0)	0	0	0	-	-	-
Excel Academy (N=665; 461)	3	2	5	25	21	29
Fairhill Community High School (N=579; 409)	4	3	6	16	13	20
Gateway to College at Community College of Philadelphia (N=231; 123)	0	0	0	14	8	20
North Philadelphia Community High School (N=56; 0)	0	0	0	-	-	-
Open Door High School (N=0; 0)	-	-	-	-	-	-
Opportunities Industrialization Center of America's Career and Academic Development Institute (N=458; 255)	13	10	16	29	23	34
Southwest Accelerated Learning Academy (N=277; 161)	1	0	2	14	8	19
Youthbuild Alternative School (N=47; 47)	64	50	78	64	50	78

Source: SDP administrative data.

Note: Analyses for two-year and three-year follow-up periods are based on students who entered the indicated school in, respectively, the school years of 2005-06 through 2007-08 and 2005-06 through 2006-07. Blank cell values indicate that the school was not open at any time during the entry period from which entrants could be followed for the desired follow-up period.

C. Anomalous Exit Patterns from Disciplinary Schools

Given that the quality of data on students' exits is critical for determining graduation rates, our final analysis in this chapter highlights an additional anomaly in exit patterns that merits further scrutiny. From 2008 to 2009, there was a sharp drop in the annual average number of days for which

disciplinary school enrollees were enrolled in disciplinary schools. This drop is underscored by the first row of Table V.6, which shows a marked rise in the percentage of disciplinary school enrollees whose enrollment in SDP for a given year terminated prior to June; whereas 15 percent of disciplinary school enrollees exited before June in 2008, 39 percent did so in 2009. To examine these premature exits further, we calculate the percentage of disciplinary school enrollees in both years who have a pre-June exit for particular recorded reasons. The data indicate an unusual

Table V.6 Pre-June Exits Among Students Who Ever Enrolled in Disciplinary Schools During 2008 and 2009

	School Year	
	2008	2009
Percentage of Disciplinary Students with a Non-Graduation Exit Before June	14.8	38.9
Percentage of Disciplinary Students Who Have a Non-Graduation Pre-June Exit for the Indicated Reason		
Unknown	0.0	1.1
Deceased	0.1	0.0
Physically or Mentally Incapacitated	0.0	0.2
Committed to Juvenile Residential Facility	2.5	11.4
Committed to Adult Incarceration Facility	0.1	0.1
Home Schooling	0.1	0.1
Transferred to Non-Public School	0.5	0.7
Withdrawn to Charter School	0.3	0.4
Withdrawn to APS	0.1	0.0
Withdrawn from APS or ASES Back to SDP	0.0	0.1
Moved from District - Out of Philadelphia	1.2	2.3
Moved from District - Location Unknown	0.7	2.3
Long Term Hospitalization Outside of District	0.0	0.2
Job Corps	0.1	0.0
Attended School Outside of District but Parent is in Philadelphia	0.0	0.1
Dropped out of School	8.1	18.4
General Employment Certificate	0.0	0.1
Inactive Office Roll	1.1	1.4

Source: SDP administrative data.

Note: "Disciplinary students" are students in the specified academic year who ever enrolled in disciplinary schools during the year.

rise from 2008 to 2009 in the percentage of disciplinary students who drop out (from 8 to 18 percent) or who are committed to juvenile residential facilities (from 3 to 11 percent) (Table V.6).

This rise should be accounted for to ensure that the exit data are accurately capturing real trends in students' enrollment patterns.

D. Summary of Findings

In this chapter, we have analyzed graduation rates among enrollees of neighborhood, accelerated, and disciplinary schools. Key findings include:

- Within six years of entering 9th grade, high school graduation was attained by 59 percent of neighborhood students, 23 percent of accelerated students, and 26 percent of disciplinary students among those in the 9th-grade cohorts of 2003 and 2004 who did not transfer out of the district.
- Some differences in graduation rates are observed among alternative students with different enrollment patterns. Among accelerated students, graduation rates were higher for those whose enrollment duration in accelerated schools exceeded one year than for those who were enrolled for no more than one year. Among disciplinary students, those who reentered regular schools were more likely to graduate than those who were last observed in disciplinary schools.
- Of the students who entered accelerated schools for the first time in 2005-06 through 2006-07, 21 percent graduated within three years of entry. Across individual accelerated schools, the rate of graduation within three years of entry varied from 12 to 64 percent.

VI. CONCLUSION

Because alternative and neighborhood high schools in the School District of Philadelphia (SDP) do not impose academically selective criteria for admission, they serve students who are likely to face greater academic challenges than those who enroll in the district's academically selective high schools. The programmatic aims of accelerated schools and disciplinary schools, the two types of alternative schools in SDP, underscore the challenges that confront the schools and their enrollees. Accelerated schools seek to enable under-credited students to attain high school graduation within two years, the goal identified by SDP's website, or three years, the currently recognized goal identified by SDP staff. Disciplinary schools appear to be intended—from the perspective of SDP's strategic plan—as a path through which students who have committed serious disciplinary violations can eventually return to regular schools. As enrollees of each type of alternative school typically spend a significant portion of their high school education in neighborhood schools, understanding the characteristics and outcomes of neighborhood students can contribute to a fuller set of insights on the students who enroll in alternative education.

This report has described the enrollment patterns, background characteristics, achievement scores, and graduation rates of students who enroll in SDP's neighborhood and alternative schools. The student-level data available for this report spans eight school years—from 2002 to 2009—during which alternative education expanded considerably in SDP. As a result, we are able to describe trends over time in the annual average outcomes of enrollees, as well as to track various 9th-grade cohorts—and, in particular, members of those cohorts who ever enroll in nonselective high schools—to document the eventual outcomes that they attain by the end of their high school education.

The data indicate that the alternative education system is serving a growing number of SDP's high school students. In the 9th-grade cohorts of 2003 and 2004, more than one out of ten students

enrolled in an alternative setting at some point in their high school education. Exposure to alternative education will likely be even more prevalent in more recent cohorts, because annual enrollment in alternative schools—expressed as the number of students who enroll in either accelerated schools or disciplinary schools at any point during a given year—increased by 436 percent from 2002 to 2009.

Enrollment patterns in accelerated schools exhibit a mixed degree of consistency with the schools' objectives of facilitating rapid progress toward graduation. For 82 percent of accelerated students, accelerated schools are the final SDP schools in which they are observed within six years of entering 9th grade. This finding is in accordance with the notion that accelerated schools are intended to be enrollees' terminal schools within SDP. To identify signals of progress for these enrollees, a reasonable prediction might be that short durations in accelerated schools could be indicative of rapid accumulation of credits, especially in light of the fact that nearly two-thirds of accelerated students stay for no more than one year. The data, however, yield the opposite conclusion: accelerated students who stay for no more than one year have lower graduation rates than those who remain for more than one year.

Patterns of enrollment in disciplinary schools are linked by the schools' objective of enabling their students to reenter regular education. Indeed, disciplinary students are more likely than accelerated students to reenter regular schools. For disciplinary students, reentry into regular education is also a potential signal of progress toward graduation: those who reenter regular schools are more likely to graduate than those who do not. Nevertheless, only one-third of disciplinary students actually reenter a regular educational setting, indicating that many disciplinary students do not complete an important intermediate step toward attaining graduation.

Examining the types of students who enroll in neighborhood and alternative schools provides an important context for understanding their academic outcomes. Some demographic and

socioeconomic differences are observed among different enrollment groups. For instance, disciplinary school enrollees are more likely to be black and male compared with enrollees of accelerated and neighborhood schools, and students who enroll in either type of alternative setting have higher rates of socioeconomic disadvantage—as measured by receipt of Temporary Assistance for Needy Families—than neighborhood students. Of central relevance to academic outcomes, alternative and neighborhood students already differ in their academic achievement prior to high school. In particular, accelerated and disciplinary students are 8 to 13 percentage points more likely to score below basic on the 8th-grade PSSA tests in math and reading than neighborhood students. Thus, both socioeconomically and academically, enrollees of alternative schools constitute a more disadvantaged student population than enrollees of neighborhood schools.

Given the background differences between neighborhood and alternative enrollees, the presence of differences in high school academic outcomes is not surprising. Among students in the 9th-grade cohorts of 2003 and 2004 who took the 11th-grade PSSA, neighborhood students had higher math and reading scores than accelerated and disciplinary students. Moreover, in each subject, gaps between neighborhood students and alternative students in the prevalence of scoring basic or above widened between 8th grade and 11th grade. These achievement gaps are further underscored by stark differences in the share of students who have recorded 11th-grade scores. Whereas one-half of neighborhood students in the 9th-grade cohorts of 2003 and 2004 had 11th-grade scores recorded in SDP's data within six years of 9th-grade entry, only about a quarter of accelerated and disciplinary students had recorded 11th-grade scores. The low prevalence of recorded scores for alternative students is indicative of two distinct problems: the low frequency with which alternative students reach the spring of 11th grade and widespread nonparticipation in the PSSA among those enrolled in 11th grade.

The attribution of alternative students' scores to neighborhood schools does not discernibly affect the likelihood that neighborhood schools meet NCLB performance benchmarks, due in part to the low proportion of alternative students with 11th-grade PSSA scores. Of all scores attributed to neighborhood schools in 2007 through 2009, the share coming from alternative students was only 4.5 percent. Therefore, even if alternative students' scores were excluded, very few neighborhood schools during this period would have experienced any change, relative to current rules, in whether they attained performance benchmarks in reading and math.

In addition to reading and math proficiency, graduation is an outcome on which SDP places high priority. Graduation rates differ considerably across enrollment groups. In the 9th-grade cohorts of 2003 and 2004, the six-year graduation rate for neighborhood students, 59 percent, was more than double the corresponding rates for accelerated students (23 percent) and disciplinary students (26 percent). For students who entered accelerated schools during the school years of 2005-06 through 2007-08, very few graduated within two years of entry; on the other hand, graduation within three years of entry occurred for 21 percent of accelerated students, representing the vast majority of the 23 percent of accelerated students who are expected to graduate at all. Across individual accelerated schools, the rate of graduation within three years of entry varied from 12 to 64 percent.

Because the analyses of this report are purely descriptive, due caution should be taken when drawing lessons from the report's findings. This report does not—and is not intended to—ascertain the impacts of particular schools, programs, or policies on student outcomes. A rigorous evaluation of program effectiveness would necessitate careful identification of comparison groups for the students or schools that are exposed to the considered programs.

Nevertheless, the findings of this report highlight several important features of alternative education that deserve consideration as SDP further develops its system of alternative schools.

Within accelerated schools, the patterns of outcomes indicate that enrollees have been largely unable to progress quickly toward graduation. Very few accelerated students have graduated within two years of entering accelerated schools; the third year of accelerated education is, by far, the most common year in which enrollees graduate. As SDP staff have indicated that the current goal of accelerated schools is to enable graduation within three years rather than two years, the goal appears to align well with the observed pace of progress among enrollees who ultimately graduate. Further study is warranted to determine the effectiveness of different models of accelerated education based on different expectations for the pace of progress.

Among the more concerning findings for the system of accelerated education is that more than three out of four enrollees do not graduate at all within six years of entering 9th grade. This suggests that accelerated students largely belong to one of two broad groups: those who are able to graduate within the three-year time frame that accelerated schools regard as the desired pace of progress, and those who do not graduate at all. While the progress of the former group is cause for optimism, accelerated schools appear to face a considerable challenge in identifying effective ways to serve the latter—and larger—group of those on the path to dropping out.

Patterns in the outcomes of disciplinary students lend support to the notion—reflected in SDP’s strategic plan—that reentry into regular education is an important step in these students’ path toward graduation. Disciplinary students who take this step are more likely to graduate than those who do not; the district’s call for providing support to reentering students thus focuses on an intermediate outcome—reentry—that deserves attention as a signal of students’ progress. However, a key finding from our analysis is that many disciplinary students do not reach this intermediate step; indeed, over half of disciplinary students undertake their final exits from SDP—the vast majority of which are dropout exits—directly from their disciplinary schools. Hence, monitoring and supporting the progress of students prior to reentry appears to be a critical margin along which further efforts

can be directed, in addition to supporting disciplinary students after reentry. In particular, there can be further examination—and, if necessary, further development—of the systematic ways in which disciplinary school staff direct disciplinary students toward reentry and determine students' readiness for reentry.

While important patterns can be discerned, and lessons drawn, from the outcome measures examined by this report, this report has also highlighted the limitations of such measures and the need for broader sets of measures to monitor the progress of both alternative and neighborhood students. Final outcomes such as graduation, and even intermediate outcomes such as reentry into regular education, are occurrences that can be ascertained only after students have already been enrolled in a particular type of school for a significant period of time. Before this period of time has elapsed, the district may find it important to track the academic progress of alternative and neighborhood students, especially in light of their high risk of dropping out. Although achievement tests are ostensibly one such measure of student progress, our findings have shown that many students in these enrollment groups fail even to reach the point at which they are administered the 11th-grade PSSA; therefore, the PSSA tests cannot form the sole basis of progress monitoring. Data on attendance, credit accumulation, district-administered assessments, and systematic reports by instructors may all be potential tools that assist the district in identifying successes and problems experienced by its students.

A number of potentially useful outcome measures, such as attendance and credit accumulation, were not reliably recorded by alternative schools in SDP's data system during the analysis period of this report. In order for the district to have an accurate assessment of students' progress in alternative schools starting at early stages of their enrollment therein, it is important that data on these and other outcome measures be collected in a systematic, uniform manner across schools. According to SDP staff, one recent step in this direction is that more stringent requirements on the

reporting of attendance data by alternative schools were implemented in the 2009-2010 school year. If the district further develops a broader set of outcome measures on which data are consistently collected, analyses based on these additional measures can complement and extend this report's initial description of the characteristics and academic performance of students in SDP's nonselective high schools.

REFERENCES

- Engberg, J., and B. Gill. "Estimating Graduation and Dropout Rates with Longitudinal Data." Working Paper WR-372-PPS. Pittsburgh, PA: RAND, 2006.
- National Governors Association. *Graduation Counts: A Report of the National Governors Association Task Force on State High School Graduation Data*. Washington, DC: NGA, 2005. Retrieved from [<http://www.nga.org/Files/pdf/0507GRAD.PDF>] on February 9, 2010.
- Neild, R., and R. Balfanz. "Unfulfilled Promise: The Dimensions and Characteristics of Philadelphia's Dropout Crisis, 2000-2005." Philadelphia: Philadelphia Youth Network, 2006.
- School District of Philadelphia. "Alternative Schools Regional Office." Philadelphia: SDP, n.d. Retrieved from [<http://webgui.phila.k12.pa.us/offices/r/alternative>] on February 5, 2010.
- School District of Philadelphia. "High School Planning Guide: A Directory of High Schools for 2010 Admissions." Philadelphia: SDP, 2009a. Retrieved from [www.phila.k12.pa.us/hsdirectory2010/HSDirectory2010_web.pdf] on February 5, 2010.
- School District of Philadelphia. *Imagine 2014: Building a System of Great Schools*. Philadelphia: SDP, 2009b. Retrieved from [<http://webgui.phila.k12.pa.us/offices/s/strategic-planning>] on February 5, 2010.
- U.S. Department of Education. *Pennsylvania Consolidated State Application Accountability Workbook*. Washington, DC: U.S. Department of Education, May 31, 2007. Retrieved from [<http://www2.ed.gov/admins/lead/account/stateplans03/pacsa.pdf>] on February 7, 2010.

APPENDIX A

STUDENT COUNTS BY COHORT AND ENROLLMENT PATTERN

Table A.1 Number of Students Who Ever Enroll in Various Types of High Schools After Entering 9th Grade, by Cohort

Enrollment Pattern After 9th-Grade Entry, and 9th-Grade Cohort	Follow-Up Period After 9th-Grade Entry		
	4 Years	5 Years	6 Years
Total Number of Students Who Ever Enroll in Any SDP High School			
2003 Cohort	19,343	19,371	19,378
2004 Cohort	18,067	18,098	18,108
2005 Cohort	18,059	18,085	n/a
2006 Cohort	18,640	n/a	n/a
Ever in Neighborhood (No Alternative)			
2003 Cohort	14,270	14,246	14,206
2004 Cohort	12,563	12,472	12,426
2005 Cohort	11,993	11,917	n/a
2006 Cohort	11,900	n/a	n/a
Ever in Accelerated			
2003 Cohort	239	352	400
2004 Cohort	610	750	806
2005 Cohort	897	1,029	n/a
2006 Cohort	1,095	n/a	n/a
Ever in Disciplinary			
2003 Cohort	1,459	1,477	1,479
2004 Cohort	1,391	1,406	1,408
2005 Cohort	1,381	1,394	n/a
2006 Cohort	1,636	n/a	n/a

Source: SDP administrative data.

Note: Cells with “n/a” indicate that the desired follow-up period extends beyond the available sample period.

APPENDIX B
REASONS FOR FINAL EXITS THAT IDENTIFY DROPOUTS AND OUT-
TRANSFERS

REASONS FOR FINAL EXITS THAT IDENTIFY DROPOUTS AND OUT-TRANSFERS

Dropouts

- Disciplinary transfer
- Student relocation transfer within SDP
- Unknown reason
- Incapacitated due to pregnancy with doctor's certificate
- Committed to adult incarceration facility
- Attended kindergarten and withdrew
- Runaway
- Expelled
- Early childhood withdrawal
- Withdrawn to charter school
- Withdrawn from charter to SDP school
- Involuntary withdrawal from charter school
- Moved from district and whereabouts are unknown
- Joined Job Corps
- Dropped out
- Voluntary withdrawal when past compulsory schooling age
- Withdrawal due to marriage when past compulsory schooling age
- Withdrawal due to probable employment when past compulsory schooling age
- Withdrawal due to pregnancy without doctor's certificate
- Withdrawal due to other reason when past compulsory schooling age
- Nonattendance when past compulsory schooling age
- Issued general employment certificate
- Inactive office roll

Out-Transfers

- Deceased
- Physically or mentally incapacitated
- Home schooling
- Transferred to nonpublic school
- Moved from district out of Philadelphia
- Moved from district as a migrant
- Moved from district into long-term hospitalization
- Long-term hospitalization inside Philadelphia
- Attended school outside of district but parent is in Philadelphia
- Attended another district due to emotional disturbance
- Committed to juvenile residential facility
- Placed by a child care agency into a group home outside of Philadelphia
- Placed by a child care agency into a foster home outside of Philadelphia

MATHEMATICA
Policy Research, Inc.

www.mathematica-mpr.com

Improving public well-being by conducting high-quality, objective research and surveys

Princeton, NJ ■ Ann Arbor, MI ■ Cambridge, MA ■ Chicago, IL ■ Oakland, CA ■ Washington, DC

Mathematica® is a registered trademark of Mathematica Policy Research