The Philadelphia Education Longitudinal Study (PELS): Report on the Transition to High School in the School District of Philadelphia

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# **EXECUTIVE SUMMARY**

The Philadelphia Education Longitudinal Study (PELS) report on the transition to ninth grade in Philadelphia focuses on three topics: the high school choice process; course failure rates during the ninth grade year; and parents' responses to the transition to high school.

The PELS study, directed by Dr. Frank F. Furstenberg, Jr. at the University of Pennsylvania, follows the experiences of a city-wide random sample of public school students in Philadelphia from the summer after their eighth grade year (1995-96) through their senior year in high school. Data on grades were taken from records provided by the School District for all students in the sampling frame (about 2800), while all other data were from self-reports of students and their parents from that sample who were interviewed by telephone during the summer after eighth grade (1500 students), the fall of ninth grade (1125 students), and the summer after ninth grade (1017 students).

### **School Choice**

Students who were eighth graders in 1995-96 had more than 150 high school options to which they could apply, including both magnet and vocational high schools and Small Learning Communities (SLCs) within neighborhood high schools. Data from the PELS sample showed that:

- A majority of the PELS students (71 percent) applied to at least one high school outside of their feeder pattern. The application rate by high school varied between 34 and 97 percent.
- An estimated 58 percent of the appliers were accepted to one or more schools.
- 81 percent of the PELS students who were accepted and who stayed in the public schools for ninth grade chose to attend a high school outside of their neighborhood.
- 17 percent of those who had not been accepted through the formal process found another way to attend a school other than their neighborhood high school.
- Overall, 56 percent of the PELS students who attended Philadelphia public schools for the ninth grade began the 1996-97 school year at their neighborhood high school.

Factors that "pull" and "push" students appear to be at work. In general, the higher the application rate to schools outside the neighborhood, the greater the parental dissatisfaction with that school. Other factors, such as the quality of guidance counseling in the eighth grade schools or the geographic proximity of possible alternatives, may also help to explain variations in application rates by school.

Neighborhood high schools varied in the percent of students who attended one of their feeder K-8 or middle schools. At four high schools, fewer than half of the students attended one of the feeder schools, while at eight schools more than 80 percent of the students were from a feeder school. One clear implication of this school variation is that the payoff for coordinated elementary/middle/high school curricula is likely to be higher in some clusters than others.

### Small Learning Community Choice

Besides applying to schools, students could also apply to SLCs. Data on the PELS students revealed that:

- District wide, 73 percent of the PELS students applied to an SLC within their neighborhood high school.
- The percentage of appliers to SLCs differed dramatically by neighborhood high school, ranging from a high of more than 90 percent at two high schools to a low of approximately 50 percent in three high schools.
- Students who did not apply to SLCs had, on average, weaker academic records than those who did apply. Since the non-appliers were presumably distributed among the less-selected SLCs with vacancies, this may help explain why SLCs often come to resemble "tracks."
- Overall, 59 percent of all PELS students attending their neighborhood high school were accepted to their first-choice nonselective SLC.

Every school had an SLC or two that was a clear favorite. At many schools, the top two SLCs received 55 percent or even 65 percent of the students' first-choice applications. Across schools, the Business and Health SLCs are the most popular.

### Academic Performance in Ninth Grade

Most students' grades were very low in the first year of high school, much lower than they were in eighth grade. Key findings on students' patterns of course grades included:

- The average grade across all courses for all PELS ninth graders was 71, barely a C.
- Nearly one third of ninth graders had a grade average below 65 for all of their courses combined.
- 58 percent of the PELS students failed at least one course in a major subject area in ninth grade, and one third of the students failed three or more of their academic courses.

- 63 percent of the students in neighborhood high schools failed at least one course, compared to 25 percent in magnet schools and 58 percent in vocational high schools.
- The likelihood of course failure was greater for students who were male, whose mothers did not have a college degree, whose families were on welfare, and who had repeated a grade before entering high school. Students with multiple risk factors had very high rates of course failure.

School conditions also affected the odds of failing. Students who had experienced more disruptions to learning — a lack of seats or textbooks in one or more of their classes, or a change in teachers or schedules — were more likely to fail a course. The data demonstrate a clear pattern of association between exposure to these interferences with learning and the greater likelihood of failure.

### Parents and the Transition to High School

One of the consequences of school choice in Philadelphia is that most ninth graders are the first of their siblings to have attended their high school. Overall, 72 percent of the parents interviewed had no other children who had attended that high school. As a result, parents, like their children, had to learn their way around an unfamiliar high school.

While PELS parents were somewhat less likely to help their children with homework in the ninth grade than in the eighth grade, they were just as likely to have been in contact with their children's teachers to talk about grades, attendance, and behavior.

- Almost 40 percent of the parents in both the eighth and ninth grade years reported talking to their child's teachers four or more times.
- Less than 10 percent said that they had never spoken to the teachers during either of those years.
- The data indicate that parents were generally aware of their children's poor academic showing in ninth grade and were not happy about it. Parents reported that grades were a larger source of conflict with their children than friends, clothes, or use of time.
- 59 percent of the parents interviewed after their children's ninth grade year reported that they had disagreements with their children over grades a few times a month or more.
- 19 percent reported daily disagreements about grades.

The frequency of parents' use of various strategies for pushing their children to achieve (including tutoring, punishment, extra help with homework, and talking to teachers) did not diminish from eighth to ninth grade. However, the reported effectiveness of these strategies was quite different. Whereas 44 percent of the parents said that their child's eighth grade marks had improved "a lot"

after they employed such strategies, only a third reported that their actions had this effect during ninth grade. The rest reported that, despite their efforts, their child's grades had stayed the same or even declined. The data did not indicate that parents stop encouraging their children to succeed in ninth grade. But given the overwhelming difficulty that students experienced during their first year of high school, parental strategies employed at the eighth grade level were much less effective during the freshman year.

#### Summary

Data from this study highlight the scope and dimensions of the crisis in secondary education in Philadelphia. Students must choose a school and Small Learning Community from a daunting array of options. Most apply to schools outside of their neighborhood feeder pattern with the result that only a little more than half end up in their neighborhood high school. The transition to high school is a rocky one for many, with students often experiencing changes in teachers or schedules or a lack of texts or seats in the fall of their ninth grade year. Their grades drop dramatically in ninth grade, particularly in the neighborhood secondary schools. Parents' efforts to assist their children academically do not flag compared to the middle school years, but their interventions have a diminishing impact on their children's academic performance.

### **INTRODUCTION**

The ninth grade is well known as a time of tremendous change for students. In the Philadelphia public schools, not only do the majority of ninth graders enter a new school, but almost half of them start their freshman year at a high school outside of their feeder pattern. Ninth grade is a treacherous year academically, with course failure rates skyrocketing between eighth and ninth grade. An oft-cited statistic is that in any given year, about half of Philadelphia's first-time ninth graders do not accumulate enough course credits to be promoted to tenth grade. Ninth graders also confront new social groups and pressures in high school, including pressure to engage in risk-taking behavior.

The Philadelphia Education Longitudinal Study (PELS), on which this report is based, offers a unique opportunity to document and understand the ninth grade experience in Philadelphia with data from a wide range of families. With an initial grant from the Philadelphia Education Fund, the PELS project began as a study of eighth graders in the School District of Philadelphia and their parents — a bit more than a 10 percent sample of the eighth grade class. Families were selected to be interviewed using cluster sampling, a method common in survey research. Forty-five of the ninety-three schools serving eighth graders were drawn at random, and students were randomly selected from within those schools to be interviewed. As a result, some eighth grade schools are not represented in the data set, and some feeder patterns are represented better than others.

During the summer of 1996, a group of approximately 1500 randomly-selected families was interviewed by telephone about their experiences in the eighth grade school and their perceptions of high school (Wave 1). This group was followed up with another telephone interview during the middle of the subsequent academic year (Wave 2), and again at the end of the school year (Wave 3), at which point the PELS researchers were able to reach 70 percent of those ever interviewed. As a result of the random sampling strategy and relatively large sample size, there is only a handful of high schools that are not well-represented in the data. This report draws on interview data from the first three "waves" of the study and on individual student achievement data from nearly all of those in the initial sampling frame (2938 students) obtained from the School District of Philadelphia, a valued collaborator on the project.

In each of the waves, interviews were offered in English and Spanish, but not in any Asian languages. As a result, while the percentages of African-American, Latino, and white students are approximately the same as those among eighth graders as a whole, Asians are under-represented in the data. And while the PELS respondents interviewed in Wave 1 are slightly higher-achieving, had better attendance and test scores, and were less likely to be receiving public assistance than those who were not interviewed, these differences are not large. We suggest that, on the whole, the PELS data are quite representative of ninth graders in the School District of Philadelphia.<sup>1</sup>

The PELS project is ongoing and will continue to track students and their parents until the anticipated date of high school graduation (June 2000). Each summer, respondents are contacted again, regardless of whether they have remained in school or in the Philadelphia public schools. In all, six waves of data from post-eighth grade to the equivalent of post-12th grade will have been collected by the end of the project.

This report details some early, mostly descriptive findings which we believe should be of interest to educators, administrators, and others working to improve public education in Philadelphia. We address the school choice process that begins in eighth grade and, in particular, how students come to attend different Small Learning Communities (SLCs) in their neighborhood high schools. We also document the widespread course failure of the ninth grade year, comparing it to eighth grade and identifying risk factors for failure. Finally, we consider parents' responses to the high school transition, including their efforts to bolster their children's academic performance. A separate report examines school differences in sexual risk-taking and contraceptive use in ninth grade.

The data that we present in this report reveal both striking similarities and variation in the ninth grade experience. Dismally low academic performance in ninth grade is indeed widespread, yet the variation among different high schools is also remarkable. Freshman failure is clearly an issue for every high school in the District. Yet, the percent of students failing at least one course ranges from 13 percent at the lowest school to 94 percent at the highest. Similarly, while parents in general are relatively positive about their children's high schools (a common finding in survey research), the variation in opinion by type of school is quite clear.

The PELS data have a great deal to tell us about students' and parents' perceptions of and interactions with their schools. It is essentially a study of the experiences of children and families grouped

<sup>&</sup>lt;sup>1</sup> Both parents and students are interviewed in each wave of PELS. Parents are interviewed first and must give permission before their children can be interviewed. Parents and students are interviewed separately, with each interview lasting about 30 minutes. Interviews have been conducted by Schulman, Ronca, and Bucuvalas, Inc., a survey research firm located in New York City. Approximately 50% of an initial sampling frame of 2938 students was interviewed during the first wave. In the third wave, there was a 70% re-interview rate of any family ever interviewed. The PELS study will continue to re-interview all students each summer until their anticipated year of high school graduation (summer 2000), regardless of whether they remain in school or in the Philadelphia area.

by their schools, rather than of the schools themselves. Thus, the data have less to say about the kinds of academic programs, policies, or school structures that promote or discourage student performance and engagement. As a report to those committed to changing schools in Philadelphia, then, we present these data as important descriptive information about the experiences of students entering high schools and of their parents who wish so fervently for them to succeed. We hope that it will serve as a starting point for further discussion, research, and problem solving by individual schools, feeder clusters of schools, the School District central administration, and the District's reform partners.

### **CHAPTER ONE**

### **School Choice**

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When does the transition to high school begin? Most would say that it begins at least by the first day of school during the ninth grade year, while others might place the start of the transition at an earlier point, perhaps upon graduation from eighth grade or participation in an eighth-to-ninth bridge program. In Philadelphia, however, many believe that the transition to high school begins during seventh grade, when the subject grades and behavior marks that appear on students' report cards start to "count" for admission to academically selective high schools and Small Learning Communities (SLCs).

Any discussion of the transition to high school in Philadelphia must address the tremendous opportunity for choice that exists among public high schools and the enthusiasm (judging, at least, by the high participation rates) with which parents and students pursue choice. School District data<sup>2</sup> on application rates for students interviewed in Wave 1 of the PELS study indicate that 71 percent applied to at least one school outside of their neighborhood or "feeder" comprehensive high school (that is, the high school they would attend by default if they did not apply to any other schools). Students appear to be willing to consider a number of alternatives: among those who applied to any school, the median number of schools or programs applied to was four.

According to self-reports by students interviewed in the PELS study, 58 percent of those who applied to a school other than their neighborhood high school were accepted to one or more of the schools to which they had applied.<sup>3</sup> Of this group, 81 percent who stayed in the public schools chose to attend another high school outside of their neighborhood. In addition, 17 percent of those who had not been accepted through the formal process (eight percent of those remaining in the public schools for ninth grade) found another way to attend a school other than their neighborhood school.

<sup>&</sup>lt;sup>2</sup> All data about applications and schools attended used in this report are from School District data files.

<sup>&</sup>lt;sup>3</sup> School District data on high school acceptances are complicated and still in the process of being analyzed. For this report, students' self-reported acceptances are used.

When the ninth grade year began, a bare majority (56 percent) of PELS students who attended Philadelphia public schools for ninth grade began the school year at their neighborhood high school.<sup>4</sup> Table 1 indicates the types of schools attended by the PELS students during the 1996-97 school year. Note that only a very small percentage left the District from eighth to ninth grade.

This section of our report on the transition to high school in Philadelphia presents an overview of school choice, with special attention to choice of SLCs in the neighborhood high schools. Since high school work in the School District of Philadelphia over the last decade has focused on the creation and strengthening of heterogeneously-grouped Small Learning Communities at neighborhood high schools, it is important to understand how students come to be sorted into various programs. These programs continue to operate as ability tracks in many high schools. Second, it is worth knowing whether and how school choice affects the composition of neighborhood high schools that may have "lost" students to the magnet, vocational, and other neighborhood schools, since this composition may influence the educational experiences of the students who remain in their feeder pattern. Finally, if one of the reasons for strengthening Small Learning Communities and clusters is to entice more students to attend their neighborhood high schools, it is important to examine the data for possible reasons why some students leave their neighborhood high schools for other programs.

<sup>&</sup>lt;sup>4</sup>Neighborhood high schools were determined based on last eighth grade school, not by residence. This is the same method of assignment to neighborhood high schools used by the District. An exception is students in magnet middle schools which do not feed to any high school; for these students, the neighborhood high school was determined using the home address. Data for high school actually attended was obtained from the School District in March 1997 (the spring of the freshman year) and was current at that time.

# Types of schools attended by PELS students, 1996-97 school year

1

Type of School	Percent of students (n)
Selective admissions (magnet) school	13% (197)
Selective SLC in a neighborhood high school (either in or out of the feeder pattern)*	6 (94)
Vocational school	10 (152)
Non-selective SLC in a neighborhood high school in the feeder pattern	51 (745)
Non-selective SLC in a neighborhood high school outside the fæder pattern	16 (229)
Other Philadelphia high schools (special schools)	1 (11)
In 8th grade (not promoted)	1 (14)
Not accounted for in District	2 (28)

\*Selective SLCs are located at neighborhood high schools and were allowed to select the freshman class of 1996-97 using achievement criteria.

\*\*Non-selective SLCs at neighborhood high schools chose students applying from outside the feeder pattern using a lottery.

#### Choice among schools

Students who were eighth graders during the 1995-96 school year had more than 150 high school options to which they could apply. These options included selective admissions or "magnet" schools, which were permitted to take grades, test scores, attendance, and behavior into account when making admissions decisions; selective admissions SLCs within neighborhood high schools which, like the magnet schools, made their admissions decisions using achievement criteria; vocational schools, which selected students by lottery; and non-selective SLCs outside the feeder pattern, which also

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selected students by lottery. Theoretically, a student could apply to all 150 programs (see Chapter 1 Appendix for categories of high schools for students who would be ninth graders in school year 1996-97). It is important to note that admissions procedures for vocational schools and many SLCs have been modified for eighth graders since the data for this report were collected. A major difference between the new procedures and those used when the PELS students were applying is greater use of criteria such as interest, attendance, and behavior to identify a pool of eligible candidates for each program, followed by a lottery if there are more qualified applicants than available seats.

Eighth graders during the 1995-96 school year had several different application forms to complete, depending on the combinations of schools to which they wanted to apply.<sup>5</sup> Students wishing to apply to selective admissions schools and programs were required to complete the EH-38 form, where they listed the schools in which they were interested in no particular order. Students could be accepted to more than one choice listed on their EH-38 form, on which students listed their preferences in ranked order. Students applying to these programs would only be accepted to one, if any: if a student's name was not drawn for the first-choice school, he or she entered the lottery for the second choice school, and so on. Students applying to non-selective SLCs from outside the feeder pattern were admitted only after students applying from the feeder were accommodated. In addition, regardless of whether they applied to any schools outside of their feeder pattern, eighth graders during the 1995-96 school year were expected to submit a feeder SLC choice form (the EH-37) ranking their preferences for SLCs at their neighborhood high schools.

Table 2 indicates the percent of PELS students who applied to different types of schools: selective admissions magnet schools, selective admissions small learning communities, non-selective small learning communities, and vocational schools. The largest percentage of students (49%) applied to non-selective SLCs, at least in part because so many options fell into this category. Selective admissions schools received almost as many applications (47%).

<sup>&</sup>lt;sup>5</sup> The EH-36, EH-37, and EH-38 forms have been combined so that eighth graders during the 1998-99 school year had only one form to submit if they were applying outside of the feeder pattern.

# Application rates for PELS students, by type of school

Among PELS students, almost half applied to a non-selective SLC in a neighborhood high school. Similarly, almost half applied to a magnet school. Smaller percentages applied to selective SLCs or to one of the four vocational schools.

Type of School	Percent applying
Selective admissions schools	47%
Selective admissions SLCs in neighborhood high schools	27
Non-selective SLCs in neighborhood high schools	49
Vocational schools	37

### School variation in application rates

While the overall application rate to a school outside of the feeder pattern was greater than 70 percent, this percentage varied by high school. Before examining the data, it is worth thinking about what a high or low application rate for a school might mean. Does a high application rate to schools outside of the feeder pattern necessarily mean that parents and students are dissatisfied with the neighborhood school? Does a low application rate mean that they are not?

Application rates in any school are potentially the result of several factors. It is reasonable to assume that when they apply to schools outside of the neighborhood, parents and students are looking for a place they perceive suits their needs or interests at least somewhat better than their feeder high school. At the same time, the "pull" or "push" factor may predominate at different schools. At some schools, parents and students may be dissatisfied with the quality of education at their school and thus are "pushed" out to find a better school. At other schools, parents and students may find the education acceptable but may be "pulled" out because they believe that there is an even better alternative. In addition, other factors — such as parental awareness of their school options, the quality of guidance counseling in the eighth grade schools, or the geographical proximity of possible alternatives — may be at work.

For PELS students, out-of-feeder application rates by neighborhood high school ranged from a low of 34 percent to a high of 97 percent. In three feeder patterns, more than half of the students did not apply to any other high schools outside of the feeder. However, in most feeder patterns, a much larger percentage applied to at least one school outside of the feeder pattern.

#### Parent opinions of the neighborhood (feeder) high school

There are a number of analyses that could be done in order to understand why out-of-feeder application rates vary by school.<sup>6</sup> Since strengthening neighborhood high schools is an important area of work for the School District of Philadelphia, this analysis will focus on what parents of "leavers" and "stayers" think about the high school in their cluster. In doing so, two questions are particularly worth considering. First, do comparisons of neighborhood schools with high, medium, and low percentages of out-of-feeder applications show differences in parents' opinions of their neighborhood high schools? And second, at each type of school, are parents with children who do not apply outside of the feeder pattern more positive about the school than those whose children try to leave?

In the PELS Wave 1 survey, parents were asked to indicate the extent of their agreement with a series of statements about their neighborhood high school, including whether "students at the school care about their studies"; "the school does a good job of preparing students for college"; "the school does a good job of preparing students for work"; and "the school is a safe place." Parents whose children were zoned to neighborhood high schools with relatively low proportions of students applying outside the feeder pattern were generally more positive toward their neighborhood high school than those from schools with high application rates. The data suggest that, in general, the higher the application rate to schools outside of the neighborhood, the greater the parental dissatisfaction with that school.

While there were differences of parental opinion between neighborhood high schools, there were also differences within those schools. Parents whose children did not apply to another school outside

<sup>&</sup>lt;sup>6</sup> Detailed analyses of who applies to a school outside of the neighborhood, including the school-level factors associated with application or non-application, are reported in chapters from a doctoral dissertation on school choice using PELS data (Ruth Curran Neild, "Same Difference: School Choice and Educational Access in an Urban District," doctoral dissertation, Department of Sociology, University of Pennsylvania, 1999).

of the feeder pattern were more positive in their assessments of their neighborhood high schools than those whose children had applied elsewhere. Furthermore, those whose children had applied outside of the feeder pattern and been accepted were generally least favorable toward their feeder high school, while those whose children had applied but not been accepted fell in the middle. We can only speculate as to why parents of those who did apply but were not accepted were more positive than those whose children were accepted but less positive than those who did not apply. It is possible that their attitudes initially more closely resembled the apply/accepted group but that they tried to take a more positive view of their neighborhood school as a result of their children not being admitted elsewhere.

Some of the differences in opinion between those who applied and those who did not were quite large. The greatest differences of opinion between parents of appliers and non-appliers were in the area of preparation for college and school safety, issues which we suggest have particular salience for parents. Parents whose children did not apply elsewhere were much more likely to believe that their neighborhood high schools were safe and prepared students well for college.

It is important to remember that parental perception and the reality of safety or the quality of preparation for college at a particular school are two different things. It would be worth doing an analysis of the accuracy of parents' perceptions of their neighborhood high school and what external factors (racial and class composition, for example) also operate to shape that perception. Nevertheless, regardless of their accuracy, such parental perceptions do play a role in school choice and, as these data suggest, in decisions about whether to try to leave the neighborhood high school.

### Choice of Small Learning Communities within the neighborhood high school

Regardless of whether they applied to any other high schools outside of the feeder, all eighth grade students were asked to complete a form ranking their preferences for non-selective Small Learning Communities in their neighborhood high school. By the 1995-96 school year, when the PELS students were applying to high school, all neighborhood high schools had at least two Small Learning Communities; many had five or six and were attempting to place all students in an SLC.

Among the students interviewed for the PELS study, 73 percent submitted a form ranking their preferences for SLCs within their neighborhood high school. While the application rate to SLCs is similar to that for application to a school outside of the feeder pattern, it seems surprisingly low

given that all students were supposed to submit an SLC choice form for their feeder high school. As with applications outside of the feeder pattern, the percentage of students not applying to an SLC differed quite dramatically by school, from a low of 8 percent not applying to a high of 55 percent. We suspect that application rates to SLCs have increased since the administration of the PELS survey in 1996 as a result of the District's renewed emphasis on the formation of SLCs.

There are a number of reasons why students might not have applied to SLCs in their neighborhood high school. It might have been that the quality of guidance counseling was poor at certain schools, so that students did not fill out the proper forms for either their choices of neighborhood high school SLCs or for schools outside of the feeder pattern. If that were the case, we would expect that, within a feeder with high percentages of students not applying to SLCs, there would also be relatively high percentages of students not applying to other schools. On the other hand, students might not have applied to an SLC because they believed (often incorrectly, as it turned out) that they would be accepted to one of the other schools to which they had applied. It is also possible that some clusters were not as adept as others in advising students of the need to fill out a choice form and of the options available. If students had high hopes of leaving the school, or if they knew more about applying outside of the cluster than within (an unlikely situation, we suggest), then we would expect to see higher rates of non-application to SLCs than to schools outside of the neighborhood.

A school-by-school comparison of the non-application rates indicates that, at individual schools, the percent of students not applying to SLCs was rarely equal to the percent of students not applying to schools outside of the feeder pattern. Many of the schools with high application rates to schools outside the feeder pattern had lower application rates to SLCs at the neighborhood high school. The juxtaposition of these two application rates suggests that at feeder schools with high percentages of students not applying to an SLC, students did know about the option of applying outside the feeder pattern. In fact, more applied outside the feeder pattern than to SLCs within.

Slightly more than half of the PELS students who did not select an SLC attended their neighborhood high school for ninth grade and presumably were assigned by the school to an SLC. The percentage of PELS students attending their neighborhood high school who submitted a form ranking their SLC preferences varied by high school, from a low of 33 percent to a high of 100 percent. The data indicate that at half of the schools, one-quarter or more of the students attending their neighborhood high schools had not applied to an SLC. Those students who did apply to an SLC did not necessarily get their first, or even their second, choice; but these students— at least theoretically — had some input into where they were placed.

#### Acceptance rates for SLCs

Of the PELS students attending their neighborhood high schools, 59 percent were accepted to their first-choice non-selective SLC. In addition, three percent of those attending their neighborhood high school were enrolled in an academically selective program at that school, bringing the overall percent of students in a presumably first-choice program to over 60 percent. In addition, the number may be even just a bit higher: in School District data, it appears that students who were accepted to a program outside of the feeder were automatically turned down at all of their feeder high school SLC choices. Some of the accepted students (in the PELS sample, about 25 students) chose to attend their neighborhood high school anyway, and it may be that their SLC choices were later honored.

While it is accurate to report the overall acceptance percentages in the above paragraph, it is important to remember that there was a certain amount of non-application at every high school. As a result, the percent of all students receiving a first choice is both a function of the percent who make a choice and of a school's admissions decisions. Another way to look at the data is to see what percent of those who actually applied to a non-selective SLC received their first choice. Viewed this way, a much higher percent of applicants districtwide — 80 percent — received their first choice. The percent of all students attending their feeder high school who received their first choice SLC ranged from 17 percent to 86 percent. However, the percent of all students who applied to an SLC and received their first choice ranged from 50 percent to 92 percent.

#### First-choice SLCs

If, in most high schools, the majority of students who applied to an SLC received their first choice, how were those first choices distributed among all the SLCs in a school? Table 3 lists the two non-selective SLCs within each neighborhood high school that were most frequently selected as a first choice by PELS students from within that feeder pattern. These data, of course, were from the 1996-97 school year, so that a similar analysis with more current data might produce somewhat different results. Column 3 indicates the percent of all those applying who selected that SLC as a first choice. Column 4 lists the percent of students who would have applied to that SLC if first choices were equally distributed among all SLCs in that school (thus, for schools with four SLCs, each SLC would get 25 percent; for those with 5 SLCs, each would get 20 percent, etc). Column 4 provides a way of judging how truly oversubscribed the most popular SLCs are; for example, having 60 percent of precent apply when there were only two SLCs in the school was quite different from having 60 percent apply when there were five SLCs.

# PELS students' first choice SLCs within feeder patterns, by high school (for those who applied to any SLC within feeder high school)

School	Most popular non-selective SLCs	% selecting	% expected
Bartram (10 SLCs)	Human Services	31%	10%
	Math and Science	17	10
West Philadelphia (7 SLCs)	Academic Improvement	33	14
	Business	26	14
University City (5 SLCs)	Communications	31	20
	Health	31	20
South Philadelphia (5 SLCs)	Busin ess (fhe nest ave toed)	56	20
Ben Franklin (5 SLCs)	Fitness	42	20
	Busin ess	28	20
Audennied (2 SLCs)	Business	69	50
	Design Technology	31	50
Fumess (4SLCs)	Law	32	25
	Venturing	28	25
Gravez (6 SLCs)	Busin ess	33	17
	Cross toads	21	17
Overbrook (5 SLCs)	Busin ess	42	20
	Health	30	20
Strawberry Mansion (2 SLCs)	Business	52	50
	Law and Justice	48	50
Kensington (4SLCs)	Business	58	25
	Hospitality	26	25
Edison (7 SLCs)	Busin ess	39	14
	Health	26	14
William Penn (7 SLCs)	Busin ess	38	14
	Visual/Performing Arts	19	14
Germantown (6 SLCs)	Law	33	17
	Applied Technology	22	17
Roxborough (4 SLCs)	Business	41	25
	Communications	26	25
King (7 SLCs)	Business	29	14
	Health	21	14
Frankford (6 SLCs)	Health	31	17
	A Champ	27	17
Olney (7 SLCs)	Legal, Med, Gov	34	14
	Business	32	14
Fels (4 SLCs)	Business	35	25
	Communications	24	25
Lincoln (7 SLCs)	Acatech	32	14
	Tem ple Connection	21	14
Northeast (6 SLCs)	Health	26	17
	Hi Tech	24	17
Washington (8 SLCs)	College I	41	13
	Arts	15	13

Each high school had an SLC or two that was a clear favorite. The most popular SLCs received many more first-choice applications than what would have been expected if each SLC had had equal appeal. The data indicated that at many schools, the top two SLCs received 55 percent or even 65 percent of the PELS students' first choice applications. Across schools, it is evident that Business and Health were themes in which students were quite interested. It may be that the Business Academies, with longer histories in their schools and more time to develop coherent curricula, were in a better position to attract students. To many parents and students, both Business and Health may also suggest clearly understandable vocational goals and themes.

If the majority of students tended to select a few SLCs as their first choices, and most students who made a selection received their first choice, how did SLCs come to resemble tracks in many schools? Did students with weaker academic records self-select out of the "top" SLCs, with or without the advice of a guidance counselor? Were weaker students simply not accepted by the "better" SLCs? The PELS sample is not large enough to permit detailed within-school analysis of the characteristics of those students who applied and were accepted to various SLCs, although we suggest that an analysis of the entire ninth grade cohort's choices using School District data would be both possible and useful. It is likely that a number of factors contributed to the sorting within neighborhood high schools and that these factors varied from school to school.

Here we return to the relatively high percent of non-appliers discussed earlier. PELS students who did not apply to SLCs had, on average, weaker academic records than those who did apply. Table 4 presents comparisons for appliers and non-appliers using the Local Percentile Score on the Stanford Achievement Test (SAT-9) given in eighth grade. The Local Percentile Score indicates how the student scored in comparison to other students in the District; thus, a student in the 50<sup>th</sup> percentile scored higher than 50 percent of the other students taking the test. The median math and reading percentile for non-applicants was lower than that of appliers, and a larger percentage of non-appliers received a final grade of D or F for a course in eighth grade. If the "better" students applied and received their first choices, the weaker non-appliers were presumably distributed among the spaces left — perhaps in the "lower track" SLCs.

# Pels students attending their feeder high schools: Comparison of SLC appliers and non-appliers

PELS students attending their neighborhood (feeder) high schools who submitted a form ranking their SLC preferences were on average stronger students than those who did not choose an SLC.

Achievement Test Scores (SAT 9) and grades	Applie cs	Non-appliers	
Median math Local Percentile score, grade 8*	47	32	
Median reading Local Percentile score, grade 8*	51	40	
Received a final course grade of D or F in 8th grade	63%	71%	

#### Effect of choice on neighborhood high schools

Among PELS students who attended a neighborhood high school for ninth grade, 77 percent attended the high school in their feeder pattern. However, when these data are broken down by high school (see Table 5), it is clear that the percent of students at the school who came from a feeder elementary or middle school varied widely.<sup>7</sup> One clear implication of this school variation is that the payoff for coordinated elementary/middle/high school curricula and eighth to ninth grade bridge programs is likely higher in some clusters than in others. High schools with smaller percentages of students coming from their feeder schools might benefit from some coordination with other clusters from which they receive large numbers of students. The numbers in the PELS sample are too small to do a school-by-school analysis of the clusters from which the largest percentages of "outside" students come; again, we suggest that examination of data from a full ninth grade cohort would be valuable for individual clusters.

<sup>&</sup>lt;sup>7</sup> Since Table 5 uses data from PELS, which sampled eighth grade schools, the percent of students attending from feeder elementary/middle schools may be more accurate for some schools than for others. This is because, by chance, some high schools have a better representation of feeder schools in the sample than others, which improves the accuracy of the characterizations of some clusters.

# Percentage of Pels students attending a neighborhood high school from feeder schools, by neighborhood high school\*

Neighborhood high schools varied in the percent of students attending from a feeder elementary or middle school. In this table, a lower percent means that fewer students from feeder schools attended the high school. For example, 40% of the PELS students who attended Lincoln High School for their freshman year had attended one of Lincoln's feeder schools for eighth grade; the rest came from schools outside of the feeder. On the other hand, all of the PELS students at Strawberry Mansion High School attended one of its feeder schools for eighth grade.

High School	Percent of students from feeder pattern	n++
Lincoln	40%	(35)
William Penn	40	(65)
Roxboro ugh	47	(30)
University City	48	(25)
Overbrook	51	(72)
Franklin	52	(29)
Edison	62	(45)
Germantown	63	(19)
Bertrem	71	(45)
Olney	78	(74)
Frankford	79	(61)
Northeast	79	(108)
Gratz	81	(43)
Feb	89	(48)
Washington	89	(76)
Furness	92	(48)
West Philadelphia	94	(62)
King	98	(58)
Audennied	100	(45)
Strawberry Mansion	100	(48)

\*South Philadelphia and Kensington are not on this list because of the extremely small number of students in the PELS sample attending these schools.

\*\* the number of students in the PELS sample attending the high school

Table 5 makes it clear that there is school switching among neighborhood high schools, with PELS students from one cluster attending high school in another cluster. Some of the neighborhood high schools — Lincoln and William Penn, for example — were "receivers"; that is, a good portion of the students attending those high schools were from outside the cluster. Other schools were the "senders," with few students coming from other parts of the city. But in another sense, all of the neighborhood high schools were "senders," since some students from each school opted for magnet or vocational schools instead. It is common wisdom that the special admissions schools skim off the most talented students, leaving neighborhood high schools with a group of academically less able students.

While there are a number of factors (absenteeism, special education, suspensions, grades, percent of students from families receiving public assistance) that could be used to assess changes in school composition as a result of school choice, Table 6 presents data for one indicator — the local percentile for the math section of the SAT-9 achievement test in eighth grade — which is probably the best single indicator of the achievement level of students (we used math scores as an indicator because they are less susceptible to language differences). The first column in Table 6 indicates the median local percentile for all PELS students from schools feeding to that high school, regardless of whether they attended that high school for ninth grade. Column 2 shows the median math score for all students who actually attended that school, regardless of whether they attended an eighth grade school in the cluster. The third column indicates the difference between median feeder pattern score and the median score for attenders.

# Comparison of 1995-96 8<sup>th</sup> grade Stanford-9 (SAT-9) math percentiles for PELS students in the feeder pattern and those actually attending their neighborhood high schools

This table shows the median math local percentile for PELS students in each feeder pattern, the median percentile for the PELS students who actually attended the high school for 9<sup>th</sup> grade, and the difference between the two. For example, students whose feeder high school was Gratz had a median score of 30 on the math test; those who actually attended the school for 9<sup>th</sup> grade had the same median score; so, among the PELS students, Gratz experienced neither a gain nor a decline in average academic achievement as measured by the SAT-9 math score. Contrast this with a school like Furness, where there was a 17-point difference between those in the feeder pattern and those who actually attended.

High School	(h School feeder as Sth grade is		Difference (feeder score - attenders score)	
Gratz	30	30	0	
William Penn	30	32	+2.5	
Edison	32	32	0	
West Philadelphia	32	27	-5	
Bartram	37	37	0	
Audennied	37	35	-2.5	
King	42	30	-12.5	
Strawberry Mansion	42	40	-2.5	
Olney	y 42 32		-10	
Frankford	47 42		-5	
University City	47	52	+5	
Ben Franklin	52	37	-15	
Overbrook	60	45	-15.5	
Furness	64	47	-17	
Fels	70	60	-10	
Germantown	70 60		-10	
Lincoln	70	56	-14	
Northeast	70	67	- 3	
Roxboro ugh	77	62	-15	
Washington	81	72	-9	

It is apparent from the table that the availability of school choice hit some neighborhood high schools harder than others. Some schools experienced so little loss that the differences were not statistically significant (that is, they may be the result of chance variation). In fact, with the exception of King and Olney, the neighborhood high schools with median math local percentiles below the district median (by definition, 50 percent) experienced relatively little loss. In contrast, schools with median math percentiles in the 60 to 70 range had the biggest losses of academic talent, suggesting a pattern that makes some sense. While there are academic stars in every cluster, those clusters with higher average achievement levels are more likely to have high percentages of students with the credentials to be accepted to selective admissions schools. In other words, the academic achievement drain occurs in places where there is achievement to drain. So while it is true that school choice changes the composition of neighborhood high schools as a group, it is not correct to say that it affects all of them in equal or even significant ways.

#### Summary

Choice within and among schools in Philadelphia has expanded rapidly in the past ten years with the creation of SLCs in neighborhood high schools. In this report, we have looked only at application and acceptance rates at the school level, leaving aside the complex mix of individual level characteristics that also influences students' decisions regarding whether and where to apply, and schools' decisions regarding whether to admit or reject. We have also left for another time an analysis of how students fare at choice schools versus their neighborhood high schools.

However, we suggest that given the data that we have presented, it would be worthwhile for the School District of Philadelphia and its reform partners to focus on — and perhaps develop programs related to — the selection of SLCs within neighborhood high schools. There are numerous reasons why SLCs continue to operate like tracks, including the desire of some teachers to retain homogeneous groupings, the lack of some college-prep courses like foreign language in some SLCs, and variation in the sophistication of the curriculum among SLCs. However, if one reason why SLCs continue to operate like tracks is that the weaker students are less likely to choose an SLC, then a first step might be to investigate why neighborhood high schools vary in the percent of students submitting choice forms for small learning communities and to encourage all schools to increase the percent of students making a choice. In addition, it would be worthwhile to investigate the amount and kind of guidance counseling, if any, that students and their parents receive before ranking their choices for SLCs. Do students have any way to assess which SLC would be best for them — other than just rumor about which SLC has the "best kids" or a vague sense of one's vocational interests? If not, perhaps the School District and its partners could work with schools to develop an assessment

or guidance process that would assist parents and students in making an informed decision about SLCs in their neighborhood high school.

Another option is to reduce the burden of choice placed on the shoulders of students and their parents in the eighth grade by creating ninth grade academies in the neighborhood high schools with a common core academic curriculum, leaving students to make the choice of SLC during the spring of ninth grade when they are more familiar with SLC options.

# Chapter 1: Appendix

#### Schools using admissions criteria for school year 1996-97

- 1. Magnet schools include: Bodine, Carver, Central, Creative and Performing Arts, Franklin Learning Center, GAMP, Girls', Masterman, and Parkway.
- 2. Selective SLCs include: Overbrook Scholars; Overbrook Fine Arts; Overbrook Music; Northeast Medical, Engineering and Aerospace Sciences; and Motivation programs at Audenreid, Bartram, Edison, Franklin, Germantown (Lankenau), Overbrook, Strawberry Mansion, and University City.

#### Schools using lottery selection for school year 1996-97

- 3. Vocational schools include: Bok, Dobbins, Mastbaum, and Saul.
- 4. Nonselective SLCs at comprehensive high schools. For SY 96-97, this included all Academy programs as well as Bartram Business magnet, Germantown Law and Government magnet, William Penn Communications magnet, Roxborough Communications magnet, Roxborough Hi-Tech magnet, and University City Math/Science magnet.

# **CHAPTER TWO**

# The Ninth Grade Challenge

Christopher Weiss

In moving from eighth grade into high school, students encounter a substantial number of changes. Research on the high school transition has shown that in addition to changes in schedules, procedures, and teaching styles, students experience an increase both in the level of academic pressure and in the demands of school. As a result, most students experience a decline in academic performance in making the transition to high school, resulting in poorer grades in their first year. This is especially true in Philadelphia and other large urban districts.<sup>1</sup>

This section of our report on the transition to high school in Philadelphia documents the academic difficulties that students experience upon entering high school. Documenting the decline in academic performance and factors related to the decline is important for several reasons. Grades represent one of the most salient markers of a student's performance in school. They are the standard by which students are judged and a measure of their effort in school. Moreover, subsequent markers of academic performance, particularly credits for promotion within the high school, are contingent on students' grades. Grades not only influence what happens to a student in the first year of high school but also set a trajectory for the duration of his or her education. Academic performance in the early years of high school is one of the best predictors of dropping out of high school.

Two groups of students are examined in these analyses. The first group is comprised of all students selected for participation in the PELS study, regardless of whether they were interviewed as part of the study. Analysis of these data focused on average grades and course failure in ninth grade. The second group of data is restricted to those students interviewed in Wave 3 of PELS for whom we have complete grade data for ninth grade. For both groups, data for grades were taken from records provided by the School District of Philadelphia, while all other data were taken from self-reports of parents and students through telephone interviews as part of PELS.

<sup>&</sup>lt;sup>1</sup> Bernard J. McMullan, "Trends in Student Achievement Among Students Enrolled in Philadelphia's Comprehensive High Schools, 1988/89-1995/96," a report to The Pew Charitable Trusts, Philadelphia, PA, 1996.

#### Grades in Ninth Grade

This analysis begins by looking at students' average grades for all courses taken in ninth grade. The measure we employ is a form of grade point average, calculated by averaging the student's final numerical grade (0-100) in each course taken during ninth grade.

Overall, academic performance in ninth grade was poor, and most students' grades were very low in the first year of high school. The average (median) grade across all courses for ninth graders sampled through PELS was 70.7. This means that on average, students barely earned a C for their ninth grade course work. Moreover, as Table 1 illustrates, many ninth graders finished their first year of high school with a failing grade point average. Nearly one of every three ninth graders sampled for PELS had a grade average below 65 for all of their courses combined. That is, nearly one-third (32 percent) had an average grade in the failure range for ninth grade. In addition, nearly 15 percent had a final grade average in the D range, for an astonishing 47 percent of students sampled in this study who earned an average GPA of 69 or below in their first year of high school.

Average of all courses	Percent of ninth graders	
A (90 - 100)	4%	
B (80 - 89)	17	
C (70 - 79)	32	
D (65 - 69)	15	
F (64 and below)	32	

# Average final grade for all courses for PELS ninth graders (1996-97)

High academic performance in ninth grade was remarkably absent, with less than one student in twenty (4 percent) earning an A average for all courses. Moreover, only slightly more than one-fifth (21 percent) earned an A or B average for their courses in the ninth grade year. More than twice as many students finished with average grades of D and F as finished with grades of A and B. The data presented in Table 1 show a difficult and troubling first year of high school.

Poor performance was not limited to certain courses; rather, as Table 2 shows, students appeared to have difficulty with most of their major subjects.<sup>2</sup> Average grades were remarkably consistent — and consistently poor — across the major subjects. Nearly 30 percent of students had an F as their final grade in English, science, and social studies courses.<sup>3</sup> Math presented an even greater difficulty than these courses, with 36 percent earning a failing final grade. As was the case with the overall average

 $<sup>^2</sup>$  The overwhelming majority of students were enrolled in only one course of each of the major subjects: one English course, one math course, etc. However, a small handful of students were enrolled in two courses within a major subject. For these students, the final grade reported represents an average of the two final course grades.

<sup>&</sup>lt;sup>3</sup> The figures presented here show less failure than data in McMullan's report to the Pew Charitable Trusts (1996). The majority of the discrepancy can be explained by differences in the ninth grade population studied. While PELS data include only students in their first year of high school, McMullan's rates are based on all the District's ninth graders, many of whom are repeating the grade and are likely at greater risk of failure. McMullan's report also focused on students attending comprehensive high schools, while PELS includes students at all schools.

grade presented in Table 1, many of those who passed the course were close to failure. For each of the four courses examined, about 20 percent earned a D for their final grade. Taken together, between 48 and 57 percent of ninth grade students failed or nearly failed each of the major subjects in their first year of high school.

#### Table 2

Grade range	English	Math	Scie noe	Social Studies
A (90 - 100)	8%	9%	10%	9%
B (80 - 89)	17	13	17	18
C (70 - 79)	26	18	24	25
D (65 - 69)	19	21	20	20
F (64 or below)	30	36	30	28
	2,655	2,649	2,611	2,565

### Percentage of Students Receiving Each Grade, by Course

As with average course grades, only a small proportion of students were high performers in each of the four courses examined. For all course types, only between 8 and 10 percent earned an A as their final grade. Math presented the greatest problem for ninth graders, with well over half of students (57 percent) earning a D or an F and less than one-fourth (22 percent) getting an A or a B. In other courses, although grades were slightly better than in math, performance was not much higher. In sum, the figures above show that failure and poor academic performance were common across all courses.

We next examined the percentage of students failing different numbers of classes. Results are presented in Table 3. Only 42 percent of the students passed all of their courses in the ninth grade year. Seventeen percent of students failed one course, and an additional 10 percent failed two courses. Remarkably and discouragingly, nearly one-third of ninth graders (31 percent) failed three or more of their courses. Overall, 58 percent of students failed one or more courses in ninth grade.

Number of Courses Failed	Percent of Students Failing
0	42%
1	17
2	10
3 or more	31

# Number of ninth grade courses failed, by individual PELS student

In addition to failure at the individual level, it is instructive to examine how failure varied by type of high school. Both previous sociological research and data used by the School District indicated that there might be important differences in failure patterns between schools. In Philadelphia, there are three broad categories of high schools a student may attend: neighborhood (comprehensive) schools, magnet schools, and vocational/technical schools.<sup>4</sup> The next part of this analysis will compare failure rates by high school. For each high school, we calculated the percentage of PELS' students failing at least one course in ninth grade. Results are presented in Table 4.

<sup>&</sup>lt;sup>4</sup> For these analyses, we did not separate students enrolled in magnet programs within neighborhood high schools. These students are counted as attending neighborhood schools rather than magnet schools. Students' high schools were determined in March 1997 (when data were obtained from the District — the spring of the students' freshman year); thus, students who transferred from magnet or vocational schools to neighborhood schools before March are included in the neighborhood high school category.

# Percentage of PELS students failing at least one course in ninth grade, by type of high school

Type of School	Median % failing across all schools	School with Jowest % failing	School with highest % failing	
Neighborhood HS	63%	44%	94%	
Magnet HS	25	13	36	
Vocational/Technical HS	58	54	71	

In the majority of the neighborhood high schools, nearly two-thirds (63 percent) of the students failed at least one course. The percentage of students failing varied widely by high school. In the neighborhood school with the highest percentage of students failing, nearly all students (94 percent) failed at least one course, while in the neighborhood school with the lowest percentage, 44 percent failed. It is important to emphasize that even in the neighborhood school with the lowest level of student failure, nearly half of students failed at least one course in ninth grade.

Rates of failure were lower in magnet high schools than they were in neighborhood high schools. In the average magnet school, 25 percent of students failed at least one of their courses in ninth grade. The range of failure between schools was not as great among magnet schools, with 13 percent of students failing in the "lowest failure" school and 36 percent in schools at the higher end.

At the District's vocational and technical schools, failure patterns resembled those of the neighborhood schools. On average, 58 percent of students in these schools failed one or more courses, with 54 percent failing at the school with the lowest percentage of course failure and 71 percent at the school with the highest. These figures demonstrated that there was significant variation in failure patterns by type of high school.

Table 5 shows the proportion failing courses in the major subject areas by type of high school. Consistent with the data displayed in Table 2 on students' grades in major subjects, math was the most frequently failed course. Table 2 reveals that 36 percent of students failed their math course in ninth grade while slightly less than 30 percent failed their English, science and social studies courses. The data in the table below highlight the presence of important differences in course-specific failure rates by type of high school. A much greater proportion of students at neighborhood high schools (41 percent) and vocational/technical schools (36 percent) failed their math course compared to students in magnet schools (12 percent). A similar pattern — in which many more students at neighborhood and vocational/technical high schools failed as compared to magnet school students — held across other subject areas as well. English and science courses posed significant challenges, as shown by the one-third of students at the neighborhood high schools who failed their English and/or science courses. Overall, nearly two-thirds of students in neighborhood and vocational high schools failed at least one course. The failure rates in these schools were astonishingly high. While failure was not nearly as common in magnet schools, a substantial number of students did experience some failure in ninth grade.

### Table 5

	Percent failing English	Percent failing Math	Percent failing Science	Percent failing Social Studies	Percent failing at least one course
Neighborhood HS	3396	41%	32%	31%6	63%6
Magnet HS	6	12	7	6	25
Vocational/Technical HS	32	36	45	26	63

# Percentage of PELS students failing, by course and type of high school

### Comparison with Eighth Grade

The data presented so far on grades and failure show widespread failure and very poor academic performance in the first year of high school. However, it is useful to know whether this level of achievement was first made manifest in ninth grade or whether it represented a continuation of low grades that began before entering high school. To address this question, this section of the report examines students' average grades and course failure for eighth and ninth grades.

We begin with a comparison of average grades. Table 6 presents students' average grades for all courses in eighth and ninth grades. The figures shown in the table offer compelling evidence that poor academic performance in ninth grade was not an extension of eighth grade difficulties. While 47 percent of PELS students had a D or F for their final average in ninth grade, "only" 17 percent had such grades in the year before entering high school. Even more striking is the difference between the proportion having a failing average grade. In eighth grade, only seven percent of students had average course grades below 65, while 32 percent of students earned such grades in ninth grade, an eightfold increase in failure over one year. Forty-two percent of PELS students had a grade point average of an A or B in eighth grade, but by ninth grade, only 21 percent had such grades.

#### Table 6

Grade range	Percent of Eighth Graders	Percent of Ninth Graders	
A (90 - 100)	6%	4%	
B (80 - 89)	36	17	
C (70 - 79)	41	32	
D (65 - 69)	10	15	
F (64 and below)	7	32	
n =	2823	2782	

# Average final grade in eighth and ninth grade for all courses for PELS ninth graders

Examining the number of courses failed tells a similar story of extraordinary decline in academic performance between eighth and ninth grade. Table 7 presents a comparison of the number of courses failed by PELS students in eighth and ninth grade. The proportion of students passing all of their courses was much greater in eighth grade. Just under two-thirds of students passed all of their classes in eighth grade; in ninth grade, however, only 42 percent failed no courses. More striking is the rise in the number of students who failed three or more courses. In eighth grade, 15 percent of students failed at least three of their courses. In ninth grade, in contrast, 31 percent failed at such a level. In sum, the data shown in Tables 6 and 7 show that although poor performance and course failure are not unknown in eighth grade, substantially more students experience serious academic difficulties in high school.

# Number of courses failed in eighth and ninth grade for PELS students

Number of Courses Failed	Percent of Eighth Graders Failing	Percent of Ninth Graders Failing
0	64%	42%
1	14	17
2	7	10
3 or more	15	31
n =	2823	2782

#### **Predictors of Failure**

Next we consider how failure in ninth grade varied by a number of different individual level characteristics. Below are a series of tables that examine how course failure differed by students' gender, race, education level of their mothers, family welfare status, previous grade retention, number of schools attended in the middle grades, and future educational aspirations. Each of these characteristics has been shown to be related to educational outcomes in previous research.

#### Gender

Table 8 on the next page shows how failure varied by gender for the four core courses and the percentage failing at least one course. Males were significantly more likely to fail each course. Overall, 54 percent of males failed at least one course in their ninth grade year, while 45 percent of females did so.<sup>5</sup>

<sup>&</sup>lt;sup>5</sup> Only those students who were actually interviewed are included in these analyses. Because they are a slightly more select population than the group of all students we tried to interview (see the introduction to this report), their course failure rate is somewhat lower.

# Failure rates of PELS ninth graders, by course and gender

Gender	Percent failing English	Percent failing Math	Percent failing Science	Percent failing Social Studies	Percent failing at least one course
Male	29%**	32%	27%**	26%**	54%**
Female	18	28	18	20	45

Difference is statistically significant, \*\* p<=.01

#### Mother's Education

Level of mother's education has also been shown to be an important predictor of students' academic outcomes. Table 9 shows how course failure varies by mother's education level. For the purposes of these analyses, mother's education was divided into two categories, based on whether the mother had at least a college degree. In these data, approximately one-third of mothers had a college degree or more and the remaining two-thirds had less than a college degree.

### Table 9

# Failure rates of PELS ninth graders, by course and mother's education level

Mother's Education Level	Percent failing English	Percent failing Math	Percent failing Science	Percent failing Social Studies	Percent failing at least one course
Less than College Degree	27%**	33%**	25%**	26%**	52% <b>**</b>
College Degree or More	15	24	16	16	42

Difference is statistically significant, \*\* p<=.01

Students whose mothers had earned a college degree were significantly less likely to fail each course. For each of the four courses examined, the proportion of students failing courses whose mothers had no college degree was higher than the proportion for students with college-educated mothers. Overall, 42 percent of those whose mothers had college degrees failed at least one course, as compared with 52 percent of others.

#### Low-income Status

A number of previous studies have shown that students from low-income families are significantly more likely to fail a course than students whose families are better off. There are a number of potential measures of low income, such as income level and eligibility for free or reduced price lunches at school. For our analysis, we measure low income as receipt of public assistance, that is, receiving either AFDC or food stamps.<sup>6</sup> Table 10 below compares the percentage failing each of the major subjects by family low-income status. A significantly higher percentage of students whose families received public assistance failed each of the four classes. Furthermore, while 48 percent of students whose families did not receive public assistance failed at least one course, the percentage for families who did was 61.

### Table 10

Income Level	Percent failing English	Percent failing Math	Percent failing Science	Percent failing Social Studies	Percent failing at least one course
Receiving public assistance	32%**	39%**	2996*	3096**	61%**
Not receiving public assistance	20	28	21	19	48

## Failure rates of PELS ninth graders, by course and low-income status

Difference is statistically significant, \*p<=.05; \*\* p<=.01

<sup>&</sup>lt;sup>6</sup> Data used to generate the variable for welfare status come from parental self-reports.

#### Previous Grade Retention

Prior grade retention — having been held back a grade — has been consistently shown to be a strong predictor of a host of negative academic outcomes, including poor grades, suspensions, truancy, and dropping out. The figures in Table 11 demonstrate that prior grade retention is closely connected to course failure.

### Table 11

Previous Grade Retention Status	Percent failing English	Percent failing Math	Percent failing Science	Percent failing Social Studies	Percent failing at least one course
Previously held back	32%**	<b>43%</b> ↔	32%**	3396**	64%**
Not previously held back	19	25	18	17	45

# Failure rates of PELS ninth graders, by course and previous grade retention

Difference is statistically significant, \*\* p<=.01

Students who repeated a grade before high school were much more likely to fail a course during ninth grade than those who did not repeat. Overall, 64 percent of students who were held back a grade before high school failed at least one course in ninth grade, whereas only 45 percent of those not held back failed at least one course. This percentage gap shows the strong predictive power of previous grade retention on freshman grades.

#### Number of Schools Attended Between Sixth and Eighth Grade

Another factor influencing students' performance in high school was the number of schools they attended prior to entering high school. Research has shown that students who change schools often have difficulty adjusting to their new environment and, consequently, experience negative academic outcomes, including poor grades, suspensions, truancy, and dropping out. The figures in Table 12 present the relationship between attending more than one school in the years between sixth and eighth grade and course failure.

# Failure rates of PELS ninth graders, by course and number of schools (sixth through eighth grade)

Number of schools attended between 6th-8th grade	Percent failing English	Percent failing Math	Percent failing Science	Percent failing Social Studies	Percent failing at least one course
More than one school	26%	32%	25%	27%*	5396
Only one school	22	29	20	21	49

Difference is statistically significant, \*p<=.05.

Students who have attended more than one eighth grade school are only slightly more likely to fail a course during ninth grade than those who did not repeat. Overall, 53 percent of students who attended more than one school between sixth and eighth grade failed at least one course during ninth grade. In contrast, 49 percent of those who were in the same school for all three years failed at least one course.

#### **Educational Aspirations**

One of the more important predictors of high school students' educational outcomes is their educational aspirations. Students who want to graduate from a four-year college have been shown to have better grades, on average, than those who desire a lower level of education. Table 13 below shows how course failure varied by adolescents' educational aspirations. The measure of aspirations used here had three categories: four-year college or more, less than a degree from a four-year college, and uncertain.

Level of College Aspirations	Percent failing English	Percent failing Math	Percent failing Science	Percent failing Social Studies	Percent failing at least one course
Less than four- year college	29%**	38%**	31%**	29%**	58%**
Four-year college or more	20	26	18	19	46
Uncertain	33	38	33	33	63

# Failure rates of PELS ninth graders,

Difference is statistically significant, \*\* p<=.01

Students who said they wanted to attain a degree from a four-year college were significantly less likely to fail each of their courses. Overall, 46 percent of students who aspired to college failed at least one course in ninth grade, as compared with 58 percent of those who had a lower educational goal and 63 percent of those who were uncertain of their aspirations.

### Multivariate Examination of Failure and Characteristics of Students

The tables of the preceding section have provided evidence that certain characteristics of students are related to a higher likelihood of failure. Males, those who had lower educational aspirations or had previously been retained in grade, and those whose parents were less well-educated or whose families received public assistance were more likely to fail a course in ninth grade.

It is important to know, however, the relative importance of these characteristics in predicting course failure in ninth grade. By examining the impact of each characteristic relative to the others, we can better understand risk of poor performance in ninth grade. To do so, we conducted a series of multivariate regressions that include all of the variables examined above as predictors of failure. We

<sup>&</sup>lt;sup>7</sup> Statistical test of difference for this table measures whether there is a statistically significant difference between failure rates of students who want to graduate from a four-year college, the students who aspire to less than a four-year degree, and those who are uncertain.

examined the relative impact of each characteristic on failure in each of the four courses as well as failing at least one course during ninth grade using logistic regressions, a method that predicts the odds of experiencing a particular outcome — in this case, course failure. These regressions allowed us to examine the impact of a characteristic, controlling for the impact of other characteristics. Results of these examinations are presented in the Appendix of this chapter.

The results of this multivariate analysis showed that, controlling for other factors, students who had repeated a grade before high school were significantly more likely to fail a course in ninth grade. Gender was also significantly related to failure in all courses except for math; for all four major subject areas, males were more likely to receive a failing grade than females. Mother's education was related to course failure for English and math, while the relationship between educational level and science course failure was close to statistical significance. Students whose families received public assistance were significantly more likely to fail their English and social studies courses. Race was not related to failure for any of the individual subjects, net of other factors. A student's aspirations for future education had little effect after other factors had been taken into account.

When examining the predictors of failing at least one course in the ninth grade, a similar pattern of results emerged. Gender, mother's education level, and previous grade retention were significant predictors of failing at least one course. Males were significantly more likely than females to fail a course, while students whose mothers had at least a college education were significantly less likely to experience course failure. The strongest predictor, though, was previous grade retention. Students who had been held back a grade before entering high school were twice as likely to fail a course than those never experiencing retention.

#### School Turbulence and Opportunity to Learn

Finally, we examined the impact of a set of measures of "school turbulence," various kinds of school-related disruptions or barriers to learning, on grades in ninth grade to see how changes in the beginning of the year were related to student grades. This section examines whether "turbulence" in the school at the beginning of ninth grade was related to students' academic performance. We conjectured that such disruptions would diminish students' opportunities to learn academic course material.

We used student responses to four questions to develop a single measure of school turbulence. First, students were asked how many of their classes did not have enough seats for every student at the beginning of the year. Nearly half (43 percent) said at least one of their classes did not have enough

seats for all students. Second, students were asked in how many of their classes there had ever been more than one teacher, indicating a change of staff, since the beginning of the year. Again, nearly half (47 percent) said this had happened in at least one of their classes. Third, students were asked in how many of their classes there were not enough textbooks for each student to have one. Forty percent of students reported such shortage of materials in at least one class. Finally, in addition to these three questions, we included a response to a question of whether a student had his/her schedule changed by the school since the school year began.<sup>8</sup> Indeed, nearly 40 percent of PELS students replied that the school had rescheduled their classes.

Using responses to these questions, we created a composite measure of school turbulence by adding the number of these events a student experienced early in ninth grade.<sup>9</sup> We then examined how grades varied by this measure of turbulence. (Table 14)

# Table 14

# Failure rates of PELS ninth graders, by course and school turbulence

Students who reported experiencing a greater number of turbulent or disruptive circumstances in ninth grade — that is, there were not enough seats for each student in their classes, not enough textbooks, changes of teachers during the year, and/or a schedule change initiated by the school — were more likely to fail at least one course during the freshman year. There is a clear linear pattern of association between more turbulence and greater likelihood of failure of at least one course.

Number of Turbulent Events	English	Math	Scie nce	Social Studies	At Least One Course
0	16%**	27%**	16%**	15%**	44%**
1	21	25	17	17	46
2	30	35	30	31	53
3+	33	36	30	24	61

Difference is statistically significant, \*\* p<=.01

<sup>&</sup>lt;sup>8</sup> This figure does not include students who requested a change in their schedule. It is only for schedule changes initiated by the school.

<sup>&</sup>lt;sup>9</sup> In creating these measures, we combined those students who had experienced three or four of these events into a single category.

Students whose early months in ninth grade had been disrupted by staff and schedule changes or shortages of seats or books had a significantly greater risk of failure than those who did not. For each of the four classes, there was a clear relationship between these disruptions and failure, with students who experienced two or more turbulent events at much greater risk of failure than those experiencing one or zero such events. A similar relationship was found between turbulence and the likelihood of failing at least one course.

Finally, we examined how the measure of school turbulence varied by type of high school. (Table 15)

### Table 15

# Percentage of PELS students experiencing varying levels of school turbulence, by type of high school

Number of Turbulent Events	Percent of students in Neighbochood HS experiencing turbulence	Percent of students in Magnet HS expeciencing turbulence	Percent of students in Voc/Tech HS expeciencing tucbulence
0	13%**	26%**	23%**
1	28	39	30
2	33	24	28
3+	27	11	19

Difference is statistically significant, \*\* p<=.01

Students in neighborhood high schools were more likely to have experienced turbulence during their ninth grade year than students at magnet or vocational/technical schools. Only 13 percent of students in neighborhood high schools experienced no turbulence, as compared to 26 percent of students in magnet schools and 23 percent of those in vocational/technical schools. Similarly, students in neighborhood schools were the most likely to experience three or more events of turbulence (27 percent of students) relative to magnet and vocational/technical students (11 percent and 19 percent, respectively).

This pattern of relationships suggests that the disruptive conditions many students experience during the fall of ninth grade — lack of seats, lack of books, changes in courses, and changes in their

instructors — reduce their opportunity to learn academic material. Students need an uninterrupted academic focus in their courses from the very beginning to the very end of the school year. These data indicate that high schools operate in ways that undercut the consistency and quality of instruction at the onset of students' high school careers.

#### Summary

The figures presented in this section of the report document the presence of widespread failure throughout the ninth grade in Philadelphia's public high schools. In the first year of high school, academic performance plummets and failure is pervasive. Among Philadelphia's ninth graders, more students fail at least one of their courses than pass them all. Course failure is but one marker of poor academic performance. Unfortunately, many of the students who passed their courses did so by the slimmest of margins, and many of the non-failing grades were Ds. High academic performance was quite rare, with fewer than five percent of students earning an "A" average for ninth grade.

The comparisons between eighth and ninth grade demonstrate the magnitude of academic decline that students experience when they move into high school. Though failure is not rare among eighth graders, the drop in grades between eighth and ninth grade is stark. The reasons for this drop need to be investigated. Are grading standards less stringent in eighth grade? Are middle grades teachers more successful in motivating students? Does student effort drop in mid-adolescence? Does the course work become substantially harder in ninth grade? Does the anonymity of large high schools diminish students' motivation and effort? Whatever the reasons, the astonishingly-high number of students who finish ninth grade with a failing grade point average demonstrates that high schools, as currently organized and operated, do not work well for their first year students.

We have demonstrated that certain characteristics of individual students are related to greater or lesser likelihood of academic performance. However, while the type of school attended and characteristics of individual students such as prior achievement, gender, and mother's education were significant predictors of course failure, the probability of not passing a course was very high for all groups of students. Even for students who were presumably less likely to fail, the odds of failure were very high. For example, among students who wanted to graduate from a four year college, nearly half (45 percent) failed one or more courses. And of those with mothers who were college graduates, 42 percent failed at least one course. For students with multiple risk factors, failure rates were astronomically high. For example, for males who had repeated a grade, whose families received welfare, and whose mothers did not attend college, 79 percent failed at least one course in ninth grade. In sum, the picture of student achievement presented here is a bleak one, particularly for those in neighborhood high schools. Failure is so widespread throughout ninth grade that even factors that "protect" students from the risk of failure are not providing much protection. Further, we know that students who experience academic difficulties in the first year of high school are at much greater risk of dropping out of school before graduation. The data presented in this section of the report thus provide not only an unsettling picture of the current state of ninth graders but also a warning of greater difficulty yet to come.

The description of school conditions reported by students in the beginning of ninth grade is equally disturbing. Large numbers of students experience serious disruptions in their academic experience — involuntary course schedule changes and rotation of teachers among classes — and often endure shortages of seats and textbooks. These disruptions to learning would be intolerable in suburban schools. The statistical association of students' experience with these conditions and their subsequent poor grades requires that schools re-think their organizational and budgetary practices in order to serve the basic need of students for a stable and well-supplied learning environment. While we have seen that student learning is affected by their own background characteristics, the climate for achievement created and nurtured by the school itself is of critical importance as well.

# Chapter Two: Appendix

# Multivariate logistic regression of failure in ninth grade courses, by course and demographic factors

Multivariate regression shows the effect of each factor while holding constant ("controlling for") each other factor. Negative values indicate lower odds of failing the course. For example, the coefficient for mother's education in the column marked "English" (-.580) indicates that those whose mothers have a college degree are less likely to fail English. Positive values, such as the coefficient for male in the same model (.664) indicate greater likelihood of failing.

	English	Math	Science	Social Studies	At least one course
Male	.664 <sup>+++</sup>	.082	. <b>45</b> 8 <sup>++</sup>	582***	.351 <sup>++</sup>
	(.166)	(.154)	(.168)	(.180)	(.136)
African-American	208	.022	021	012	.183
	(.182)	(.165)	(.180)	(.189)	(.147)
Mother holds college degree or mores	- 580** (.198)	454** (.177)	351 (.195)	- 245 (205)	- 293* (.149)
Welface cecipient	.418*	227	242	.447 <b>*</b>	.311
	(.195)	(.189)	(204)	(217)	(.176)
Grade retention	564***	.694 <sup>+++</sup>	.673***	.733 <sup>+++</sup>	681++++
	(.172)	(.163)	(.175)	(.186)	(.152)
Student aspires	.058	064	078	- 010	004
to college	(.140)	(.135)	(.146)	(.154)	(.119)
n=	910	849	865	792	931

\*p < = .05; \*\* p < =.01; \*\*\* p < =.001

### **CHAPTER THREE**

### Parents and the Transition to High School

Ruth Curran Neild

Research on students' transition to high school typically points out that one of the challenges for freshmen is negotiating a new school environment: an unfamiliar physical setting, social groups and pressures that may differ from what they experienced in eighth grade, and more challenging academic expectations. High school teachers, so the argument goes, are less nurturing than middle or elementary school teachers. And just when students must learn to handle new-found freedom at school, their parents are also becoming less active at the school and less likely to supervise and help with homework.

But if the unfamiliar high school setting is difficult for students, it also presents challenges for parents. One of the consequences of school choice in Philadelphia is that most ninth graders are the first of their siblings to have attended their high school. Overall, 72 percent of the parents we interviewed in Wave 3 had no other children who went to their ninth grader's high school. Of those who had older children, 62 percent had never had other children attend the school. As a result, like their children, the majority of parents had to learn their way around an unfamiliar high school. Knowledge of individual high schools appeared not to cumulate in Philadelphia in the same way that it might in a district with less school choice.

Furthermore, the transition to high school, with its more demanding curriculum, may make it more difficult for parents to help their children with their schoolwork, particularly in more technical subjects such as math and science. Forty-one percent of the parents interviewed in Wave 3 told us that they were able to give "no help" or "not much help" to their children in their math work; twenty-one percent said that they were little or no help to their children when it came to their English work. Overall, parent help with homework decreased from eighth to ninth grade: 20 percent of parents reported that they helped their children with homework "less than a few times a month" in eighth grade, while 37 percent of the same parents reported that amount of help for ninth grade.

This chapter explores a number of issues related to parents and the transition to high school. First, we consider parents' opinions of their child's high school at the end of ninth grade, comparing them to their opinions before their child started high school and to their opinions of the child's eighth

grade school. Second, we examine changes in parents' sources of information about the school and their child's academic performance, considering their contact with teachers and participation in networks of other parents at the school. Next, we consider parent responses to failing report card grades. Finally, we examine whether and how parents' educational aspirations for their children change during the ninth grade year.

### Parent opinions of the high school

In each wave, we asked parents to respond to a series of statements about the school their child had attended during the previous year and, in the post-eighth grade wave, to give us their impressions of the high school their child would most likely attend during the following school year. Parents were asked to state whether they strongly agreed, agreed, disagreed, or strongly disagreed with each one.

In national surveys, it is typical for parents to be relatively negative about the state of education in general, but quite positive in their evaluations of their own children's schools. This is the case among the PELS parents, who typically gave favorable reviews to their children's schools on a variety of issues, including safety, quality of teaching, and responsiveness of teaching staff to parents. Part of the reason for parents' high ratings of their children's schools (sometimes despite tremendous student failure and dropout rates) may be the limited opportunities they have to compare schools. In addition, parents may be reluctant to admit that their children are receiving an inadequate education. Research suggests that parents may be more willing to give educational institutions the benefit of the doubt, even when they are not as tolerant with other services and businesses.

When parent responses to school quality questions are compared over time and between different types of schools (neighborhood, magnet, and vocational), some interesting findings emerge. Table 1 presents data for parents who were interviewed in both Wave 1 (post-eighth grade) and Wave 3 (post-ninth grade). In Wave 1, parents were asked to report how much they agreed with statements about which high school their child would probably attend; in the Wave 3 interview, some of those questions were repeated for the high school actually attended.<sup>1</sup> It is clear from the table that parents are slightly less positive about their children's schools in the post-ninth grade interview (for example, fewer parents say that the students at the school care about doing well, and more parents say that fighting and weapons are problems at their children's schools), but overall, parents as a group are still remarkably positive after their child's ninth grade year.

Parent perceptions of child's school	,
before and after 9th grade	

737 Percent reporting "strongly agree" or "ag		
Parent Perceptions	Post-8th grade	Post-9th grade
Students care about doing well in their studies	97%	89%
The school is safe	77	81
Fighting among students is a problem at the school	49	63
Guns and weapons are a problem at the school	34	40

When parent responses are broken down by the type of high school attended, however, more variation begins to emerge. Figure 1 presents post-ninth grade data for neighborhood, vocational, and magnet high schools. In each item, parents with students at magnet schools are most positive about the schools, followed by vocational schools, and then neighborhood high schools. In many cases, parents' perceptions of magnet and vocational schools vary by only a few percentage points, with neighborhood high schools trailing by quite a bit. The differences between the school types are relatively slight for some items, particularly those having to do with parent-teacher interaction (for example, parents being encouraged to visit and teachers returning calls). Larger differences are apparent for items like the quality of teaching, the extent to which students care about their studies, and rule enforcement. The largest differences between schools are around safety and the prevalence of fighting and weapons, with neighborhood high school parents much less positive than either vocational or magnet school parents.

In addition, magnet school parents are more uniformly positive about their children's schools: the percentage agreeing that the school is safe, rules are enforced, teaching is good, and teachers are responsive are all quite similar. Parents of neighborhood high school students, however, give their schools more mixed reviews. They, like parents at magnet schools, are more likely to agree to

<sup>&</sup>lt;sup>2</sup> Only parents of students interviewed in Wave 1 and Wave 3 were included in this analysis for the sake of consistency.

the item about parents being encouraged to visit than to any other question; but a much smaller percentage of neighborhood high school parents than magnet or vocational parents agreed that students cared about their studies or that the school was safe.

Since vocational schools selected students by lottery for the 1996-1997 school year (when the PELS students were in ninth grade), they presumably represent something of a cross-section of ninth graders as a whole. It is interesting, then, that vocational school parents are so much more positive than neighborhood high school parents about the schools. Perhaps vocational schools are able to create a more disciplined climate because they are able to send troublesome students back to their neighborhood high schools. An interesting question that we do not address here is the extent to which having chosen a school results in a higher opinion of it.

Figure 1 suggests that students' high school experiences—or at least parents' perceptions of those experiences—vary by the type of high school attended. Figures 2 through 5 take a slightly different approach to parents' perceptions, comparing what parents thought about their children's eighth grade schools with what they thought about their high schools. In four separate items on both Wave 1 and Wave 3, parents were asked to indicate how much they agreed that their child's school was safe, that most students cared about their studies, that the teaching was good, and that parents were encouraged to visit the school when they had a concern about their child.<sup>2</sup> In Figures 2 through 5, parents' responses are divided up by whether the children attended a neighborhood, magnet, or vocational school (parents' report).

Taken together, the data suggest that parents of students attending vocational and magnet schools were just as positive—and sometimes even more positive—about their child's high school than they were about the eighth grade school. Overall, magnet school parents experience a subjective continuity of school quality from eighth to ninth grade, while parents of vocational school students seem to sense some improvement. On the other hand, the trend for parents whose children attend neighborhood high schools is to be less positive about the high school than the eighth grade school. The greatest change for neighborhood parents is in their perceptions of school safety (with a drop of 18 percent), while magnet and vocational school parents' opinions stay constant or are even more favorable.

Even in eighth grade, there are differences in parental perceptions of the schools among those whose children would ultimately attend magnet schools versus neighborhood or vocational schools. For example, parents whose children would attend magnet schools in ninth grade were more likely than those whose children would attend neighborhood high schools to think that their child's eighth grade





<sup>\*</sup> variable is reversed; actual wording on survey is "Fighting is a problem"

<sup>\*\*</sup>variable is reversed; actual wording on survey is "Weapons are a problem"

school was safe. This difference is not particularly surprising: since magnet schools draw many students from relatively more privileged schools, the initial variation may reflect the different kinds of schools students attended for eighth grade. But despite the initial differences in eighth grade schools, what is remarkable is how parents' perceptions of the schools diverge—sometimes rather sharply—from eighth to ninth grade depending on the type of high school their children attend. The parental opinion gap in eighth grade only becomes larger as their children enter high school.

# Figure 2

Parent opinions of school safety: Percent agreeing that child's 8th grade school (post-8th report) and high school (post-9th report) are safe, by type of high school attended



# Figure 3

Parent opinions of students:

Percent agreeing that students at 8th grade school (post-8th report) and high school (post-9th report) care about doing well, by type of high school attended





# Figure 4

Parent opinions of teaching quality: Percent agreeing that teaching is good at 8th grade school (post-8th report) and high school (post-9th report), by type of high school attended





# Figure 5

Parent opinions of encouragement to visit: Percent agreeing that they felt encouraged to visit 8th grade school (post-8th report) and high school (post-9th report), by type of high school attended





#### Parent information sources

Though parents play a central role in their children's education through the social and material resources they provide, they often find themselves on the outside looking in when it comes to school. Parents are sometimes able to gain information about their children's school experience from the children themselves (although 33 percent of the Wave 3 parents agreed that it was difficult to get their ninth graders to tell them anything about school). Other potential sources of information for parents are their children's teachers and other parents of children at the school.

#### Teachers

A common belief about the transition to high school is that parents become less involved at the school and have less contact with teachers, partly because their children want to "do it on their own" and partly because high schools are larger and more difficult for parents to negotiate. While it is true that some types of parental involvement drop off when students enter high school (PELS parents help their children with homework less often in ninth grade than in eighth grade, for example), Philadelphia parents do not appear to be in less frequent contact with their children's teachers during the ninth grade year than they were during the preceding school year. On both Wave 1 and Wave 3, two separate questions asked parents how often they had talked to someone at the school about their child's 1) grades and 2) behavior or attendance.<sup>3</sup> Tables 2 and 3 present responses to these questions.<sup>4</sup> The similarity between the overall amount of contact with teachers in eighth grade and ninth grade for both conversations is remarkable. During both years, almost 40 percent of parents reported that they had spoken to their child's teachers or guidance counselors about their grades four or more times; less than 10 percent reported never having spoken to a teacher or counselor about grades during the year. In contrast, 36 and 38 percent of parents in the eighth and ninth grade year, respectively, reported never having spoken to school personnel about their child's attendance or behavior.

When the data are broken down by type of high school, the continuity between eighth and ninth grade is, on the whole, consistent. Parents of magnet school students are most likely never to have talked to school personnel about grades (13% and 15% in eighth and ninth grades, respectively) or behavior and attendance (59% in both years). Parents of students at neighborhood schools are in contact with school personnel about grades, behavior, and attendance at approximately the same rates in eighth and ninth grade. Parents of students at vocational schools talk to school personnel

<sup>&</sup>lt;sup>3</sup> Response choices were: never, once or twice, three or four times, or more than four times.

 $<sup>^4\,</sup>$  For consistency's sake, only those parents who responded to the questions in Wave 1 and Wave 3 were included in this analysis.

somewhat more in ninth than eighth grade, with eight percent in eighth grade and one percent in ninth grade reporting never having talked to a teacher or counselor about their child's grades.

### Table 2

# Frequency of contact with school personnel (teachers and counselors) about child's grades: parent reports

Frequency of contact	Sth grade	9th gcade
Never	9%	7%
Once or twice	22	25
Three or four times	31	29
More than four times	39	37

# Table 3

# Frequency of contact with school personnel about child's attendance or behavior: parent reports

Frequency of contact	Sth grade	9th gcade
Never	36%	38%
Once or twice	29	24
Three or four times	16	14
More than four times	18	24

At the same time, a sizeable group of parents felt that communication with their child's teachers during the freshman year could have been improved. Among all parents interviewed in Wave 3, only 41 percent said that "most" or "all" of their child's teachers kept them well-informed about how they were doing in school.<sup>5</sup> Ten percent said that "most" or "all" of their child's teachers did not want to talk to parents. We were surprised to find that 30 percent of parents reported that they were always the ones to make contact with the school about their child's grades; moreover, of those who said that they always initiated contact, 58 percent said that they had contacted the school four or more times.

#### Other parents

Previous research indicates that networks of parents are often the conduit for "inside information" about the teachers, curriculum, and policies of a school. A series of questions on the Wave 1 and Wave 3 surveys asked parents about their contacts with other parents at the child's high school. In Wave 1, parents were asked how many other parents of children at the school they "talked to from time to time." In Wave 3, the question was phrased more loosely to ask how many other parents they "knew." This difference in wording may explain why 29 percent of the parents reported that they knew no other parents during their child's eighth grade year, but of those same parents, only 17 percent said that they knew no one during the ninth grade year. The primary way in which parents come to know other parents at the high school is by meeting the parents of their child's friends (82 percent). Fifty-four percent reported that the other parents were neighbors; not surprisingly, this percent varied by type of high school, with parents of students at neighborhood high schools being much more likely (60 percent) than parents of magnet (38 percent) or vocational (42 percent) school students to say that they knew neighbors with children at the school. Sixteen percent reported that they had relatives whose children also attended the school.

Despite the many parents who knew other parents at their child's high school, there was only a moderate amount of parent-to-parent communication about the school during the freshman year. Of those who knew other parents, forty-two percent said that they "rarely" or "never"<sup>6</sup> talked to them about "things that were going on at the school"; 46 percent said that they rarely or never talked about teachers and courses at the school; and 49 percent said that they rarely or never talked about their children's grades or behavior. The more deeply parents were embedded in networks of other parents, the more likely they were to talk frequently with them about the school and their child's academic performance.

<sup>&</sup>lt;sup>5</sup> Other response categories were "some" or "none."

<sup>&</sup>lt;sup>6</sup> Other response categories were "sometimes" or "often."

On the whole, the data suggest that during their child's freshman year, parents depended more on information about school from their children (some of whom were less communicative than others) and from their child's teachers, though many parents felt that they could have been better informed about their child's academic progress or lack thereof.

#### Parent responses to academic difficulty in ninth grade

Chapter Two of this report highlighted the academic difficulty that a majority of Philadelphia students encounter during the freshman year in high school. Though many students had difficulty in eighth grade as well, the extent of failure and poor grades in ninth grade is staggering in comparison. The PELS data indicate that most parents were aware of their child's poor academic performance during ninth grade and were not happy about it. Among the 1320 families interviewed in Wave 3 for whom we have School District report card grades for the freshman year, 80 percent of the parents whose children had received a D or an F on a report card knew that their child had received such a low grade. However, the majority of parents reported usually being caught off-guard by low grades. Fifty-two percent reported that they had been surprised by a D or F on a report card; 13 percent said that they suspected that the child might receive a D or F, and 35 percent said that they knew it would happen.

Fifty-six percent of those parents whose children had received at least one D or F reported that they were either "very dissatisfied" or "somewhat dissatisfied" with their child's grades; another 30 percent said that they were "somewhat satisfied." And parents reported that grades were also a larger source of conflict with their children than friends, clothes, or use of time. Fifty-nine percent of the parents interviewed after their child's ninth grade year reported that they had disagreements with their children over grades a few times a month or more; 19 percent reported daily disagreements about grades. In contrast, 46 percent of parents reported disagreeing over time use a few times a month or more, 39 percent said there was that amount of conflict over clothes or hairstyles, and 33 percent reported that they argued about friends that frequently. It is interesting that parents reported more conflict with their daughters over grades than with their sons (60 percent versus 51 percent reporting disagreements a few times a month or more, respectively); they also reported more conflict with daughters over time use.

What kinds of actions—if any—do parents take in response to their children's academic problems? In both Wave 1 and Wave 3, we asked parents a series of questions having to do with what they

<sup>&</sup>lt;sup>7</sup> Parents who reported that their children received no Ds or Fs during their report cards during the year were skipped out of this sequence of questions.

did in response to a child receiving a D or F on his or her report card.<sup>7</sup> Parents were asked whether they had obtained tutoring for their

child; meted out punishment; helped with homework; and/or talked with teachers. Finally, we asked parents to tell us whether their child's grades had improved a lot, improved a little, stayed the same, or gotten worse. Figure 6 and Table 4 present data from these questions for the two waves in which they were asked.<sup>8</sup>

Figure 6 illustrates the remarkable similarity in the percent of parents taking each action during their child's eighth and ninth grade years. There is a slight increase in tutoring, perhaps reflecting increased availability of tutoring services at the high school level or the parents' sense that they themselves cannot effectively tutor their children in more difficult high school subjects. But the percent of parents saying that they punished their children, helped them more with homework, or talked to teachers varies by only a few percentage points between eighth and ninth grade. The most common strategy in both years was to talk to the child's teachers: 88 percent of parents reported that in their conversations with teachers they had learned why the child was doing poorly; 89 percent said they had found out what the child could do to improve his or her grade; and 81 percent said they had learned how they could help their child improve.

While the frequency of using each strategy was almost identical in eighth and ninth grade, parents' accounts of the effects of their actions on their child's grades were quite different. Whereas 44 percent of the parents reported that their child's eighth grade marks had improved "a lot," less than a third reported that their actions had this effect during ninth grade. In fact, almost one third of the parents, despite taking some action, saw their child's grades stay the same or get worse.

The data on parental response to poor grades, as well as the amount of parent-teacher contact discussed above, suggest that parents employ similar strategies for dealing with poor grades in both eighth grade and ninth grade, including maintaining similar levels of contact with their child's teachers. The data do not indicate that parents stop pushing their children to succeed in ninth grade. But given the overwhelming academic difficulty that students experience during their first year in high school, such parental strategies—employed at their eighth grade levels—are much less effective.

<sup>&</sup>lt;sup>8</sup> For consistency's sake, only those parents who responded to the questions in Wave 1 and Wave 3 were included in this analysis.





•	• -	-
As a result of parental action, students grades	<b>Sth grade</b> (n=518)	<b>9th g<i>c</i>ade</b> (n=635)
Improved a lot	45%	28%
Improved a little	41	41
Stayed the same	9	21
Got worse	3	8

# Effect of parent actions on student grades, 8<sup>th</sup> grade and 9<sup>th</sup> grade: parent reports

### **Educational Expectations**

Given their children's poor performance during the freshman year, do parents revise their educational expectations for their children downward between the end of eighth grade and the end of ninth? The PELS survey included several items that asked parents to describe how far they thought their child would go in school. One set of questions asked parents to say, first, how far they hoped their child would go in his or her education and, in a follow-up question, how much education they thought their child would actually obtain. A second set of questions took a more fine-grained approach, asking parents whether the chances of their child graduating from high school were high, in the middle, or low. Parents were also asked what their child's chances were of graduating from a four-year college.

Figure 7 presents parents' responses from Waves 1 and 3 to the question of how far parents actually expected their child to go in school.<sup>9</sup> Possible responses to this question were quite specific, including, for example, "post-secondary vocational training," "some college," "a 2-year degree," or "a 4-year degree." Because we do not want to make too much of minor fluctuations at this point (for example, from a four-year college to a two-year school), we present data broken down by whether the parent expected the child to have at least some college education, regardless of whether a degree was obtained. Figure 7 indicates that there is very little change on this item between eighth and ninth grade, despite the poor grades that many students receive.

<sup>&</sup>lt;sup>9</sup> Only parents who were interviewed in both waves were included in this analysis.

Figure 7

Parent educational expectations: Some college or more Post-8th grade and Post-9th grade (n=1028)



On the more fine-grained measure of parents' assessments of students' chances of completing high school and college, however, parents appear to be somewhat less confident that their offspring will complete school. While 90 percent of the parents thought that the chances of their child completing high school were "high" after eighth grade, only 82 percent thought so after ninth grade (Table 5). However, few parents were willing to say that their child's chances of completing high school were low; most of the change was from "high" to "in the middle." With regard to the chances of completing college, there was a decrease in the percent of parents saying that their child's chances were high, and an increase in both the "low" and "middle" categories. Unlike the preceding question about their child's chances of completing high school, there was a notable increase between eighth and ninth grade in the percent of parents who felt that the likelihood of their child achieving a college diploma was slim (Table 6). Logistic regression analysis suggests that, not surprisingly, the student's ninth grade GPA and having failed a course during the freshman year were important predictors of an eighth-to-ninth grade decrease in parents' assessment of chances of completing a four-year college. The type of high school the student attended was also associated with a decrease: in comparison to parents of students at magnet schools, those whose children attended vocational schools were more likely to report lower chances at the end of ninth grade than at the end of eighth.

#### Table 5

# Parents' assessments of child's chances of completing high school: post-8th and post-9th grade responses

Chances of child's completing high school	Post-8th grade	Post-9th grade
Low	1%	396
In the middle	8	15
High	90	82

# Parent assessments of child's chances of completing four years of college: post-8th and post-9th grade responses

Chances of child's completing college	Post-8th grade	Post-9th grade
Low	10%6	18%
In the middle	35	40
High	52	40

#### Summary

For parents as a group, there is little change from eighth to ninth grade in their assessments of their child's high schools and educational prospects, as well as in their strategies for coping with poor grades. While approval of schools in general is remarkably high, overall, their opinions vary according to the type of school attended. In particular, parents of students attending neighborhood high schools are much less satisfied with some aspects of the education their children are receiving than parents of children who attend magnet or vocational schools. For some of the parents of students at neighborhood high schools, the quality of education feels as though it has deteriorated as their children have moved into high school.

These data suggest that the extent to which parents withdraw academic support from their children as they enter high school may well have been overstated. While direct parental help with homework declines as students enter high school (at least in part because parents feel that they lack the necessary knowledge and skills to help), there appears to be no decrease in parental monitoring and management to improve their children's performance in school. Most parents are aware of and disappointed by their children's dismal academic performance. Contact with teachers remains as high as when the students were in eighth grade. But it is a particularly poignant reminder of the overwhelming difficulty of the freshman year that despite parental continuation of efforts to help their academically struggling children, so many students' grades stayed the same or became worse. The PELS data suggest that the real issue is not so much that parent involvement in dealing with poor grades declines in ninth grade, but rather that the level of involvement that used to be sufficient to help most students in eighth grade is simply not enough to turn around student performance in ninth grade. The challenge of getting their ninth graders to achieve must seem as bewildering and daunting to some parents as it does to educators and administrators in the high schools.

### CONCLUSION AND RECOMMENDATIONS

As ninth grade course failure rates attest, the transition to high school in Philadelphia is a treacherous time for adolescents. Using data from pre- and post-ninth grade surveys of students and parents, this report has outlined some of the major features and difficulties of the transition.

#### School and SLC Choice

The movement of ninth graders from their feeder high schools to other neighborhood schools or to magnet or vocational schools is one of the remarkable events of the transition to high school in Philadelphia. Only about half of first-time freshmen attend high school in their feeder pattern. Even if students remain at their neighborhood high school, they are asked to make choices about the Small Learning Community they would most like to attend.

There was considerable school-to-school variation in the percent of PELS students who actually submitted a form indicating their preference for small learning communities. Students with stronger academic records were more likely to submit applications to SLCs in their neighborhood high schools, and, in many schools, a few SLCs tended to be the first choice for a disproportionate number of students. Most of those who applied were accepted to their first-choice SLC. These three facts may explain why SLCs resemble academic tracks in many high schools, despite their stated purpose of using an appealing theme to attract students from a range of ability levels.

#### Recommendations

•All students should be encouraged to state their preference for particular SLCs by returning the application form for SLCs at their neighborhood high school. Though returning the form is, in itself, no guarantee of heterogeneously-grouped SLCs, it is at least a step in the direction of encouraging students at all ability levels to make a choice.

•Serious attention should be given to the guidance that students receive in the SLC selection pro cess. Students and their parents need an individual assessment that would help them determine the fit between SLC themes at their neighborhood high school and their aptitudes and interests. Of course, enabling students to find the best fit also implies that school staffs think carefully about the range of curricular focuses represented by the SLCs in their schools, so that students with different interests can find high-quality programs that meet their needs.

• In order to ensure that students in all SLCs have equal opportunities to learn, schools should strongly consider instituting a core curriculum that all students - regardless of which SLC they attend - would be required to take. Such a curriculum might include particular core sequences of English, mathematics, and science courses.

• It may be more appropriate for students to select their SLCs during their freshman year rather than in eighth grade when information about SLCs is based largely on hearsay. Delaying choice of Small Learning Communities by a year may enable students and their parents to obtain more complete information about the curriculum and activities of each SLC and ultimately to make wiser choices.

Student interest in specific SLCs should be tracked at each school. Programs in which there is significant student interest should be permitted to expand. SLCs that are consistently shunned by students should be redesigned to make them more appealing or else terminated. Tracking student interest in SLCs would take advantage of the educational choice already part of the system to allow parents and students to express their opinions of different SLCs and to allow those that are successful to work with more students.

### Ninth grade academic failure and parent involvement

The level of course failure in the ninth grade - and the remarkable increase in the failure rate from the eighth to the ninth grade - is cause for major concern. This report has laid out some of the dimensions of the problem, including the high percentage of students who fail three or more classes during their freshman year.

Certain kinds of students are more at risk for ninth grade failure: those who have experienced academic difficulty in the past, males, students from low-income families, those with mothers without a college education, and those who attend neighborhood or vocational schools. In addition, students who report experiencing more "turbulent events" in ninth grade - that is, not having enough seats or books in their classes, or having a change in teachers or course schedule - are also at greater risk of failure. The consequences of failure during the transition to high school potentially include a greater risk of not graduating on time (or at all), or falling behind in subjects that are cumulative, such as in mathematics or science.

Interviews with parents of the PELS students suggest that parents are indeed aware of their children's failure and are, for the most part, distressed by it. There is no evidence of wholesale parental

withdrawal from contacting teachers or trying to cajole their children into maintaining better grades, though there is a decrease in the amount of help that parents give with homework.

One of the original purposes of the SLCs in the high schools was to provide more intimate, nurturing communities that would decrease the incidence of freshman failure. The PELS data suggest that more must be done to ease the academic transition to high school.

#### Recommendations

• Schools need to identify students early on in the freshman year who are experiencing difficulty with their classes or engaging in behaviors such as absenteeism or class-cutting that could potentially result in course failure.

• Appropriate supports for these students - such as extra help in difficult subjects, or counseling, or problem-solving conferences that include both students and their parents - should be provided. The aim of this monitoring and intervention should be to head off developing academic difficulties that could result in end-of-the-year failure. From the very beginning of the year, special attention could also be paid to those students who statistically are at high risk for failure.

• Parents need to be made an integral part of the effort to help ninth graders adjust to high school. The PELS data suggest that the at-home strategies that parents used to encourage their children to succeed in eighth grade are much less effective in ninth. Some of the parents also indicated that they would have liked to have been better-informed about their children's progress (or lack thereof) in class. Parents need to be made aware of their children's academic difficulty early on during the freshman year and encouraged to collaborate with teachers in monitoring their classroom performance.

• More consideration may need to be given to alternative school structures that promote successful adjustment to high school. Models such as Talent Development employ a version of thematicallybased small learning communities for sophomores, juniors, and seniors, but treat ninth graders as a separate community. Teams of four or five teachers with a particular interest in helping students make the transition to high school take responsibility for teaching small groups of freshmen. This sort of model may give students a level of close and personal attention that is not available even in the best multi-grade SLCs. • Patterns and consequences of failure in the ninth grade need to be carefully researched. To some extent, school staffs can do this by looking at data for their freshman students. We also need district-wide research to examine which classes students fail and why. For example, are there patterns of failure related to time of day? That is, are students more likely to fail classes offered at the beginning or end of the school day, or before or after lunch? Are particular types of students (for example, those traveling some distance to school) more likely to fail these courses? And what are the most common trajectories of failure? Are students most likely to fail in the first marking period of ninth grade, or are they more likely to experience a gradual decline in grades until it is too late?

As the PELS research project continues, we are committed to working with the School District and its reform partners to learn more about ninth grade failure and to find ways to improve the transition to high school.