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ABSTRACT

This report assesses the interim progress made toward increasing the college-going rate at 11 schools that received College Bound grants from the General Electric (GE) Foundation. It provides information about the kinds of programs developed, early indications of the effects the approaches have on promoting college going and influencing school change, and the ways in which the GE Foundation and local GE facilities provide support to the school beyond the actual grant. Participating schools strove to double the college-going rate for the school as a whole or to increase it significantly for a particular group of students. Data were collected during visits to 10 sites in spring 1992 and 1993. The schools were grouped into three categories: very challenged, somewhat challenged, and less challenged. Four general approaches to increasing the college-going rate were identified: ancillary services; supplemental instruction; improved curriculum and instruction for a target population; and improved curriculum and instruction schoolwide. Four sites doubled their college-going rate and two showed significant improvement. It is concluded that: (1) grants can support major changes in the school; (2) successful grant programs can encourage more ambitious school reform; (3) even the most challenged schools can succeed; (4) sponsoring significant school change requires time and resources; investment strategies can promote longer program survival; and (5) funders can influence a program throughout the course of the grant. One figure and 6 tables are included. The appendix describes each of the 11 College Bound programs. (LMI)

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*Susan J. Bodilly, Susanna W. Purnell,
Paul T. Hill*

Institute on Education and Training

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*Susan J. Bodilly, Susanna W. Purnell,
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*Supported by the
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Preface

This report assesses the interim progress made toward increasing the college-going rate at eleven schools receiving College Bound grants from the GE Foundation. This formative evaluation provides information on the kinds of programs developed, early indications of the effects the different program approaches have on promoting college going and influencing changes in the school, and the ways the GE Foundation and local GE facilities provide support to the school beyond the actual grant. The report covers areas of interest to foundations and businesses working with schools as well as school district officials, school administrators and school staff developing programs initiated through grants and/or aimed at encouraging students to continue their education through college.

The research was supported by a grant from the GE Foundation. The study was conducted in the Education and Human Resources Program of the Domestic Research Division of RAND.

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Summary

In 1989, the General Electric (GE) Foundation created College Bound, a grant program dedicated to increasing the college-going rate at selected high schools located near GE corporate facilities around the country. Schools accepted into the program agree to attempt to double the college-going rate for the school as a whole or to increase it significantly for a particular group of students. In addition, each school's program must include a volunteer component drawing on personnel from the local GE facility. Although the amount and duration of the grant varies by the size and depth of the intervention, a high school accepted into the program can receive as much as \$1 million in grant funding over a five-year period. By 1992, grants had been made to 11 high schools or school districts.

In 1991, the GE Foundation contracted with RAND to conduct a formative evaluation describing the kinds of programs developed and implemented by the schools and the interim progress toward the College Bound goal, i.e., were the schools likely to meet the goal of the program to double the college-going rate or significantly increase college going for a target population?

This report documents the general findings of the formative evaluation, using case studies based on data collected during visits to ten sites in the springs of 1992 and 1993.

Challenge Facing College Bound Schools

We found that the 11 schools in the College Bound program fell into three categories:

- **Very challenged:** Five schools were located in very urban or rural areas, served a large at-risk population, and were in districts faced with severe fiscal and political challenges. At most of these schools, only about one-fourth of the students graduating went on to college.
- **Somewhat challenged:** One school was located in an urban area, served a large at-risk population, but was in a less-turbulent school district that supported school reform. Only about one-fifth of the graduates went on to college.

- **Less challenged:** Five schools were located in small- or medium-sized cities, served a comparatively smaller population of at-risk students in less-troubled school districts. In most of these schools, a majority of graduating students already were going on to college.

College Bound Program Approaches and Implementation

Although the schools and districts in this program displayed a rich diversity of program components and experiences, four general approaches to increasing the college-going rate emerged over time. There is some overlapping of approaches, as most schools incorporated some ancillary services.

1. **Ancillary Services.** These programs targeted students qualified for going on to college, but coming from backgrounds with no history of college attendance. The approach emphasized individual attention and support through counseling and mentoring, as well as activities that supported students toward successful college application, including test preparation, college campus visits, and job shadowing.
2. **Supplemental Instruction.** These programs provided supplemental instruction to students when it was perceived that the existing system had failed to adequately serve that population. The major emphasis was the provision of supplemental instruction in the form of tutoring, special academic courses, and Saturday workshops provided by adjunct personnel and volunteers.
3. **Improved Curriculum and Instruction for a Targeted Population.** Schools adopting this approach targeted at-risk students transitioning to high school during the freshmen and sophomore years. The programs focused on creating instructional strategies, such as teaming of teachers or more active learning approaches, to keep poorly motivated students with college-going potential in school by lessening the likelihood of academic failure or retention in grade.
4. **Improved Curriculum and Instruction Schoolwide.** Schools employing this strategy viewed the grant as a resource for changing the identity or reputation of the school. By holding the school responsible for preparing students for college, these programs instigated a wide array of changes in the delivery of education that benefited all students, including increasing academic requirements and offerings, providing staff development in new pedagogies or curricula, rescheduling the day to provide more time for instruction, or incorporating remedial labs in the daily schedule.

Results for Doubling the College-Going Rate

Table S.1 summarizes the midprogram findings.¹ In the seven schools for which data were available, there was evidence of substantial progress toward the program goal. Four sites (Aiken, Lowndes, Valley, and Western) had already doubled the college-going rate; two (Manhattan Center and Parkersburg South) had shown significant improvement and reached program goals. It was too early at the final site (Ossining) for the program to have had an effect on the graduation rate.

The available interim results support a preliminary conclusion that, given varying contexts of the program, these schools chose strategies that will allow

Table S.1
Mid-Program Progress Toward Doubling College-Going Rate (1992-93 SY)

Grantee by Program Approach	How Challenged?	Years in Program	College-Bound Goal	College Bound Rate (%)	
				Base Year	SY 1992-93
Ancillary services					
Aiken	Very	4	Double	23	47
North Division	Very	3	Double	20	NA
Parkersburg South	Less	3	66%	47	69
Supplemental instruction					
Hendersonville	Less	4	Double Minority	NA	NA
Lowndes	Very	4	Double	16	34
Curriculum/instruction (targeted pop.)					
Ossining	Less	2	Double Minority	79	87
Schenectady	Less	1	Double Minority	NA	NA
Curriculum/instruction (school-wide)					
Collinwood	Very	2	Double	26	NA
Manhattan Center	Very	4	Unspecified	91	97
Valley	Less	4	Double	20	57
Western	Somewhat	4	Double	22	59

¹Complete information was available for seven of the eleven grantees. For the remaining five sites, information was not available; the program was too new to be measured; or meaningful data could not be developed on the targeted population.

them to meet the goal within the time frame of the College Bound grant. There were examples of program success for all three general program approaches, and the majority of the schools categorized as very or somewhat challenged appeared to make substantial progress toward school improvement.

A major caveat to these findings is that several of the schools were experiencing declining enrollments. Therefore, doubling the college-going rate did not always mean a large increase in the actual number of college-bound students. Lowndes, Parkersburg South, Valley, and Western made substantial increases in the number of college goers; other schools had more difficulty in this regard. This circumstance can substantially raise the cost of these programs when viewed on a per-pupil-served basis.

Other Findings

Although most schools nearing the end of the College Bound grant period had achieved the goal of doubling the college-going rate, there were important differences in the long-term influence of the program on the school:

- The *ancillary services* and *supplemental instruction* approaches were operated separately from the rest of the school, usually by adjunct rather than school staff. Although this facilitated implementation, these programs appear to be less likely to directly influence the school itself and more likely to disappear at the end of the grant.
- The *improved instruction and curriculum* approaches proved more difficult to implement, because the staff had to develop new roles and make changes in the delivery of education. However, because this approach was integrated into the school, the changes brought about by the program appear to be more likely to continue beyond the grant period.

In addition, more-general observations can be made about the role of outside funders in schools:

- Grant programs can succeed even in the most challenged schools.
- Grants designed to change significantly a school require the provision of funding over a number of years to achieve that objective.
- Programs using the grant to maintain personnel positions and other operating costs are difficult to sustain beyond the grant. Programs using an investment strategy whereby the grant funds training, equipment, and

materials appear to be more likely to sustain the changes initiated by the program beyond the grant.

- Outside funders can exert some influence over the development of a program through negotiation during the proposal stage, accountability and evaluation mechanisms during the course of the program, and serving as influential lobbyists with the school district.
- Outside funders—especially businesses and foundations—can expand their roles and support of a program by connecting schools with community and cultural resources, playing the role of critical friend, and providing volunteers and expertise relevant to the program.

Acknowledgments

The authors thank Clifford Smith and Phyllis McGrath of the GE Foundation for their support of this work. In addition, the study would not have been possible without the cooperation of the College Bound schools and districts. Program participants at the school level gave freely of their time to help us understand the issues facing them in terms of the program and the wider context of the school. The local GE coordinators and volunteers also generously gave us opportunities to find out about the local GE role and perspective on the program. We salute those interviewed for their dedication to improving the educational prospects of their communities and the good works they perform on a daily basis to help individuals and schools improve themselves.

The authors also acknowledge the assistance of the RAND staff in this study. Michael Mack and Sally Stoecker provided invaluable assistance with the field work and literature surveys. Kelly Warner conducted a telephone survey of college admissions officers that was very helpful to the study. Maryann Gray and Abby Robyn made thoughtful reviews of the final report.

1. Introduction

It is February 1993 in the high school cafeteria of a General Electric College Bound school. Earlier in the day, the janitors folded away the tables and put out chairs for the Academic Awards program in the evening. They expected 400 people, only to have nearly 600 attend. Parents, siblings, grandparents, aunts, and uncles mingle with students. All were there to celebrate with 300 students who earned recognition for academic achievement. For a struggling single parent of eight, the evening was filled with joy. Four of her children earned awards, three receiving the coveted Scholars' Dollars jacket—"smart jackets" the students call them—as well as earning scholarship dollars by maintaining high grade point averages.

The principal and College Bound program coordinator say this is a defining moment for them. They can look back over the past four years and see how far the school and its students have come. Once few parents set foot in the school, and athletic achievement was all. Now they are a community celebrating educational attainment, witnesses to the progress made by individual students who in the past might have left the school with little prospect for attending college.

In 1989 the General Electric (GE) Foundation formalized a new program called College Bound.¹ The program provides grants to high schools located near GE Corporation facilities, with the objective of doubling the college-going rate of the whole school or of a targeted population within the school. After several years of experience with the program, the foundation was interested in determining whether or not College Bound effectively increased the college-going rate. The GE Foundation contracted with RAND in 1991 to describe and analyze the effects of efforts at the individual schools.

This report documents the RAND assessment of the College Bound program. The remainder of this section describes the College Bound program in general terms and outlines the purposes of this analysis and the sequence in which it will be presented to the reader.

¹The General Electric Foundation is the philanthropic arm of the GE Corporation funded on an annual basis by the corporation.

Overview of the College Bound Program

The GE Foundation launched the College Bound program with a ten-year, \$20-million-commitment to double the rate of students bound for college, especially in selected poor and inner-city schools, by the year 2000. This program represents a commitment to invest in the communities in which GE facilities are located.

The focus on education in general and college education specifically reflects the corporate culture of GE. The program allows the foundation to invest in an area of vital importance to the nation and to the specific local economies near GE facilities. A college education can provide the means for individuals to permanently raise their and their family's lifelong prospects. From a corporate point of view, such an education is a minimum requirement for a worker to remain competitive into the 21st century.² The GE Foundation views the College Bound program as an investment in the communities near GE facilities and in specific individuals.

In the past, the majority of GE Foundation grants went to higher education. While the foundation still supports postsecondary programs, the College Bound grants go to high schools. The GE Foundation's commitment to the College Bound program created one of the largest single programs of private investment in the public high schools.

The initial structure of the program reflected other values of the foundation and the corporation. The GE corporate culture places a high value on decentralized decisionmaking and lower-level initiative. In creating the program, the foundation placed few constraints on how proposers should respond. The grants would be discretionary. The point of the contribution toward education was not to promote certain conceptions of schooling or programs of intervention. Rather, the schools themselves had to develop approaches suited to their own needs.

The conditions placed on the grants were few, but important:

- Only schools located near GE facilities could be considered.

²Data have traditionally shown a correlation between individual income by level of education. What is striking is the proportional differences in earning power demonstrated by those having a high school diploma or less versus those with a bachelor's degree. Census data, for example, show that in 1991, a male high school dropout earned \$15,589 on average; a male high school graduate earned \$22,663; and a male with a bachelor's degree earned \$38,484. In contrast, a female drop-out earned \$9,065; a female high school graduate earned \$13,523; and a female with a bachelor's degree earned \$22,802. See U.S. Bureau of Census, *Money Income of Households and Families and Persons in the United States: 1991*, Current Population Reports, Series P-60, No. 180, Washington, D.C.: U.S. Government Printing Office, Table 30.

- The school's proposal had to pledge to attempt to double the college-going rate for the school as a whole or for a particular group of students.
- The proposal had to include a volunteer component associated with the local GE facility.

The foundation received grant proposals in two ways. First, the foundation solicited proposals, especially in some of the urban districts where corporate facilities were located. Second, local GE officials aware of the program prompted local high schools to submit proposals to the foundation. In the former case, the school district chose the school and frequently played a role in writing the proposal. In the latter case, the high school often was affiliated already with the local GE facility, and the proposal was more likely to be generated by the principal and selected staff. Most proposals went through several iterations with GE Foundation staff providing feedback for each version centered on meeting the criteria and intent of the grant. The GE Foundation Board of Trustees approved each grant awarded.

Existing Program and Schools

By 1993, the foundation had awarded 11 College Bound grants under a variety of conditions. Although the majority of grants were awarded in the first year of the program, sites were added over the subsequent three years. The amount of the grant ranged from \$50,000 to \$200,000 per year, totaling as much as \$1 million over a five-year period to an individual school. The size of the grant varied with the size of the program and the depth of the intervention. Finally, while some of the schools had long-standing relationships with the local GE facilities, others had no preexisting ties. Table 1.1 provides some descriptors concerning the grants awarded to the schools in the program.

Benefits to the Schools

From the viewpoint of the schools, a number of characteristics make the College Bound grant very attractive. First, the size and the length of the grant provide the level of support required to actually make a change in the school.³ As

³See, for example, Karen Seashore Louis and Matthew B. Miles, *Improving the Urban School: What Works and Why*, New York: Teachers College, 1990. In a 1985-1986 survey of 178 urban high schools enacting major reform, Louis and Miles found that operating a moderate-sized urban high school cost about \$4 to 5 million per year. They estimated that an urban high school could enact major changes with at least an additional \$50,000 to \$100,000 per year over the course of several years. This is the equivalent to at least 1 or 2 percent of the operating expenses over a sustained period.

Table 1.1
 Recipients of College Bound Grants

Grantee	Location	Total Grant Amount	Duration (years)	Year Began	Preexisting Relationship
Aiken HS	Cincinnati, OH	\$1,000,000	5	1989	Yes
Collinwood HS	Cleveland, OH	\$1,000,000	5	1991	Yes
Hendersonville School District	Hendersonville, NC	\$250,000	5	1989	Yes
Lowndes County School District	Lowndes Co., AL	\$1,000,000	5	1989	No
Manhattan Center for Science & Mathematics	New York, NY	— ^a	5	1989	Yes
North Division HS	Milwaukee, WI	\$1,000,000	5	1990	No
Ossining HS	Ossining, NY	\$250,000			No
Parkersburg South HS	Parkersburg, WV	\$500,000	4	1990	Yes
Schenectady HS	Schenectady, NY	\$850,000	5	1992	Yes
Valley HS	Albuquerque, NM	\$750,000	5	1989	No
Western HS	Louisville, KY	\$1,000,000	5	1989	No

^aThe amount of the grant is negotiated annually.

foundations and other supporters of reform review past efforts, it has become apparent that change is a lengthy process.⁴ District officials have become wary of committing schools to such programs unless adequate time and resources are provided to sustain the implementation over a number of years. The College Bound grants, with a five-year time frame, potentially provide the sustained support needed to implement real change.

Second, the discretionary funds provide the high school with an opportunity to apply the funds as needed, rather than having district, state, or other entities dictate their use. High schools with annual operating budgets ranging from \$3 to 7 million are fortunate if as much as \$25,000 to \$45,000 is discretionary funding at the school level.

In addition, the schools can benefit from the connection with the GE Foundation and the local GE facility, aside from the grant. The awarding of a large, high-profile grant potentially brings attention to the school, brings the local GE volunteers to the school, and provides access to other community and cultural resources as a result of the connection to GE.

⁴See, for example, Susanna Purnell and Paul Hill, *Time for Reform*, Santa Monica, Calif.: RAND, R-4234-EMC, 1993.

Finally, the grant offered an opportunity for a high school to use the overarching goal of doubling the college-going rate as a means of changing the school and its image in the community. The publicized commitment of the school to that goal, the demonstrated interest of a major corporation in the school, and the sizable funding provided by the grant provided a unique combination of resources that could raise what was perceived as an undistinguished school to the status of specialness.

Report Purpose and Organization

The report focuses on the school-level strategies, likely outcomes, and lessons learned from the GE Foundation College Bound program. The assessment emphasizes common experiences across diverse schools and program approaches. The study develops patterns and typologies that shed light on the role outside grantors may play in stimulating school improvement as an outgrowth of fairly specific program goals or improving the prospects of students whose future is tied to highly challenged schools. The report therefore should be of interest to all parties to the grant process.

The rest of the report is organized as follows. Section 2 describes the study approach and data-collection methods. Section 3 discusses the context of the schools in the College Bound program, including student characteristics and district support for improvement. Section 4 surveys the kinds of programs proposed and the resulting differences in program implementation, while Section 5 assesses the mid-program progress toward increases in the college-going rate, as well as other indicators of improvement. Section 6 explores the role and contributions of the local GE facilities, as well as the GE Foundation. The final section provides the general conclusions of the study. The appendix contains a brief description of each of the 11 College Bound school programs.

2. Analytic Framework and Methodology

This section describes the analytic framework for the study and the methods used to gather information.

Criteria for Assessment

Because the assessment needed to reflect the interests of the GE Foundation in terms of improving its own program, the first step was to establish the criteria by which the foundation would judge its program and school sites, a process that included reviewing relevant documents and consulting with foundation personnel on how they wanted the program to be evaluated. Discussion over defining the goals and criteria took place over several months and followed along the lines of an evaluability assessment.¹

For the GE Foundation, the primary goal for the program continued to be the original basis of the program, i.e., doubling the college-going rate or significantly increasing it for a defined population within the school. Although several years of experience with the program had expanded the kinds of schools accepted into the program, this basic premise remained consistently the most valued outcome and measure of program success.

In addition, the foundation was interested in gaining some insights into other aspects of the program. Because there was such a variety of schools and approaches, these corporate officials wanted some sense of what the program looked like, especially in terms of implementability. From their own corporate experience, they knew that many lessons learned concerning implementation and best practices could be gleaned from those schools that had gained some experience in the College Bound program.

As the foundation became more involved with the schools and the challenges they faced, its staff voiced increasing interest in understanding the possible

¹Evaluability assessment is a method established in the 1970s for determining the evaluation criteria of social programs with imprecise interventions and indeterminate goals. It calls for rounds of discussions between the evaluator and the program managers to understand the nature of the program, likely goals, and whether the means exist to measure progress toward the goals. See Schmidt, Richard, John Scanlon, and James Bell, *Evaluability Assessment: Making Public Programs Work Better*, Human Services Monograph Series Number 14, Project Share, Washington, D.C.: National Clearinghouse for Improving the Management of Human Services, November 1979.

larger effects of whether the program promoted changes and improvements in the schools. Finally, as some of the original grantees approached the end of the five-year grants, questions began to arise both within the foundation and among the schools concerning the ability of the schools to continue their programs beyond the grant.

All these concerns led RAND to examine four issues at the sites, with the understanding that program success was defined by the GE Foundation as an increase in the college-going rate:

- Did the schools meet or were they likely to meet the goal of the program to double the college-going rate or significantly increase college-going for a target population?
- Did the site implement the proposal in a sustained and consistent manner?
- Was school improvement evident, that is, were the improvements likely to benefit all students or change the school in significant ways?
- Were the sites' programs and the improvements likely to continue after the grant ended?

Approach to Assessment

A number of factors placed limitations on reaching definitive conclusions about the four areas of interest. First, at the time of the assessment, all the schools were in the midst of an ongoing effort and still had several years to meet the goal. In addition, the schools were at different points in that process. Some schools had just been awarded the grant and were facing the challenges of implementing a new program; others were beginning the third year of the grant and still making program adjustments; and a few were continuing to build on well-established programs that had predated the grant.

Second, the sites did not have comparable starting places in terms of challenges to increase college-going. Some had very low initial college-going rates. Others were closer to the national norm. Neither did they use the same interventions. In fact, each school had been encouraged to create its own unique plan for improvement.

In addition, the program provided discretionary grants that required limited accountability. Schools in the College Bound program filed annual reports, but, beyond requirements to provide information on the allocation of funds, each recipient decided what to include in the report to the foundation. Even for the

purposes of this study, there was no guarantee that requested data would be forthcoming.

Such circumstances dictated that the assessment be formative, an input for the foundation's ongoing process of program review and adjustment. In the absence of summative measures for student outcomes, the study describes the relative progress of each site compared to previous conditions, i.e., documenting the changes in each school and college-going rate on the basis of the grant proposal. The experiences of schools with similar characteristics and similar program strategies then were grouped together to gain a more generalized view of program progress.

Analytic Framework

The study analyzed data for several points of time. First, descriptions were collected concerning the characteristics of the student population, school, and district before the grant to understand better the context in which each site would try to significantly increase college-going. Second, information was gathered about the proposed program strategy and implementation. Given the context of the school, what kind of program approaches were proposed, and how were they implemented? Finally, at whatever point a site was in the grant time frame, what kind of outcomes or trends were evident after the program was in place, particularly concerning the likelihood of meeting the goal of increasing the college-going rate?

Challenge to the School

A survey of the literature on factors influencing student performance and likelihood of going on to college indicates that students with certain risk factors, such as a poverty-level background or single parents with low education attainment, are less likely to aspire to and achieve a college education. Schools with large concentrations of such students might face a more difficult task than ones with a smaller proportion of such students. Data were assembled on student characteristics and school performance to provide a general indicator of the degree to which each school was challenged in terms of promoting college-going for a particular student body.

Schools were also examined in terms of the wider context of district-level support of the school and College Bound program. The schools might be located in very supportive districts or ones that actually discouraged improvements that make a school stand out from the collective uniformity of the district. Therefore,

information was collected to determine whether district policies and activities supported or hindered the implementation of the program.

The descriptions of the schools before the grant provided a benchmark against which the proposals, implementation, and outcomes were measured. The existing population and college-going rate inevitably influenced all the subsequent views of the school after joining College Bound.

Proposal and Implementation

While background factors are important determinants of school outcomes, the school-effects literature indicates that the type of schooling can make a difference. Schools can provide experiences that enable students to overcome at-risk factors. Each school developed a proposal for improving the college-going rate, including a description of problems and program remedies. By collecting information about the elements of the proposal and its implementation for each school, it was possible to compare and contrast general program strategies and begin to answer the foundation's questions about what the program looked like generally.

Comparing the proposals and implementation experiences also provided indications of whether the site was implementing what it said it was going to implement in a sustained and consistent manner. The qualifiers "sustained" and "consistent" are important, because they take into account progress toward implementation, even if all the program elements had not yet been developed. Real-world experiences often necessitate adaptations of abstract plans. For example, as sites accumulated more experience with the programs, adjustments often were made to improve on the original proposal and enhance the ability of the program to meet the College Bound goals.

Program Outcomes

Finally, data were collected concerning the effects of the College Bound program after it had begun implementation. Although the number of years in the program varied by site, efforts were made to gather information on the percentage of students going on to college each year of the grant, other changes in the school promoted by the program, and indications of whether each program was structured in such a way that it would continue when the grant ended. Although the latter two underscore the consequences of the approaches employed, the measure of success for the program is whether the college-going rate increased.

The following paragraphs describe the desirable outcomes specified by the foundation staff and resulting measurement issues.

Did the schools meet or were they likely to meet the goal of the program to double the college-bound rate or significantly increase college-going for a defined population in the school? Although this appears to be a fairly straightforward criterion, it is actually difficult to capture for a number of reasons having to do with the variety of school populations and starting places in the program. First, several of the programs have not been in existence long enough to influence the college-going rate. For example, some programs began with high school freshmen, and therefore the program would not come to fruition until four years later. In other instances, the school as a whole already had a majority of graduates going on to college; for these sites, a target population characterized by generally low college attendance was selected or a substantial increase short of doubling the student population as a whole was agreed on as the goal. In some instances, this could mean a qualitative improvement, such as students going to more prestigious colleges or an increase in enrollments in four-year colleges rather than two-year postsecondary institutions. Finally, many of the inner-city schools experienced precipitous drops in enrollment during the course of the program. In these schools, it was possible to increase the college-going rate without actually increasing the number of students going on to college.

Because the criterion is doubling the rate or some other agreed upon substitute, the first concern was whether it appeared the schools in the program would achieve this goal. This was supplemented by other indications of success, such as increases in the number of students attending and staying in college, or significant changes in the reputation of the schools as viewed by colleges. The latter was obtained by interviewing college admissions officers from the three colleges that received the most students from each school.

Was school improvement evident? Although this was not the primary focus of the program, foundation officials were interested to find out whether such focused interventions as College Bound have a ripple effect on the school. Did the program directly or indirectly influence changes toward school improvement? In documenting the changes in the schools as a result of the College Bound program, particular attention was given to whether the program created or influenced changes to the school structure in the form of new organizations; new curriculum, courses, and instructional strategies received by large numbers of students; new patterns of course taking by significant numbers of students; or new equipment and facilities used by the majority of students.

Underlying the issue of school improvement is the assumption that the school is expecting more of its students. The changes often involve concrete signals of increased expectations. The above list indicates possible changes in expectations by participants both inside and outside the school.

Were the programs and the improvements made likely to continue after the grant ended? The final program influence tracked was the projected permanence of the program. Because none of the school programs had reached the end of the grant during the study, it was only possible to speculate about the ultimate fate of these programs. Information was collected from knowledgeable sources about what was likely to happen when the grant ended. Interestingly, at several sites, this question actually spurred program officials to begin looking at the issue several years before the grant was over. First, principals and program coordinators were asked the likely scenario of what would happen when the grant would end and if distinctions were made about preserving perceived essential aspects of the program versus preserving the program as it existed during the grant. In addition, because several schools already could report success in doubling the college-going rate, district officials were also approached and asked if the district would pick up the support of a successful program. If continued outside funding was critical, schools were asked if they had any other long-term strategies for obtaining that funding.

Finally, changes that were not dependent on continued funding were identified. These might include the longer-term benefits accrued from using the grant to invest in facilities, staff development, and equipment.

Data Collection

The main sources of data for the study were field trips to each site in the spring of 1992 and again in the spring of 1993. Nine sites were visited both years. The addition of Schenectady to the program in the last year of the study led to substituting a field visit to that program instead of the College Bound program in Lowndes County. Most of the visits were for two days with teams of up to three RAND staff members.

During each visit, interviews were conducted in the school with the principal, the program coordinator and staff, teachers, and students. In addition, the teams talked with the program coordinator at the local GE facility and some of the GE volunteers participating in activities related to College Bound. In the second year, when possible, district officials were interviewed concerning district support of the College Bound program during and after the grant.

In addition to interview data, relevant documentation was collected, including proposals, annual budgets, annual reports, school-level improvement plans, district improvement plans, and specific school "report cards" or other data reporting mechanisms that provided student outcomes.

Feedback Mechanisms

Due to the formative nature of the study, frequent feedback of findings was provided during the study. Feedback from school visits was provided to both the GE Foundation and the schools. The foundation board of trustees, president, and project officer were given overview briefings one year, 18 months, and two years into the study. Briefings were also provided at all the sites during the annual August workshop the GE Foundation holds for all the College Bound sites. Written memoranda concerning site-specific observations were sent to each school in the fall of 1992 and the spring of 1993. Memoranda on broad subject areas common across the sites were also sent to all parties.

The feedback often sparked further debate and clarification among some sites, the RAND team, and the foundation. While agreement was not always reached, the exercise often pushed sites into looking at their programs from different perspectives or clarifying their own goals for the program.

The final products of the study included detailed descriptions of the context, program, and outcome characteristics of each site. These descriptions can serve as the beginning database for accountability and measurement by the GE Foundation, as can this more general report of the program assessment focusing on the broader lessons of the College Bound program.

3. Challenge to the Schools

We are visiting one of the College Bound schools located in a rust-belt city. Over the phone, the principal warned us to park close to the school. We circle the neighborhood of older duplexes looking for a space. We pass a bar directly across the street from the school. There are a lot of bars in the neighborhood, and, although it is early morning, groups of men loiter near them. Some young men, definitely school aged, are standing around parked cars across from the school, well after school has begun. The school building is relatively modern and well maintained, but there are few windows, and it is surrounded by a chain-link fence. Security personnel monitor the one unlocked entrance to the building. The classrooms are locked when not in use. Even the guidance department is locked, and students must be buzzed in. The classrooms appear half-empty of students. The principal arrives with a walkie-talkie. On it a voice crackles for attention to some student emergency.

We visit another College Bound school in a small, pleasant city. The school is located on the outskirts of town with nearby shopping centers and strip malls. As we drive up to the spacious facility surrounded by green lawns and trees, we pass a sign proclaiming the school to be a GE partner for better education. We park easily in the lot and wander in the door and down clean, newly painted corridors without being stopped until we arrive at the principal's office. No emergency interrupts the principal's time with us.

The diversity in the schools awarded College Bound grants necessitates some understanding of the different contexts in which each program was formulated. Such information is key to understanding the nature of the challenge facing each school and the different starting points in relation to the College Bound program goal. This section describes what the schools were like at the time the grant was made and then groups the schools into general categories that characterize the different contexts in which the program developed.

To describe the varying situations at the time proposals were submitted for the College Bound program, several kinds of information were collected. The first set describes the student population, school setting, and college-going rate at the time of the proposal; the second describes the wider context of the school district and its policies. Based on these indicators, College Bound programs can be characterized as falling into two groups. In one group, schools tend to be located in very urban or rural areas, serve a large at-risk population, and are in districts

faced with severe fiscal and political challenges. In the other group, schools tend to be located in small- or medium-sized cities and serve a comparatively smaller population of at-risk students in less troubled school districts.

Characteristics of the Student Population and School Setting

Although the schools in this study reflected diverse backgrounds and each was to some extent unique in the combination of circumstances and challenges faced, some generalization was possible based on a few defining characteristics. In surveying the schools, the single descriptor that best captured the differences among the schools was the extent to which the school served a poverty-level population. Once schools were separated using this criterion, information on location and school performance was added to provide a richer portrait of the starting place for the College Bound program.

A strong research base, dating back to the initial Coleman Report, substantiates that students with particular background characteristics are more likely to perform poorly in school, whether the outcome measure is continuation in formal education, standardized test scores, or grade point average.¹ These factors have been formalized by the federal government into a series of indicators of students who are "at risk" of failure in the current public education system: the parent is single; the parents have no high school diploma; the student has limited English proficiency; the family income is less than \$15,000; a student's sibling has dropped out of school; and the child is home alone more than three hours per day.² The risk of poor performance increases the more factors that are present. Schools with populations characterized by a combination of risk factors are more challenged.

Because this kind of data is not generally available for the population of each school, only one indicator was pursued—family income.³ In well-controlled studies, income is often the single best indicator of school performance and one that has been well-documented across many studies. In addition, differences in income often are related to the other risk factors.⁴ The Department of Education

¹Coleman, J., et al., *Equality of Educational Opportunity*, Washington, D.C.: U.S. Government Printing Office, 1966.

²U.S. Department of Education, National Center for Education Statistics, *National Educational Longitudinal Study of 1988, Base Year Survey: A Profile of the American Eighth Grader*, 1990.

³Note that low income itself is not the causative factor of poor performance, only a predictor of it. More likely, other characteristics associated with poverty are the root causes of poor performance.

⁴For example, education attainment and status of the head of the household are related to family income. In 1991, the mean income for a family with no high school diploma was \$26,912. Those headed by a high school graduate had a family income of \$37,398, and those headed by a person with

in the 1992 annual review of the condition of education cited the increasing number of students living in poverty as a major factor in the challenges facing public schools and noted that students from poor families have lower achievement and higher dropout rates than other students.⁵

For the schools in this study, the most readily available indicator of poverty level was the percentage of students eligible for free or reduced-price lunches in the school. By collecting this statistic for all the schools in the College Bound program, a picture of the relative challenge facing each school in terms of the student population emerged. Table 3.1 shows that the College Bound schools fell into two categories. Schools in which a majority, or near majority, of the school enrollment qualified for free and reduced-price lunches were categorized as more challenged schools. These included Aiken, Collinwood, Lowndes, Manhattan, North Division, and Western. Schools with less than one-third of the student population qualifying for the program were considered relatively less challenged. The second category included Hendersonville, Ossining, Parkersburg South, Schenectady, and Valley.

Adding demographics provides more information about the nature of the challenges faced and reinforces the general division of the program into two groups. Schools in the more-challenged category were located either in urban or rural areas, while schools in the less-challenged group tended to be in small- to mid-size cities or suburbia. While the statistical evidence makes location a less compelling indicator than income, urban settings often have high concentrations of low-income students and students with limited English proficiency. Inner-city environments can be characterized by a greater lack of safety and the "lure of the streets" that can affect schooling. All the urban schools in this category are located in what has been termed the rust-belt cities of the Midwest and Northeast. Several of these schools personify the stereotypes of old, inner-city schools with security guards at the entrances and locked classroom doors even when the school is in session. At the other extreme, rural populations are also associated with a higher concentration of poverty, although the environment is relatively secure. This characterizes Lowndes, a poorly resourced, southern county with no income beyond farming.

a bachelor's degree had a mean family income of \$63,155. Single-parent families earn less income. For example, in 1991, a married couple with the wife in the labor force earned a median income of \$48,169, while a couple with only the husband working earned a median income of \$30,075. On average, a married couple earned \$40,995. In comparison, the median income for a male head of household was only \$28,351, while it was \$16,692 for a female head of household.

⁵U.S. Department of Education, National Center for Education Statistics, *The Condition of Education*, 1992, Washington D.C., 1992, p. 108.

Table 3.1
Student Factors at Time of Proposal

	% Free or Reduced-Price Lunch	Attendance %	Dropout Rate/Year	% College Bound	Setting	Racial Composition		
						White	Black	Hispanic and Other
Very Challenged								
Aiken	44	84	16	23	Urban	24	76	0
Collinwood	53	78	13	26	Urban	11	88	0
Lowndes	65	93	3	16	Rural	1	99	0
Manhattan	79	93	3	91	Urban	2	45	53
North	73	75	26	28	Urban	1	98	1
Western	65	90	6	22	Urban	65	35	0
Less Challenged								
Hendersonville	29	94	4	55	City	73	26	1
Ossining	18	90	4	65	City	58	26	16
Parkersburg	15	92	3	47	City	99	1	0
Schenectady	18	91	10	67	City	74	18	8
Valley	22	93	7	20	City	27	0	73

School performance indicators complete the picture and generally reflect the division of these schools into two categories. Table 3.1 includes the attendance rate, the dropout rate per year,⁶ and the college-going rate⁷ for each school. In general, the less challenged group had performance indicators well above the other College Bound sites. All these schools had attendance rates of 90 percent or better. With two exceptions, dropout rates reflected the national average annual rate of 4 percent. In contrast, half of the very challenged schools had significantly low attendance rates of less than 85 percent and extremely high dropout rates, ranging from 13 to 26 percent annually.

In benchmarking the progress of the schools in the program, the most important indicator is the college-bound rate. There are again two distinct patterns differentiating these two groups. For the very challenged schools, less than 30 percent of the graduates went on to college, a statistic that may actually look misleadingly high, given the large dropout rates at some of the schools. The rates for the less challenged schools are closer to the national average of 59 percent, and in most instances the majority of graduates were college bound. The striking contrast in the starting point for the program is important to note. The fact that in a number of the less challenged schools a majority was already college bound influenced how those schools defined the program goal and approach.

Although some fairly consistent patterns emerge when these two sets of schools are compared, it is important to note that some of the schools more consistently fit the pattern than others and that this also was a factor in how the College Bound program developed at the site. For example, although the Manhattan Center had the highest proportion of students receiving free or reduced-price lunches, the performance measures do not reflect the trends of the very challenged schools, because Manhattan is a thematic school. Students elect to attend the school. The motivation to choose to attend a math- and-science school is reflected in the high attendance and college-bound rates.

⁶Dropout rates are difficult to use because there are so many definitions. The one that comes closest to what the schools normally collect is "annual high school dropout rates." Nationally in 1990, the average was about 4.0, as indicated in U.S. Bureau of the Census, *School Enrollment-Social and Economic Characteristics of Students: October 1990*, Current Population Reports, Series P-20, No. 460, Washington, D.C.: U.S. Government Printing Office, 1992, p. 5, Table D.

⁷For this purpose, we use the following definition: percentage of high school graduates enrolling in college in October following graduation. Nationally, about 59 to 60 percent of graduates were enrolled in the following October from 1988 to 1990, according to U.S. Department of Education, National Center for Education Statistics, *The Condition of Education 1992*, Washington D.C., 1992, p. 28. We have tried to create this same definition from site-level data, but the sites do not always use follow-up surveys. Some of the data might represent the percentage of students who applied and were accepted to college as seniors in high schools. We have tried to eliminate the reliance on "intention" to go to school.

District Support Factors

The support of the school district was another factor examined in terms of the kind of challenge a school faced in creating the College Bound program. By looking at the stability and issues facing each district and that district's reputation for supporting changes in the schools, it was possible to characterize those districts less able to support actively, or less likely to inadvertently hinder, the school's development of an effective College Bound program.

First, the kinds of problems the school might face in getting support from the district were identified. Interviews with principals and program coordinators included discussions of the status of the district at the time of the proposal. The discussion was aimed at establishing whether or not the school might be functioning in a highly constrained or turbulent environment. A number of possible factors were discussed, including the following:

- Recent and numerous turnovers in district management
- Recent and numerous turnovers on the school management
- A history of labor conflicts within the district with strikes or numerous grievances
- A history of limited funding or budget cuts so that schools were not receiving adequate resources
- A history of poor budget planning, so that schools were constantly faced with funding swings and management attention was used up by constant reworking of the budget.

To no one's surprise, those districts located in the urban and very rural areas demonstrated more of these conditions. A few examples illustrate some of the challenges. Maintaining budgets was a major problem in all of these systems. New York City and Alabama had actually reduced funding to individual schools. Other examples included frequent turnovers in district leadership. One school had six principals in ten years. One district was preoccupied with ending court-ordered desegregation, and most of the urban systems had examples of continuing labor strife.

A fairly consistent theme emerged across the northern urban districts. To maintain racial distributions, these large school systems had created a series of magnet and thematic high schools that attracted many students, especially those in the upper third of their class, away from their normal feeder pattern. The result was that the GE College Bound high schools lost some of their best and brightest, and as the school's reputation suffered, enrollments declined. For

Aiken, Collinwood, North Division, and Western, there were enrollment declines both before and during the program as they had to compete with better-known magnet programs.

Schools facing more stable and less stressful environments tended to be those from the small cities. They had few turnovers, few labor conflicts, and more stable funding patterns at the beginning of the program. Moreover, because of the smaller size of the district, the College Bound grant got greater visibility, and the district officials were more aware of the program and its requirements.

In addition to examining the status of the districts, attention was also given to evidence that the district was actively supporting or getting ready to support restructuring or reform agendas in the schools. Such an environment could provide more leeway for the College Bound schools to try new approaches, and the schools could leverage such efforts with the aid provided by GE Foundation. Examples of district encouragement included the following:

- Site-based management or more participatory management
- Waivers from regulations, which would allow schools to experiment with curriculum, instruction, or other aspects of schooling
- New tests or standards, especially movement toward performance-based testing and school accountability
- Planned and focused professional-development programs for teachers to enable improvement in skills in a consistent direction
- Increased funding from the district or state
- Mission or theme-school status to allow the school to innovate and develop its own character
- Year-round schooling.

At the time of the proposals, few of the districts had developed reform agendas. Several were just beginning to develop site-based management pilots. Hendersonville adopted year-round schooling. Cincinnati set up a pilot reform program for one of the feeder patterns in the district. Ohio had mandated new tests for graduation. But otherwise, the districts were not providing a broader reform agenda to the schools that might, when combined with the College Bound program, propel them forward.

The major exception was Western's Jefferson County Public School system, which supported a broad reform effort that included site-based management, an

academy for teachers' professional development, and additional resources for schools that were restructuring or adopting thematic programs.

During the College Bound program, several districts moved in very positive directions, carving out a specific set of reforms that might be matched with the College Bound program to leverage improvement in the schools. At the time of the study, however, these efforts had little effect on the high schools in this study.

In completing the review of the districts, the schools again fell into two general groups. In the case of Aiken, Collinwood, Lowndes, Manhattan, and North Division, the districts faced severe challenges across fiscal and political issues and provided little in the way of consistent, districtwide support of reform. In the case of the remaining schools, districts also faced challenges, but there was greater stability and less likelihood that district policies would stymie local school efforts to try new approaches using the College Bound grant.

For all practical purposes, the findings for the district mirror those describing the school-specific challenge. The same sets of schools fall in the same relative categories. The exception is Western, which is very challenged by its student population but does receive support from the district to make changes that address the needs of that population. The characterization of the sites is summarized in Figure 3.1.

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		Student Challenges	
		Less	More
District Challenges	Less	Hendersonville Ossining Parkersburg Schenectady Valley	Western
	More		Aiken Collinwood Lowndes Manhattan North

Figure 3.1—Combination of Student and District Factors

Five of the sites (Aiken, Collinwood, Lowndes, Manhattan, and North) are very challenged in terms of both student and district issues. One site (Western) is somewhat challenged. The remaining five sites (Hendersonville, Ossining, Parkersburg, Schenectady, and Valley) are less challenged in terms of student and district factors.

It is the challenge of the College Bound program to find ways to improve students' aspirations and education in a variety of situations. The next section explores how these different schools created programs tailored to their particular needs.

4. Formulation and Implementation of Program Approaches

We sit down to lunch with seven seniors who are part of the College Bound program that serves students identified as having low aspirations. The two girls across from us answer questions. They are not intimidated by being cross-examined by two outsiders armed with pads and pencils. They tell us the best part of the program is getting to visit a college and staying overnight in a college dorm. They talk about the outings they had with their mentors and where they applied to college and why that college will help prepare them for their chosen career.

At a second College Bound site, we arrange to extend our visit beyond the work week so that we can see the Saturday morning program run for county high school students. On a sunny weekend, we find over 100 students voluntarily sitting in classrooms and wrestling with algebra problems and computer programs. In the hallway, the program coordinator is approached by several students trying to gain admission into the program. Yes, they tell the coordinator, they know the program has already been running for a few weeks, but they have heard good things about it, and they would like to join too.

At yet another school, we find it almost impossible to observe any specific activity called College Bound. We are told that funds have been allocated to diverse purposes that support changing the school in support of the mission that all students can learn. The program has been inclusive rather than exclusive. We talk with students, and they are well aware that this is a College Bound school. They tell us they are lucky because the school is going to help them get into college. They know that the school has used the College Bound grant to get scholarship commitments from a number of colleges in the state. But even they are unaware that the team teaching, after-school tutoring, new computer lab, and changes in classroom pedagogies are all to some extent products of the College Bound grant.

As already demonstrated, the environment in which College Bound schools operate varies substantially. It is not surprising, then, that schools identified varying problems underlying the need to improve the college-going rate. This section details how the definition of the problem influenced the selection of a target population and program approach and develops a typology identifying four kinds of College Bound programs. A description of what these programs look like and how they were implemented at the sites follows.

The Problem and the Target Population

The primary requirement of the College Bound program is a significant increase in the college-going population. As the last section illustrated, schools had widely differing starting points toward this goal. The definition of the source of low college-going and the identification of a target population were not only key to qualifying for the grant but also to devising the program approach. In identifying why students needed support to encourage college-going, the College Bound schools used two approaches that involved targeting a segment of the school or the entire student population.

Targeted Group with Low Aspirations

Most of the schools created programs providing support to specific groups of students in their schools. These schools defined improved college-going in terms of the relatively low aspirations of a specific population and most often described their students as coming from families with no experience of college attendance. In these programs, the College Bound students were an identifiable group within the school receiving specific program services.

The definition of the targeted group varied among these schools but generally fell into categories that reflected the context of the school. Very challenged schools targeted the college-potential pool of students, while less challenged schools looked at the needs of more narrowly defined at-risk groups.

Students with the Potential for Going to College. Very challenged schools, like Aiken, Lowndes, and North Division, targeted the one-third to one-half of the students in the school that probably could go to college but lacked motivation or self-confidence. One less challenged school, Parkersburg South, with a 47 percent college-going rate, also defined the program population in this way. All these schools started at relatively low benchmarks, so it made sense to focus on a large segment of the school that should have some potential for college. Based on this identification of need, these schools created programs that supported students through the process of qualifying for and applying to college.

Students at Risk. Less challenged schools in which the majority of students were already going on to college tended to identify students perceived as falling through the cracks of the existing system. These students had college-going potential, but were considered to be at risk in terms of staying in school or qualifying for college admission. Three of the less challenged schools (Hendersonville, Ossining, and Schenectady) viewed the program in terms of specific populations within the school.

Serving the Whole Student Body

About one-third of the schools viewed the need to increase college going in terms of the mission of the whole school. These schools tended to hold the school itself responsible for preparing students to go on to college. Moreover, these schools tended to approach promotion of college-going as part of the larger identity of the school. The grant and the program were part of an overall effort to work toward a better school. Half of the very challenged schools (Collinwood, Manhattan, and Western) and one less challenged (Valley) used this approach. It could be speculated that this willingness to couch the grant in schoolwide terms reflected the greater distance these schools had to go, starting at such low college-going rates. However, Manhattan already had a very high college-going rate, and the principal viewed the grant as a key resource in maintaining the quality of the magnet program, thereby also sustaining successful college preparation.

Three Program Approaches

From the identification of the target population and the reason for low college-going, the College Bound schools developed three general program approaches to accomplish their goals. These could be characterized generally as (1) the provision of ancillary services, such as SAT preparation, guidance, or planning sessions; (2) the provision of supplemental instruction provided by adjunct staff; and (3) changes to the curriculum and instruction of the school, often aided by professional development activities or equipment purchases.

A review of program elements implemented by the sites indicated a pattern. All of the schools incorporated ancillary services connected to college-going, but for some this was the main focus of the program. Several schools added supplemental instruction to the ancillary services and made this the focus of the effort. Finally, a number of the schools tried to meet the program goals through significant improvements to curriculum offerings and instructional strategies, moving the focus away from the provision of services to making changes in the school itself. The three general approaches, thus, contain many overlapping elements and are mainly distinguished by which group of elements received the most emphasis and the degree to which the approach became an integral part of the school. Table 4.1 lists the program elements associated with each approach.

Ancillary Services

Ancillary services are additional activities that are generally not incorporated in academic instruction but that are tied to the process of qualifying for, selecting, and applying to colleges. Three schools (Aiken, North Division, and Parkersburg South) built programs stressing this approach. All three had targeted students with college-going potential who lacked the motivation and confidence to aspire to college and who often came from families with no history of college attendance. Given this definition of the target population, an ancillary-services approach was attractive, because it provided the more individualized support services associated with a guidance or counseling department, only specifically tailored to the college-application process. College Bound programs incorporating this approach tended to include preparation for college-entrance exams, career-development programs, college and financial-aid application assistance, mentoring, organized visits to campuses, and college counseling. Several of the schools also provided scholarships, awards for academic achievement (jackets, privileges, or recognition), and improved counseling for scheduling college preparation courses.

Table 4.1
Program Elements Associated with the Three Program Approaches

Ancillary Services	Supplemental Instruction	Improved Curriculum Instruction
Test preparation	Academic seminars for participants only	Increased course requirements
Counseling	Saturday courses or workshops	Professional development
Scholarships	Afterschool tutoring by teachers or mentors	Detracking student classroom assignments
Recognition awards		Block scheduling
Application aid		New staffing arrangements (team teaching, student advisors)
Internships/summer camps		Tutoring (part of school day)
Field trips (college campus, cultural, career)		Added computer, language or science labs
Mentoring		Upgraded equipment
Job shadowing		Parent involvement in student work and program direction
		Move toward site-based management
		New mission for school

It should be noted that all the sites, no matter what the program emphasis, provided some ancillary services. In part, this reflected the common requirements for all college-bound students, such as financial-aid application and college-entrance test preparation. It also reflected the emphasis on using local GE volunteers as mentors for program students that was encouraged by the foundation itself. In addition, Aiken, one of the original College Bound sites, already had begun developing a very successful ancillary program that helped the school double the college-going rate from 10 percent in 1986 to 23 percent in 1988. Because the GE Foundation often used Aiken's proven track record as an example to the other sites, early members of the program believed that some provision of ancillary services was required.

Supplemental Instruction

Two school systems (Hendersonville and Lowndes County) emphasized supplemental instruction in the form of tutoring, special academic courses, and Saturday workshops provided by adjunct personnel and volunteers. This approach still incorporated such ancillary activities as mentoring, scholarship incentives, and field trips, but the major emphasis of the program was on supplemental instruction.

This approach complemented serving the target population at both sites. Lowndes, a rural school system that had been on probation for failure to meet Alabama minimum standards, targeted the potential college-going population and used supplemental instruction as a way to enrich students' academic preparation for college. Hendersonville targeted minority students most likely to drop out or with little aspiration for continuing on to college and provided supplemental academic instruction and ancillary support services. In both situations, it was perceived that the existing system had failed to serve specific populations in the school adequately. The supplementary instruction approach provided a targeted remedy that did not necessitate changing the existing system.

Improved Curriculum and Instruction

The third approach stressed activities more intrinsic to the school by promoting changes in the schools' instruction and curriculum. Adoption of this approach could include a wide array of interventions, e.g., increasing academic requirements for students; providing staff development in new pedagogies or curricula; organizing teachers into teams; rescheduling the day to provide more time for instruction and common planning periods for teachers; equipping

science, computer, and language labs to improve and expand course offerings; incorporating remedial labs as part of the school day; or providing more opportunities for direct parent involvement in students' attendance and participation.

Although schools using this approach can also provide some ancillary services and supplemental instruction under the grant, the main thrust of the program is promoting student success through instructional and curriculum improvement. All the schools that defined the target population as the whole school (Collinwood, Manhattan, Valley, and Western) adopted this approach. Because these schools held the school responsible for preparing students for college, these programs stressed changes in the delivery of education that would support that mission. In addition, two schools that targeted at-risk students (Ossining and Schenectady) also adopted this approach. Both schools faulted existing instructional strategies for failing to serve the needs of the at-risk population and were willing to establish classes within the school that used more appropriate learning strategies.

Typology for College Bound Programs

Despite the varying contexts for the program, it is possible to gain a more general overview of how the intent of College Bound was translated into site level activities. As shown in Table 4.2, grouping sites according to the populations targeted and the approaches adopted yields four general categories of programs.

Table 4.2
Typology of College Bound Approaches

Program Target	Element Emphasis		
	Ancillary Services	Supplemental Instruction	Improved Curriculum & Instruction
Targeted Population	Aiken North Division Parkersburg South	Hendersonville Lowndes	Ossining Schenectady
Entire School Population			Collinwood Manhattan Valley Western

The resulting typology provides the basis for describing how these proposed strategies were translated into College Bound programs.

Implementation of College Bound

The sites in this program displayed a rich diversity of program elements and experiences. However, a number of observations common to schools using each of the four approaches provided a general picture of what a working program looks like, how difficult it is to implement, and what issues are likely to arise as a result.

Target Population and Ancillary Services

The defining characteristic of the programs in this category (Aiken, North Division, and Parkersburg South) is the increased individual attention and support provided by program counselors and GE mentors. In all these schools, students interested in going on to college could access counseling and activities that supported students through the college-application process.

The Aiken program, for example, integrates a number of activities to assist students through the college-application process and to help ensure successful transition to college. Upperclassmen take a two-year college seminar for credit toward graduation that includes test preparation for the SAT and ACT, exploration of each student's career interests, a process for selecting and applying to colleges, and preparation for making the transition to postsecondary education. A major resource for supporting these tasks is the College and Career Center, which provides access to a wide range of materials. Counselors in the center provide individual assistance. Students also are assigned GE mentors who assist and encourage students in the college process and provide a window on a different world of work and living. A financial-aid component of the program helps students, parents, and mentors to apply for available sources of aid and scholarships. The students can earn small amounts of scholarship funding toward such expenses as books or transportation by earning points through participation in program activities. Student activities affiliated with the program include college visits, college fairs, and cultural events.

Implementation. For the most part, the schools using this approach had little difficulty instituting the program. In part, this is due to the relationship of the program to the rest of the school. Even though the programs provide services associated with the guidance department, the program is usually housed as a separate entity that works concurrently with the guidance department. (School

counselors citing heavy workloads tend to welcome being relieved from some of the tasks normally assigned to their office, rather than seeing the program as an infringement on their duties.) The separateness of the program is reinforced by the fact the program reports directly to the principal rather than to any department within the school. In addition, the programs are staffed by personnel largely supported by the grant. Organizationally, the ancillary programs are added on to the existing school structure and maintain an almost separate identity.

The almost outside status of the approach has the benefit of avoiding turf issues and making the program implementable even if the school itself is in some turmoil. At one of the sites, there was a constant turnover in school leadership, divisiveness within the faculty, and questions about the continued existence of the school in its current form. Despite these drawbacks, it was possible for the College Bound ancillary program to function and provide services to students.

Issues. The major issue concerning ancillary approaches is the timing of the interventions. Schools using this approach tended to focus on assisting juniors and seniors, because that was when students began the college-application process. However, placing the focus on the end of a student's high school career limited the influence of the program to those students who were already qualified for college. Eventually, all the programs in this category began incorporating earlier interventions that increased the pool of qualified students. Examples included counseling freshmen to enroll in prerequisite courses.

The relative isolation of the program from other elements of the school can limit the influence of this approach. The more the program is integrated into other school activities, the more likely that the college-going pool will grow. The Aiken program was aided by another grant program in the school, known as Career Match, that gave ninth and tenth grade at-risk students greater support through teacher teams. The Career Match program identified and referred to the College Bound program students who previously would not have been considered college material.

Targeted Population and Supplemental Instruction

This second category of programs (Hendersonville and Lowndes) builds on the program elements included in ancillary services by adding some supplemental instruction in the form of tutoring, special academic courses, and extracurricular seminars. For example, the Lowndes County program serves students from the two high schools in the district. Beginning in the freshmen year, students interested in attending college can participate in a series of 12 half-day

workshops taught by college instructors and held on Saturday mornings. Freshmen and sophomore classes focus on math; the juniors receive ACT test preparation; and seniors are taught basic computer skills. There are other ancillary group activities, such as trips to college campuses, career fairs, and seminars on college application and financial aid, but the core of the program is the supplementary academic enrichment students receive to prepare them for college.

High motivation on the part of student participants is a key component of such programs, because participants commit additional time to academic work. Both sites in this category used scholarship funding based on academic achievement and participation as incentives for making the extra commitment.

Implementation. Common characteristics of these programs were that they served multiple schools, were administered by the district office, and were run by adjunct personnel supported by the grant. Like the ancillary-services approach, then, supplemental-instruction programs were not integrated into the school. This characteristic, combined with the fact that the district ran the program, made it fairly easy to implement the approach. Turf issues did not arise.

These programs were phased in over time across grades. Hendersonville, which proposed a program that began with the fourth grade, did not graduate its first class in the program until four years into the grant. The program evolved in other ways over time. The adjunct instructors determined the content of the supplemental instruction, and they made changes as they became more familiar with the students and their needs.

Issues. The separate status of this approach can be both an advantage and a weakness. It provides a quick way to compensate for failures in the existing system to provide adequate support and preparation for targeted students. However, not coordinating the content of the program with the instruction already going on in the schools minimizes the potential of the program. Moreover, depending on how the population is defined, this approach can foster negative connotations for participating students as a remedial rather than college-bound enterprise.

Targeted Population and Improved Curriculum and Instruction

College Bound programs (Ossining and Schenectady) using this approach targeted at-risk students during the transition into high school during the freshmen and sophomore years. The programs focused on creating instructional

strategies to keep poorly motivated students with college-going potential in the system by lessening the likelihood of academic failure or retention in grade.

The Ossining program, for example, assigned targeted students to a block of classes taught by a team of teachers who tracked individual progress. Students also were assigned to a daily academic period during which they were tutored in the subject area in which each student needed the most help. Parents were kept involved by constant updating of student progress and immediate conferencing if problems arose.

Program Implementation. The schools using this approach are the most recent additions to the College Bound program, so experience with implementation is limited.¹ However, unlike the two previous strategies, which tended to be established outside the existing school organization, this strategy required implementation inside that school organization. This characteristic made adoption of the approach more difficult, because it required changes in the school and therefore more time to accomplish. This process was still going on at the sites.

The kinds of implementation issues that arise are selecting the program participants, recruiting and training teachers, fitting a new teaching arrangement into the established school, and developing the teaming approach in support of the program goals. Student selection is difficult, because, although the program targets an at-risk population, the teaching strategies are more effective if the classes are more heterogeneous. Also, there was an attempt to avoid having the program tagged as remedial or serving as a dumping ground for all the behavior problems in the school.

This approach requires the creation of teams requiring block time for classes and common planning time for the teachers. These proved difficult to integrate into schools featuring six- or seven-period days and opportunities for students to sign up for a wide variety of electives. The effort was exacerbated by the fact that other faculty were often jealous of the extra common-planning period and smaller classes granted teachers on the teams. Finally, the opportunities offered team teachers in terms of access to staff development and special programs could also strain relations between program teachers and the rest of the staff.

The biggest delay to fully implementing this approach is that it takes time for teachers to change their styles of instruction. While teachers are quick to use the teaming approach to provide more individualized attention and support to the

¹Ossining implemented its program at the high school beginning in the 1991-92 school year while Schenectady did not begin until the 1992-93 school year.

students, they find it harder to work together on interdisciplinary, project-oriented curriculums that engage and motivate students. Staff development, time to develop new curriculum units, and willingness to risk trying these new approaches underpin the implementation of this aspect of the program.

Issues. Because this approach focuses on the transitional years of high school, questions remained as to how the program would evolve as students entered the upper grades, when electives and diverging majors make teaming unfeasible. Nevertheless, these students will probably require some support. At the time of this study, neither school had program participants in the upper grades, but administrators reported that the most likely approach will be to create relevant ancillary services for those students.

Improved Curriculum and Instruction for the Entire Student Body

Although this approach includes ancillary and supplemental-instruction approaches, a major emphasis of the programs using this approach (Collinwood, Manhattan Center, Valley, and Western) is improved curriculum and instruction as a way to change the school. For example, Valley used the program to change from a comprehensive school to a magnet school for college preparation. Collinwood's program goal is to promote better preparation in math and to upgrade the school's reputation and attractiveness as the school of choice within the immediate community.

This approach varies widely in the specific interventions employed, because each school tailored the approach to a unique goal in terms of the identity of the school. For example, Western used the grant as part of a restructuring effort organized around the mission that all students can learn. As the basis for change, Western invested large portions of the grant in staff development, providing opportunities for significant numbers of teachers to receive training in specific pedagogies and to attend professional conferences and workshops around the country. The staff development in turn became the basis for other changes, including detracking (the integration of general and regular classes), assigning the entire ninth grade to teams of teachers, creating a new thematic program called the Academy of Commerce and Trade, adding a computer lab, providing after-school and Saturday tutoring, including more advanced-placement courses in the curriculum, and reorganizing the school year using the Copernican schedule to allow students to concentrate on fewer courses in greater

depth during a semester.² Coupled with these changes in the school, the grant was used to establish an incentive program in which students earn small amounts of scholarship money toward college by achieving certain academic grades.

Program Implementation. Although all the schools using this approach implemented their basic proposals, a number of common experiences characterized an implementation that took a longer time to accomplish and was subject to adjustments in the details to better fit the overall goal and strategy.

These programs therefore show considerable change over time and a continuing evolution. For the most part, these schools, through the process of trial and error, gradually incorporated additional elements relevant to the intent of the proposal. Administrators indicated that this evolving approach was necessary, because their programs required greater buy-in on the part of the staff as the prime implementors of the program. It took time to integrate new training, curricula, or pedagogies into the school.

The staff development proved to be a lengthy process for a number of other reasons. It involved time outside the classroom for teachers to attend professional workshops to acquire new ideas or training on new techniques. Second, to be effective, a teacher had to have time not only to receive training but to try it, get feedback and follow-on support, and then try it again until it became incorporated in that teacher's performance. Third, a large number of teachers had to receive the training to really make a difference in the school. Even with the aid of the GE grant, this training had to be phased in over time.

Finally, these programs often took longer simply because schoolwide approaches often are more complex. They require integrating changes into an existing system, and they often have to be sequenced, each change building on the one before. For example, Western's adoption of a Copernican school schedule could not take place until the staff learned pedagogical strategies appropriate to 80-minute classes or until the faculty voted waivers on the union contract, because, under this arrangement, teachers taught six courses instead of the required five.

Issues. The main issue surrounding this approach is the enormity of the task and the fact that accomplishing the goal of changing the school contains risks. In contrast to well-defined external provision of ancillary services, there are no real

²Under the Copernican schedule, students take only three subjects a semester in block-scheduled time periods of 80 minutes per day. Teachers, who under other schedules teach five classes a year, teach six (three a semester). Among the benefits of this approach are reduced class size, student concentration on only a few subjects in greater depth, and the flexibility for students to retake a failed course the next semester.

blueprints that, if followed, guarantee success. More than any other approach, this is dependent on the leadership of the principal and the involvement of the staff and on a willingness by both parties to change the delivery of education.

Other Implementation Issues

Two general observations about implementing College Bound applied across sites. First, circumstances can arise that are inimical to program adoption no matter which approach is used. And second, schools did not remain locked into given approaches. The programs themselves tended to evolve from the more easily implemented external interventions to addressing changes within the school.

Although each approach could be implemented, schools often encountered circumstances that made any implementation more difficult. Some of these circumstances were the product of the grant process. For example, in two instances, there was a lack of common agreement on goals and approach between those who wrote the proposal and those who implemented the proposal. Other setbacks were derived from the context of the school and the district, such as frequent changes in principals and other key leaders. In one instance, the decision to consolidate city and county school districts resulted in a lack of focus on administering the College Bound program and a concurrent decline in the effectiveness of the program. For the most part, such occurrences are beyond the control of the grantor, whose only recourse is to protect the program as best as possible by representing concerns about the effects on the program to the school and district.

The second caveat about this framework for looking at implementation is that individual programs are not static. These programs represent the original proposals and thinking of the schools as they began their College Bound programs. As schools have gained more experience or begun contemplating the consequences of the end of the grant, they incorporated new program elements or shifted the scope of the participating population. It is possible for a school to change typologies in the framework as a school reexamines and redefines the program.

During the two years of this study, shifts in the program elements occurred generally moving schools from ancillary services toward more curricular and instructional emphases. Several examples follow:

- Aiken has applied for acceptance into a program of significant professional development. It is attempting to consolidate the gains made through its

Career Match program and College Bound into more rigorous requirements for students and better preparation for teachers.

- As Parkersburg South enters the last year of the grant, math and English teachers have found ways to incorporate test preparation into the curriculum. The school is thinking about new sources of funding to pilot an interdisciplinary curriculum effort for ninth and tenth graders.
- Valley High School has found ways to integrate its lunch time supplemental instruction in critical thinking skills into the regular curriculum.
- Lowndes is beginning to look for ways to improve the county's two high schools rather than supplementing those schools' curriculum with Saturday courses and has moved to improve the vocational education program in conjunction with a tech prep arrangement with the local community college.
- Ossining has opened up the staff development for the College Bound teachers to the entire staff.

A general observation is possible at this point. Part of the reason why schools might take so long to significantly improve is that they advance incrementally. Like other organizations, they evolve to more ambitious undertakings slowly. The movement seen during the two years of study indicates that, as the schools accomplished some simple goals, they began to move to more ambitious and complex ones. Setting up a college counseling office and instituting tutoring for a few students are simple tasks compared to fundamental realignment of the curriculum and extensive professional development. Each school might have been in a different starting place in terms of its "comfort zone" and past experiences of personnel. These were reflected in the original proposals. As comfort increases, it is likely that schools will move in the direction of curriculum and instructional improvements for the school as a whole. Thus, the grant can be seen as performing an enabling function.

Having examined the implementability of the program approaches, the following section examines the program outcomes in terms of the program goal of increasing the college going rate. In addition, the ability of the grant to influence school improvement and establish permanent changes is also examined.

5. Assessment of Site Progress

We are sitting in a classroom at an inner city school. The building is old and poorly maintained. In front of us, students in the school's College Bound program are giving speeches about what College Bound has meant to them. Each of the six or seven students gets up to give his or her presentation; several clutch notes on index cards or the entire text of the speech on a piece of lined notebook paper. They are just young kids, nervous, but trying to look grown-up. As GE scholars, they have been involved in Toastmasters, through the auspices of the GE volunteers, and are here to show us what they can do.

The one now presenting is a tall, lanky student. His English is far from perfect. He is stalled in the middle of his speech. He had memorized the speech and has lost the flow. He stands in front of us trying to recover. We are with him. We wait quietly, hoping for his sake that he can regain his momentum. After a very awkward pause he continues. The delivery of the speech is often mumbled and directed toward the floor, but in this context it meets applause.

This vignette conveys some sense of the challenge College Bound faces. In many cases the programs are up against a system that has passed a student along for putting in seat time instead of demonstrating mastery of basic skills. In this sense, College Bound programs can represent a last attempt to prepare for college a product of a failed system. Traveling around to the various sites provided the RAND field teams with opportunities to meet with students who, when supported or offered the opportunity, want to succeed and school personnel who feel deeply both the frustration and the possibility of helping students achieve that goal. Although this evaluation is centered more on programmatic measures and results, these should not mask the individual struggles at the heart of the program.

This section focuses on assessing the progress of the sites toward the goal to double or significantly increase the college-going rate. In addition, the section explores the likely influence of the program approaches on two possible consequences of the program: school improvement and survival of the program beyond the time frame of grant.

Increase in the College-Going Rate

Although none of the schools in the study had completed the grant, an effort was made to discern trends toward achieving the program goal of doubling the college-going rate. The findings in this section reflect the ongoing nature of the program and the limited availability of consistent data.

Available Data

Data on the percentage of students going on to college are presented in Table 5.1. This table includes the percentage and number of graduates going on to college in both the base year (as presented in the grant proposal) and for the class of 1993. Schools are grouped by the approach and the target population. Complete information was available for seven of the eleven programs. At five of the sites, information was not available, the program was too new to be measured, or meaningful data could not be developed on the target population.

The data were supplemented by related information collected by some of the sites, including follow-up surveys of graduates to check continuance at college after matriculation. General feedback was solicited from the admissions officers for the three colleges attended by most graduates from each school.

Mid-Program Findings

In the schools for which data were available, there was evidence of substantial progress toward the program goal. Four of the sites (Aiken, Lowndes, Valley, and Western) had already doubled the college-going rate. In addition, two sites (Manhattan Center, Parkersburg South) reached modified program goals (i.e., the base college-going rate was too high to be doubled, so more realistic targets were set). At the final site, no students associated with the program had graduated yet, so the program had not affected the college-going rate.

Looking at the results by approach also yielded optimistic findings. There are examples of successful programs in ancillary services, supplemental instruction, and improved curriculum and instruction approaches. Even more interesting, four of the six very challenged schools in terms of student population either had achieved the program goal or made substantial progress in that direction. The same was true for three of the five very challenged schools in terms of district support. These results suggest a preliminary conclusion that, given the varying contexts of the program, these schools chose strategies that met the challenges of

Table 5.1
College-Going Indicators

	Base School Year	College Bound Goal	Base Year		1992-93 School Year	
			Number of College Bound	College Bound Rate (percent)	Number of College Bound	College Bound Rate (percent)
Targeted/Ancillary						
Aiken	1988-89	Double	67	23	81	47
North	1989-90	Double	34	20	NA	NA
Parkersburg South	1989-90	66%	191	47	260	69
Targeted/Supplemental						
Hendersonville	1989-90	Double minority	NA	NA	NA	NA
Lowndes	1988-89	Double	31	16	59	34
Targeted/Curriculum & Instruction						
Ossining	1989-90	Double minority	161	79	161	87
Schenectady	1991-92	Double minority	NA	NA	NA	NA
Untargeted/Curriculum & Instruction						
Collinwood	1990-91	Double	NA	26	NA	NA
Manhattan Center	1988-89	Unspecified	185	91	177	97
Valley	1988-89	Double	120	20	179	57
Western	1988-89	Double	39	22	81	59

NOTE: NA - not available from site.

their particular settings in terms of achieving their goals within the time frame of the College Bound grant.

Other Observations

Reviewing the data in Table 5.1 in terms of the increase in the number of graduates going on to college, we found that the early portraits of very challenged schools resurface. Despite healthy increases in the college-bound rate, the increases in the actual number of college goers appear smaller. This reflects the continuing decline in enrollment, resulting in the college-going rate being calculated on a smaller total number of graduates. For the urban challenged schools, the decline represents further loss of the more highly motivated students to magnet high schools. The GE Foundation is aware of this issue, but still judges the school by increases in the rate, not increases in the number, of college goers. It should be noted that this decline in enrollments also makes the interventions increasingly more expensive on a student-served basis.

Interesting results appeared for those schools using the ancillary services approach. Aiken conducted follow-up surveys of program graduates to ascertain if students had remained in college. The Aiken survey indicated that 83 percent of the class of 1990 were still in college after three years, a statistic well above the national average. Interviews with college admissions officers in colleges accepting students from Aiken and Parkersburg South indicated familiarity with the College Bound program. Admissions officers had visited Aiken as guest speakers. Parkersburg South had established a particularly strong relationship with the local campus of West Virginia University. Interviews with officials there indicated that the two schools are now collaborating to provide support for College Bound students once they attend the college. Ancillary services appear successful in promoting college-going and retention in college by helping students select colleges appropriate to their needs, promoting skills and strategies necessary for college, and then promoting continued support systems for the students once they are in college.

The Lowndes program provides an interesting example of how effective the supplemental instruction approach can be when the schools themselves are not ready to change. Not only did Lowndes double the college-going rate, it increased the actual number of college goers by 90 percent. Furthermore, discussions with college admissions officers indicated that the school had built strong relationships with local colleges and several all-black colleges. Interviews with admissions officers indicated that the reputation of the district had improved as a result of the College Bound program.

Finally, the perceptions college admissions officers had of the College Bound schools were particularly striking for those schools emphasizing an improved curriculum and instruction approach for all students. Across the board, interviews with college admissions officers related to these schools indicated specific knowledge of the College Bound programs and the schools, increased reputations of the schools over the last few years, and support from the colleges for the work accomplished. Reports from colleges associated with Valley and Western were particularly enthusiastic. Such feedback reinforced the strategy of these schools to use the grant to change the identity of the school.

Program Consequences for School Improvement

Although school improvement is not the focus of the College Bound program, the goal of increasing college-going promotes some changes in the school itself. Several kinds of data were collected to see if the grant influenced school improvement. These included changes in the curriculum offered, increased demand for college-preparation courses, and new instructional approaches. The grant was credited with school improvement if it was used to invest in upgrading the school through purchase of equipment and instructional materials or through provision of staff development. Finally, the study tracked a less tangible result of the grant for school improvement: building on the experience and success of College Bound to institute other changes in the school.

Efforts were made to collect basic school performance indicators, such as attendance and drop rates, over the course of the grant, but complete information was received for only a few schools. Moreover, changes in these indicators could not be tied directly to the College Bound program, because the indicators could be influenced by other initiatives and programs inside the school, as well as by changes in the school's population. Finally, depending on the size of the program, the influence of the College Bound participants on schoolwide indicators might be marginal.

The information that was received indicated that the urban consolidated high schools continued to suffer from increased dropout rates, usually accompanied by decreased attendance. Exceptions were Western and Manhattan Center, for which such indicators went in positive directions.

Ancillary Services Programs

The major link between these programs and school improvement was the increased demand for college preparation courses. For example, since Aiken

began its ancillary program in 1985, the number of students taking algebra and physics had tripled, while total math and foreign language enrollments had doubled. Parkersburg South used grant funds to add a new chemistry lab, thereby increasing the size and quality of the program. Both Aiken and Parkersburg South added advanced placement courses to the curriculum.

The real contribution of the more ancillary programs in promoting school improvement might have been that the success of the program encouraged the school to address other problem areas. Teachers at these schools said that the ancillary programs allowed the school to institute change successfully in a more controllable area of the school before tackling more entrenched problems. By the end of this study, administrators and staff at both Aiken and Parkersburg South were planning and implementing initiatives for a staff development partnership with a university, interdisciplinary teacher teams, and technical preparation programs.

Supplemental Instruction

There was little evidence that the supplemental instruction programs had influenced the schools in the program. Lowndes administrators did indicate increases in the taking of college-preparatory courses during this period. Perhaps most importantly, Lowndes, like the schools that created successful ancillary programs, began building on that success by exploring ways the grant could be integrated into the high schools to improve curriculum and instruction for all students.

Improved Curriculum and Instruction

This approach, by its very definition, focused on issues of school improvement. Although it was too early in the implementation to detail the influence on schools targeting this approach on the at-risk students, there was ample evidence from those schools using this approach for schoolwide change that school improvement had resulted. Some examples follow.

All these schools invested in schoolwide improvement through the purchase of equipment and staff development. However, unlike other schools in the study, the equipment purchases were used not only to expand course offerings but to institute new interventions. For example, Western used its computer lab to provide after-school tutoring; Valley purchased CD ROMs and computers to incorporate technology in science instruction; and Collinwood used its computer lab to institute a schoolwide algebra remediation program to replace study halls.

The investment in staff development as a means toward school improvement has already been discussed. A less obvious example is the 50 hours of training given members of the site-based management team at Collinwood. Members of the team indicated that the team-building strategies helped them get beyond the initial stages of establishing a working group to one that has begun addressing key policy issues for the school.

Finally, these schools argued that they used the grant in ways to enhance the overall reputation of the school. For example, Manhattan Center was able to access programs and courses from cultural organizations, such as the Metropolitan Museum of Art, thereby enhancing the image of a math-and-science center by adding access to the fine arts. Valley used the College Bound grant to reshape the image of the school from a neighborhood consolidated school to a college preparatory school. Collinwood began reviving its standing in the community through the development of site-based management for all the schools in the Collinwood cluster. Western became an active participant in the school-reform movement by using the grant to support membership in the Coalition of Essential Schools.

Permanence of College Bound Programs

At the end of this study, the original schools in the program were approaching the fifth and final year of the College Bound grant and were focusing on whether the program would continue in some form after the grant. A review of the likelihood of continuance revealed that programs were more likely to go on if the grant had been used to make changes in the school curriculum, instruction, classroom materials, and equipment or had been put toward staff development, rather than if the grant was applied to operating expenses, especially to support adjunct personnel. In sum, programs focused on internal change and staff incorporation of program approaches were more likely to survive than approaches that had not been integrated into the school.

Ancillary Services

Regardless of the demonstrated success of using this approach, the districts involved proved reluctant or unwilling to fund the additional personnel needed to provide the ancillary services. A significant barrier to district sponsorship of this approach was district officials' belief that they could not provide extra positions or resources at one high school without providing all high schools with equivalent resources, an outlay that is not economically feasible for most of the districts.

The ancillary services that have been internalized in the existing school staff and program will survive. For example, the career and college-preparation courses created for juniors and seniors at Aiken have been adopted as part of the curriculum offered throughout the Cincinnati district. In Parkersburg South, the English and math teachers who created the extracurricular sessions on ACT test preparation integrated those sessions into the curriculum during the last year of the grant. Both schools spent some funds on facilities, equipment, or materials that will exist after the grant. Yet, at both sites, everyone agreed that these institutionalized elements cannot substitute for the critical role individualized counseling and attention played in the program.

Supplemental Instruction

Even more than programs focused on ancillary services, the continued existence of supplemental instruction depends on outside funding, particularly for instructors' salaries. If the program is focused on a very small portion of the student enrollment, district officials indicate that it is highly unlikely that the cost of such a program would be covered solely by district funding. As with the ancillary approach, district officials look for ways to attach at least some of the services to existing school programs, such as after-school tutoring or enrichment classes provided by the school district between semesters. On the other hand, if the program is focused on a large portion of the student body, such as those interested in going on to college, the district is unlikely to use its funds to sponsor the very instruction that already should be provided by the school.

Improved Curriculum and Instruction for a Targeted Population

If the implementation succeeds, the experience gained through this approach to College Bound could have a long-term influence on the schools. Because the approach is more intrinsic to the school, allowing school staff to experiment with new staffing arrangements, pedagogies, and more interdisciplinary curriculums, the programs could continue beyond the grant. In fact, administrators in these schools see the program as a pilot for the entire school. In this view, the teams of teachers sponsored by the grant could become change agents for the school by providing demonstrations of new instructional and curricular approaches. However, even these changes might require some funding support. For example, Schenectady might not be able to sustain teacher teams, because the

grant helps support the extra team planning time necessary for the success of this approach.¹

Improved Curriculum and Instruction for the Entire Student Body

Because this approach involves fundamental changes to the school and its delivery of education, the core elements of this investment strategy should survive the grant. Changes in the curriculum, staff development, and perceptions of the school continue to influence the school, even without further funding.

However, schools using this basic approach might still have difficulties sustaining elements of these programs. The most vulnerable aspects of these programs are the remaining ancillary services. For example, Collinwood, Manhattan, and Valley still offer ancillary services that require at least a part-time coordinator and some funds for field trips, summer internships, and other opportunities. Only three schools have gotten a commitment from the school district to fund the coordinator position.

Finally, continued professional development is necessary to keep these high schools attractive and competitive. Because districts provide limited opportunities and time for staff development, these schools have depended on the grant funds to sponsor teachers traveling to professional conferences or enrolling in training. Thus, while schools that target all students for improved performance potentially change the school more permanently, those schools also require continuing investments to maintain that changed status. Only Western has gotten a commitment from the school district to support at least some of the costs associated with additional staff development.

¹The grant also supports the full-time position of a home liaison, who facilitates parental involvement in at-risk students' education.

6. The Role of the GE Foundation and Local Operations

A unique aspect of the College Bound program is the active involvement of the sponsor, General Electric, beyond the provision of the grant. Both the GE Foundation and the local operation are participants in the program created by each school, as they look for additional ways to support College Bound. This section explores the assistance provided first by the corporate and then by the local operation levels of General Electric.

GE Foundation Support

After a school receives a College Bound grant, the GE Foundation continues to explore supplementary approaches to promote programwide success. During the course of the study, the foundation sponsored initiatives to encourage curriculum and instruction improvement, as well as staff development; provide technical assistance for mentoring programs run by GE volunteers; and network the sites to share the best practices and the lessons learned.

Strengthening Math and Science

The foundation leadership has focused on the importance of these areas and has offered the schools in the program opportunities to upgrade their math and science curricula. The foundation sponsored teachers' participation in the Project to Increase Mastery of Mathematics and Science (PIMMS), a summer staff-development program for math and science teachers held at Wesleyan University. Each College Bound high school was invited to send two teachers as GE Fellows to this six-week program held during the summers of 1991 and 1992. The program helps update content knowledge through coursework and field trips, explores ways to combine the two subject areas, and provides forums for teachers to share lessons and demonstrations. Teachers participating in the program found both the content and the opportunity to exchange experiences with faculty from other schools stimulating. All reported adopting some of the model lessons and ideas exchanged to their own classrooms. Most shared some of what they learned with other school faculty through informal exchanges and presentations at departmental meetings.

The foundation also gave College Bound schools the opportunity to apply for a supplemental College Bound II grant. On a much smaller scale than the College Bound grant, schools can submit proposals for strengthening the teaching of math and science. Proposals tended to focus on staff and curriculum development in those areas. For example, Hendersonville got a grant in support of Project Linc, in which training and telecommunications network link-ups among a local college and classroom teachers in three rural school systems provided teachers with methods and curriculum that incorporated technology in their lessons. A grant to Valley High School enabled the science department to purchase the necessary equipment and materials to integrate technology into the curriculum.

Support of Mentoring

Encouraging employees to act as mentors for students in the local community has been a corporate commitment at GE for several years. Chief Executive Officer Jack Welch has made a number of speeches and other communications throughout the company urging employees to volunteer as "friends and mentors." Members of the Elfun Society, GE's volunteer leadership organization, have organized this program in many locations throughout the company. Although policies providing time for such activities vary from operation to operation, the corporation gives employees in such programs some leeway in scheduling their day so they can participate in some school-day activities with their mentees. At many locations, the coordinator for the program is also given some time for such duties. Mentoring programs also include local retired GE employees.

With the growing corporate commitment to mentoring, the Elfun Society and the GE Foundation sponsored a Mentoring Best Practices Workshop for the GE programs going on at 76 schools, including ten of the College Bound sites. Designed to help the GE employees taking responsibility for coordinating local mentoring programs, the three-day workshop, held in October 1992, included expert speakers and opportunities for the GE participants to share their own best practices. For the College Bound sites, the workshop underscored the fact that such efforts were most likely to be successful when they included recruitment and matching strategies, training and guidelines for mentors, and clearly defined program goals.

Networking the College Bound Sites

The Foundation has also supported the program by establishing mechanisms for sites to share information. Every summer, the foundation sponsors a three-day workshop for all the College Bound coordinators, principals, and local GE coordinators at the corporate education and training center. The workshop includes formal sessions and informal activities that give participants opportunities to share experiences, develop new initiatives, and hear outside speakers on relevant topics. The foundation also sends a newsletter to all the sites providing programwide information and news of individual sites.

Because there are few opportunities for exchange site to site, the foundation has been interested in establishing an electronic communications network for the schools in the College Bound program. The goal is to support the sites as a forum of schools interested in promoting change, sharing best practices, and developing working groups that will pursue specific areas of school improvement.

In addition to these initiatives, the GE Foundation has taken an active interest in the individual sites throughout the program. The program manager frequently visits the sites, serves on College Bound advisory boards, and maintains an accessibility to provide a sounding board, contacts, and advice for any of the sites seeking help. The president and board of trustees have also followed the program and have extended a continuing commitment to the College Bound goals, thereby ensuring the College Bound schools the active interest of a major U.S. corporation.

The Role of Local GE Operations in the Program

A defining element of the College Bound program is the tie-in with the local GE facility. The depth of the relationship between the school and the GE facility varies, but all the sites have some activity linking the two. The contributions of local GE personnel include becoming mentors for individual students, participating in a variety of volunteer activities at the school, promoting access to other resources in the community, and playing the role of critical friend during program development. At many of the sites, these roles have evolved over the course of the program.

Mentoring

The most frequent GE volunteer activity across the sites was mentoring. Nine of the eleven College Bound schools include mentoring programs using local GE employees. As already described, mentoring is considered one of the key program elements at some of the high schools, especially those that emphasize ancillary services exclusively. In others, it is targeted for selected program participants or as a supplementary activity for the program.

Although there is little formal research concerning the effectiveness of mentoring programs to influence the decisions and behavior of students, there is ample anecdotal evidence that relationships can develop that positively affect both mentor and mentee. In interviewing a number of mentors and students across the sites, we collected stories of many positive experiences in which mentors played significant roles in a student's selection of college and career. In a few instances, mentors took on guiding roles helping students through personal crises. And the mentors themselves found that relationships with their mentees promoted better understandings across racial and economic divides.

When problems arose, there appeared to be several causes, stemming in part from unrealistic expectations concerning the nature of the relationship and limited organizational support or time to help foster the relationship. Mentors often expected that they would play a profound guiding role in a teenager's life; the students, on the other hand, often had more limited and practical goals—an opportunity to "job shadow" in a career of interest, glimpse an unknown world, get help in college applications, or get simple advice on how to proceed toward a career.

The situation could be exacerbated by a clash in cultures, most often expressed in the frustration of scheduling a meeting. For example, students did not always have a phone at home. Even when there was a phone, the mentor sometimes ended up leaving messages with nonfamily members or distant relatives staying at the home at that particular moment; mentors were never sure if the message was delivered and were frustrated if the student did not appear for the meeting.

Problems could arise if the mentor and student were not well matched. Mentors were often in short supply, making it difficult to base assignments solely on compatibility of interests. In one example, a middle-aged male engineer complained that he had been assigned to a female student who wanted to go into the pop music business. The mentor was at a loss as to how to relate to the student and was frustrated because he could not draw on his own background in discussions about her career interests.

As membership in College Bound programs has grown over time, recruiting enough mentors has been a major problem. One way to reduce the demand is to limit mentoring to upperclassmen, often just the seniors. This means that the mentoring program might begin too late in a high school student's career to influence the student to take the courses prerequisite for college-going or to help motivate a student by providing a model of the world the student could enter with a college passport. However, mentoring programs that start earlier in a student's career can discourage mentoring by requiring an extensive commitment. In the Hendersonville program, for example, mentors can be assigned an individual student as early as the seventh grade and can then stay with that mentee until the twelfth grade. It is not surprising that the number volunteering for a six-year commitment are limited.

Conditions at one of the local GE operations contributed to a growing shortage of mentors. The Aircraft Engine division, with operations at two of the College Bound sites, experienced business declines that resulted in cutbacks in personnel and longer working hours and greater stress for those who continued to be employed. Under these conditions, it became more difficult to recruit or keep mentors for the program. In some instances, schools tried to increase the pool of potential mentors by recruiting mentors from other local businesses and organizations. Two restraints on following this strategy have been fear of noncoverage for any liability of non-GE mentors and the desire to keep the program identified with GE.

The organization of events and activities to support the program varied. At most of the sites, the school program coordinator recruited students and participated in matching them to mentors, but the GE coordinator or other GE volunteers planned the activities, conducted any training or other preparation for the mentoring program, and actually ran the program. Some sites relied on individual mentors to initiate contacts and activities, while others provided mentors and mentees a number of group activities to help promote the relationship.

Finally, the content of the mentoring programs the first year of the study did not always relate to the College Bound goal. Planned activities tended to concentrate on fostering the mentor-student relationship rather than directly addressing issues related to college preparation or college going. In these examples, the program provided activities and events for the entire group, followed up with occasional lunches or entertainment outings arranged by each mentor. Because mentors usually were asked to contact their mentees a minimum of only once each month, this limited their influence on promoting College Bound goals.

Site visits in the second year of the study indicated that the mentoring programs had become better structured to meet the College Bound goals. Several factors contributed to the changes, including the feedback RAND provided on the weak organization of the mentoring programs after the first site visit, and the insights and contacts gained through the Best Practices Mentoring Workshop sponsored by the GE Foundation and the Elfyn Society. Just as importantly, the GE coordinators themselves sponsored reexaminations of the program structure and, in some instances, brought in expert consultants and/or instituted professional training for mentors.

Parkersburg South illustrates the types of changes that took place and the importance of an organized structure to the success of the program. In the first year of the program, mentors raised many of the complaints already discussed above. Mentors were having difficulty contacting mentees and finding times in both their own and the student's schedule when they could meet. The program required weekly contacts and monthly meetings between each mentor and mentee, but mentors were having difficulty getting hold of students and even more difficulty scheduling meetings. Mentors were often discouraged that they had little in common with their mentees, and for many the experience had not lived up to their expectations.

In the second year of the program, the GE coordinator made a number of changes in the organization and support provided to mentoring. The coordinator formed a committee of GE volunteers to take responsibility for various aspects of the program. This included the development of a mentor manual and an orientation session, as well as occasional "brown-bag" lunches for mentors to share experiences and learn specifics on financial aid and tips on how to deal with teens. Under the new organization, senior program participants were assigned mentors and both were invited to a series of activities geared to making college selections and applications. All the activities related directly to college going and included programs on career planning, time management, study skills, and financial aid, as well as several trips to college campuses. The group activities gave mentors and mentees more opportunities to get to know one another in less intimidating circumstances. As individual relationships emerged, mentors were free to pursue their role beyond the organized events. If the match was not as successful, the framework of the program still allowed the mentor to advise and assist the student toward college going. Students reported that mentoring became one of the highlights of the program, with most seniors interviewed citing the trips to the colleges as one of the major benefits of College Bound.

Such changes helped make mentoring a more effective component of the College Bound program, providing a structure that allowed students to derive benefits without being totally dependent on the development of significant one-to-one relationships and an organization that recruited mentors with realistic expectations and support.

Other GE Volunteer Activities

Although most of the volunteer effort has gone into the mentoring programs, several sites have found ways for GE employees with less time or different interests to help College Bound programs. These activities can range from a single event to a more sustained activity. In Louisville, GE volunteers painted Western High School and received training to provide a Saturday workshop on financial aid for students and parents. In Cleveland, GE volunteers participate in a number of activities to help the Collinwood College Bound program, including teaching Toastmasters classes.

One of the organized efforts at providing volunteer assistance at the classroom level is the Corporate Mentoring Program in Schenectady, known simply as COMPASS.¹ Begun by the Elfun Society in 1991, the program was subsequently transferred to the Chamber of Commerce, which expanded it to ten organizations providing 400 volunteers. GE is responsible for the high school. The GE COMPASS coordinator fields 100 volunteers in a variety of tasks ranging from one-on-one tutoring to a single classroom presentation, all keyed to the needs and requests of the high school teachers but flexible enough for individual volunteers to select an activity suited to their schedules and interests. The need of the GE Scholars teams for math tutors resulted in a new COMPASS activity linked directly to College Bound, in which eight tutors from GE work with small groups of students during the math class on a weekly basis.

These programs illustrate ways a school can capitalize on volunteers who cannot make commitments as mentors. Both Collinwood and Schenectady field a wide variety of volunteer services; both also have the advantage of being located near the school, making it easier for volunteers to devote an hour a week to such activities.

¹Although the program title includes the term "mentoring," COMPASS is really an organized effort to provide tutoring. Participants meet students only at the school.

Other Roles of the Local GE Employees and Organization

Every high school College Bound program has a coordinator in the local GE organization, often an official from the human resources or public affairs section of the operation. The coordinator can serve several roles and has flexibility in interpreting that role. For the most part, the coordinator has literally fulfilled the title, by coordinating or serving as a point of contact between the school and the volunteer activities provided by the local GE facility. Although advised of the program in the school, most coordinators have pursued a hands-off policy concerning the actual program developed by the school. However, in a few instances, the coordinator also has played the beneficial role of critical friend in the creation and implementation of the program at the school level. Some coordinators also have helped leverage the grant to a College Bound school through access to local GE expertise and resources.

Although "critical friend" might sound like a contradictory term, the intent is to introduce a third party willing to ask difficult questions and provide feedback not as a critic, but as one provoking greater clarity and understanding of the program and its underlying assumptions. When given the opportunity to promote change in a school, an outsider can help the insiders reexamine assumptions of what is and is not possible.

The experience of Western High School provides an example of the role of the critical friend. The Western College Bound program was developed by a steering committee consisting of the principal, the school College Bound coordinator, the district official overseeing special projects, and the local College Bound coordinator from GE. The three committee members agreed that the GE coordinator played a crucial role in the successful development of a program strategy by asking why they wanted to do this, or what made them think that strategy would work. He made them step back and reframe their assumptions. From the GE program coordinator's view, he had approached the task of creating the program using guidelines that could apply to school or business. He looked at the GE College Bound grant as an investment and therefore helped the steering committee develop an approach in which they avoided using the grant as an operations budget. Rather, they invested it in restructuring the school, using a heavy emphasis on staff development as the basis for furthering changes to improve student motivation and engagement.

The GE coordinator can promote other assistance for the school. For example, the National Broadcasting Company, a division of GE, produced a video promoting the Manhattan Center. In Cleveland, GE Lighting provides Collinwood with meeting rooms in that division's pleasant and secure

surroundings. Most of the training for the site-based management teams took place in the evenings at GE with trainers provided by GE.

In addition, because the GE local operation and/or GE Foundation support many of the cultural or other community resources, the GE connection can help schools access such resources for their staff and students. Western High School, for example, was able to get a Kentucky Fine Arts grant to help make teachers more aware of local cultural resources so they can incorporate them into the curriculum. Manhattan Center has had major art museum and dance companies come into the school to present programs and courses as a result of the school's connection to GE.

At the end of this study, about half of the high schools were entering the final year of the College Bound grant, and several had begun enlisting local GE political clout in support of strategies to continue the program. Valley High School, for example, asked its Advisory Board to explore ways to enlist district and outside support of the College Bound program. Western High School enlisted the support of the head of the local GE operation to lead a fund-raising effort to endow the school's Scholars' Dollars program. In Hendersonville, the head of the local GE operation asked the retired program coordinator to represent GE's strong interest in continuing the College Bound program despite the consolidation of the two systems.

In many instances, the schools and local GE volunteers expect to continue the relationship fostered by the grant. For about half of the sites, this is a continuation of a previous partnership, but for others the grant has provided an opportunity for a new long-term relationship. Except for the operating costs associated with some of the mentoring activities, such as the field trips, GE volunteer activities are not dependent on the grant and should continue to play a variety of roles at these schools into the future.

7. Conclusions and Implications for Foundation Strategies

The experiences of the high schools in the College Bound program provide a basis for several observations concerning the role outside funders, such as foundations, can play in helping schools achieve specific goals, such as doubling the college-going rate, and more general goals of school improvement. Several lessons learned can be derived for outside funders.

How Schools Employ Outside Funding

How schools drafted the proposals for College Bound grants and then implemented those proposals provides information about how schools generally approach such opportunities. These observations pertain to programs that sponsor a wide range of schools and a variety of applications of the grant. Findings would be different for programs targeting only specific kinds of schools and requiring adoption of a single program design.

Circumstances Influence the Selection of a Program Approach

The schools in this study proved to be very pragmatic, developing program strategies that fit the circumstances of both the school and the grant. Each school took into consideration the context of the program, i.e., the characteristics of the students and the school. For example, an approach stressing ancillary services was appropriate only if the student population was characterized as having no family history of college going. If a majority of graduates were already going on to college, schools adopted an approach that targeted a specific at-risk group.

Not only the school context but also the grant itself influenced the approach taken by the school. The need to meet the goal of doubling the college-bound rate within a five-year period led some sites to adopt a strategy that would provide results quickly. Aiken, for example, used the grant to expand an ancillary program that had already increased the college-going rate. Lowndes chose a supplemental-instruction strategy as a faster method for reaching the program goal than trying to change the instruction provided by the high schools.

Finally, the development of a program approach was influenced by the ownership of the program. The participation and commitment of the school staff influenced the placement of the program interventions, i.e., whether the school developed a program that functioned inside or outside the existing school structure. The fear of turf battles or staff disengagement led some to opt solely for approaches like ancillary services provided outside the core structure of the school.

Grants Can Support Major Changes in the School

If school administrators and staff have a vision and commitment to change the school, grants can prove apt vehicles for supporting that change. In the College Bound program, schools using the grant in this manner cited the provision of discretionary funds as crucial to making the change possible. In addition, these schools were very adept at using the connection to a major corporation to leverage positive attention and support for a new school image in the community and other organizations.

Successful Grant Programs Can Encourage More Ambitious School Reform

Even when schools develop limited or external program approaches, the success of meeting the program goal and working with a major foundation can contribute to a school's confidence to attempt more ambitious programs. By the end of this study, almost all the schools had plans to introduce new instructional programs or staff development, as a consequence of the College Bound experience.

Foundations and other outside funders need to understand these influences on the willingness of schools to adopt certain interventions in order to foster realistic expectations about what kinds of initial programs schools can handle successfully.

Implications for Foundation School Improvement Strategies

Although outside funders need be aware of the unique circumstances that undergird the development of a program in a particular school, foundations and other grant makers also influence the program in the way they administer the program.

Even the Most Challenged Schools Can Succeed

In determining which schools to support, outside funders do not have to avoid working with schools considered very challenged. In College Bound, a number of schools in this category appear to be making significant headway in meeting the goals of the program. However, funders should carefully review the circumstances of the school, no matter how challenged. If the recent history of the school indicates high turnovers in leadership, divided or disinterested staffs, and difficulty articulating a vision for a cohesive program, then funders should negotiate clear program guidelines before committing to a relationship with the school.

Sponsoring Significant School Change Requires Time and Resources

Outside funders desiring major changes in a school must be willing to offer long-term support of at least five years. College Bound schools addressing improved curriculum and instruction strategies took several years to develop their interventions and often had to reformulate the specific strategies for reaching the program goal. Significant change was the culmination of a series of interventions or building blocks that required time to put in place.

Investment Strategies Can Promote Longer Program Survival

A major division among the schools in the College Bound program is whether the grant was applied primarily to operating costs, such as supporting salaries and program events, or whether significant portions were invested in staff development, equipment, and materials. School personnel said the latter would prove to have a more durable influence on the school. Funders should be aware that permanent change is never guaranteed. Personnel change, equipment degrades, and new techniques become stale. However, providing money to support day-to-day program operations appears to be a perishable investment, no matter how successful the program.

Funders Can Exert Influence on a Program Throughout the Course of the Grant

Although grants usually provide schools with substantial freedom concerning how the funding is used, foundations and outside funders can influence formulation and adoption of the program. Funders have the most influence

through the negotiations that take place at the time of the proposal. At this time, the foundation can most directly veto or encourage the inclusion of certain elements and approaches. In the case of College Bound, many of the proposals were passed back and forth between the school and foundation at least a half-dozen times.

Once the grant has been made, the foundation can influence programs through accountability measures and formative evaluations. Although accountability measures are to some extent voluntary in programs such as College Bound, the fact that a foundation asks for them helps keep schools focused on the program purpose and provides some measure of the worth of a program to such interested parties as the district. In addition, formative evaluations, such as this study, can provide information for midcourse corrections and precipitate reexaminations on the part of the schools themselves.

Finally, foundations and businesses can serve as powerful advocates on behalf of the program before the school district and the community. For example, the local GE leadership lobbied the district leadership in all three instances in which school districts agreed to support the College Bound coordinator position after the grant ends.

Outside Funders Can Provide Other Kinâs of Program Support

A unique aspect of the College Bound program is the involvement of both the foundation and local GE operations in providing additional resources to the schools. Local GE volunteers served a variety of functions, as mentors, tutors, or providers of expertise. In several instances, GE representatives on advisory committees provided schools with different perspectives and the assistance of a critical friend. The foundation gave general technical support for various aspects of the program, and both the foundation and the local operations facilitated contacts between the schools and local community and cultural resources. School personnel said this activist approach on the part of funders leveraged the grant, providing needed resources and enrichment, as well as the prospect of a long-term partnership.

Appendix

Description of College Bound Programs

The following are brief descriptions of each of the eleven College Bound programs funded at the time of this study. With the exception of Lowndes County, the data reflect the status of each program during the 1992-93 school year; the information for Lowndes pertains to 1991-92 school year.

Similar information is presented for all programs: local program title, date established, program size, grade level of participants, a list of personnel positions operating the program, and a brief description of the program and its major components. The date the program was established refers to the earliest date the program was functioning, not the first year of the grant. The positions listed under personnel are full time unless otherwise specified. Although all the positions contribute to the administration of the program, not all the positions are funded under the GE grant.

In contrast to the main body of this report, which emphasized the common characteristics and experiences of these programs, the descriptions in this appendix include some of the unique aspects of the programs. A point of contact is included for any readers wishing to learn more about a specific program.

Aiken High School

Program title: Project Continued Success (PCS)
Program established: 1985
Program size: 140 **Grades:** Focus on 11 and 12
Personnel: Program coordinator, 1.5 counselors, secretary

Description: PCS focuses on college and career awareness and planning, especially geared to students whose families have no experience with college-going. The program provides many services traditionally performed by guidance departments but actively involves the students in the process rather than allowing them to become passive counselees.

Career Center. PCS is headquartered in the Career Center, a resource room that can be accessed by any student in the school or district. The room contains a wide range of reference materials and equipment that allow students to access information on specific colleges and careers. Program counselors offer individual assistance.

College Seminar. Juniors and seniors take this two-year course developed by the Aiken staff for credit toward graduation. The course includes the development of study skills, test preparation for the SAT and ACT, exploration of each student's area of career interest, a process for selecting and applying for colleges, and enhancement of academic skills that help ensure successful postsecondary transition.

Mentoring. PCS participants are assigned mentors who participate with students in group activities. Mentors may also provide tutoring, job shadowing, and helping with college and financial aid applications.

Cultural enrichment. The program includes activities to enhance students' confidence in dealing with a college environment. Students are exposed to cultural events, such as plays, and given help honing their social skills, such as proper etiquette.

Participation incentives. Students earn points through participation in program functions and other relevant activities that are converted to small scholarships for college books, etc.

Point of contact: Kathie Kaplan, PCS Program Coordinator, Aiken High School, 5641 Belmont Avenue, Cincinnati, OH 45224

Collinwood High School

Program title: College Bound
Program established: 1990
Program size: Entire school Grades: 9-12
Personnel: Program coordinator

Description: The program sponsors several approaches toward the goal of increasing college-going that involve changing the school and providing extra assistance to college-bound students. The underlying emphasis of the program is the establishment of participatory site-based management in the high school and each school in the feeder pattern as the basis for creating community and schools working toward increased aspirations and success for students.

Site Based Management (SBM) teams. All the schools in the Collinwood cluster have SBM teams that include representatives of the administration, teachers, support staff, parents, and the community. Under the program, all have received 50 hours of professional training in necessary supporting skills. Communication and goal-setting by the cluster of schools has helped focus elementary and middle schools on encouraging students to aspire toward college and careers.

Strengthening the curriculum. Program resources are dedicated to strengthening weak areas of student achievement. These include a computer-assisted instruction lab for all students who failed the state math competency exam or are enrolled in Algebra I, and a more general-purpose computer lab stocked with software in a variety of disciplines. Currently, the school is stressing improvement in math, English, and communication. The grant supports staff development activities in these areas.

College Bound Club. An extracurricular club provides students interested in going on to college with a variety of ancillary services, including additional counseling, mentoring, and opportunities to attend cultural events and receive training in such skills as Toastmasters. Students, who must have a 2.0 GPA or better to join, get help in college planning and take trips to college campuses.

Point of Contact: Joanne DeMarco, Program Coordinator, Collinwood High School, 15210 St. Clair, Cleveland, OH 44110

Hendersonville School District

Program title:	Project EdGE	
Program established:	1990	
Program size:	80	Grades: 4-12 ¹
Personnel:	On a part-time or extracurricular basis—program coordinator, site coordinator, and assistant for each school	

Description: The program targets at-risk, minority students and sponsors activities aimed at building self-esteem, supporting academic work, and promoting aspirations to complete high school and go on to college.

Middle school (grades 4-6) program. A before-school pep meeting of fourth grade participants includes exercises to build self-esteem and start the students' day in a positive mindset. After school tutors help fourth, fifth, and sixth graders with school work assignments. By participating, students earn points for small prizes and the opportunity to attend a program field trip.

Junior high (grades 7-8) program. Participants stay after school to work on homework, with adult assistance if needed. Group activities, such as rock climbing, help build self-confidence. Students earn points toward small prizes and excursions through program participation and academic achievement. Each student is assigned a mentor.

High school (grades 9-12) program. Graduating junior high participants are selected for the high school program on the basis of past participation and grades. Participants take a four-year course that provides instruction and practice in the areas of English and math, as well as counseling in selection and application to college. Students are assisted in this process by their mentors. Through participation and academic achievement, students earn points toward scholarships.

Point of contact: Dr. Mary Ingle, Assistant Superintendent, Henderson County School District, 414 Fourth Avenue, Hendersonville, NC 28739

¹The consolidation of the Hendersonville City and Henderson County school districts in the 1993-94 school year resulted in a restructuring of the Project EdGE program to encompass grades 6-12.

Lowndes County Public Schools

Program title: Strengthening Tomorrow's Educational Potential (STEP)

Program established: 1988

Program size: 134 (Saturday program) **Grades:** 9-12

Personnel: Project director, part-time Saturday program director, Saturday program instructors, and assistants

Description: The Lowndes program provides extracurricular activities to encourage and support county high school students interested in going on to college. Access is provided to a number of enrichment activities aimed at improved academic preparation, educational and career planning, and skills development.

Saturday Tutorial and Enrichment Program (STEP). Beginning in January, instructors from Tuskegee University offer a 12-session tutorial in math, algebra, and geometry for freshmen and sophomores, and computer classes for seniors. At the same time, juniors take the Kaplan study skills and test preparation course with four additional review and practice sessions scheduled the following fall.

Other activities. Students have access to a number of other enrichment activities, including local university summer programs, work-experience programs, career fairs, and leadership-development seminars. Seminars on college application and financial aid, as well as trips to college campuses, enhance students' educational planning. GE volunteers host activities for seniors in the program at the local GE facility, providing students with a different window on the world.

Scholarships. Students can earn renewable scholarships through ACT test scores, academic achievement, and extracurricular activities.

Point of contact: Earlene Larkin, Director, Special Projects, Lowndes County Public Schools, P.O. Box 755, 105 Tuskeena St., Hinesville, AL 36040.

Manhattan Center for Science and Mathematics

Program title: GE Scholars

Program established: 1987

Program size: 70 (GE scholars) **Grades:** 11 and 12

Personnel: Part-time program administrator, part-time coordinator for GE Scholars

Description: The program supports both the school's capability to provide a high-quality academic program and individual students' abilities to qualify for and succeed in top colleges in the country. The program includes both school improvements and the provision of ancillary services.

GE Scholars. Under an open-admission policy, participants meet weekly for activities focused on college preparation. In addition, these juniors and seniors receive an SAT-preparation course, opportunities to attend cultural events and college and career fairs, and opportunities to apply for internships in selected summer courses and programs held at various colleges. Each scholar is assigned a mentor who participates in both group and one-on-one activities.

Strengthening thematic curriculum. The grant supports a number of efforts to maintain the high school's attractiveness as a science and mathematics center. This includes upgrading and purchasing necessary lab equipment for required courses, such as a robotics arm for the technology course. Funds are applied to purchase computer access to outside resources, as well as basic materials, such as AP calculus and Latin textbooks. The grant supports staff development in the core subject areas, as well as computer science and related fields.

Curriculum enrichment. The affiliation with GE enables the school to bring the arts into the school. GE contacts have resulted in seminars and courses by such organizations as the Metropolitan Museum of Art, the Manhattan Theater Club, the New York City Opera and the International Center for Photography for Manhattan Center students.

Point of Contact: Mitch Ellison, Project Manager, Manhattan Center for Science and Math, FDR Drive at East 116th St., New York, NY 10029

North Division High School

Program title: GE Scholars Program

Program established: 1989

Program size: 180 **Grades:** 9-12

Personnel: Program coordinator, secretary

Description: The program targets students with potential for college and encourages eventual college-going through ancillary services, enrichment experiences, and scholarships. In addition, small amounts of funding are provided to all the feeder schools, and meetings among staff members in the feeder pattern provide opportunities to examine such issues as curriculum alignment.

The GE Scholars program is the major component. It includes the following:

Ancillary services. In cooperation with the guidance department, the program provides test preparation, access to college representatives, and assistance in college and financial aid applications.

Mentoring. GE scholars are matched with mentors for monthly group activities. Mentors also may provide students with job-shadowing and other career or college-related activities on an individual basis.

Scholarships. GE scholars who graduate and maintain GPAs of 3.0 or better receive scholarships toward college. GE scholars with lower GPAs can also earn small scholarships.

Point of Contact: Archie Ivy, GE Scholars Project Coordinator, North Division High School, 1011 West Center Street, Milwaukee, WI 53206

Ossining High School

Program title: GE Scholars

Program established: 1991

Program size: 120 **Grades:** 9 and 10

Personnel: Assistant principal acts as unpaid coordinator

Description: The program provides increased opportunities and support for poorly motivated students transitioning to high school through more individualized attention in the class, greater parental involvement in class work, and college and career preparation.

Teaming of teachers. Targeted students are assigned classes taught by a team of teachers who track and support students' progress in a timely fashion. Students are assigned to an academic period daily, during which each student is tutored in the subject area in which he or she needs the most help. Teachers receive staff development training in relevant instructional strategies.

Parental involvement. Teachers provide parents with frequent feedback (every 2.5 weeks) concerning both positive and negative progress of children in class. Teacher teams include parents in the process of addressing problems as they arise.

College and career awareness. The program sponsors career days and field trips, including visits to college campuses. A nascent mentoring program is expected to provide job shadowing and other related activities.

Point of contact: Geniere Guglielmo, Assistant Principal, Ossining High School, 29 South Highland Avenue, Ossining, NY 10562

Parkersburg South High School

Program title: College Bound Program

Program established: 1990

Program size: All interested students **Grades served:** 8, 10-12

Personnel: Project manager

Description: The program targets students who could qualify for college, but have limited incentive or support to go on to postsecondary education. The program provides a number of individualized and group activities to encourage students whose families have no prior experience with college application or attendance. In addition, the grant was used to add a chemistry lab, purchase computer software, and train teachers.

College and career awareness and planning. Beginning in the eighth grade, students are made aware of the need to begin taking courses and making plans that lead to college admission. Eighth graders receive scheduling assistance, sophomores have a career fair, juniors receive group counseling, and seniors receive individual counseling on college selection, application, and financial aid. Test preparation seminars are open to all students.

Mentoring. Seniors and their mentors participate in organized group activities, such as visits to college campuses, designed to help students select and apply to a college. Students and mentors have the option of pursuing the relationship on a one-to-one basis.

Local college connection. A limited number of students can earn scholarships to West Virginia University-Parkersburg. This college also provides special counseling services and seminars on study skills for College Bound participants who go on to attend the school.

Point of Contact: Tim Swarr, Principal, Parkersburg South High School, 1511 Blizzard Drive, Parkersburg, WV 26101

Schenectady High School

Program title: GE Scholar Program

Program established: 1992

Program size: 180 **Grades:** 9

Personnel: Part-time program coordinator, home/school liaison

Description: The program provides additional attention and support to at-risk and midlevel students making the transition from middle school to high school with the objective of encouraging these students to stay in school and go on to college. School administrators hope that the models provided by this program will encourage more project-based, active learning that is individually paced throughout the school. Key features of the program include the following:

Teaming of teachers. Targeted students are assigned to a block of classes taught by a team of teachers who track and support students in a timely fashion. Teachers are provided extra preparation time to meet as a team and are encouraged to use part of that time developing interdisciplinary, project-based units.

Parental involvement. Parents are encouraged to support student efforts in school. They receive frequent feedback from teachers, have daily access to a homework hotline to ensure students are doing their assignments, and have representatives on the program's advisory board. In addition, the Home/School Liaison promotes parents' access to the school and acts as a facilitator among parents, teachers, and students when problems arise. The liaison organizes a newsletter and evening programs for parents.

GE Volunteers. Through a local organization known as COMPASS, GE volunteers serve as tutors both to small groups of students during math classes and on a one-to-one basis during student free time during the day.

Point of contact: Hugo Bach, Assistant Principal, Schenectady High School, The Plaza, Schenectady, NY 12308

Valley High School

Program title: Valley Academy
Program established: 1989
Program size: 700 **Grades:** 9–12
Program personnel: Home/school liaison, computer coordinator

Description: The Valley program emphasizes two goals: promoting changes in the school that benefit all students and creating an academy that provides ancillary services to students willing to commit to full academic schedules. The long-term objective is to establish Valley as a magnet school for college preparation.

Valley Academy. To join the academy, students agree to strive for target attendance and GPA goals, declare major and minor strands of academic emphasis, and take *Touchstones*, a four-year, supplemental course for improving critical thinking skills.² Academy members are encouraged to take Advanced Placement courses. As academy members, students gain access to mentors, job-shadowing, field trips that are job-related or culturally enriching, a student senate, and the opportunity to earn an academy letter. Many academy support activities, such as seminars on study skills and evening tutoring, also are open to nonacademy students.

Curriculum and instruction improvement. The program provides staff the opportunities and support to make changes in the curriculum and to incorporate technology in instructional strategies. The computer coordinator encourages awareness of such opportunities and provides in-service training on computer skills and usage. The use of grant funds to purchase two computer labs and five language labs enabled faculty to expand course offerings. Departments are allocated staff development funds, which have also been used to expand the curriculum.

Point of contact: Terry Holmberg, Home/School Liaison, Valley High School, 1505 Candelaria, NW, Albuquerque, NM 87107

²This course was integrated into the curriculum in the 1993–94 school year.

Western High School

Program title: College Bound

Program established: 1989

Program size: Entire school **Grades:** 9-12

Personnel: Project facilitator

Description: The college bound program is merged with district and other grant funds to promote a restructuring of the school. The mission of the school—that all students can learn—promotes an inclusive strategy that continues to evolve in support of schoolwide improvement.

Curriculum and instruction. Western dropped some lower-level courses and integrated them into the regular track; instituted after-school and Saturday tutoring both for enrichment and remediation; with the help of GE advisors, developed a thematic program (the Academy of Commerce and Trade); added a computer lab; and expanded course offerings.

Staff development. A major portion of the grant is applied to staff development so that large numbers of staff can gain new skills to support changing the school and to provide access to national professional forums. Teachers can apply for mini-grants to develop new units or pursue professional development. Such support has enabled the faculty to team teach the entire ninth grade and adopt a Copernican schedule under which students spend longer class time on fewer subjects per semester.

Scholarships. To provide students with near-term incentives, the Scholars' Dollars program allows students to earn awards and money toward college by maintaining certain grades. In addition, Western leveraged the College Bound connection into commitments by a number of Kentucky colleges to designate scholarship funding to Western.

Point of contact: Diane Morrison, Project Facilitator, Western High School, 2501 Rockford Lane, Louisville, KY 40216

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