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Preparing Principals to Raise Student Achievement

Implementation and Effects of the
New Leaders Program in Ten Districts

Susan M. Gates, Laura S. Hamilton, Paco Martorell,
Susan Burkhauser, Paul Heaton, Ashley Pierson,
Matthew Baird, Mirka Vuollo, Jennifer J. Li,
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Preface

New Leaders is dedicated to promoting student achievement by developing outstanding school leaders to serve in urban schools. RAND Corporation researchers conducted a formative and summative external evaluation of the New Leaders program, its theory of action, and its implementation from 2006 through 2013.

This report presents findings from that evaluation. We describe New Leaders, its program, and the implementation of the program; present evidence of the program's effect on student achievement; and provide conclusions and implications based on those findings. The findings will be of interest to policymakers in school districts, charter-management organizations, state education agencies, and principal-preparation programs.

This research was conducted in RAND Education, a unit of the RAND Corporation, under a contract with New Leaders.

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Summary

In 2000, a group of social entrepreneurs formed New Leaders—a non-profit organization with a mission to ensure high academic achievement for all students by developing outstanding school leaders to serve in urban schools. Their premise was that a combination of preparation and improved working conditions for principals—especially greater autonomy—would lead to improved student outcomes. They designed an approach that involved both preparing principals and partnering with school districts and charter-management organizations (CMOs) to improve the conditions in which their highly trained principals would work.

New Leaders began recruiting and training prospective school leaders in 2001 in New York and Chicago. As of 2013, New Leaders had active partnerships related to its program for aspiring principals in Baltimore; Charlotte; Chicago; Memphis; Greater New Orleans; New York; the San Francisco Bay area of California (Oakland Unified School District and Aspire Public Schools); Prince George’s County, Maryland; and Washington, D.C. New Leaders also had a partnership with Milwaukee from 2006 to 2011. As part of the partnership, New Leaders agreed to provide carefully selected and trained principals who could be placed in schools that needed principals and to provide coaching and other support after those principals were placed. The districts and CMOs agreed to establish working conditions that would support, rather than hinder, the principals’ efforts to improve student outcomes.

Our Evaluation of New Leaders

In 2006, New Leaders contracted with the RAND Corporation to conduct a formative and summative evaluation of the program, its theory of action, and implementation. The RAND evaluation spanned seven years and is the most comprehensive evaluation of a principal-preparation program conducted to date. The analysis established a high standard for the program by including all principals who have been prepared by New Leaders since the inception of the program, comparing outcomes of their students and outcomes of similar students in other, comparable schools in the same district. The centerpiece of the evaluation was a rigorous analysis of the effect that New Leaders principals have on student outcomes.

This report presents evidence of New Leaders' effect on student achievement and provides conclusions and implications based on those findings. To achieve this broad, policy-relevant objective, we answer four research questions about the New Leaders program that we evaluated:

- What are the features of the New Leaders program?
- How was the New Leaders program implemented in partner districts?
- How did New Leaders principals affect student achievement in their schools (relative to students in other schools)?
- What factors might help explain the observed relationship between New Leaders principals and student outcomes?

Approach

To address these questions, we carried out six key research tasks:

- analysis of student-achievement data
- principal surveys
- analysis of survey data linked to student-achievement data
- analysis of principal-tenure data

- nested case studies of first-year principals
- analysis of other qualitative data gathered for this study.

We combined data sources and analytical approaches to address the research questions and synthesized those findings to develop our conclusions and implications.

Our analysis included all New Leaders principals who were placed in traditional or charter schools that were governed by the partner districts, as well as charter schools governed by the District of Columbia Public Charter School Board and the Aspire network. It excluded principals who were placed outside of the partner districts, as well as schools that served only students in grades not covered by state testing, such as some start-up schools. Because of lags in the availability of student-level data from partner districts, our analysis relied on student-level achievement data through school year 2011–2012. Therefore, the analysis did not include any New Leaders principals who were initially placed as principals in the 2012–2013 school year or later. The study analyzed data from approximately 400 New Leaders principals who served 160,000 students.

Our program-effect measure characterizes the differences in student achievement between students who attended schools led by New Leaders principals and comparable students who attended schools led by non–New Leaders principals in the same districts. This approach isolates the effect of New Leaders themselves from other conditions in the districts that might also have influenced student performance. If the New Leaders partnership influences conditions supporting effective leadership throughout the district, our approach to estimating program effects would not detect this.

Key Findings

What Are the Features of the New Leaders Program?

Three Core Elements

The New Leaders program to prepare high-quality principals includes the following elements:

- selective recruitment and admissions
- training and endorsement
- support for principals early in their tenures.

Although the program components have changed over time, each aspiring principal completing the New Leaders program has experienced all three of these elements in some form. New Leaders actively recruits candidates for its program. All applicants are evaluated through a rigorous nationally designed admission process using a common set of research-based criteria. The second core element, residency-based training, is offered through the Aspiring Principals Program, a year-long residency during which the aspiring principal works as a school leader under a mentor principal in a school district that is partnered with New Leaders. Participation in the Aspiring Principals Program concludes with a rigorous assessment that contributes to New Leaders' decision to endorse the candidate for a principalship. The third core element of the New Leaders program is the provision of support to new principals through coaching, mentoring, and professional learning communities. This element of the New Leaders program has gone through many changes over time.

District and Charter-Management Organization Partnerships

New Leaders executes this program through its partnerships with school districts and CMOs. New Leaders engages in an extensive process of recruitment and evaluation of potential district partners, to ensure that leaders in partner districts share the organization's goals and are willing to adopt policies and practices that are consistent with New Leaders' vision. Districts must not only commit to placing New Leaders principals in high-need schools but also agree to make the necessary changes to enable all principals to work in environments that support

high-quality leadership, including expanded autonomy for principals. Such changes are intended to influence the working conditions of all principals in the district.

Continuous Improvement

Since its inception, New Leaders has set high, outcome-oriented standards; monitored performance against those standards; and modified the program as needed in response to the performance data. This study—a comprehensive, seven-year evaluation of the program and its performance—is unprecedented in the field of school leadership and reflects the organization’s commitment to continuous improvement. Over the course of the evaluation, New Leaders made numerous changes to the program in response to interim findings. One example is the addition of the Emerging Leaders Program, a yearlong learning experience for teacher leaders and administrators, which builds participants’ adult leadership and data-driven instruction skills while giving New Leaders better data with which to select Aspiring Principals Program candidates.

How Was the New Leaders Program Implemented in Partner Districts?

Growing Number of Evolving Partnerships

New Leaders began with three district partnerships in 2001 and added more in subsequent years as its capacity to prepare principals increased. By the end of 2013, New Leaders had nine active district partnerships involving its program for aspiring principals, including the original three. Although the same core elements of the program have been implemented in all partner districts, the manner in which those core elements are implemented in each district has evolved over time, partly in response to feedback from district partners. As a result of these changes, the New Leaders program takes somewhat different forms in each of the partner districts.

Varied Implementation to Meet Partner Districts’ Needs

Partner districts vary widely in terms of their needs, concentration of New Leaders principals, access to other principal-preparation resources, and their ability to fulfill the commitment to providing principals with

a high level of decisionmaking authority. From an evaluation perspective, these varying conditions mean that program implementation—and, thus, the New Leaders program treatment—varied across districts and over time. Although this variation presents challenges for a rigorous national evaluation, it reflects New Leaders’ responsiveness to district needs and commitment to ongoing data-driven program improvement. In 2012 and 2013, all partner districts reported that the partnership had benefited their districts, and they remained committed to continuing the partnership in some form.

Did New Leaders Principals Affect Student Achievement in Their Schools?

Statistically Significant Achievement Gains

Our analysis shows that students who attended schools led by New Leaders principals experienced slightly larger achievement gains on average than similar students in schools led by non–New Leaders principals. At the lower grade levels, spending three or more years in a school with a New Leaders principal was associated with achievement gains that translate to a change of 0.7 to 1.3 percentile points for a typical student in mathematics and reading. This means that a student in the middle (50th percentile) of the test-score distribution would move up 1.3 percentile points or to a percentile rank of 51.3 in the test-score distribution. At the high school level, students in schools where the New Leaders principal had three or more years of tenure experienced gains in reading achievement of about 3 percentile points in reading but no significant difference in mathematics. Although the magnitude of these effects is smaller than those observed in some classroom- or student-level interventions, they demonstrate that effective principals positively affect student achievement—despite the fact that principals do not necessarily interact with students on a daily basis.

Differing Effects Across Districts

The magnitudes of achievement effects varied substantially across districts. In four sites (Baltimore, Memphis, Oakland, and Washington, D.C.), the effects were positive and statistically significant in at least one subject. However, we observed statistically significant and negative

effects in at least one subject in four districts—Memphis, Milwaukee, Prince George’s County, and New Orleans—that had relatively few New Leaders principals who had been in place for three or more years during the study. In Chicago and New York, the effects were small and not statistically significant; however, both districts have principal-preparation programs similar to New Leaders, so it is possible that the effects of those programs masked the New Leaders effects.

Characteristics of Non–New Leaders Principals Influence Estimates

Our analysis compared New Leaders principals and non–New Leaders principals in the same districts; therefore, the characteristics and experiences of the non–New Leaders principals who served as the comparison group influenced the size of the estimated effects of New Leaders principals. First, the estimates of New Leaders effects may be low because of district-wide changes that give advantages to *all* principals, not just New Leaders principals. Second, some districts have non–New Leaders principals who received training similar to the New Leaders training, so comparing principals from the two groups is unlikely to find substantial differences. Third, although our analysis compared principals with similar years of experience, New Leaders principals were somewhat more likely to remain in their positions for longer, and these differences in retention should be taken into account when interpreting the findings.

What Factors Might Help Explain the Observed Relationship Between New Leaders Principals and Outcomes?

We examined several sources of evidence that could potentially explain the variations we observed in results at the individual district level and across districts. If the New Leaders program were systematically more effective than the traditional approach to principal preparation, a variety of factors could influence our ability to measure the effect. In gen-

eral, we would expect to see the strongest positive program effects in districts where the following conditions apply:

- The New Leaders program was well implemented.
- Other newly placed principals did not participate in preparation programs with core features similar to those of the New Leaders program.
- School or district working conditions favored well-prepared principals over other principals.

We examined several sources of evidence related to individual behaviors and the conditions described above and considered whether the evidence could potentially explain differences in the relationships we observed across individuals or districts. We considered such factors as these:

- district size
- penetration of New Leaders (i.e., the percentage of principals who were New Leaders principals)
- principals' perceptions of district conditions
- principals' perceptions of the quality of the New Leaders program.

We also explored relationships between school-level achievement and principal-level factors, including principals' actions and perceptions of school conditions. The analysis of these factors did not explain most of the differences in principals' effects on student achievement but did suggest directions for further research.

Differences in Perceptions Between New Leaders and Non–New Leaders Principals

Although survey responses suggested that New Leaders and non–New Leaders principals reported similar practices and perceptions of school and district conditions, we did observe some differences between these groups in their perceptions about the efforts devoted to specific activities, their expectations for teachers' capacity and behaviors, and their satisfaction with a few specific district conditions. In particular, we

find that New Leaders principals tended to rate their teachers as having lower capacity and their district working conditions as less adequate than other principals in their districts did. This suggests that New Leaders principals might have higher expectations than non–New Leaders principals have, perhaps as a result of their exposure to the New Leaders training and vision.

Higher Retention of Newly Placed New Leaders Principals

An examination of retention rates for New Leaders and non–New Leaders principals showed extensive variation in retention across districts, but, on average, New Leaders principals were slightly more likely than other newly placed principals to remain in their schools for three or more years. These differences were particularly notable in Baltimore, Milwaukee, New Orleans, Oakland, and Washington, D.C.

Role of School and District Conditions

School and district conditions varied within districts, as well as across districts. It is important to note that some of the conditions we measured, such as perceptions of teachers' capacity, are not merely working conditions but are factors that could be influenced by a principal's actions, particularly after a principal has been in place in a school for several years. Analyzing individual-level data across districts, we find the following relationships:

- Principals' perceptions of more-favorable school conditions were positively associated with achievement gains in reading and mathematics.
- Higher ratings by principals of teacher capacity were related to gains in reading.
- More time spent on instructional leadership was positively associated with gain scores in mathematics.
- More-favorable ratings of strategies and actions taken by the district or CMO were positively associated with gain scores in mathematics.

These findings suggest that some of the variation in effectiveness among individual principals might be partly attributable to their prac-

tices and working conditions (or at least their perceptions of those conditions), but, as mentioned above, most of the differences in principals' effects could not be easily explained.

Implications

Our findings suggest that the New Leaders program has the potential to improve student achievement in a partner district. The findings can also inform decisionmakers considering potential partnerships with New Leaders or other providers of training and support for principals. We highlight the key implications in this section.

Principals and Their Preparation Matter

The fact that we observed a statistically significant program effect in a comprehensive evaluation of a national training program for school principals is consistent with the growing body of research that suggests that principals and principal-training programs matter. Even though principals are not in the classroom with students on a daily basis, they have the ability to support and enable effective teaching and learning. Although some New Leaders principals are leading privately operated charter schools, most New Leaders principals serve in district-run schools—suggesting that principals can become more effective in a variety of settings. Our findings also suggest that New Leaders principals differ in effectiveness from their traditional counterparts to a greater degree in some districts than in others, but we were unable to identify the drivers of these district-level differences through our exploratory investigation of these factors. A complete investigation of this question was beyond the scope of this study, but future research should seek to clarify those drivers. That information would allow managers to adjust the program or district conditions accordingly, and the program effects could become much larger.

Greater Attention to Principals' Working Conditions Is Needed

Districts considering partnerships to improve school leadership must recognize that high-quality training is only part of the story. It is

equally important to create the conditions for high-quality leaders to be successful in the district. The original premise of New Leaders was that effective leadership resulted from the combination of well-trained, high-quality leaders working in conditions that provide them the autonomy and supports needed to enable them to improve student achievement. In the past decade, New Leaders and other providers have done much to increase the pool of school leaders around the country. Our evaluation findings, which identify some relationships between principals' perceptions of their working conditions and gains in student achievement, suggest that there is still work to be done on working conditions, especially with regard to providing principals with the tools and flexibility they need to staff their schools with highly effective teachers.

Evaluating the Effectiveness of a Program Like New Leaders by Relying on Within-District Comparisons Could Underestimate Effects

Within-district comparisons of program participants and nonparticipants are common in rigorous evaluations, such as this one, partly because of the need to obtain comparable outcome data for treated and untreated students and to follow students over time as they change schools. However, there is a risk that those not participating in the intervention will still experience its effects, particularly for programs that involve district-wide changes. Because of this, decisionmakers who are adopting a new program that has the potential to induce district-wide changes should consider both quantitative and qualitative sources of evidence when comparing participants and nonparticipants in the same district. They should collect data to understand the extent to which nonparticipating principals might have been influenced by the program, and they should also explore opportunities to gather information from nonparticipants in other districts.

Benefits of the New Leaders Partnership Can Extend Beyond New Leaders Principals to Other Schools in the District

We have already noted challenges in evaluating the effect of a program that is explicitly intended to influence those who do not partici-

pate directly in the program. At the same time, this type of partnership offers advantages to district partners. All of the district partners reported that the partnership benefited their districts. Those who are seeking to partner with an external provider should consider that the program may induce district-wide improvement beyond the benefits to staff members who directly participate in training and program activities. For example, a majority of district partners reported that New Leaders provided valuable information to the district on the effective management of principals. In some districts, New Leaders has also influenced leadership standards, principal-selection criteria, evaluation of principals, and support of principals. In addition, many New Leaders principals have moved into roles in which they supervise principals and thus have further influence over principals' quality and performance. The possibility for system-wide change is an important consideration when evaluating the costs and benefits of a training program.

Constructive Partnerships Between the District and the Program Provider Require Ongoing Communication and Willingness to Modify the Program

New Leaders' willingness to modify its approach in response to changes in districts' needs and local contextual conditions appears to have strengthened its partnerships with districts. These changes, including to the structure and content of the training and support, were informed by frequent communication between districts and New Leaders, along with feedback from the formative evaluation. When districts form partnerships with external program providers, both the districts and the providers are likely to benefit from frequent communication about what is working well and where changes might be needed.

There Is Sometimes a Tension Between Continuous Improvement and Maintaining a National Program Model That Can Be Evaluated Across Contexts

New Leaders strives to be responsive to partner districts' needs and to adjust the program in response to evidence. Although doing so might have improved the program and strengthened the partnerships, such changes pose challenges for a comprehensive evaluation because

they produce additional variation across districts. This tension must be kept in mind when designing evaluations and when interpreting findings from them. It suggests a need for careful documentation of cross-district differences in program features over time and an effort to examine effects separately by district in addition to any aggregated findings.

Future Research Should Further Explore How Combinations of Principals' Working Conditions Contribute to Student Success

Our evaluation of New Leaders provided detailed information on the program and its implementation, but our ability to make clear policy recommendations is limited by the focus on a single program and by a lack of detailed information on the school and district conditions that might have influenced the performance of both New Leaders principals and comparison principals. In the future, we expect more districts to have improved data systems that would provide information on principals' training and characteristics along with systematic school-level data on such factors as autonomy and leadership supports to allow for cross-school and cross-district analyses of these important issues. Analyses of such data could be supplemented by case studies that examine instances of both successful and unsuccessful implementation in an effort to identify factors that distinguish these two groups. We suspect that the presence or absence of particular conditions, such as autonomy over curriculum and the quality of principals' supervisors, is less important than the presence of *effective combinations of conditions*. Cross-district analyses of these issues could generate useful insights for the field—providing a menu of options for districts to consider based on their circumstances.

Acknowledgments

This report draws on multiple sources of data from several urban school districts and charter-management organizations, and we are indebted to many people who contributed to the underlying research in a variety of ways. We would like to thank the many district and charter-management organization staff members who participated in interviews, provided us with student-achievement and other administrative data, and worked with us over the years to resolve questions that have come up. We would also like to thank the senior staff from New Leaders partner districts who participated in our interviews over the years. We are indebted to the principals and teachers who participated in our 2008 and 2011 surveys and to the principals and other school staff at the case-study schools who participated in our interviews and allowed us to observe them as they worked.

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Abbreviations

CMO	charter-management organization
DCPS	District of Columbia Public Schools
EPIC	Effective Practice Incentive Community
NCLB	No Child Left Behind Act
NYCLA	NYC Leadership Academy
PCSB	District of Columbia Public Charter School Board
SMART	specific, measurable, achievable, relevant, and time-bound
SY	school year
TFA	Teach for America
UEF	Urban Excellence Framework

Introduction

At the turn of the new millennium, many public school districts in the United States faced a crisis in school leadership characterized by numerous challenges: high turnover, difficulties finding people to replace departing principals, and a perception that the newly hired principals lacked the skills to succeed in their new positions (Gates et al., 2003). Concerns about an adequate supply of school leaders emerged at a point in time when the role of the principal had become more important than ever because of increased focus on their contribution to student outcomes. A growing body of research evidence indicates that school principals and the decisions they made at the school level were critical to raising student achievement (Leithwood et al., 2004). The 2001 reauthorization of the Elementary and Secondary Education Act (Pub. L. No. 89-10) as the No Child Left Behind Act (NCLB) (Pub. L. No. 107-110, 2002) made principals accountable for student success. These accountability pressures coincided with a “new wave of reform approaches that use increases in decision-making authority to spur school improvement” (Honig and Rainey, 2012, p. 471). These so-called autonomy initiatives in such districts as Baltimore, Boston, Chicago, Los Angeles, New York, and Oakland emphasized teaching and learning along with building the capacity of staff at the school level (including principals) to implement change.

Districts faced a critical challenge in finding principals to fill a growing number of vacancies in this environment. The new era of autonomy and accountability demanded knowledge and skills that had not been expected of principals before (Hoachlander, Alt, and

Beltranena, 2001), such as a deep understanding of instructional practices that contribute to student success and an ability to work with school staff to implement those practices. Principal-training programs were weak, and neither existing principals nor principals in training were receiving training that effectively developed the skills necessary to lead substantive improvements in teaching and learning (Bottoms and O’Neill, 2001; McKenzie, 2012; Butrymowicz, 2011; Archer, 2004; Olson, 2007). Education stakeholders viewed the shortage of well-qualified principals as a key barrier to school improvement (Educational Research Service, 2000).

New Leaders as a Solution to the Principalship Conundrum

In response to these problems, a group of social entrepreneurs formed New Leaders in 2000 as a nonprofit organization. The organization’s aim was to ensure high academic achievement for all students by developing outstanding school leaders to serve in urban schools. New Leaders was conceived by five Harvard graduate students with backgrounds in business, public policy, and education (Hanna, 2011). Their premise was that a combination of preparation and improved working conditions for principals—especially greater autonomy—would lead to improved student outcomes. Their plan was to strengthen the pipeline of school principals by providing extensive and rigorous research-based training that addressed the shortcomings of existing principal-preparation programs. With the recognition that “recruiting and training outstanding principals can be an essential, if not sufficient part of the strategy to drive both teacher effectiveness and better student achievement” (Harvard Kennedy School, 2009, quoting New Leaders cofounder Jon Schnur), they designed an approach that involved both preparing principals and partnering with school districts to improve the conditions in which their highly trained principals would work.

With support from public and private partners, in 2001, New Leaders began recruiting and training talented leaders to drive up the academic performance and curb the high dropout rates in New York

and Chicago (Harvard Kennedy School, 2009). They later partnered with large urban school districts across the country that serve high-need student populations. As of 2013, New Leaders had active partnerships in Baltimore; Charlotte; Chicago; Memphis; Greater New Orleans; New York; Newark; the San Francisco Bay area of California; Prince George's County, Maryland; and Washington, D.C. In addition, New Leaders had a partnership with Milwaukee from 2006 to 2011. As of January 2014, 667 individuals prepared and endorsed by New Leaders have assumed principalships in traditional or charter schools in these districts. Most New Leaders principals work in traditional public schools, though some are placed in start-up or charter schools. Because of its national scope and the diverse range of schools into which principals are placed, New Leaders has an unusually broad reach for a program focused on improving the quality of school leadership.

Our Evaluation of New Leaders

In 2006, New Leaders contracted with RAND to conduct a formative and summative evaluation of the program, its theory of action, and implementation. The evaluation spanned seven years and is the most comprehensive evaluation of a principal-preparation program conducted to date. The analysis established a high standard for the program by including all principals who had been prepared by New Leaders since the inception of the program, comparing outcomes of their students and outcomes of similar students in other, comparable schools in the same districts. The centerpiece of the evaluation was a rigorous analysis of the effect that New Leaders principals have on student outcomes, using high-quality, quasi-experimental methods that have rarely been applied to the study of principal preparation. RAND Corporation researchers have been analyzing student outcome data and reporting that information along with feedback from the formative evaluation to New Leaders on an annual basis.

As we describe in Chapter Three of this report, New Leaders is committed to ongoing data-driven program improvement. It uses data and insights from both internal and external evaluation to inform

improvement to all aspects of the program. It also uses this information to develop more-generalizable insights that may be useful to the field and nonpartner districts. For example, New Leaders has created a web portal (Effective Practice Incentive Community, or EPIC) and other publicly available tools to share best practices with other principals and districts outside of the New Leaders community. For instance, Denver uses the EPIC materials as part of its training for new and current principals (Aarons, 2010).

Variation in implementation and program outcomes by district has provided New Leaders with the opportunity to learn from our evaluation and improve the program over time in response to the frequent formative reports we have provided. In addition to supporting a rigorous external evaluation of its program, New Leaders engages in its own internal evaluation—studying principals’ work in an effort to find out what practices are most effective in producing solid improvements quickly in the most troubled schools (Sawchuk, 2008; Gewertz, 2008). The evaluation results presented in this report include the outcomes of principals placed through the 2011–2012 school year (SY 2011–2012). As we note later, our study did not capture the effects of the most recent set of changes that New Leaders has made to its program. A future RAND report, funded by a recently awarded Investing in Innovation Fund grant to New Leaders from the U.S. Department of Education, will explore the effects of the revamped program.

Purpose of This Report

The overarching objective of this report is to present evidence of New Leaders’ effect on student achievement and to provide conclusions and implications based on those findings. To achieve this broad, policy-relevant objective, we answer four research questions about the New Leaders program that we evaluated:

- What are the features of the New Leaders program?
- How was the New Leaders program implemented in partner districts?

- How did New Leaders principals affect student achievement in their schools (relative to students in other schools)?
- What factors might help explain the observed relationship between New Leaders principals and outcomes?

We also describe changes New Leaders has made to its program in response to these findings and discuss the implications of our findings for districts, other principal-preparation programs, and other stakeholders.

Organization of the Report

The report is organized around these four research questions. Chapter Two provides an overview of our methods and describes the research approach. Chapter Three describes the New Leaders program and its evolution over time. In that chapter, we define the New Leaders treatment to help the reader interpret the results. In Chapter Four, we describe the district context and program implementation in each of the partner districts. Material in this chapter will help the reader understand the nature of the comparison group we used to measure program effects. Chapter Five describes how we generated the New Leaders program-effect measure and reports our estimates of the program effects overall and by district. Chapter Six presents an analysis of some factors that may influence the New Leaders program effects. Chapter Seven offers some conclusions and implications based on the analysis. Online, we provide a set of technical appendixes that document the methods in greater depth.

Research Methods

To address the research questions described in Chapter One, we carried out six key research tasks:

- analysis of student-achievement data
- principal surveys
- analysis of survey data linked to student-achievement data
- analysis of principal-tenure data
- nested case studies of first-year principals
- analysis of other qualitative data gathered for this study.

We combined data sources and analytical approaches to address the research questions and synthesized those findings to develop our conclusions and implications. These tasks correspond to the research questions as shown in Table 2.1.

In this chapter, we provide a brief overview of each research task.

Analysis of Student-Achievement Data

The student-achievement data analysis compared the outcomes of students (as measured by end-of-year state assessments in mathematics and reading) who were in schools led by New Leaders principals for some amount of time and the outcomes of otherwise comparable students in other schools. We describe the methods in detail in Chapter Five, in which we also present those findings. This analysis provided a relative (rather than absolute) measure of the New Leaders program effect as

Table 2.1
Methods Used to Address Research Questions

Research Question	Method Used
What are the features of the New Leaders program?	Principal surveys, analysis of other qualitative data
How was the New Leaders program implemented in partner districts?	Principal surveys, analysis of other qualitative data, analysis of principal-tenure data
How did New Leaders principals affect student achievement in their schools (relative to students in other schools)?	Analysis of student-achievement data
What factors might help explain the observed relationship between New Leaders principals and outcomes?	Analysis of survey data linked to student-achievement data, analysis of principal-tenure data, nested case studies of first-year principals, analysis of other qualitative data

an indicator of the performance of New Leaders principals when compared with other principals in their districts. Consequently, it is important to keep in mind that, if the New Leaders partnership improves the performance of non–New Leaders principals in the partnership districts (e.g., by inspiring district-wide changes in policies related to principal professional development or autonomy), the estimated effect of the New Leaders program might be understated.

The data for this analysis were student-level data, including standardized test scores, nonachievement outcomes, and student demographic characteristics from ten current or former New Leaders partner districts: Baltimore City Public Schools; Charlotte–Mecklenburg Schools in North Carolina; Chicago Public Schools; Memphis City Schools; Milwaukee Public Schools; Recovery School District in New Orleans; New York City public schools; the Oakland Unified School District in California;¹ Prince George’s County Public Schools in Maryland; and Washington, D.C., public schools and public charter schools.

¹ We also included data on charter schools in the San Francisco Bay area where New Leaders had been placed. See Appendix A, available online, for further details.

New Leaders provided RAND with placement data for all New Leaders principals. That information was used to identify the schools led by New Leaders principals in the district data and, in turn, students attending schools led by New Leaders principals. Some New Leaders principals were placed in principalships outside of any partner New Leaders districts, and their schools were not included in our analyses. The analysis reported here relied on student-level achievement data for the year prior to the establishment of the partnership in each district through SY 2011–2012, which are the most recent available at the time of this writing. Our methods are described more fully in Appendix A, available online.

Principal Surveys

In the spring of 2008 and 2011, we fielded online surveys to all New Leaders principals and a comparison group of non–New Leaders principals in the districts that had partnered with New Leaders. We selected comparison principals on the basis of observable school and principal characteristics, including principal tenure. We selected constructs and items for the survey based on a review of literature that identified principals’ actions and conditions that might be expected to influence the effects of the New Leaders program (see Chapter Six for more details). The survey gathered information from principals on how they spent their time, how they felt about how they spent their time (whether it was adequate or excessive), school and district conditions that might influence school leaders, sources of support, and strategies for improving the quality of teaching and learning in the school and future career plans. The survey of New Leaders principals also included questions about the quality of training and support provided by New Leaders and perceptions of New Leaders as an organization.

As an incentive, principals were given \$50 for participating in the survey, but a few of the districts required that the payment be made to the school rather than the individual. The response rate for the 2008 survey was 65 percent (78 percent among New Leaders principals and 49 percent among non–New Leaders principals). The overall response

rate for the 2011 survey was lower, at 48 percent, with substantially higher rates among New Leaders principals (57 percent versus 39 percent for non–New Leaders principals). The number of 2011 survey respondents was 188 New Leaders principals and 125 non–New Leaders principals. In 2008, the numbers were 147 and 39, respectively. In our analysis of survey data, we weighted the data to address potential issues of nonresponse bias. In this report, we focus on findings from the more recent (2011) survey. Our analysis of 2008 survey data provided similar results.

Analysis of Survey Data, Linked to Student-Achievement Data

We used exploratory factor analysis to identify sets of survey items that could be clustered together into scales. We conducted separate factor analyses for each set of items (e.g., school conditions, district conditions, principal actions) and used both empirical and substantive criteria to identify composites of items that would capture meaningful dimensions linked to the literature. We also created average gain scores in mathematics and reading achievement for each school that had a surveyed principal in 2008 or 2011. These gain scores were based on student-level district standardized z-scores for statewide exams in reading and mathematics using the method described in Burkhauser, Gates, Hamilton, and Ikemoto (2012). We conducted descriptive, correlational and regression analysis using these linked data to explore whether principals' perceptions of their working conditions or principals' reports of their use of time were related to current or subsequent achievement outcomes. Additional information on the survey and our analysis of survey data is provided in Appendix B, available online.

Analysis of Principal Retention

Principals' experience has two important dimensions: years of experience as a principal and years of experience in a particular school. It is

widely acknowledged that it may take time for a newly placed principal to make critical changes in a school and for those changes to have an effect on student outcomes. This implies that how long a principal has been in his or her school could be related to changes in student outcomes. The empirical literature on this topic is somewhat mixed. Studies on this topic use different measures of principals' experience, and many are published in working-paper form. Overall, the emerging research suggests that each type of experience matters independently (Clark, Martorell, and Rockoff, 2009; Béteille, Kalogrides, and Loeb, 2012; Miller, 2013; Dhuey and Smith, 2010, 2014). However, because the two types of experience are strongly correlated, it is difficult to disentangle the relative importance of either.²

Our analysis focuses on a school-level measure of tenure defined by the number of years a principal has served as a principal in his or her current school. Under our definition, a principal can be considered "new" even if he or she has prior experience at another school in the district or in another district. Ideally, we would have controlled for both types of experience, but we were unable to obtain data on total years of principals' experience for all partner districts.

In 2009, we undertook a comprehensive audit of the district tenure data, examining consistency across years and across data elements provided by districts within years. Our audit identified some discrepancies in the administrative data across districts, and we worked with the districts to resolve those. From that year forward, we requested annually from each district a list of schools with new principals. These lists were used to identify cases in which principal-tenure data were not adjusted to reflect the addition of new principals. We used this information to construct a data set that had information on the tenure of a principal in a given school for all school years used in the study.

We used the resulting tenure data to analyze patterns of principal retention at the school level for principals in partner districts. These data enabled us to examine achievement outcomes separately

² Dhuey and Smith (2014) find that schools with new first-time principals have somewhat higher levels of teacher turnover, declines in adequate yearly progress targets met, and declines in attendance.

for groups of principals with different levels of tenure and to explore whether retention rates differed for newly placed New Leaders principals and non–New Leaders principals. In Chicago, we also had reliable information on experience as a principal in the district and therefore conducted supplementary analyses distinguishing school-level tenure from district tenure. We describe our analysis of principal retention at the school level more fully in Appendix C (available online) and provide detailed summaries for each of the ten districts included in our analysis of student-achievement outcomes.

Case Studies of First-Year Principals in Four Partner Districts

During SYs 2008–2009 and 2009–2010, we conducted case studies of principals in four partner districts who were new to the principalship in SY 2008–2009. The districts were selected to capture variation in terms of the longevity of the New Leaders partnership, as well as variation in the program’s measured effect on student achievement based on our interim analyses. In each of the four districts, participants included four New Leaders principals. In one of the partner districts, four newly placed non–New Leaders principals also participated in the study. The case studies were designed to examine how the New Leaders program components—such as training and ongoing supports—were being implemented in New Leaders–led schools. In addition, the fieldwork explored the extent to which principals were implementing the leadership practices that New Leaders attempts to foster. The case studies were designed to give us an understanding of the New Leaders model and the practices of New Leaders principals rather than to compare New Leaders and non–New Leaders principals.

Our original research plan was to follow all of the principals who participated in the study a year earlier into their second years at their schools, but attrition and transfers prevented us from doing this in all cases. As a result, the 2009–2010 case studies involved 13 second-year principals serving their second years in their schools, two second-year principals serving the first years in their schools, and

five first-year principals. We used this natural attrition and sample replacement as an opportunity to explore whether a newer cohort of New Leaders approached their first-year experiences differently than the previous cohort had, given the changes that were made to their training and support.

The case studies included phone interviews, in-person interviews, and shadowing. We conducted a phone interview with each principal and in-person interviews with other school leaders, such as assistant principals and school-based coaches, as well as with classroom teachers. In one partner district, we also shadowed each of the eight principals (four New Leaders and four non–New Leaders principals) for one day. The case studies allowed us to examine the practices that new principals employ and to document challenges and promising practices. Our case-study sample was designed to include principals leading schools that represented a range of grade-level configurations and governance (district versus charter), as well as principal training (New Leaders versus non–New Leaders) so that we could explore whether any of these factors might be associated with principals' experiences.

Other Qualitative Data Collection and Analysis

In addition to the case studies, we collected other qualitative data through interviews and focus groups. We also reviewed research literature and other related documents throughout the course of the study. We provided New Leaders with annual reports summarizing formative evaluation findings.

Between 2009 and 2013, we interviewed district and charter-management organization (CMO) leaders annually. These interviews included representatives of all partner districts and major CMO partners. A key purpose of the interviews was to provide detailed information on the district or CMO context to inform our student-achievement analyses and to provide formative feedback to New Leaders regarding how its partners view the relationship. Although New Leaders monitors its district partnerships and regularly solicits feedback directly from them, this third-party effort using a systematic data-collection

instrument has provided unique insights that have been used to inform program improvements. In 2007 and 2008, we also interviewed New Leaders executive team members and staff in the national office, as well as executive directors and other city team members to gather background information for the study.

We also conducted focus groups at the New Leaders 2008 National Summit. Focus-group participants included New Leaders principals, individuals who had completed the New Leaders training but had not yet been placed as principals, aspiring principals who were in the middle of their training periods, and coaches. The focus-group interviews obtained information on program implementation and program satisfaction.

Scope

Because of time lags in the availability of student-level data from partner districts, our analysis relied on student-level achievement data covering all years of the partnerships through SY 2011–2012. Therefore, the analysis did not include any New Leaders principals who were placed as principals in SY 2012–2013 or later.

Our analysis included all New Leaders principals who were placed in traditional or charter schools governed by the partner districts, as well as charter schools governed by the District of Columbia Public Charter School Board (PCSB) and Aspire Public Schools. It excluded principals who were placed outside of the partner districts.

Interpretation of Program-Effect Measures

Although our mixed-method research approach is rigorous and robust, there are considerations of which readers must be aware in interpreting our findings.

As noted earlier, the program-effect measure reflects the differences in student achievement between students who attended schools led by New Leaders principals and comparable students who attended

schools led by non–New Leaders principals in the same districts. New Leaders principals serve as the treated group and non–New Leaders principals as the comparison group. This approach was intended to isolate the effect of New Leaders themselves from student characteristics or other observable conditions in the schools or districts that might also influence student performance. Therefore, our measures do not reflect whether student achievement is improving or declining in absolute terms in New Leaders schools. For example, if New Leaders are being placed primarily in high-need schools and all principals (both New Leaders and non–New Leaders) are successful in improving achievement in those schools thus closing the achievement gap, then we could observe no New Leaders program effect in spite of achievement gains in New Leaders schools. A related point is that New Leaders principals are being compared with other principals who were already hired by the partner districts rather than the principals who would have been hired if the New Leaders candidates had not been available.

Finally, it is important to keep mind that New Leaders aims to improve conditions that support effective leadership throughout the district. Because changes in these conditions might influence leadership in all district schools rather than only in New Leaders–led schools, it is possible that performance in non–New Leaders schools is positively influenced by the presence of the New Leaders program in the district. Our approach to estimating program effects would not detect this.

Additional Limitations of the Research

This evaluation faced other practical limitations. First, our analysis of student achievement was based on state tests that measured achievement in a limited number of subjects. Scores on those tests might have been influenced by test preparation because of the high stakes attached to scores. In addition, our survey and case-study samples are relatively small and are not representative of all schools in the partner districts. The survey response rates varied by district and were lower for non–New Leaders principals than for New Leaders principals. Therefore,

the survey findings cannot be generalized to all principals in the study districts, states, or the United States, and the small sample sizes limit the statistical power of our analyses of survey data. It is also important to acknowledge that we were not able to collect information on every factor that might influence achievement or retention, such as the quality of professional development that principals received or the availability of assistant principals and other support staff to whom the principal might delegate responsibilities. Finally, our data on principal practices and conditions stem largely from principals' self-reports on the survey and cannot be interpreted as objective measures of practices and conditions.

Overview of the New Leaders Program and District Partnership Approach

Introduction

Founded in 2000, New Leaders is a nonprofit organization dedicated to creating a cadre of “transformational school leaders” and promoting “effective leadership policies and practices for school systems across the country” through partnerships with school districts and CMOs (New Leaders, undated [a]). In this chapter, we describe the New Leaders program, how the organization partners with districts and CMOs, and how New Leaders has modified its program over the years.

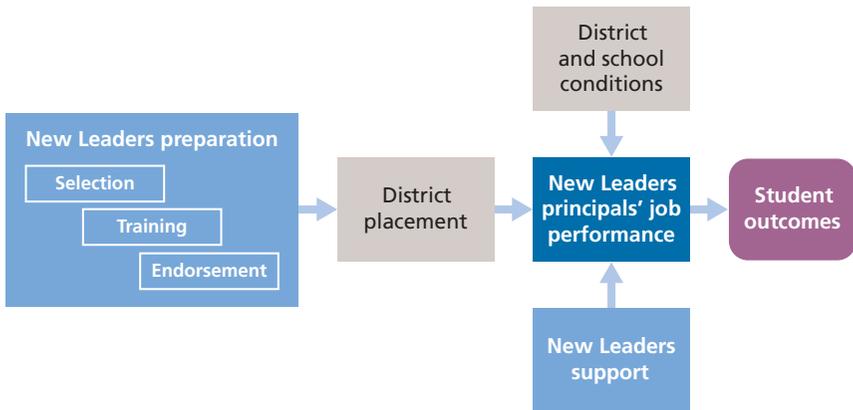
The backdrop for New Leaders’ founding and evolution is the spirit of *social entrepreneurship* (Fast Company, 2008). There are many ways to define this term, but the main idea centers on achieving large-scale, sustainable social change through a novel approach to solving a social problem. Social entrepreneurs set high standards and leverage proven business practices, such as continuous monitoring and program improvement, to achieve their goals (Schwab Foundation for Social Entrepreneurship, undated). New Leaders has exemplified this approach. For example, since its inception, New Leaders has tracked the progress and satisfaction of those in the program and of program graduates, and the organization’s leaders have carefully examined the outcomes of the principals it has trained. The variations in program outcomes by district have provided New Leaders with the opportunity to learn from successes and improve both the program and the partnership approach over time.

The New Leaders Theory of Action

The New Leaders program is based on the idea that recruiting and selecting highly qualified candidates, providing training that emphasizes opportunities for authentic practice and feedback, supporting them in their jobs as principals, and partnering with districts to improve the conditions in which the principals work will result in better student outcomes. Figure 3.1 broadly depicts how the program affects student outcomes.

As the figure shows, the New Leaders program begins with the processes of selection, training, and endorsement. After those steps are completed, a candidate becomes eligible for placement in a principalship in a partner district. Once placed in a principalship, the individual's job performance is influenced not only by the New Leaders preparation but also by the conditions in the district and school in which he or she was placed and by a program of ongoing support from New Leaders. These factors shape the principal's characteristics and actions to lead the school in a way that, in turn, influences student outcomes.

Figure 3.1
How New Leaders Improves Student Outcomes



New Leaders' Vision for High-Performing Urban Principals

The New Leaders program is focused on preparing principals to address the achievement gap and related challenges facing high-need schools in urban districts. The experiences of early cohorts of New Leaders principals revealed that much of the literature on school leaders did not target the challenges of urban schools and districts. This realization led to the creation of the Urban Excellence Framework (UEF) (New Leaders, 2011), a conceptual framework developed by New Leaders. The UEF presents New Leaders' vision of what it means to be a high-performing principal in an urban setting. Early drafts of the UEF were circulated within the organization starting in 2007 and influenced program design. The framework identifies key school practices that New Leaders has found in schools making dramatic achievement gains and the principals' actions that are needed to put those practices into place. In addition, the UEF distinguishes between various stages of a school's development and notes that key practices and actions should be different depending on the school's reform trajectory. The UEF was informed by a review of prior research, as well as original research conducted by New Leaders, including in-depth case studies of three high-achieving schools led by New Leaders principals, site visits to dozens of New Leaders schools (both high-gaining and not), and the expertise of New Leaders staff and principals (New Leaders, 2009). The framework was subsequently validated by an external study examining the practices of schools that had achieved positive value-added results (Hutchins, Epstein, and Sheldon, 2012).

The New Leaders Principal-Preparation Program

Although New Leaders expanded its program offerings toward the end of the study period to include new programs for teacher leaders and sitting principals, the New Leaders organization had one signature program focused on principal preparation during its first ten years of existence. The signature New Leaders program consisted of three core

elements that distinguish the leadership preparation and support provided by New Leaders from that provided by most other organizations:

- selective recruitment and admissions
- training and endorsement
- support for principals early in their tenure.

Although the program components have changed over time, each principal completing the New Leaders program has experienced all three of these elements in some form. For the purposes of this report, exposure to the three program elements constitutes *treatment* by the New Leaders program, or *New Leaders treatment*. We refer to principals who have experienced the treatment as *New Leaders principals*.

In this section, we describe in more detail the core enduring elements of the New Leaders program experienced by the principals in our study. We also highlight major changes implemented during the study. At the end of the chapter, we describe recent changes to the program that will affect future New Leaders principals.

Selective Recruitment and Admissions

Selectivity in recruitment and admissions is a core element of the New Leaders program, and it distinguishes New Leaders from most other leader-preparation programs. The participants included in this study were all admitted through a national recruitment and selection process to identify and tap high-quality participants from across the country. All applicants were evaluated through a centralized national admission process. The first step was eligibility verification,¹ followed by two rounds of admission activities, which included exercises in which applicants demonstrate their potential for strategic planning, adult leadership, data-driven decisionmaking, and human capital assessment at a school, among other topics. Those who passed both rounds of admission activities attended a Finalist Selection Day at various locations around the country. Finalist Selection Day consisted of a full day of

¹ Eligibility requirements include experience as a classroom teacher (two to five years, depending on district), bachelor's degree, valid teaching certificate (most districts), and master's degree (some districts) (New Leaders, undated [b]).

interviews, case-based scenarios, and group observation exercises that tested candidates' responses to sample leadership challenges in an urban school. For those who made it through the Finalist Selection Day, New Leaders staff checked the applicants' references and worked to place each candidate as a resident at a school.

New Leaders used the following research-based selection criteria in its admission process:

- Believe that all students are capable of achieving college success.
- Demonstrate a relentless drive to achieve results.
- Demonstrate strong adult leadership.
- Focus on student-achievement results.
- Work to personally improve oneself.
- Demonstrate strong project-management skills.
- Demonstrate interpersonal leadership.

According to internal analysis and ongoing reviews of the literature, the emphasis placed on different selection criteria has varied over time, and the rubrics used to assess them have been refined. For example, the current selection process reflects greater emphasis on management and adult leadership skills. However, New Leaders has placed consistent emphasis on the first criterion—the belief that all children can achieve at high levels. This was the only selection criterion for which a less-than-perfect score excluded a candidate from consideration.

The rigorous application process is selective. With programs in 12 urban districts across nine states and Washington, D.C., New Leaders accepted about 100 applicants per year—7 percent of those who apply—each year (Butrymowicz, 2011; Maloney, 2007).

The principals identified through this process tend to differ in a few ways from their comparison-group counterparts. Data from RAND's 2011 survey of all New Leaders principals and a comparison group of non-New Leaders (match) principals² revealed several significant differences in the observable characteristics of New Leaders

² Comparison-group principals were selected to mirror the profile of New Leaders principals in terms of years on the job as a principal in the district.

principals. As shown in Table 3.1, New Leaders principals tended to be younger, had lower levels of education, had less experience as educators or as school leaders, and had less district leadership experience. These

Table 3.1
Characteristics of New Leaders and Non–New Leaders Principals

Characteristic	New Leaders	Match
Female (%)	66.24	72.12
Race/ethnicity (%)		
Asian/Pacific Islander	0.73	2.83
Black, non-Hispanic	56.39	52.38
Hispanic	9.66	9.36
White, non-Hispanic	29.03	29.34
Other race	4.18	6.09
Age (%)		
Less than 40 years old	57.99	28.93**
40 to 49 years old	35.08	37.54
50 years or older	6.93	33.53**
Educational attainment (%)		
Doctorate or education specialist degree	18.28	37.85**
Other	81.72	62.15
Prior experience		
Assistant principal (years)	1.76	3.63**
Teacher (years)	7.27	10.25**
Served in a district leadership role (%)	13.15	28.04**
Professional experience outside of education (%)	52.33	49.31

NOTE: Significant differences between New Leaders and match principals are denoted by a single asterisk next to the match principals' averages (** = $p \leq 0.05$). All data are weighted for nonresponse.

trends were similar across partner districts (see Tables B.34 and B.35 in Appendix B, available online).

Training and Endorsement

Each year since 2001, New Leaders has placed a cohort of aspiring school principals into structured residency programs in partner districts throughout the country through the Aspiring Principals Program. The Aspiring Principals Program has been the centerpiece of New Leaders training since 2001. It operates on an annual cycle with participants engaging in a set of training experiences with other aspiring principals from the same cohort—those who were selected and began the program in the same school year. The three key components of the Aspiring Principals Program are (1) academic coursework, (2) a yearlong residency under a mentor principal in one of the partner districts, and (3) assessments of leadership growth. The program is provided without a fee to the aspiring principals, who work as employees of the school district and receive salaries during their residency years.³

Although residents are placed in partner districts around the country, New Leaders also encourages participants to identify with their national cohort. The entire national cohort of residents comes together to attend Summer Foundations, an in-person experience for all members of the Aspiring Principals Program. Summer Foundations academic coursework experience, complemented with hands-on learning opportunities and opportunities for aspiring principals to reflect on their own practices, is intended to provide a strong academic foundation for the residency year. Summer Foundations also allows residents to network across districts and build a community of like-minded aspiring principals who can serve as resources to one another in the future. During the school year, residents convene for two additional national gatherings in the fall and spring.

³ Most traditional leader-preparation programs involve out-of-pocket costs for the participant, which can be a barrier to participation. New Leaders structured the program so that aspiring principals would not need to make excessive sacrifices, hence broadening the pool of potential candidates.

The coursework for Summer Foundations and the national meetings focuses on data-driven instruction, teacher and student efficacy, facilitative leadership, observation and supervision, cultural competence, personal leadership, mathematics and literacy leadership, and school culture leadership. The content and structure of Summer Foundations have changed over time. Initially, Summer Foundations was a six-week experience, and much of the time was devoted to academic-style lectures, but, in more-recent years, the experience has been shortened to two weeks. The academic-style lectures were replaced by active and engaging learning opportunities in a classroom setting that are aligned with the UEF and provide opportunity for reflection.

The residency takes place in the partner districts. During the residency year, the resident is an employee of the district and serving in an official capacity—usually that of an assistant principal. Residents assume the responsibilities associated with their jobs while engaging in structured, hands-on learning opportunities with individualized feedback and coaching from a New Leaders staff member (typically, a prior principal who was successful in improving student outcomes). New Leaders strives to place residents in high-need schools under the guidance of successful mentor principals. The residency experience is designed to provide ample opportunity for role-plays, simulations, feedback, and reflection for the resident.

To monitor progress during the residency year, New Leaders conducts ongoing assessments of residents. The assessments measure the extent to which each resident is making progress toward the desired principal competencies. New Leaders uses the results of these assessments to make decisions about endorsement.

New Leaders has devoted substantial effort over the years to monitoring and improving the quality of the residence experience. These changes were informed by ongoing monitoring of outcomes, as well as feedback from New Leaders principals and officials in partner districts. In earlier years, the residency focused on building general skills, such as data-driven decisionmaking and personal leadership. Now, there is an emphasis on developing specific hands-on skills in priority areas and having residents practice skills.

Although the program structure, oversight, and assessments can help to ensure a high-quality residency, the quality of mentor principals is also crucial. New Leaders works with each district to choose schools with high-quality, successful principals to act as mentors and provides the mentors with a stipend.

Support for New Principals

After a resident has successfully completed the Aspiring Principals Program and has been endorsed by New Leaders, he or she may seek a principal placement in a partner district or CMO (see “Placement,” next). Upon receiving a principalship, the individual continues to receive support from New Leaders.

This element of the New Leaders program has gone through many changes over time and has varied by district. Initially, each New Leader received two years of postresidency coaching. This coaching targeted the individual leaders and tended to focus on coaching principals on their leadership skills.⁴ Our case-study work focused on newly placed principals in SY 2008–2009 in four cities (Chicago, Milwaukee, Oakland, and Washington, D.C.) revealed that all newly placed New Leaders principals in those districts had access to New Leaders coaches in that school year. The majority of these novice principals met with their coaches one time per week for at least two hours; however, two principals reported meeting with their coaches only one time per month for the same duration, and one principal met with her coach only when the principal requested a meeting. A few principals also reported that they communicated with their coaches “constantly” by phone or email to seek guidance on burning questions or issues in the school. Principals typically categorized coach interactions as sounding-board conversations to solicit feedback on a particular approach. In the following year, three of four city teams—Chicago, Milwaukee, and Oakland—provided second-year principals in our study with ongoing coaching. The intensity varied more than it did for first-year principals, averaging a couple of hours per month, but reports ranged from several hours per

⁴ Our 2007 focus-group discussion indicated that the quality and nature of that coaching were highly variable.

week to an hour every month or two. In Washington, D.C., second-year coaches were invited to call their first-year coaches with questions, but support was much more limited, often to just a couple of conversations over the course of the year. Variation in support provided by New Leaders was due in part to variation across partner districts with respect to district- or CMO-provided support for novice principals. Overall, district emphasis on and capacity to provide support to principals varied across sites and over time. In districts where decisions on support have been decentralized, there is variation within the district as well. For example, Oakland provided coaches to all first-, second-, and third-year principals until SY 2009–2010, when coaching was limited to first-year principals because of budget cuts.

Placement

To become a principal, the endorsed resident must go through the regular district or CMO screening and hiring process. Although New Leaders cannot ensure a principal position for each recruit after the residency, it does attempt to work with the districts and candidates to facilitate the matching process. But ultimately, the districts make the hiring and placement decisions. Successful placement depends on whether the district deems the individual to be ready for the principalship and whether a suitable vacancy is available. The extent to which these conditions hold has varied over time and by district. Notably, after the fiscal crisis hit in 2008, several partner districts saw a dramatic decline in the number of principal vacancies because of school closures, lower turnover, or both. Thus, New Leaders principals who were placed for the first time at a school (and become first-year principals for the purpose of this study) in a given year may differ from one another depending on their cohort (through the New Leaders admission process and the curricula received) and the hiring process in their districts or CMOs. On average, across all cohorts, 56 percent of endorsed New Leaders were placed in principalships immediately following their residencies; 73 percent were placed within one year, and 79 percent within two years. In contrast, a study of Illinois administrative certificate earners found that only about one-third of newly certified administrators became administrators in the state within two years

and only one-half within six years (DeAngelis and O'Connor, 2012). The placement rates by cohort varied with no clear trend. Individuals completing the New Leaders residency who do not receive immediate placement as principals are typically placed as assistant principals or in other district leadership positions. As described in Chapter Four, New Leaders partners with districts that serve high-need populations, and a majority of New Leaders are placed in high-need schools.

District Partner Selection

District partnerships are an important part of the New Leaders implementation. New Leaders is highly selective about district partners. It seeks to work with districts whose leaders view principals as a key lever for improving student achievement for high-need students and requires partner districts to commit to providing greater autonomy and flexibility for *all* principals, not only those endorsed by New Leaders. New Leaders also seeks partners with an eye toward long-term success: Recognizing that superintendentcies in urban districts tend to change hands often, the organization seeks to partner in communities that can sustain the New Leaders partnership, even if those in top district leadership positions leave.

New Leaders' application process for districts has been refined and formalized over the years, but it remains time-intensive and rigorous. The organization bases district selection on the following criteria: demonstration of need, conditions for leaders' success, commitment to program model, funding and community support, and potential for local talent. The New Leaders team also looks closely at the philosophical alignment between the district and New Leaders' vision regarding the principal's role in school improvement.

New Leaders invites partnership applications based on its capacity to expand. For each solicitation, the organization usually receives about 20 complete applications. The New Leaders team uses a holistic evaluation process that looks at each applicant district's demonstrated need for principals to serve in high-need schools, its plan for creating conditions that promote successful leadership, a commitment to the

New Leaders program model, and its ability to meet the financial commitments of the partnership. The evaluation team considers whether school leadership is a high priority for the district and state; the extent to which principals have autonomy over hiring and staffing, budgeting, curriculum, professional development, facilities, and scheduling; and whether there are alternative routes to principal certification. In the final round, each applicant is reviewed by New Leaders staff and an external review committee that includes members of the New Leaders board and other experts. Prospective partners sign a memorandum of understanding, which states the applicant's responsibilities if selected.

District Partners and Program Participants View the Program Favorably

The district partners we interviewed described the training provided by New Leaders as high quality. In interviews conducted with central office leaders in all partner districts in 2012, we asked for their perspectives on their partnerships with New Leaders. Several respondents credited New Leaders principals as being data-driven, fluent in instructional practice, and holding a passionate belief that all students can achieve at high levels. District partners also highlighted the high quality of recruiting and the training program itself. One central office leader told us that “their [professional development] has been . . . phenomenal; what they're learning are things that will totally move a school.”

Overall, 87 percent of New Leaders principals surveyed in 2011 agreed or strongly agreed with statements that the New Leaders program was of high quality, and 85 percent agreed or strongly agreed that involvement with the New Leaders community and support helped them be better principals. Compared with other New Leaders, a significantly higher percentage ($p < 0.05$) of New Leaders with less than two years of experience agreed or strongly agreed that their involvement with the New Leaders community had helped improve their schools' performance (94 percent versus 82 percent) and their personal leadership abilities (95 percent versus 85 percent). A significantly higher per-

centage of these principals also felt more committed, to a moderate or major extent, to supporting other New Leaders principals (95 percent versus 82 percent). In addition, a higher percentage, although marginally significant ($p = 0.07$), felt valued by their colleagues in the New Leaders community (85 percent versus 73 percent).

The Program Has Evolved over Time

Although the recruitment and selection processes remained consistent for the participants covered by this study, the specific features of their training and support have varied over time and by district. We observed some improvements to New Leaders' own processes over the course of the seven-year study. Starting in SY 2008–2009 with cohort 8, the learning modules in the Aspiring Principals Program were based on the UEF.

More Local, More Practical Activities

Another important program change was a decrease in the amount of time residents spent in national activities at a location outside of their home cities. The Summer Foundations program, which started as a six-week training, has been pared down over time to two weeks. Although it is still academic, the program has shifted away from seminars and toward practical use of new knowledge and skills. A further change is that early cohorts of New Leaders attended four weeklong seminar sessions during the school year, but New Leaders reduced those seminars to two weeks and expanded the use of webinars, other online tools, and local coursework. Concurrent with these changes was a shift away from general theory and toward practice-oriented seminars.

Changes in Mentoring Quality

The quality of the mentoring has improved over time because of greater availability of appropriate mentors and the changes to the mentoring process. Our evaluation work suggests that the quality of mentor principals has been variable across districts and within districts but that it has improved over time. Our 2007 interviews highlighted some of

the struggles with this aspect of program implementation in the early years. During our focus groups, some participants from early cohorts expressed frustration regarding the quality of their mentor principals and the extent to which the mentor principals espoused the values and displayed the competencies that New Leaders emphasizes. New Leaders executive team members acknowledged this shortcoming and indicated that the organization was working to improve the quality of mentor principals—in part, by using veteran New Leaders principals as mentor principals whenever possible. Several New Leaders executives noted that, in some cities, there were very few experienced principals who were philosophically aligned with the New Leaders approach and who were capable of being good mentors.

However, the availability of appropriate mentors has increased over time, as more New Leaders trainees have become principals. In addition, New Leaders has added structure to the mentoring process to ground it in ongoing assessment and the needs of the schools.

Growing Number of New Leaders Principals

As of 2012, the pool of current and former New Leaders principals had grown to nearly 600 nationally. In most New Leaders partner districts, the number of existing New Leaders principals is now greater than the number of New Leaders residents, creating the potential for “critical mass” to enable further district-wide change. Additionally, some of the former New Leaders principals are serving as principals’ supervisors in partner districts.

Recent Changes to the Program

More recently, New Leaders made some significant changes to the program to broaden the pool of Aspiring Principals Program candidates, improve the Aspiring Principals Program itself, and provide structured support for new principals through professional learning communities. These changes were informed by interim findings from the RAND evaluation and subsequent analysis by New Leaders to understand the factors driving these results. These program changes were instituted in 2011 and 2012, so they did not affect the group of principals included

in this evaluation who had already graduated from the program. However, the changes will affect New Leaders principals in the future.

Creation of the Emerging Leaders Program

One substantial change was the creation of the Emerging Leaders Program in 2012. For the first 12 years of the program, the only way to enter the Aspiring Principals Program was through the national recruitment and selection process, but that changed in 2012 with the introduction of the Emerging Leaders Program. New Leaders created the Emerging Leaders Program in response to a need to build the pool of leadership talent within the current partner districts. Research by New Leaders and RAND (Burkhauser, Gates, Hamilton, and Ikemoto, 2012) had identified adult leadership skills—the skills needed to build a sense of urgency and get teachers to buy into proposed changes—as an important but often lacking characteristic of aspiring principals. The Emerging Leaders Program addressed this gap by providing teacher leaders and assistant principals interested in the principalship with opportunities to develop these adult leadership skills along with other skills, such as data-driven decisionmaking.

The program works by recruiting promising teachers, instructional coaches, and assistant principals in partner districts who seek to become principals and leading them through a year of experiential learning and mentoring with a focus on building their skills in leading adults to raise student achievement. Participants are assessed at the end of the program, and, according to their performance, they may be invited to enroll in the Aspiring Principals Program.

Upgrades to the Aspiring Principals Program

Besides the introduction of the Emerging Leaders Program, the Aspiring Principals Program has also changed. Over time, it has become more hands-on, goal-oriented, and rooted in the daily work of the resident. Starting in 2012, each resident became responsible for identifying and working toward a set of specific, measurable, achievable, relevant, and time-bound (SMART) goals and was given supervision over four teachers. The residents' performance is assessed, in part, by their success in helping those teachers improve student achievement. New Leaders also identified and incorporated 15 leadership actions into

the program on which residents are expected to repeatedly practice and receive feedback. The program also includes standard assignments that all residents complete to demonstrate proficiency in the standards assessed for endorsement.

Introduction of the Principal Institute

Finally, in 2012, New Leaders introduced the Principal Institute, which represented a major change to the way it provides support to new principals after placement. The Principal Institute is a professional learning community that provides structured professional development and support for all first-year New Leaders principals and for second-year principals who are placed in high schools. The support includes professional development, coaching, and entry planning to help new principals assess school needs and establish priorities for school improvement when they enter their new schools. Participants engage in peer mentoring, resource-sharing, and building a network of supportive colleagues who can help one another maintain high expectations and share strategies for implementing leadership practices.

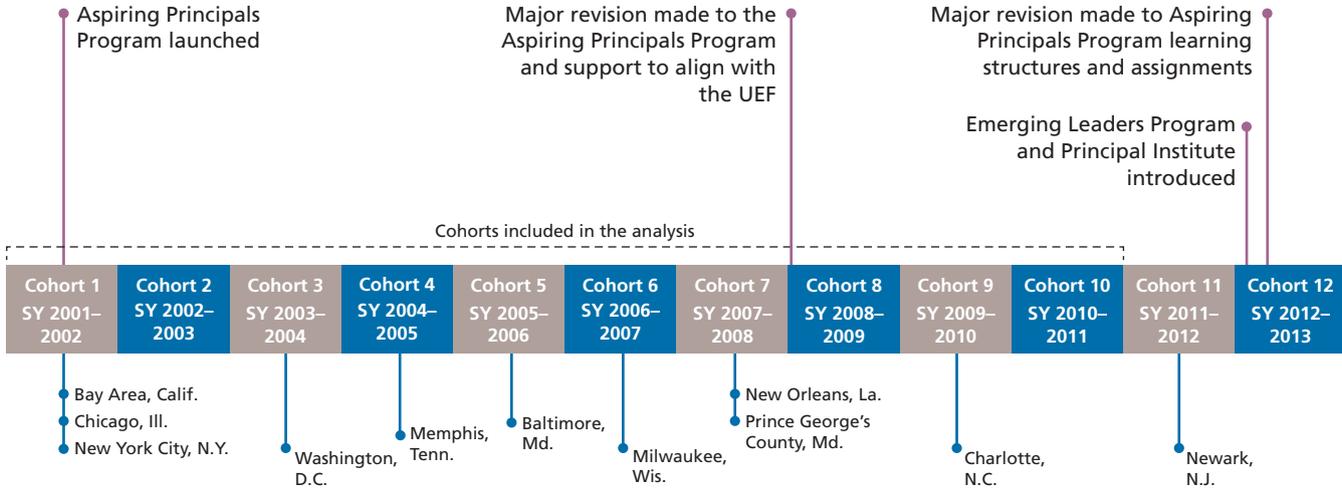
The timeline in Figure 3.2 depicts the key changes in the program over time, along with the cohorts that began in each year and the entry of new cities to New Leaders partnerships.

Challenges for the Evaluation

These changes to the treatment over time complicate the evaluation process and call for careful interpretation of the results. To address this challenge, we considered the advantages and disadvantages of developing individual outcome metrics for each New Leaders cohort, but, after conducting numerous sensitivity checks, we decided to focus on a single program-effect measure that included all New Leaders principals across cohorts. Cohort 10 (trained in SY 2010–2011) is the newest cohort of residents included in the program-effect measures estimated for our evaluation.⁵ The evaluation included seven cohorts (1–7) of residents who were trained before major revisions to the Aspiring Prin-

⁵ Fifty-five percent of the endorsed members of cohort 10 were immediately placed into principalships in SY 2011–2012 and thus included in our analysis.

Figure 3.2
Timeline of Key Events, Cohorts, and Partnerships



RAND RR507-3.2

cipals Program were implemented in 2008 with cohort 8 and three (8–10) that were trained after the revisions.

The changes over time also imply that program effects could vary by district, given that districts partnered with New Leaders at different stages in the program's evolution. First, one or more components of the New Leaders program may have been implemented more effectively in some districts than in others. And even if the program had been implemented with similar effectiveness across all partner districts at any point in time, ongoing program improvements and the addition of new partner districts over time would imply differences in the program when all years are combined. Second, New Leaders aims to improve the conditions that support effective leadership *throughout each district*. Therefore, by design, the program could have a spillover effect on principals in non–New Leaders schools. Some of the changes—such as peer interactions among principals, improvements to principal mentoring and supervision, or increased resources for school leaders—could be expected to improve outcomes for all school leaders. Other changes to district conditions, such as increased autonomy for principals, might be expected to benefit well-prepared principals more than other principals. Third, the composition of the comparison group of non–New Leaders principals matters—especially whether the other new principals received preparation similar to the New Leaders program and the extent to which they had prior experience as principals—and varies by district.

If the New Leaders program were more effective than the traditional approach to principal preparation, we would expect to see positive program effects in districts where the New Leaders program was well implemented, where other newly placed principals did not participate in preparation programs with core features similar to the New Leaders program, and where changes to the district conditions favored well-prepared principals over other principals. The data and sample of districts available did not allow us to examine this hypothesis systematically, but these concepts should be kept in mind when interpreting the results and when designing future evaluations of principal-preparation programs.

In the next chapter, we describe the district contexts to illustrate how the settings vary.

New Leaders Partnerships

Introduction

Although New Leaders is a national organization, the program is executed in large part through New Leaders teams in close collaboration with local partners. Each New Leaders partner district is associated with a New Leaders city executive team. The city teams are responsible not only for managing the relationships with the relevant partner districts but also for implementing and monitoring the programs at the city level. This includes supporting the residents and monitoring their progress. The conditions in the local district and the nature and duration of the partnership influence the residency experience, the number of individuals placed as principals in schools, the schools in which they are placed, and the working conditions they experience when they become principals. In this chapter, we describe several aspects of the district context that could influence the quality of training, availability of placements, and working conditions faced by New Leaders residents or principals and, in turn, the effects achieved. Although many other district conditions, including other reform initiatives that were in place during the New Leaders partnership, could also affect program implementation and outcomes, those factors are beyond the scope of this study.

The first local education agencies to establish partnerships with New Leaders were Chicago Public Schools, New York City schools (operated by the New York City Department of Education), and Aspire Public Schools, a CMO in the Bay Area of California. These three agencies hosted the first cohort of aspiring principals—a group of 13—

in the 2001–2002 academic year. As of early 2013, New Leaders had partnerships in ten locations (see Table 4.1) and has trained more than 800 aspiring principals (New Leaders, undated [c]).

Figure 4.1 shows the local education agencies that have partnered with New Leaders and when each partnership began.¹ In this chapter, we describe the partnerships in which individuals who had completed the Aspiring Principals Program had been placed as principals prior to SY 2011–2012. The New Leaders partnership with Milwaukee ended in 2011, and New Leaders is no longer selecting and training new cohorts of aspiring principals in that location (see Appendix D, available online, for more details on the Milwaukee and other district partnerships). But New Leaders principals continue to be placed and to serve in district schools and are included in our analysis.

Basic District Characteristics

New Leaders partner districts vary widely in terms of student population, budget, enrollment trends, leadership turnover, and geography. This means that New Leaders must prepare principals to work in a variety of contexts and that the organization faces different challenges across districts in its efforts to promote district-wide conditions that support effective leadership. Table 4.1 presents information on the total enrollment, enrollment trends, district budget, and superintendent turnover for the public school districts in New Leaders partner regions. The largest district, New York, serves nearly 1 million students, while the smallest, New Orleans, serves just over 28,000. The budgets range from just over \$100 million per year to nearly \$20 billion. The

¹ In Washington, D.C., New Leaders has a formal partnership with District of Columbia Public Schools (DCPS). In 2007, when control of DCPS was transferred to the mayor, oversight responsibility for district-authorized charters was transferred to PCSB. New Leaders principals have been placed in both charter and traditional district schools since the inception of the partnership. Charter-school principal hiring decisions are made at the school level. Unless otherwise noted, our description of the Washington, D.C., partnership refers to the partnership with DCPS. Data on principals and students combine information from traditional DCPS and charter schools.

Table 4.1
District Context

District	Number of Students, 2012–2013	Enrollment Trend from 2011–2012 to 2012–2013	Number of Schools, 2012–2013	Budget, 2012–2013 (billions of dollars)	New Leaders Placed in Charter Schools (%)	Number of Superintendents Since 2000, Including Current
Baltimore	84,748	Increasing	188	1.31	14	7
Charlotte	143,866 ^a	Increasing	155	1.3	0	6
Chicago	403,461 ^a	Decreasing	578	5.16	17	6
Memphis	104,829	Decreasing	165	0.9	0	5
Milwaukee	78,461 ^a	Decreasing	148	1.17	0	3
New Orleans	28,529 ^a	Decreasing	68	0.13	100	4 ^c
New York	993,903	Decreasing	1,522	19.7	17	4 ^d
Oakland	36,180 (10,118 in district charters)	Decreasing	76	0.398	13	3
Prince George’s County	123,741 ^a	Decreasing	169	1.66	0	6
Washington, D.C.	80,566	Increasing	151	0.8 ^b	29	4 ^b

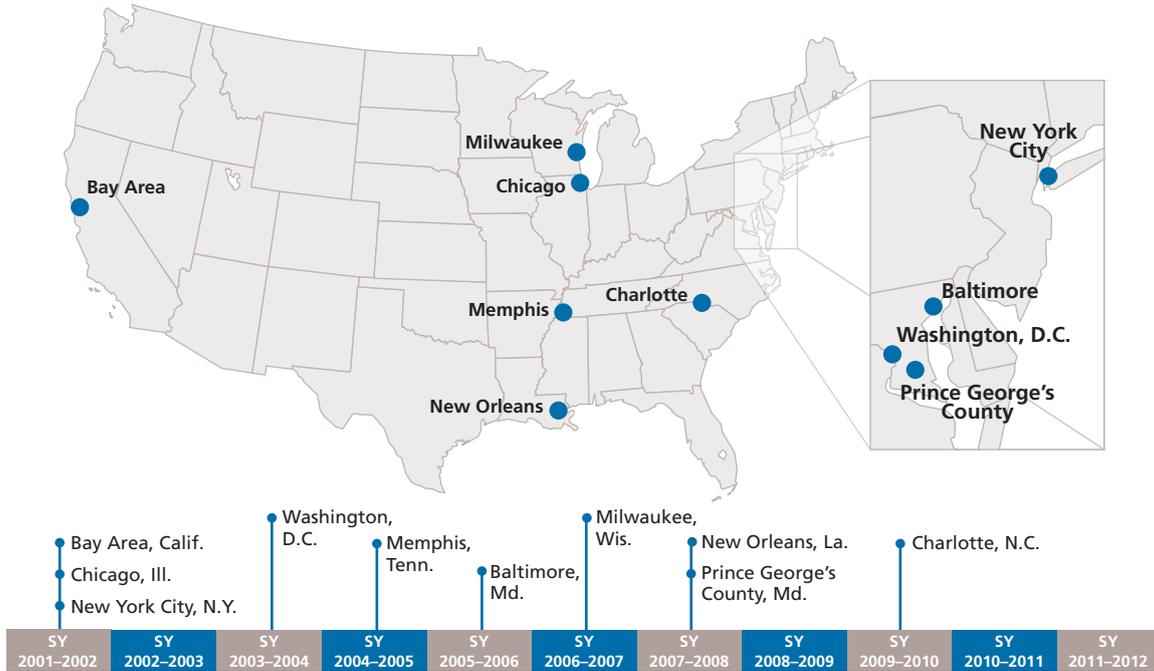
^a Includes prekindergarten.

^b Budget and superintendent information is for DCPS only; other information is for DCPS and PCSB combined.

^c Since 2006, when New Leaders opened its New Orleans office.

^d Excludes one interim superintendent who served for ten days.

Figure 4.1
New Leaders Partnerships



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majority of partner districts have experienced decreasing enrollments in recent years, with only three—Baltimore, Charlotte, and Washington, D.C.—experiencing enrollment growth. Four of the New Leaders partner districts do not oversee charter schools operating in their catchment areas, and New Leaders principals are not placed in charter schools in those districts. In the other districts, the percentage of New Leaders principals placed in charter schools varies from 13 percent in Oakland to 100 percent in New Orleans.

All of the partner districts experienced superintendent turnover between 2000 and 2013, with anywhere between three and seven superintendents at the helm during that time frame. Superintendents differ in terms of their vision for and the degree of emphasis they place on the principalship. In addition, superintendents often focus attention on issues or initiatives that, although not directly related to school leadership, have significant implications for it. In Appendix D, available online, we provide a descriptive overview of the context in each partner district. These overviews highlight the varied and often distinct priorities that New Leaders has faced over the lives of the partnerships.

Student-Achievement Trends in Partner Districts

Given its mission, in selecting partners, New Leaders targets urban school districts that serve student populations with high proportions of minority and socioeconomically disadvantaged students—those who tend to fare worse in student achievement and reaching proficiency goals. Because of NCLB requirements, these districts have been focused on raising the achievement levels of these traditionally disadvantaged groups of students. The high proportions of disadvantaged students mean that principals in these districts face significant challenges in raising student achievement. It also means that the partner districts have many schools with large numbers of high-need students—the context for which New Leaders strives to prepare principals. Table 4.2 provides information on the percentage of students in each district who scored at the proficient level or above, according to state standards in SYs 2006–2007 and 2011–2012. In general, fewer than three-quarters

Table 4.2
Student Achievement, in Percentages

District	Elementary and Middle Percentage Proficient or Above, 2006–2007		Elementary and Middle Percentage Proficient or Above, 2011–2012		2012 High School Graduation Rate
	Mathematics	Reading	Mathematics	Reading	
Baltimore	48	57	62	66	66
Charlotte	65	83	83	71	75
Chicago	69	61	81	73	61
Memphis ^b	81	84	27	30	70
Milwaukee	45	63	51	60	66
New Orleans ^c	32 ^d	33 ^d	54	54	68
New York	65	51	60	47	65
Oakland	38	34	52	49	63
Prince George's County	59	64	70	77	73
Washington, D.C.					
DCPS ^e	29	37	43 ^a	44 ^a	56
PCSB	38	43	42 ^a	46 ^a	77

SOURCES: Maryland State Department of Education, 2013; Education First, undated (a), undated (b); Chicago Public Schools, undated; Tennessee Department of Education, undated; Wisconsin Department of Public Instruction, undated; Louisiana Department of Education, undated; New York City Department of Education, 2012; State of New Jersey Department of Education, undated; Government of the District of Columbia, undated.

^a Latest available data are from SY 2010–2011.

^b Test rigor greatly increased starting in SY 2009–2010 for Memphis.

^c Numbers from New Orleans are average percentage proficient across grades 3–8.

^d Earliest available data are from SY 2007–2008.

^e Data are for DCPS only (excludes charter schools).

of the students in partner districts achieved proficiency at the elementary and middle grades, although proficiency rates were just below half for at least one test in Memphis, New York, DCPS, and PCSB. The

percentage of students attaining proficiency on state assessments varied by district and over time.

In interpreting the data on the percentage of students in a district who achieved proficiency, it is important to keep in mind that, during this time frame, states used different tests and established the standards for proficiency independently of one another. A student might be proficient according to the tests in one state but not another. The rigor of the proficiency standards varied by state and within a state over time. New Leaders partner districts tend to be in states with proficiency levels that are average to below average in difficulty compared with the levels that are used in states across the United States (Peterson and Kaplan, 2013).² Tennessee dramatically revised its proficiency cut scores in 2009–2010, moving from one of the lowest to one of the highest states in terms of the rigor of its proficiency level. The implications of this transition are reflected by the decline in the percentage of students in Memphis who achieved proficiency between 2006 and 2011.

High school graduation rates vary across partner districts, from a low of 56 percent in DCPS to a high of 77 percent in PCSB for 2012. This was the first year in which all districts were required to report graduation rates using a common methodology called the four-year adjusted cohort rate (Curran and Reyna, 2010). Four of the partner districts have seen increases in student achievement since 2006: Baltimore, Oakland, Prince George’s County, and DCPS. In Charlotte, there appear to have been increases in mathematics but decreases in reading. In other districts, it is difficult to interpret trends because of changes in the rigor of the tests or cut scores.

Prevalence of New Leaders Principals in Partner Districts

New Leaders’ influence in a district may be related more to the prevalence of New Leaders principals relative to other principals than to the

² States differ in the level of difficulty associated with the placement of the cut score that is used to determine proficiency on the state tests, so *proficient* does not indicate the same level of performance across different states.

Table 4.3
Percentage of All and Newly Placed
Principals Who Are New Leaders in the
2011–2012 School Year, by District

District	All	Newly Placed
Baltimore	15	14
Charlotte	3	8
Chicago	8	19
Memphis	16	11
Milwaukee	10	26
New Orleans	7	29
New York	4	4
Oakland	18	4
Prince George’s County	8	19
Washington, D.C.	14	13

NOTE: Calculations are based on principal assignment data provided by partner districts and New Leaders.

sheer number of New Leaders. In the districts with the largest numbers of New Leaders principals, fewer than 10 percent of all principals are New Leaders (see Table 4.3). In some partner districts, such as Baltimore, Memphis, and Oakland, 15 percent or more of the current principals are New Leaders. In SY 2011–2012, Chicago, Prince George’s County, New Orleans, and Milwaukee filled 19 percent or more of their principal vacancies with New Leaders candidates.

In large urban school districts, it is common for principals to network and learn from one another. It is also common for districts to hire from the pool of principals in filling district-wide positions, such as principals’ supervisors. As such, the visibility and broader impact of the New Leaders partnership may be related to sheer number of New Leaders principals in the district, as well as the prevalence of New Leaders. Table 4.4 reports the total number of New Leaders placements

Table 4.4
Number of New Leaders Placements and Total Number of New Leaders Principals in the 2011–2012 School Year, by District

District	Total Placements (since inception of partnership)	Total Number of New Leaders Principals (SY 2011–2012)
Baltimore	70	35
Charlotte	6	5
Chicago	133	63
Memphis	56	39
Milwaukee	27	20
New Orleans	18	7
New York	96	50
Oakland	41	23
Prince George’s County	21	18
Washington, D.C.	92	38
Total	560	298

NOTE: Calculations are based on principal assignment data provided by partner districts and New Leaders.

from the inception of the partnership through SY 2011–2012 and the total number of New Leaders principals in SY 2011–2012 by district. The largest numbers of New Leaders principals are in the original partner districts of New York and Chicago. Chicago has also been among the most aggressive in terms of hiring New Leaders principals in recent years, along with Milwaukee and Baltimore (see Table C.2 in Appendix C, available online).

Other Preservice Partnerships

New Leaders is one of many sources of new principal candidates nationally. Partner districts vary in terms of whether and how they work with other organizations to recruit principals and the share of vacancies they

fill with New Leaders principals. The presence of these other organizations is important to our study because it affects the characteristics of the comparison-group principals. Their presence could also influence New Leaders' ability to change district-wide conditions in ways that are consistent with its vision.

At the time of this study, district administrative data did not record participation in principal-preparation programs, so we were not able to control for this factor in our analysis.³ However, we do know that, as of 2013, nine of the New Leaders district partners were involved with at least one other preservice provider organization besides New Leaders. Furthermore, three districts reported having a district-run preservice principal program in 2013. Table 4.5 lists the other principal programs.

In most of the partner districts, these other programs were implemented after New Leaders, served a small number of aspiring principals, or did not share the core elements of the New Leaders. As a result, we expected the comparison-group principals to be largely different from New Leaders principals. Two notable exceptions were New York City and Chicago. In New York City, NYCLA has offered an Aspiring Principals Program since 2003 that includes the same core features as the New Leaders program. According to the NYCLA website, one in six New York City principals is a graduate of this program (NYCLA, undated). Clark, Martorell, and Rockoff (2009) found that, in the 2007 academic year, 11 percent of New York City principals had participated in the NYCLA program, 2 percent in the New Leaders program, and less than 1 percent the Bank Street program. In Chicago, all three programs listed in Table 4.5 share features of the New Leaders program and, like New Leaders, have been working closely with the district to align the training to district goals and objectives through the Chicago Leadership Collaborative. Each Chicago program targets a somewhat different candidate pool (Chicago Public Schools, 2012). Additionally, in Charlotte, one of partner programs (Winthrop) was producing graduates by 2010 from its two-year program that shared

³ The New Leaders partner districts that are participating in the Wallace Foundation's principal pipeline initiative started collecting this information back to 2008 (Turnbull, Riley, Arcaira, et al., 2013).

Table 4.5
Other Preservice Principal Programs in the Districts

District	Preservice Principal Program
Baltimore	BKL and Associates (a consulting group), National Institute for School Leadership
Charlotte	Leaders for Tomorrow at Winthrop University; University of North Carolina; Queens University School Executive Leadership Academy
Chicago	Principal Preparation for Chicago Public Schools Assistant Principals at Loyola University Chicago; TFA Chicago; Urban Education Leadership Program at University of Illinois at Chicago
Memphis	Memphis Leadership Fellows Program at University of Memphis
Milwaukee	Aspiring Principals Program at University of Wisconsin—Milwaukee; Emerging Leaders Certificate Program at University of Wisconsin—Milwaukee ^a
New Orleans	Principal Academy at Relay Graduate School of Education
New York	NYCLA, New York City Department of Education; Teachers College Summer Principal Academy at Columbia University; Principals Institute at Bank Street College of Education; Executive Leadership Institute Advanced Leadership Program for Assistant Principals, Council of School Supervisors and Administrators; Principal Training Institute at Fordham University; Leaders in Education Apprenticeship Program, New York City Department of Education
Oakland	Principal Leadership Institute at University of California, Berkeley; Administrative Services Credential at California State University, East Bay
Prince George's County	Educational Leadership and Administration program for teacher leaders at George Washington University; university partnerships with Johns Hopkins University and Howard University; Aspiring Leaders Program for Student Success (district in collaboration with National Institute for School Leadership)
Washington, D.C.	Mary Jane Patterson Fellowship, DCPS

NOTE: TFA = Teach for America. NYCLA = NYC Leadership Academy.

^a Began after the end of the Milwaukee partnership with New Leaders.

the core features of the New Leaders program (Turnbull, Riley, and MacFarlane, 2013).

Principal Retention by District

Prior research (Béteille, Kalogrides, and Loeb, 2012; Miller, 2013; Buck, 2012; Clark, Martorell, and Rockoff, 2009) suggests that principals have a more positive effect on student achievement the longer they stay at a particular school. Therefore, we analyzed data on principals' placements to characterize principals' retention for New Leaders and

Table 4.6
Percentage of Newly Placed Principals Who Remain at Their Schools for Three or More Years (from the First Year of New Leaders Placements Through 2012)

District	New Leaders	Non–New Leaders Principals
Baltimore	68	58
Charlotte	83 ^a	90 ^a
Chicago	79	76
Memphis	77	71
Milwaukee	68	54
New Orleans	78	18
New York	77	77
Oakland	77	67
Prince George's County	84	77
Washington, D.C.	48	32
Overall	71	66

NOTE: Calculations are based on principal assignment data provided by partner districts and New Leaders.

^a Charlotte figures reflect retention through the second year only and are not included in the calculation of the overall percentage.

non–New Leaders principals. Table 4.6 provides information on the percentage of newly placed principals who remained as principals at their schools for three or more years. For each district, we pooled the information across all cohorts of first-year principals. A more detailed analysis of these data is presented in Appendix C, available online. These results could be considered an important contextual condition but could also be viewed as an interim outcome. We chose to present principals’ retention as a contextual condition because important differences in the hiring practices—such as the degree of influence that district officials have over principal selection—between partner districts influence school-level retention. Moreover, districts typically have limited or no involvement in the selection and placement of charter-school principals. As noted in Table 4.1, all of the New Leaders principals in New Orleans and nearly one-third in Washington, D.C., have been placed in charter schools, which means that the district had no role in their placements or retention.

Table 4.5 illustrates that, overall, New Leaders principals are somewhat more likely to remain in their schools for three or more years than other newly placed principals. The differences are most striking in New Orleans, where only 18 percent of non–New Leaders principals were retained, in contrast with 78 percent of New Leaders. Substantial differences are also observed in Baltimore, Milwaukee, Oakland, and Washington, D.C. We also see striking differences between districts in terms of principal retention, with very low rates in Washington, D.C.

For one district, Chicago, the available data allowed us to distinguish newly placed principals with prior principal experience from novice principals and examine differences in retention rates for the two groups. This supplemental analysis indicated that about 10 percent of newly placed principals in Chicago (both New Leaders and non–New Leaders) had prior experience as principals in the district. The retention analysis restricted to novice principals revealed the same pattern of differences between New Leaders and non–New Leaders principals.

District and School Conditions

As we discussed in Chapter Three, the New Leaders partnership approach seeks to influence the working conditions faced by principals in partner districts. School and district contexts—which include school and district characteristics, practices, and policies—set the stage for principals’ performance and strongly influence their effectiveness (Ikemoto et al., 2014; Bottoms and Schmidt-Davis, 2010; Burkhauser, Gates, Hamilton, Li, et al., 2013). Our 2011 survey gathered information from all New Leaders principals about their perceptions of school and district conditions. We report these findings here to assess the extent to which the working conditions New Leaders desires have been achieved in partner districts and to explore differences between districts in this regard.

The survey included a set of items that captured the principal’s perspective on working conditions in the school.⁴ Principals were asked to indicate the extent to which they agreed or disagreed with a set of questions. A factor analysis led us to group those questions into three scales: teacher capacity, school working conditions pertaining to human capital, and school working conditions pertaining to school environment (see Table 4.7).

School Conditions

Responses to the school-conditions items can be interpreted as reflecting whether the principal felt that the conditions in the school were favorable to school improvement. Of course, principals do have some control over many of the school conditions, but, in most cases, they do not have complete control and must work within constraints imposed by the district. For example, principals can generally recommend and offer certain types of professional development to teachers but might not have the ability to adjust funding or scheduling to accommodate

⁴ To facilitate analysis and interpretation of survey findings, we identified sets of survey items that could be clustered together into scales by performing a series of exploratory factor analyses. Appendix B provides detailed information about the survey and the factor analyses. Table 4.7 presents the survey questions that make up the scales related to school and district conditions.

Table 4.7
Survey Scales, Corresponding Items, and Internal Consistency Reliability Estimates

Scale	Item
Teacher capacity (Alpha = 0.96)	<p>Teachers have a good grasp of the subject matter they teach.</p> <p>Teachers have the skills needed to produce meaningful student learning.</p> <p>Teachers have the skills to effectively help others improve their practice.</p> <p>Teachers are able to use data to inform instruction.</p> <p>Teachers are able to balance supporting students' social and emotional needs with promoting academic achievement.</p> <p>Teachers are able to promote learning among all students, even those who are difficult to teach.</p> <p>Teachers engage in regular, productive conversations with their colleagues about how to improve their skills.</p> <p>Teachers have high expectations for students.</p> <p>Teachers feel responsible to help each other do their best.</p> <p>Teachers share my beliefs and values about what the central mission of the school should be.</p> <p>Teachers are eager to try new ideas.</p> <p>Teachers are willing to spend extra time to make the school better.</p> <p>Teachers take responsibility for improving the school.</p> <p>Teachers really believe that every child can learn and be college ready.</p> <p>Teachers have a sense of urgency regarding the need to improve student achievement in this school.</p> <p>Teachers support the work that I do as principal.</p>
School working conditions: human capital (Alpha = 0.70)	<p>Teachers have access to high-quality professional development.</p> <p>Other school leaders (such as assistant principals, deans, and coaches) have the instructional and administrative knowledge and skills to effectively carry out their roles and responsibilities.</p> <p>I am unable to delegate tasks to other leaders so that I can focus my time and effort on high-priority areas.^a</p> <p>My knowledge and skills are a good match to the particular needs of my school.</p> <p>Other leaders in the school (e.g., assistant principals or coaches) support my work.</p>

Table 4.7—Continued

Scale	Item
School working conditions: school environment (Alpha = 0.66)	Standards for student behavior are clear and consistently upheld by all teachers and administrators. Student misbehavior in this school does not interfere with the teaching process. There is excessive student absenteeism or tardiness. ^a The school lacks basic systems for discipline, communication, and managing the school day. ^a Parents are not sufficiently involved in supporting their children's learning. ^a The pressure to raise standardized test scores prevents me from focusing on priorities that I view as more important. ^a Day-to-day issues in my school require so much of my time and attention that there is very little time left for long-term planning. ^a
Level of authority over instruction and curriculum and whether it hinders leadership (Alpha = 0.79)	Setting performance achievement goals for students Selecting curriculum and intervention Selecting textbooks, software, and other instructional materials Determining the scheduling and content of professional development programs for teachers
Level of authority and whether it hinders school staffing (Alpha = 0.85)	Determining how to evaluate teachers Hiring new full-time teachers Hiring new full-time school administrators (e.g., assistant principals) Removing and disciplining teachers Removing and disciplining school administrators (e.g., assistant principals) Directing the work of school-based coaches Reassigned staff (within certification guidelines) to different positions Deciding (within budget limitations) the number and type of leadership positions in the school Appointing and removing individuals from leadership positions
Level of authority and whether it hinders budget and spending (Alpha = 0.61)	Setting and enforcing student disciplinary policy Deciding how the school budget will be spent Determining how operational needs (such as transportation and facilities) will be met Determining the daily schedule
District and CMO working conditions: satisfaction with supervisor (Alpha = 0.95)	My supervisor has the knowledge, beliefs, and skills to effectively manage and support me. My supervisor supports my professional growth. My supervisor monitors and holds me accountable. My supervisor shares my views of effective school leadership. My supervisor is responsive to my needs.

Table 4.7—Continued

Scale	Item
District and CMO working conditions: satisfaction with central office staff (Alpha = 0.83)	<p>Other central office staff are responsive to my needs.</p> <p>Central office staff has a support orientation rather than a compliance orientation toward schools.</p> <p>The district or CMO provides timely access to the information and resources I need to make timely hiring decisions.</p> <p>The district or CMO has clear processes in place for removing low-performing teachers that can take less than a year.</p> <p>Central office staff believe that all students can learn.</p>
District and CMO working conditions: satisfaction with strategies and actions (Alpha = 0.93)	<p>The district or CMO has a clear focus on improving student achievement.</p> <p>The district or CMO has a strategic plan for improving student achievement.</p> <p>The district or CMO has communicated a clear vision for high-quality teaching and learning.</p> <p>The district or CMO has high-quality and well-resourced strategies for improving low-performing schools.</p> <p>The district or CMO equitably distributes resources across schools.</p> <p>The district or CMO provides access to high-quality professional development opportunities for teachers.</p> <p>The district or CMO is willing to fight political battles to address barriers to reform.</p> <p>The district or CMO provides clear and timely communication regarding district policies and initiatives.</p> <p>The district's or CMO's system for evaluating principals focuses on the most important aspects of my work.</p> <p>The district or CMO provides my school with interim assessment results that are timely and aligned to the state test.</p> <p>The district or CMO provides efficient student information and attendance systems.</p> <p>The district or CMO provides me with value-added information.</p> <p>Requirements put forth by my district or CMO align with my own priorities for my work.</p>
Time allocation: instructional leadership (Alpha = 0.81)	<p>Developing or leading professional development for staff</p> <p>Providing feedback to teachers about their instruction</p> <p>Working with teachers and other staff to review and make use of student-achievement data</p> <p>Observing classroom instruction</p> <p>Meeting with school leadership teams</p> <p>Attending to my own professional development as a school leader</p>

Table 4.7—Continued

Scale	Item
Time allocation: other leadership and management activities (Alpha = 0.70)	Addressing student discipline issues Monitoring students in hallways, playgrounds, and the cafeteria Interacting with parents and parent groups Carrying out administrative duties (e.g., budget, personnel management, paperwork) Addressing legal issues Interacting with district or CMO staff (e.g., meetings, communications, trainings) Building school community, including planning and attending school events
Professional development received (Alpha = 0.94)	Professional development addressed my specific needs. Professional development has been provided by individuals who are knowledgeable about school leadership. Professional development has been provided by individuals who are knowledgeable about the type of school I serve. Professional development used data from a diagnostic process to help guide our work. Professional development engaged me in action-planning processes to set goals for my work. Professional development followed through on the coaching actions identified in my action plan. Professional development pushed me to reach conclusions on my own but provided direct guidance when needed. Professional development improved my understanding and skills. Professional development led me to make improvements in my work. Professional development addressed the pressing issues in my school. Professional development reflected current best practices in school leadership (i.e., has been up to date). Professional development improved my effectiveness.

^a The survey item was coded in reverse before inclusion in the factor scale.

all of the professional development they think is important, and districts generally impose some professional development requirements regardless of whether the principal views them as a priority. Therefore, negative responses to these survey items could reflect a mix of dissatisfaction with principals' own efforts and dissatisfaction with constraints imposed by the district or another entity.

District Conditions

Principals were also asked to indicate the extent to which they agreed or disagreed with a set of questions related to district conditions and about the degree of decisionmaking authority they enjoyed on different dimensions, including setting performance achievement goals for students, hiring new full-time teachers, and deciding how the school budget will be spent, and about the extent to which they perceived that level of authority as a hindrance to their leadership effectiveness. A factor analysis led us to group those questions into six district condition scales: satisfaction with supervisor, satisfaction with central office staff, satisfaction with district strategies and actions, authority over instruction and curriculum, authority over school staffing, and authority over budget and spending (see Table 4.7).

In analyses presented in Appendix B (see Figures B.1, B.2, and B.3, available online), we examined the percentage of New Leaders principals who reported that school conditions, district conditions, and level of authority provided to them were favorable. We found that, overall, New Leaders principals in all partner districts viewed school conditions favorably, with some evidence that school conditions may have been more favorable in Oakland than in other districts. With respect to district conditions, principals in Memphis and Prince George's County expressed more positive perceptions about their district conditions than New Leaders principals in other districts did. Perspectives on the level of authority followed a different pattern. Here, principals in Memphis and Prince George's County reported lower levels of authority. Principals in Chicago, New York, and Washington, D.C., reported higher levels. Additional information on principals' responses to these survey items is presented in Chapter Six.

In general, New Leaders principals were placed in schools that are representative of the district as a whole. To the extent that we observed differences in the characteristics of students in New Leaders and non-New Leaders schools, these differences suggest that New Leaders principals were being placed in schools where students were more disadvantaged. We find such differences in Memphis, New York, and Oakland.

Overview of District Contexts and Partnerships

In this section, we provide some key highlights of the district context and partnership characteristics for each district. These findings are drawn from document and literature review and analysis of principals' placement data and from interviews with district and New Leaders officials. Appendix D, available online, provides a district-by-district overview.

Motivation to Partner with New Leaders

Nearly all of the districts were motivated to partner with New Leaders because they perceived a need for more high-quality principals. At the time of partnering, many anticipated high principal turnover (often due to projected retirements). Some districts, such as Prince George's County, were particularly attracted by New Leaders' focus on high-need schools. Other districts, such as Charlotte and New Orleans, were interested in New Leaders' ability to recruit talent from outside the district.

Partnership Goals

In the early years of the partnerships, several districts viewed New Leaders simply as a vendor that provided training for aspiring principals. Partnership goals emphasized the number of principal candidates produced by New Leaders. By 2013, partner districts viewed the relationship as multifaceted. One notable shift in goals is a growing emphasis among partner districts on earlier stages of principal pipeline development. The Emerging Leaders Program was created in 2012 in response to a need to build the pool of talent within the current partner districts. In interviews conducted in 2013, four district leaders from different districts mentioned the goal of developing leaders from within the district or of building a pipeline as a key objective of the New Leaders partnership. One interviewee specifically mentioned the Emerging Leaders Program in regard to this goal.

Budget Reductions

All of the partner districts have faced serious budget reductions at some point during the partnership. For many, the worst time period from a financial point of view was between 2008 and 2011 in the aftermath of the global financial crisis. By 2013, most of the partner districts other than Chicago were seeing their budgets stabilize or even increase. In several of the partner districts, budget cuts reduced the number of assistant-principal and principal vacancies in the district because of a combination of lower separation rates, school closures, and the elimination of positions—implying lower demand for new principals from the district.

Leadership Turnover

All of the partner districts experienced turnover in the most senior district leadership position (e.g., superintendent, chancellor, chief executive officer) during the New Leaders partnership. Some districts, such as Baltimore, New York, and Oakland, enjoyed one relatively long (by urban school district standards) period of leadership stability during the partnership, whereas other districts have been marked by frequent turnover. All but one of the New Leaders partnerships (Milwaukee) have been sustained in spite of this turnover.

Experience of Newly Placed Principals

None of the partner districts was able to provide information on the prior principal experience for new principals who were hired from outside of the district. In our interviews with district officials over the course of this project, only Washington, D.C., mentioned recruitment efforts targeting experienced principals from neighboring districts at some point during the study time frame.

Other District-Wide Initiatives

All of the New Leaders partner districts received major external funding from the federal government or private foundations to support district reform efforts. Notably, in 2011, three of New Leaders' partner districts (Charlotte, New York, and Prince George's County) were awarded major grants by the Wallace Foundation to enhance their

principal pipelines (Turnbull, Riley, Arcaira, et al., 2013). The grants were awarded to six districts that had demonstrated a strong commitment to school leadership and were perceived to have the capacity to implement further improvements to the principal pipeline. Ensuring that principal candidates receive high-quality preservice training that includes a residency component is a key feature of this initiative.

Changes over Time

District partnerships have evolved over time, and feedback from district partners has led to changes to the New Leaders program. Early on, some district partners viewed New Leaders as rigid and unwilling to tailor its programs to meet district needs. That perspective had changed dramatically by 2012. Among other things, New Leaders has engaged district staff in key aspects of the program. For example, in several districts, staffs play a role in the selection of candidates for the Aspiring Principals Program and the Emerging Leaders Program.

District Satisfaction with Partnership

In 2012 and 2013, all partner districts we interviewed reported that the partnerships have benefited their districts. Across the districts, leaders tended to agree that New Leaders was responsive to issues or concerns raised by their districts, that New Leaders understood the needs of their districts, and that New Leaders was a resource for information about the effective management of principals (see Tables D.1 and D.2 in Appendix D, available online).

Analysis of Impacts on Student Achievement

In this chapter, we describe the impact of the New Leaders program on the outcomes of students in schools led by New Leaders principals. To estimate this impact, we compared the outcomes of students who are in schools led by New Leaders principals for some amount of time with the outcomes of otherwise comparable students in other schools. Our analytical approach attempts to isolate the effect of the New Leaders principal from other factors that might drive differences in student outcomes for students in New Leaders schools, such as prior student-achievement levels. We have explored a wide range of methods for achieving this aim. In this chapter, we present a high-level summary of those findings. We first briefly describe the data that we use, the cities included in the analysis, the outcome measures we studied, and the control variables used in the statistical models. We then present our estimates of the New Leaders effect for K–8 schools and high schools. We present aggregate estimates that pool information across cities, as well as key city-by-city findings. We conclude this chapter by comparing the magnitude of the New Leaders impacts we report here and those of other educational interventions. A detailed description of the data and methods used to generate these estimates is provided in Appendix A, available online.

Data

The analysis in this report includes students in ten locations that are associated with current or former New Leaders partner districts—

Baltimore City Public Schools, Charlotte–Mecklenburg Schools in North Carolina, Chicago Public Schools, Memphis City Schools, Milwaukee Public Schools, Recovery School District in New Orleans, New York City Public Schools, the Oakland Unified School District in California,¹ Prince George’s County in Maryland, and Washington, D.C. These partner districts provided RAND with student-level demographic and outcome data for all students in the district. In all cities, we analyzed the impact of the New Leaders program on achievement in grades K–8. In addition, we conducted an analysis of the impact that the New Leaders program had on high school achievement in five of the partner districts where New Leaders principals had been placed in high schools.² We briefly describe the nature of the achievement data in this section.

Achievement Tests for Kindergarten Through Eighth Grade

The achievement outcomes for grade K–8 students are based on scores on the mathematics and reading tests administered as part of each state’s accountability system (see Table A.1 in Appendix A, available online). Because the content of the tests differs by grade and sometimes changes over time within a state, we use standardized rather than raw scores.³ The standardized scores can be used to assess changes in the *relative* positioning of students in a district. Although standardized scores are useful in comparing one group of students with another within a district (i.e., students in a New Leaders school compared with student in a non–New Leaders school), standardized scores will not reflect any district-wide improvement in achievement in a particular

¹ We also include data on charter schools in the San Francisco Bay area of California where New Leaders had been placed. See Appendix A, available online, for further details.

² These districts are Baltimore City Public Schools, Chicago Public Schools, Memphis City Schools, New York City Public Schools, and Washington, D.C.

³ Scores are standardized so that, in each district-grade-year, the standardized score has a mean of 0 and a standard deviation of 1. To do this, we compute percentile ranks for the unadjusted scale scores by grade and school year (separately for each district) and convert the percentile ranks into normal curve equivalents (because scores are standardized in this way, we can also produce national estimates that pool the district-specific estimates of the impact on effect sizes).

subject.⁴ Because the focus of our analysis is to determine whether the New Leaders program leads to achievement gains, however, we do not view this as a serious limitation. Another noteworthy feature of the testing in lower grades is that students are tested every year in grades 3–8 (and, in California, grade 2 as well). This makes it possible to use statistical models that examine how changes in a student’s achievement correlate with changes in that student’s exposure to a New Leaders principal.

Tests for High School

We also use scores on state standardized tests in reading and mathematics to measure outcomes for high school students. However, high school students are not assessed as frequently as younger students, and the timing of assessment varies across states. In some states, there is only one high school test that is required of all students. An implication of this feature of high school testing is that the statistical models that exploit within-student variation in exposure to the New Leaders “treatment” that we use in lower grades cannot be used for the high school analysis.⁵ Instead, the high school analysis uses data from one test administered in high school (see Appendix A, available online, for details on the tests used in the high school analysis) and controls for achievement in grade 8. As with the analysis for lower grades, we use standardized scores as the outcome measure.⁶

Other Control Variables, Including Tenure of Comparison-School Principals

New Leaders partner districts provided us with information on the student and school characteristics that we use in the statistical models

⁴ States use information on the number of students scoring above certain thresholds on standardized tests to calculate the percentage of students in a school who have achieved proficiency standards. However, schools that experience gains in proficiency rates may not experience gains in average standardized test scores (and vice versa).

⁵ See Appendix A, available online, for details on the statistical methodology used in the high school analysis.

⁶ The standardization produces scores with a mean of 0 and a standard deviation of 1 within cells defined by district-grade-year.

as control variables. These include measures of socioeconomic status (e.g., eligibility for free lunch), supplemental services (e.g., special education and programs teaching English as a second language), and demographic characteristics (e.g., race and gender). At the school level, we created control variables measuring average student characteristics from the student data and used information on the organizational structure of the school (such as whether it is a charter school or a newly opened school). The complete list of variables we used in the statistical models can be found in Table A.4 in Appendix A, available online.

At any point in time, the principals serving in district schools represent a range of experience in terms of years at one's school and as a principal in the district. When New Leaders principals are placed in schools after their residencies, they lack both types of experience. Because it may take time for a newly placed principal to make critical changes in a school and for those changes to have an effect on student outcomes, a failure to control for experience in the school could result in biased estimates. Therefore, our analysis controls for school-level principal tenure.⁷ Our measure of tenure is defined by the number of years a principal has served as a principal in his or her current school. Under this definition, a new principal may have prior experience at another school in the district or in another district.⁸

⁷ One might also be concerned that estimates could be biased by the fact that newly placed principals who have prior experience are more effective than newly placed principals who do not. Our analysis is not able to control for this source of bias, but, given recent improvement to district data systems, it is something we hope to explore in analyses of future New Leaders cohorts.

⁸ As noted in Burkhauser, Gates, Hamilton, and Ikemoto (2012) and as shown in Appendix C of this report (available online), New Leaders principals have higher retention rates than non-New Leaders principals have. If tenure itself leads to improved student performance (Clark, Martorell, and Rockoff, 2009), then, by controlling for principal tenure, we may be "blocking" a channel through which the New Leaders program could affect student outcomes. However, we do not think that the total effect of the New Leaders program (which would include the effect operating through higher principal retention rates) is substantially different for two reasons. First, in preliminary analyses, we estimated models that do not control for principal tenure and obtained similar results to those from models that do have principal-tenure controls. Second, the differences we see in principal retention are fairly small, and the estimates of the effect of tenure are as well (Clark, Martorell, and Rock-

In addition to including controls for principals' school-level tenure in comparison-group schools, we also include a control variable for whether a school had another school leader (such as an assistant principal) who experienced the New Leaders selection and training program. This variable is based on information provided by the New Leaders organization about which schools had nonprincipal New Leaders and which did not.

Defining the New Leaders Treatment

A fundamental issue is precisely how to characterize the New Leaders treatment for students. Students and principals enter and exit schools, and this implies that, over time, students will vary in whether they attend schools led by New Leaders principals. Moreover, one might expect that the impact of the New Leaders treatment would differ depending on whether a student attends a school led by a brand-new New Leaders principal or one with several years of experience. By the same token, the effects may differ depending on whether the student has spent only one year in a New Leaders school versus his or her entire academic career.

To account for these possibilities, we use two approaches to defining treatment status. The first defines a student as treated if he or she attended a New Leaders school at some point in the past, irrespective of whether he or she is still in a New Leaders school. We allow the effect of this treatment to vary by whether a student has had one, two, or three or more years of exposure to a New Leaders principal. The second considers a student to be treated in years when he or she attends a school led by a New Leaders principal and not treated when he or she attends a school led by a non-New Leaders principal. We allow the effect of this treatment to vary by how long the New Leaders principal has been with the school (specifically one, two, or three or more years of experience with the school).

off, 2009), so the impact of the New Leaders program on student outcomes that operates through changes in principal retention is likely to be small as well.

To understand the differences in these two approaches, consider a student who was in a school led by a New Leaders principal in 2006 and 2007 but then in a non–New Leaders school thereafter. According to the first treatment definition, this student would be in a year 1 program school in 2006 and a year 2 program school in 2007 but not treated in any subsequent years. According to the second treatment definition, a student would have one year of exposure in 2006 and two years of exposure in 2007 and all subsequent years. Thus, one important difference between these two approaches is that they rely on different implicit assumptions about whether the impact of attending a New Leaders school persists after a student leaves a school led by a New Leaders principal (or the New Leaders principal leaves the school). Because learning is a cumulative process, one might expect that, if attending a New Leaders school has an effect on achievement, this effect might last even after a student leaves a school led by a New Leaders principal. In that case, the student-exposure approach might be preferable because it considers a student to be treated even after he or she is no longer in a New Leaders–led school. On the other hand, the impacts of many educational interventions decay quickly (Cascio and Staiger, 2012). If the impact of the New Leaders program is felt mainly while the student is actually in a New Leaders–led school, then it is preferable to define *treatment* in terms of the tenure of the student’s current principal.⁹

In light of these considerations, the estimates of the student exposure–based treatment measures might differ from the measures based on school exposure. Again, it helps to consider an example to see why they might be different. Suppose a New Leaders principal is

⁹ The student-exposure measures also do not necessarily reflect differences in principals’ tenure because they do not differentiate between whether a year of New Leaders exposure was exposure to a high- or low-tenure New Leader. This is by design because students enter and leave a school at different points in time than a principal does. In addition, a student may spend time in schools led by different New Leaders. These measures also do not capture any school-level continuity benefits. In other words, if a student moved from one school with a first-year New Leaders principal to another school with a first-year New Leaders principal to a third one with a New Leaders principal, that student would contribute to the category “spent three or more years in a New Leaders school,” even though each school the student attended had only one year of treatment.

in a school starting in 2008 and is with that school through 2010. All students in this school in 2010 will count toward the estimate for year 3+ New Leaders because, by that point, the New Leaders principal will have three years of tenure at her school. In contrast, only students in the school for the entire period of 2008 to 2010 will count toward the estimate of three or more years of exposure to a New Leaders principal.¹⁰

One final point about these two approaches is that the student-exposure model is less suited for the analysis of impacts on high school test scores. The reason for this is that students are frequently only tested in grade 10 (and even sometimes in grade 9). Hence, most students will not have had a chance to accumulate more than one or two years of exposure to a New Leader at the time of testing because they have been in the school for only one or two years. For this reason, we place greater emphasis on the results where treatment is defined in terms of tenure for the analysis of high school outcomes.

Results for Lower-Grade Schools

Table 5.1 shows estimated program impacts for lower-grade schools. We estimated statistical models that help account for possible differences between schools led by New Leaders and non–New Leaders principals. In particular, we examine the achievement of the same student over time and compare her achievement in years in which a New Leaders principal headed her school and years in which her school was not led by a New Leaders principal. By focusing on comparisons of the same student’s achievement over time, we effectively hold constant all time-varying student-level factors (e.g., race and family background).¹¹ We

¹⁰ An exception would be if the student were in a New Leaders school prior to 2007.

¹¹ The technical terminology for this approach is *controlling for student fixed effects*. Student fixed-effects models exploit variation in a student’s program status. There are two primary sources of such variation. The first is when a student moves into or out of a New Leaders school. Such moves are most common during the transition from elementary to middle school or from middle school to high school, but they also occur at other times. A second source of variation occurs when a New Leader enters or leaves a school. When a New Leader

Table 5.1
Estimates of Program Effect on Percentile Ranking, Lower Grades

Variable	Mathematics	Reading
Impact of attending New Leaders school for		
1 year	-0.1	-0.2
2 years	0.6**	0.1
3+ years	1.3***	0.7**
Impact of attending school led by a New Leader who has		
1 year of tenure	0.2	0.0
2 years of tenure	-0.1	0.2
3+ years of tenure	-0.3	0.1

NOTE: ** = statistically significant at the 5-percent level. *** = statistically significant at the 1-percent level. The data show the program's effect on the percentile ranking of a typical district student (i.e., one who is in the middle of the achievement distribution).

also include controls in the model for observed time-varying student-level factors (e.g., participation in a special education program in a given year). The models also control for all time-invariant school-level factors (e.g., geographic location) by comparing the performance of students at a school when a New Leaders principal is present and the performance of students at the *same school* when a New Leaders principal is not the principal.¹² This approach helps guard against bias from unobservable differences between New Leaders and non-New Leaders schools that are associated with student achievement.¹³

enters a school, it becomes a program school, and, when a New Leader leaves, it ceases to be a program school.

¹² This approach is known as *controlling for school fixed effects*.

¹³ For instance, New Leaders principals might be placed in schools where parental involvement is higher than at otherwise comparable schools, which would make it appear that the program effects are larger than they really are. Or principals might be placed in schools in which the students face larger disadvantages than what would be expected given basic demographic controls available on school district administrative data.

The upper panel of Table 5.1 shows estimates in which program status for a student in a given year is based on the number of years a student has spent in a New Leaders school. The estimates show the effect of attending a school led by a New Leaders principal for a certain number of years relative to having spent zero years in a New Leaders school. We report these effects in terms of the change in a student's percentile ranking in the test-score distribution implied by the results of our statistical model. For instance, an effect of 1 would mean that the program was associated with moving up 1 percentile point in the test-score distribution.¹⁴ There are some positive and statistically significant estimates. In particular, two years of exposure to a New Leaders principal is associated with a small increase in reading performance, of about 0.6 percentile points. For spending three or more years with a New Leaders principal, the effects are a bit larger and statistically significant for both mathematics and reading. For reading, the estimates suggest gains of about 0.7 percentile points. For mathematics, the estimates suggest gains of 1.3 percentile points. In the lower panel, which shows estimates in which program status is based on whether a student currently attends a school led by a New Leaders principal with a given level of tenure, the estimates are quite small and statistically insignificant.

Results for High Schools

Table 5.2 shows the results for high schools. These estimates are from models that compare students in New Leaders schools and students who have similar pre-high school (specifically, grade 8) achievement levels. And as with the lower-grade analysis, the models also account

¹⁴ The calculations we conduct in this report are for a typical district student, i.e., one who is in the middle of the distribution (i.e., is at the 50th percentile). Thus, an increase of 1 percentile point would move a student at the 50th percentile to the 51st percentile). These calculations assume the standardized test scores follow a standard normal distribution so that the effect expressed in terms of the percentile ranking of the median student can be computed as a function of the effect size (i.e., the program's estimated impact on standardized test scores). Note that the change in percentile ranking is not a constant function of the effect size and depends on the student's assumed starting position. Further details can be found in Appendix A, available online.

Table 5.2
Estimates of Program Effect on Percentile
Ranking, High School

Years of Tenure	Mathematics	Reading
1	1.6	0.9
2	-0.2	0.9
3+	-0.5	3.0***

NOTE: *** = statistically significant at the 1-percent level. The data show the program's effect on the percentile ranking of a typical district student (i.e., one who is in the middle of the achievement distribution).

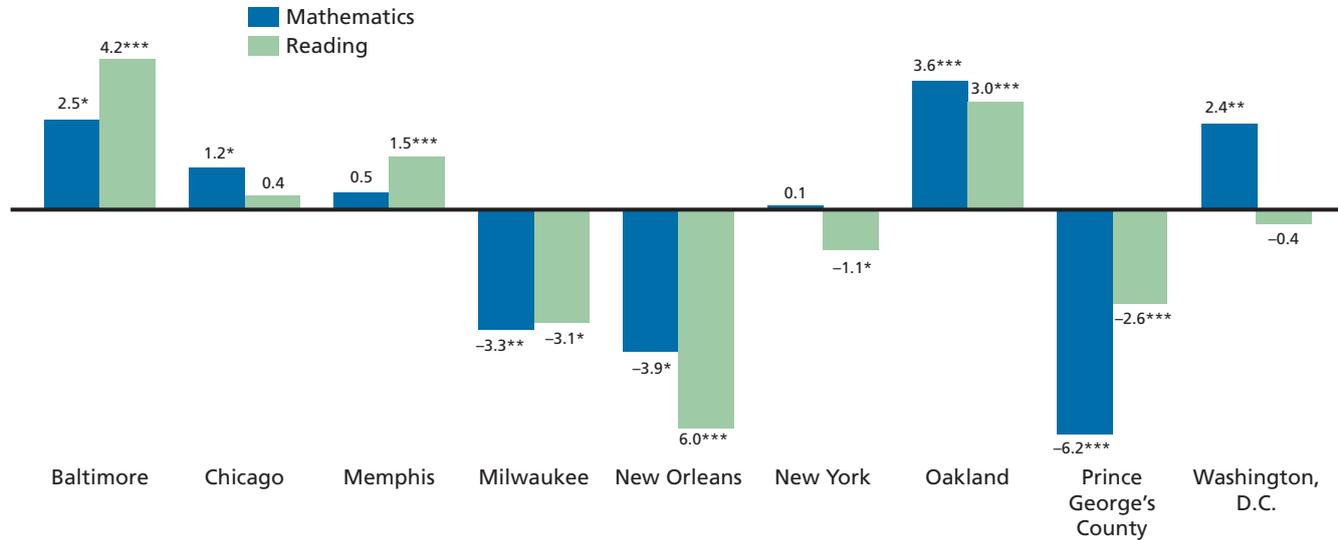
for time-invariant differences between schools with New Leaders principals and non–New Leaders principals.

The table reports the results for cases in which the New Leaders treatment is defined in terms of the New Leaders principal's tenure with a school. The results suggest that students in high schools led by New Leaders principals with three or more years of tenure experience achievement gains of about 3 percentile points relative to comparable students in non–New Leaders schools. We find no evidence of significant gains in mathematics. Because of the limitations of specifying the New Leaders treatment in terms of time spent in a New Leaders school, we do not report estimates from this type of model.

Summary of City-Level Results

The estimates described above pool estimates from the various locations where New Leaders have been placed, and they might therefore mask differences in the estimated program effects across cities. To explore this possibility, Figures 5.1 and 5.2 provide summaries of the city-level estimates. Figure 5.1 shows the estimates of the program effect on the percentile ranking of mathematics and reading achievement for students in lower grades. We focus on the effect of attending a New Leaders school for three or more years (i.e., results that contribute to those in the last row of Table 5.1). As can be seen from Table 5.1, there

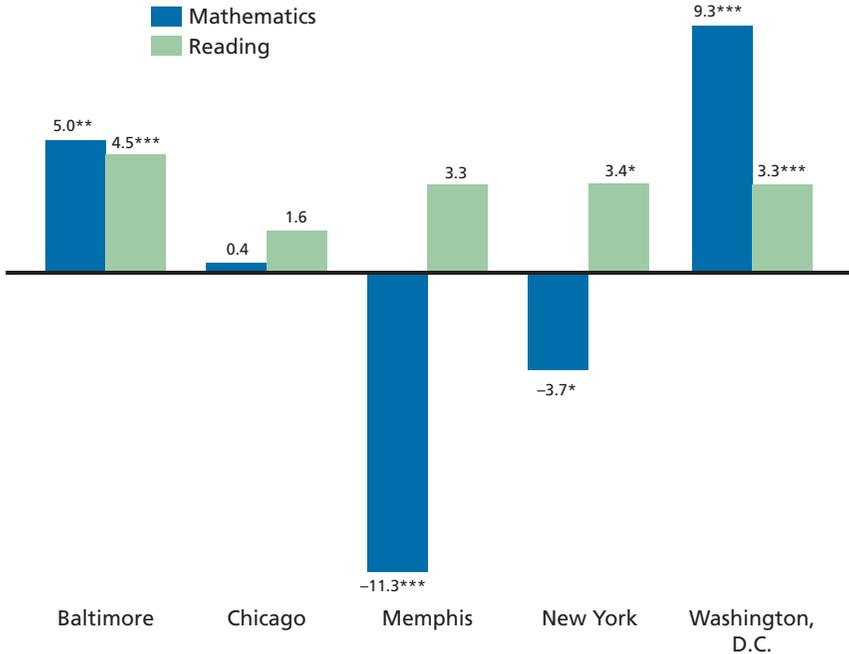
Figure 5.1
Summary of City-Level Estimates of the Program’s Effect on Percentile Ranking, Lower Grades



NOTE: ** = statistically significant at the 5-percent level. *** = statistically significant at the 1-percent level. * = statistically significant at the 10-percent level. The data show the effect that spending three or more years in a New Leaders–led school has on the percentile ranking of a typical district student (i.e., one who is in the middle of the achievement distribution). Results for Charlotte are not shown because Charlotte New Leaders principals had been in place for at most two years as of SY 2011–2012.

RAND RRS07-5.1

Figure 5.2
Summary of City-Level Estimates of the Program’s Effect on Percentile Ranking, High Schools



NOTE: * = statistically significant at the 10-percent level. ** = statistically significant at the 5-percent level. *** = statistically significant at the 1-percent level. The data show the effect that attending a school led by a New Leaders principal with three or more years of tenure has on the percentile ranking of a typical district student (i.e., one who is in the middle of the achievement distribution).

RAND RR507-5.2

is evidence of differential impacts across cities. For Baltimore, Memphis, Oakland, and Washington, D.C., we find positive and statistically significant impacts in at least one subject. On the other hand, we find negative and statistically significant effects in at least one subject in Milwaukee, New Orleans, and Prince George’s County (although these were districts in which relatively few New Leaders were placed; see Tables A.2 and A.3 in Appendix A, available online). In Chicago and New York, the estimates are quite small and not statistically significant at the 5-percent level.

Figure 5.2 summarizes the city-level estimates for high school. We focus on the effect that attending a school led by a New Leaders principal with three or more years of experience has on the percentile ranking of high school achievement in mathematics and reading. Again, we see some notable heterogeneity. In Baltimore and Washington, D.C., the estimates are positive and statistically significant for both mathematics and reading. In Chicago and New York, the estimates are smaller and not statistically significant at the 5-percent level. In Memphis, the estimate for mathematics is negative, but the estimate for reading is not statistically significant.

In sum, although we find some evidence of modest impacts of the New Leaders program when we aggregate across all the cities used in the analysis, there is a good deal of variation in the impacts across the program cities.

Interpreting These Estimates

The estimates reported in Tables 5.1 and 5.2 offer some indication that students benefit from attending schools led by New Leaders principals. In lower grades, spending three or more years in a New Leaders–led school is associated with achievement gains that translate to 0.7 to 1.3 percentile points for a typical student. In high school, we find that students in high schools where the New Leaders principals had three or more years of tenure gain about 3 percentile points in reading. Nonetheless, without further context, it is difficult to judge whether these estimates are large or small relative to the impact one might reasonably expect a program like New Leaders to have.

To provide such context, we searched the literature for studies with findings that would offer useful counterpoints to our estimates. Specifically, we looked for studies that examined principal-training programs, the extent to which principals affect student achievement, the relationship between principals' experience and student achievement, and teacher training programs. We did not set out to do a comprehensive review of the literatures containing these types of studies, nor did we try to search systematically for studies that met some strict

predefined criteria. Rather, we searched for recent studies that seemed related to this one and that used contemporary statistical methods to isolate the causal impact being studied (see Table 5.3). We caution readers not to make direct comparisons between our findings and those discussed next because (with one exception) the comparison studies do not try to evaluate the impact of a principal-preparation program.¹⁵ Moreover, to our knowledge, this is the only study evaluating a principal-preparation program implemented at scale across geographic regions and school types. These comparisons are simply meant to establish a sense of what one might realistically expect from a program like New Leaders.

We found four types of estimates against which to compare our estimates. The first type estimates the impact of principal-training programs. One such study (Corcoran, Schwartz, and Weinstein, 2012) found that treated principals were associated with significant gains in reading of about 1.5 percentile points, while the estimates for mathematics were negative (although statistically insignificant). The second type of estimate is a measurement of the variability in principals' effectiveness as it relates to student achievement, and the studies that we found report estimates that range from about 5 to 13 percentile points. The third type of estimate is of the impact of principals' experience on student outcomes. Estimates of the effect of having a principal with four years of experience relative to a new principal range from about 1 to 3 percentile points. The fourth type of estimate is of the impact of the TFA program. Decker, Mayer, and Glazerman (2004) found that TFA teachers are associated with significant gains in mathematics of about 5 percentile points, but not reading.

Overall, the estimates we find are in line with those from studies examining the impact of other principal-training programs or of having a principal with several years of experience versus a brand-new principal. Our estimates are slightly lower than those for the TFA program, but this is not surprising. The TFA program targets teachers and not principals, and, because teachers' actions might be expected

¹⁵ The exception is the estimates from the NYCLA Aspiring Principals Program, which resembles the New Leaders program in many ways.

Table 5.3
Estimates from Related Studies (Expressed in Percentile Points)

Study	Mathematics	Reading	Site of Study
Other principal-training programs			
NYCLA Aspiring Principals Program (Corcoran, Schwartz, and Weinstein, 2012)	-1.0	1.5*	N.Y.
1 standard deviation in principal effectiveness			
Branch, Hanushek, and Rivkin, 2012	4.4*		Texas
Dean, 2012	13.3*	10.6*	Wis.
Dhuey and Smith, 2010	11.4*	12.2*	British Columbia
Chiang, Lipscomb, and Gill, 2012	6.0*	4.8*	Pa.
Dhuey and Smith, 2014	6.8*	4.6*	N.C.
Principals' experience: four years of experience versus first-year principal			
Buck, 2012	2.7*		Ark.
Clark, Martorell, and Rockoff, 2009	1.5*	0.8*	N.Y.
Teacher training programs			
TFA (Decker, Mayer, and Glazerman, 2004)	4.6*	1.1	Multicity

NOTE: * = statistically significantly different from 0. Estimates are effect sizes (in standard-deviation units) converted to effect on percentile ranking assuming that the underlying test-score distribution is standard normal.

to have greater impact on student achievement than principals' actions (given that teachers directly instruct students), it is reasonable to think that the estimates of the TFA program might be larger than those for a principal-training program. To the extent that principals may or may not have influenced teacher practices, which, in turn, may or may not affect student outcomes, we would expect that an intervention that centers on principal selection and training would have smaller impacts than interventions that, like TFA, center on teacher selection and

training. On the other hand, our estimates are considerably smaller than those of studies examining the variability of principal effectiveness, which suggests that the quality of principal preparation is only one of many factors driving differences in principal effectiveness.

Robustness Checks

In addition to the analyses described, over the course of the project, we have conducted exploratory analyses to investigate the robustness of our findings. In this section, we summarize our key analyses and what we found:¹⁶

- **estimated models with student random effects instead of student fixed effects.** As noted in Lockwood and McCaffrey (2007), estimating models with random effects is an alternative way of controlling for student-level heterogeneity that relies on different assumptions than estimating models with student fixed effects. We found that the two approaches yielded very similar estimates.
- **examined the sensitivity of the high school achievement models to differential dropout.** One concern with the analysis at the high school level is that the New Leaders program might have an effect on high school dropout rates and that, consequently, the population of students remaining in the treatment and control schools could be different in ways that could lead to bias. We found little systematic evidence of sizable program effects on high school dropout rates. We also estimated statistical models that, under strong assumptions, control for sample selection bias; estimated models in which we used grade 8 scores to impute values for dropout rates; and generally found little indication that dropout rates were driving any of the main substantive conclusions.
- **estimated models excluding student demographic characteristics.** One point of view is that, once one controls for a student's baseline achievement level, it is inappropriate to control for demo-

¹⁶ The results from these analyses are available upon request.

graphic characteristics, such as race, because students from different backgrounds should not be held to lower standards after accounting for their level of baseline achievement. We estimated a variant of our main model with controls for a student's average achievement over the years in which they are observed not in a New Leaders school and did so with and without controlling for student demographic characteristics. We found that the inclusion of student demographic characteristics had very little effect on the estimates.

- **examined variation across New Leaders training cohorts.** Because the nature of the training New Leaders principals have received has evolved over time, we estimated the models allowing for different effects for New Leaders trained before and after SY 2007–2008. We did not find evidence of systematic differences in the effects between the two groups of New Leaders.
- **analyzed effects for charters and noncharters.** Because charter-school principals generally have more autonomy than principals in regular public schools have, we estimated the effects separately by whether a New Leader was placed in a charter school. We did not find significant differences in the effects for New Leaders in charters and noncharters, but this is partially explained by the relatively small number of charter schools.¹⁷

The results of these checks tell us that the results highlighted in this chapter are robust to a range of potential methodological concerns.

¹⁷ Of the 583 New Leaders principals in our sample, 158 (27 percent) were at charter schools.

Factors Associated with New Leaders Program Effects

Introduction

The findings presented in Chapter Five suggest that, in some contexts but not in all, students in schools led by New Leaders principals exhibited greater achievement gains than those in schools led by other principals. However, the achievement analysis does not reveal the reasons for these differences (or lack of differences). Although this research was not designed to attribute outcomes to specific program components or conditions definitively, we addressed our fourth research question by conducting some exploratory analyses to identify factors that could plausibly have influenced the achievement results. We examine three broad sets of factors:

- characteristics of the districts and their partnerships with New Leaders
- principals' self-reports of practices
- principals' perceptions of school and district conditions.

This chapter summarizes the results of these analyses to shed light on the factors that might contribute to the differences in New Leaders effects between districts, based on empirical data. We begin by examining whether district-specific New Leaders effects appear to be associated with other district-level factors, followed by a comparison of New Leaders' and non–New Leaders' survey reports regarding practices and conditions as a means of understanding whether these two groups of principals, on average, respond differently to this set of survey items.

As noted in Chapter Two, we selected these matched comparison principals on the basis of observable school and principal characteristics. We conclude the chapter with a set of regression analyses that examine more-complex relationships among achievement, principal survey responses, and New Leaders program participation.

Characteristics of Districts and the New Leaders Partnerships

As we noted in Chapter Three, we might expect to observe larger and more-positive effects of the New Leaders program in districts where it was well implemented, where district conditions were conducive to enabling well-prepared principals to manage their schools effectively, where other newly placed principals were not exposed to preparation programs that were similar to the New Leaders program, and where most newly placed principals were first-time principals. The district conditions that New Leaders expected to influence outcomes and that New Leaders prioritizes in the selection of district partners are the district's overall emphasis on and support for school leadership as a lever for school improvement and the extent to which principals have autonomy over hiring and staffing, budgeting, curriculum, professional development, facilities, and scheduling. Other district characteristics, such as size and penetration of New Leaders (i.e., the percentage of principals who were New Leaders), might also influence the effect sizes, but past research does not suggest a clear direction of likely effects.

The first set of factors we examine in this chapter focuses on district-level factors—specifically, district size and New Leaders penetration. We also consider whether presence of a similar principal-preparation program that affected many non–New Leaders principals might be associated with effects; Chicago and New York City are the two districts with alternative programs that affect a large proportion of non–New Leaders principals. Because information on the proportion of newly placed principals who were first-time principals was not available for most of the districts, we were unable to examine that potential source of variation. We also do not have direct measures of district conditions or program quality, so we relied on our principal survey for this information, recognizing that it measured principals' perceptions of these factors rather than the factors themselves.

Principals' Actions and School and District Conditions

We also explored additional factors drawn from the 2011 principal survey, with a focus on examining relationships with achievement at the principal level (rather than at the district level). These factors include reported principal actions, as well as school and district conditions that literature suggests might influence principals' effectiveness as managers and instructional leaders. In particular, research indicates the importance of principals' practices related to ensuring effective teaching and learning through activities, such as reviewing data collaboratively, building school community, and supporting teachers; school conditions, such as teacher capacity and principal autonomy; and district conditions, such as access to resources and constructive relationships with supervisors (Knapp et al., 2003; Leithwood and Riehl, 2003; Leithwood, Louis, et al., 2004; Waters, McNulty, and Marzano, 2003; Council of Chief State School Officers, 1996; Task Force on the Principalship, 2000; Hallinger and Heck, 1996; Bryk and Schneider, 2002; Portin et al., 2003; Zaccaro, 1996; Marks and Printy, 2003; O'Donnell and White, 2005). We hypothesized that these three sets of factors could influence achievement results for individual principals, but, given the correlational nature of much of the previous research and the fact that we had to rely on perception rather than measuring any of these actions or conditions directly, we view these analyses as purely exploratory. In addition to documenting the extent to which New Leaders and non–New Leaders comparison-group principals—to whom we refer as match principals—differed in their responses to these survey items, we conducted regression analyses to examine relationships with achievement in a way that allows us to control for other factors.

It is important to point out that, as noted earlier in this report, in some partner districts, the match principals whose students form the basis for our comparison to students in New Leaders schools might have participated in other principal-preparation programs that shared some features with New Leaders. In these districts, the comparison samples would include students in schools led both by principals who were prepared through traditional, university-based certification programs and by some who experienced New Leaders–like preparation.

Because we do not have information on match principals' preparation, we cannot control for this factor. This could lead to smaller differences in survey responses between the New Leaders and non–New Leaders groups than might be obtained if all non–New Leaders principals were prepared in traditional programs.

Characteristics of the District and Its Partnership with New Leaders

In this section, we explore whether district or CMO size, penetration of the New Leaders program, and principals' perceptions of the program's quality are associated with differences in achievement effects between districts. As mentioned earlier, New Leaders expected that a district's overall emphasis on and support for school leadership as a lever for school improvement and the extent to which principals have autonomy over hiring and staffing, budgeting, curriculum, professional development, facilities, and scheduling would influence student outcomes. Other factors, such as district size, New Leaders penetration, and principals' opinions of New Leaders, could conceivably influence the achievement results as well. For example, larger districts might have greater challenges in implementing the changes to autonomy requested by New Leaders. Districts where New Leaders represent a larger percentage of principals might be more aligned with the New Leaders vision for school leadership. Districts where principals expressed more-favorable opinions about the New Leaders program might be expected to show larger achievement effects if principals' perceptions accurately reflect the quality of program implementation.

Table 6.1 summarizes the achievement results by district, separately for K–8 schools and high schools, indicating whether each estimate was statistically significant and positive, statistically significant and negative, or not statistically significant. Table 6.2 provides information about district enrollment and the percentage of principals who were New Leaders principals (a measure of the extent to which the New Leaders program has penetrated the district) in SY 2011–2012.

Table 6.1
District-Wide Achievement Effects

District	Mathematics, K–8	Reading, K–8	Mathematics, High Schools	Reading, High Schools
Baltimore		+	+	+
Charlotte	n.c.	n.c.	n.c.	n.c.
Chicago				
Memphis		+	–	
Milwaukee	–		n.c.	n.c.
New Orleans		–	n.c.	n.c.
New York				
Oakland	+	+	n.c.	n.c.
Prince George’s County	–	–	n.c.	n.c.
Washington, D.C.	+		+	+

NOTE: Blank cell = statistically insignificant result. + = positive statistically significant estimate for mathematics or reading achievement at the 5-percent level. – = negative statistically significant estimate for mathematics or reading achievement at the 5-percent level. n.c. = the estimate could not be calculated. For lower-grade results, this table refers to estimates from the models in which *treatment* is defined as attending a school led by a New Leader with three or more years of experience and without school fixed effects.

Table 6.3 displays average scores for New Leaders principals on three survey scales related to district conditions: satisfaction with the principal’s supervisor, satisfaction with district staff, and satisfaction with district strategies and actions. Table 6.4 shows two survey scales related to authority (level of authority over instruction and curriculum and level of authority over school staffing) and two survey scales related to hindrance due to level of authority (hindrance due to level of authority over instruction and curriculum and hindrance due to level of authority over school staffing).¹ It presents the district-wide averages

¹ These scales are drawn from a broader set of scales that we constructed after conducting exploratory factor analyses of the 2011 survey data; the items that make up these scales are listed in Appendix B, available online. The items used a four-point Likert scale, and the scale score for each principal is the average across all of the items assigned to that scale. The pos-

Table 6.2
District Size and Percentage of Principals Who Are New Leaders

District	District Size	New Leaders Penetration (%)
Baltimore	84,748	18.0
Charlotte	143,866	3.0
Chicago	403,461	9.3
Memphis	104,829	18.9
Milwaukee	78,461	11.2
New Orleans	28,529	7.3
New York	993,903	4.2
Oakland	36,180	21.5
Prince George's County	123,741	9.0
Washington, D.C.	45,557	16.2

NOTE: New Leaders penetration is as of SY 2011–2012, and student enrollment data are from SY 2012–2013.

of these scores across all New Leaders principals who responded to the survey. And Table 6.5 presents average principal responses to three survey items that asked their opinions of the New Leaders program.

These five tables show extensive variation across districts in the objective measures of size and New Leaders penetration and in the average principal survey responses. Principals' ratings of their district conditions and of their experiences with the New Leaders program tend to be high, though opinions are clearly more favorable in some districts than in others. An inspection of the achievement results and other information in the tables provides some evidence that New Lead-

sible scores for the district-condition scales range from 1 (representing responses of "strongly disagree" to all items) to 4 (representing responses of "strongly agree" to all items). The possible scores for the level-of-authority scales range from 1 (representing responses of "no authority" to all items) to 4 (representing responses of "complete authority" to all items). The possible scores for the hindrance-due-to-level-of-authority scales range from 1 (representing responses of "no hindrance" to all items) to 4 (representing responses of "major hindrance" to all items).

Table 6.3
Principals' Satisfaction with District Conditions

District	Principal's Supervisor	District Staff	District Strategies and Actions
Baltimore	2.6	2.4	2.6
Charlotte	n.r.	n.r.	n.r.
Chicago	3.0	2.5	2.5
Memphis	3.5	2.7	3.0
Milwaukee	2.8	2.6	2.8
New Orleans	n.r.	n.r.	n.r.
New York	2.6	2.1	2.2
Oakland	2.8	2.5	2.6
Prince George's County	3.3	2.6	2.8
Washington, D.C.	3.0	2.7	2.6

NOTE: n.r. = results are not reported because of small sample size. Survey-item means represent the perspective of principals in place during the spring of 2011, with higher scores indicating a more positive response. Survey data are weighted for nonresponse. Response scales range from 1 (strongly disagree) to 4 (strongly agree); entries that are higher than 2.5 indicate opinions that are, on average, more positive than negative.

ers penetration is related to achievement; of the four districts with the highest penetration, three show positive achievement results. These findings are only suggestive, of course; estimating the relationship between New Leaders penetration and likelihood of improving student achievement would require more districts and the tracking of changes in penetration and achievement across several years.

An examination of the other variables in these tables suggests no clear patterns that would explain differences in achievement results across districts as a function of enrollment, district conditions, or principals' perceptions of the New Leaders program.

Overall, principals' responses related to district conditions suggest that partner districts meet the desired conditions to different degrees, with no one district standing out as above average on all the conditions (see Table 6.3 and, in Appendix B, available online, Tables B.8 and

Table 6.4
Principals' Perceptions of Their Levels of Authority and of Whether Those Levels Hinder Their Leadership

District	Over Instruction and Curriculum		Over School Staffing	
	Authority	Hindrance	Authority	Hindrance
Baltimore	2.7	1.7	2.5	2.1
Charlotte	n.r.	n.r.	n.r.	n.r.
Chicago	3.0	1.7	2.9	1.8
Memphis	2.2	2.2	2.3	2.1
Milwaukee	2.4	2.0	2.3	2.7
New Orleans	n.r.	n.r.	n.r.	n.r.
New York	3.4	1.4	2.8	2.0
Oakland	2.9	1.5	2.5	2.1
Prince George's County	2.5	2.0	1.8	2.6
Washington, D.C.	2.8	1.6	2.9	1.5

NOTE: n.r. = results are not reported because of small sample size. Survey-item means represent the perspective of principals in place during the spring of 2011, with higher scores indicating a more positive response. Survey data are weighted for nonresponse. Response scales from the survey questions on level of authority range from 1 (no authority) to 4 (complete authority). Response scales from the survey questions on hindrance due to level of authority range from 1 (not a hindrance) to 4 (major hindrance).

B.9). As a result, we are unable to draw conclusions regarding whether a single condition is driving the magnitude of our program effects. For example, principals in two of the partner districts (Memphis and Prince George's County) report below-average levels of authority and indicate that a lack of authority hinders their leadership. Program-effect results are mixed for these districts. Principals in Baltimore and Oakland, the districts with the largest positive program effects, also reported below-average levels of authority, but, on average, these principals did not view the lack of authority as a hindrance to their leadership. In New York and Chicago, districts with program-effect measures that

Table 6.5
Principals' Satisfaction with the New Leaders Program

District	My Involvement Has Helped Improve My School's Performance	My Involvement Has Helped Improve My Personal Leadership Abilities	Overall, the Program Has Been High Quality
Baltimore	2.9	2.8	3.3
Charlotte	n.r.	n.r.	n.r.
Chicago	3.3	3.4	3.6
Memphis	3.4	3.4	3.6
Milwaukee	3.2	3.3	3.3
New Orleans	n.r.	n.r.	n.r.
New York	3.1	3.2	3.1
Oakland	2.9	2.8	2.9
Prince George's County	3.6	3.7	3.8
Washington, D.C.	3.0	3.2	3.0

NOTE: n.r. = results are not reported because of small sample size. Survey-item means represent the perspective of principals in place during the spring of 2011, with higher scores indicating a more positive response. Survey data are weighted for nonresponse.

are mixed and are not statistically significant, principals report above-average authority. Similarly, principals' views on the district vision and strategy were not consistently related to our program-effect findings.

We also considered whether the two districts in which substantial numbers of non–New Leaders principals were affected by an alternative principal-preparation program—Chicago and New York City—differed from other districts in their achievement effects. Chicago and New York City experienced mixed effects that were not statistically significant at the 5-percent level. This is suggestive of an influence of alternative programs, although it is impossible to estimate such a relationship with the small number of districts.

Principals' Time Use and School and District Conditions: Differences Between New Leaders and Match Principals

Research suggests that a principal's ability to raise student achievement can be influenced by the specific leadership practices in which he or she engages and by school and district conditions (Bottoms and Schmidt-Davis, 2010; Grissom and Loeb, 2009; Leithwood et al., 2004; Mitgang, Gill, and Cummins, 2013). Here, we report on survey questions that examined principals' allocation of time across different leadership tasks, as well as principals' perceptions of their teachers' capacity and other school and district conditions. For each set of items, we first examine whether New Leaders and non–New Leaders (match) principals' responses differ in the full sample, followed by a discussion of specific districts that deviated from the overall pattern of differences. We focus on the pooled (cross-district) results to understand whether New Leaders tend to respond differently on average to these sets of survey items, whereas the examination of district differences could help us understand reasons for the variation in New Leaders effects across districts.

Principals' Time and Resource Allocation

The 2011 principal survey contained two sets of questions that addressed principals' time use. The first set focused on weekly time allocation for various activities, and the second set focused on the emphasis placed on various activities over the course of the year. The latter set asked respondents to indicate the emphasis they placed on each activity and then to indicate whether they viewed this emphasis as inadequate, excessive, or appropriate for their schools' needs. Given New Leaders' program emphasis, we anticipated that New Leaders principals might not only devote more time and resources to instructional leadership than other principals but also be less likely to view that allocation of time and resources as adequate. The results for New Leaders and non–New Leaders principals are presented in Appendix B, available online, for the full samples and separately by district. In terms of weekly time allocation, New Leaders and match principals differed significantly on only one activity—administrative duties; match principals reported

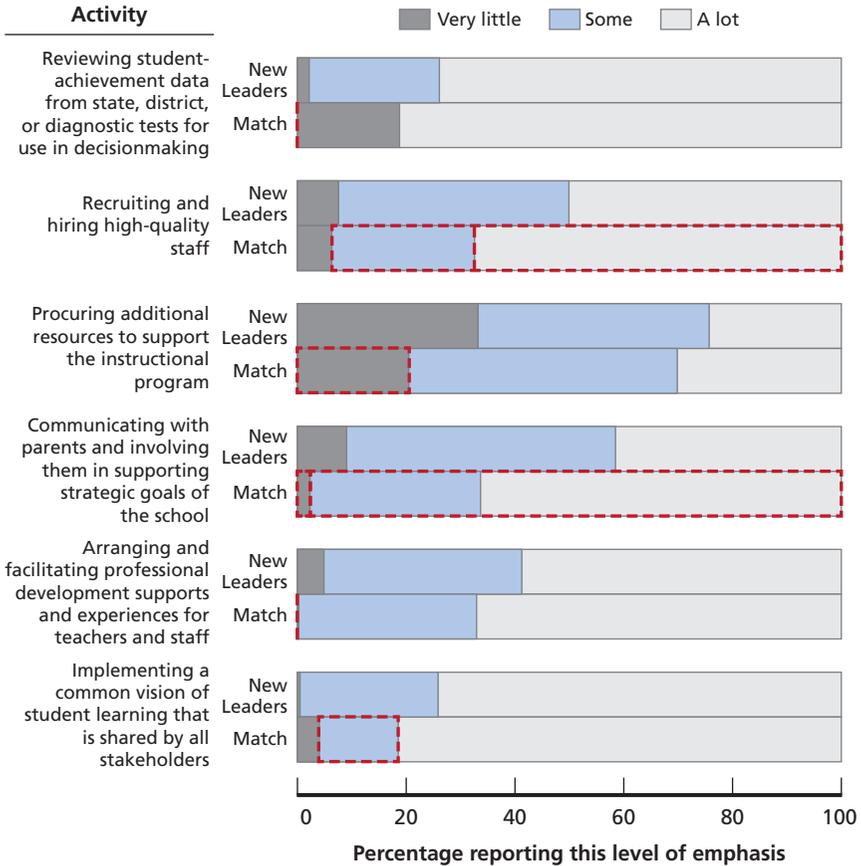
spending more time on average carrying out administrative duties (e.g., budget, personnel management, paperwork).

Differences emerged, however, between the New Leaders and match groups in their responses to some of the questions about the emphasis they placed on activities and their opinions about this emphasis. Figure 6.1 indicates those activities for which there was a significant difference between responses for New Leaders and match principals.

Match principals were more likely than New Leaders principals to report a lot of emphasis on recruiting and hiring and communicating with parents, and they were less likely to report very little emphasis on reviewing achievement data, procuring resources to support instruction, and arranging and facilitating professional development for their staffs. They were also less likely to report some emphasis on implementing a common vision of student learning, with smaller percentages reporting very little emphasis or a lot of emphasis than the New Leaders group. It is important to recognize that, unlike the time-allocation question mentioned above, this question was not intended to capture information about time; instead, it focused on understanding the extent to which principals devote effort to specific aspects of leadership, some of which are not amenable to time estimation (e.g., implementing a common vision).

A district-level comparison found that New Leaders principals in Baltimore, New York, and Washington, D.C., were less likely than match principals to report a lot of emphasis on communicating with parents. New Leaders principals in Washington, D.C., were more likely than match principals to report some emphasis and less likely to report a lot of emphasis on implementing a common vision of student learning or reviewing student-achievement data. New Leaders principals in Washington, D.C., were also less likely than match principals to report a lot of emphasis on arranging and facilitating professional development supports and experiences for teachers and staff. New Leaders principals in Oakland were less likely than match principals to report some emphasis on procuring additional resources, and New Leaders principals in Prince George's County were less likely to report a lot of emphasis on recruiting and hiring high-quality staff.

Figure 6.1
New Leaders and Match Principals' Reported Emphasis on Various Activities over the Course of the School Year, 2011 Survey

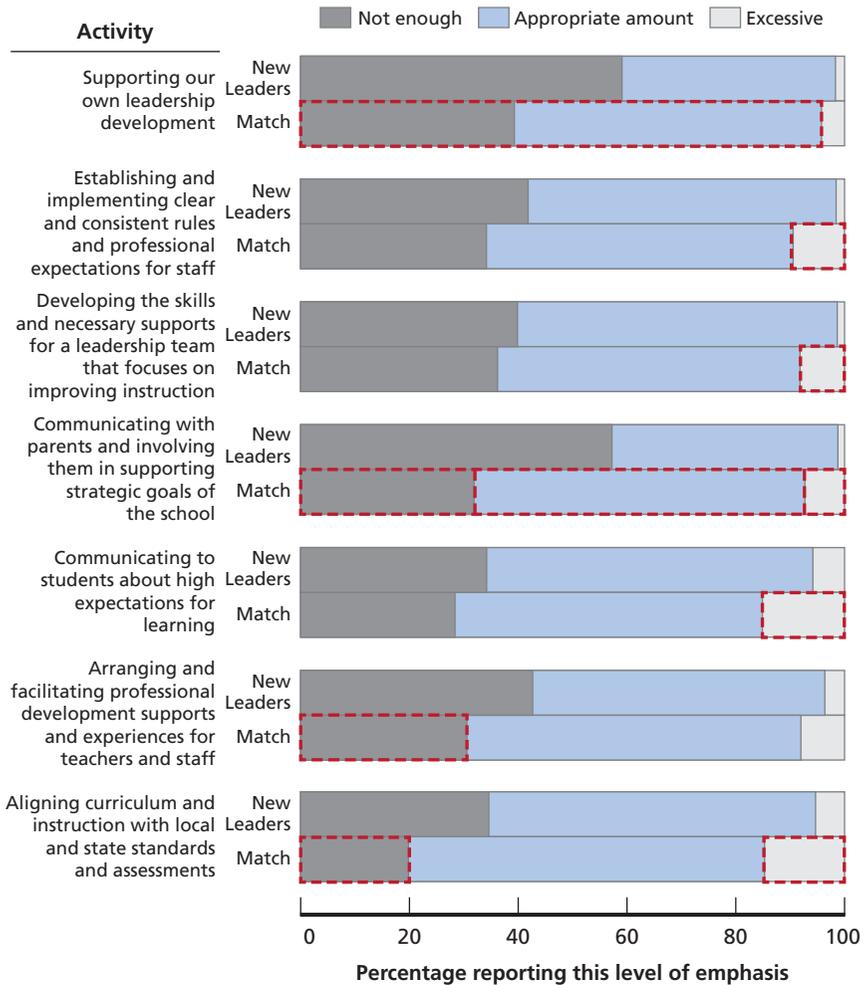


NOTE: Significant differences between New Leaders and match principals are denoted by a dashed red border on match averages ($p \leq 0.05$). All data are weighted for nonresponse.

RAND RR507-6.1

A related question gauged principals' satisfaction with the degree of emphasis placed on different aspects of leadership. Items for which there were significant differences in the responses of New Leaders and match principals are shown in Figure 6.2.

Figure 6.2
Principals’ Opinions About Emphasis Placed on Various Activities over the Course of the School Year, 2011 Survey



NOTE: Significant differences between New Leaders and match principals are denoted by a dashed red border on match averages ($p \leq 0.05$). All data are weighted for nonresponse.

RAND RR507-6.2

In all cases in which there were significant differences between the two groups, New Leaders principals were more likely to report

placing not enough emphasis on the action and less likely to report excessive emphasis. We observed particularly large differences for items that addressed supporting principals' own leadership development and communicating with parents. The fact that New Leaders and match principals differed in their perceptions of emphasis placed on some activities while they did not differ in their reported time allocation suggests that the two groups of principals may have had different expectations regarding what constituted a lot or very little. For example, New Leaders principals may be reporting very little emphasis on reviewing student-achievement data in spite of devoting similar amounts of time to this activity because the New Leaders program emphasizes the importance of data-driven decisionmaking. This could lead New Leaders principals to have higher expectations regarding how much emphasis they should place on this activity.

Turning to differences across districts, we found that New Leaders principals in Baltimore and Washington, D.C., were more likely than match principals to report placing not enough emphasis on communicating with parents (despite their greater likelihood of reporting a lot of emphasis in this area, noted above). New Leaders principals in Baltimore and Oakland were more likely than match principals to report placing not enough emphasis on aligning curriculum and instruction with local and state standards and assessments. In addition, New Leaders principals in Prince George's County and Washington, D.C., were more likely than match principals to report placing not enough emphasis on supporting their own leadership development. Finally, New Leaders principals in Baltimore were less likely than match principals to report placing excessive emphasis on communicating to students about high expectations for learning.

Principals' Perceptions of School and District Conditions

We explored several additional sets of items from the 2011 principal survey to understand principals' opinions regarding school and district conditions. As noted above, research suggests that these working conditions (e.g., teacher capacity, autonomy, access to resources) can influence principals' leadership practices and therefore might be associated with student-achievement outcomes. In particular, New Lead-

ers expects that districts' overall emphasis on and support for school leadership is a lever for school improvement, as is the extent to which principals have autonomy over hiring and staffing, budgeting, curriculum, professional development, facilities, and scheduling. In Appendix B, available online, we describe the items and the exploratory factor analyses that we conducted to identify a set of scales that could be used to measure principals' perceptions of school and district conditions. The district-condition scales are the same ones that are included in Tables 6.3 and 6.4.

Tables B.8 through B.28 in Appendix B, available online, present the comparison of responses for New Leaders and match principals. For the most part, the two groups had similar responses to these items, but there were a few exceptions. Match principals provided slightly higher average ratings of teacher capacity, satisfaction with their supervisors, and satisfaction with district strategies and actions, and they were less likely than New Leaders principals to describe a low level of authority over school staffing as a hindrance. It is important to recognize that these items measure principals' perceptions, which may or may not align with the actual conditions in which principals worked, and therefore could be influenced by differences in principals' expectations regarding each condition. In particular, it is possible that the difference in perceptions of teacher capacity is not an indicator of lower capacity among teachers in schools led by New Leaders principals but instead reflects New Leaders principals' high expectations for what knowledge, skills, and attitudes teachers should display.

Principals' Time Use and School and District Conditions: Relationships with New Leaders Status and with Student-Achievement Gains

In the previous section, we examined whether New Leaders and match principals responded differently to survey items measuring principals' actions and school and district conditions in order to understand whether the two groups spent their time differently and whether their working conditions might be more or less supportive of their efforts to

raise student achievement. In this section, we expand on these analyses in two ways. First, we conducted a series of analyses regressing survey outcomes on whether or not the school was led by a New Leaders principal, while controlling for other variables (e.g., principal's experience, district, and school level) that might explain any differences we observe in the preceding sections, and we include terms for interactions between New Leaders' status and mathematics and reading gains in 2010. Second, we ran a series of analyses regressing 2011 gain scores in both mathematics and reading on survey outcomes, whether or not the school was led by a New Leaders principal, and other control variables. These steps allow us to gain insights on potential contextual conditions that may be influencing the student-achievement findings presented in Chapter Four by first observing whether context varies by New Leaders program status and then observing whether context is related to differences in student-achievement outcomes. We focus on 2011 gain scores because these correspond with the timing of survey administration and because almost 20 percent of the principals surveyed left after SY 2010–2011.

The results of the regression models predicting the survey scales are presented in Tables B.36 and B.37 in Appendix B, available online. We observe several statistically significant coefficients on the New Leaders indicator, which suggests that New Leaders principals respond differently to those survey scales even when we control for other factors. Perhaps most notably, we see a negative and highly significant coefficient on the New Leaders principal indicator in the model that includes teacher capacity as the outcome (i.e., holding all else constant, New Leaders principals have a less favorable rating of their teaching staff than match principals do). This difference might indicate that New Leaders principals are being placed in schools with less qualified teachers, or it might indicate that New Leaders principals simply have higher expectations for their teaching staff than other principals have.

Our regression results also revealed that New Leaders and non-New Leaders principals with more than one year of experience were more likely than newer principals to rate their teaching staff more favorably, all else equal. This might indicate that expectations for teachers lessen or become more realistic as principals gain experience. It might

also indicate that principals are able to help their teachers improve as time goes on or that principals are able to remove ineffective teachers as they gain experience.

Consistent with this finding is the fact that experienced principals expressed more-favorable opinions than new principals did regarding their school's conditions related to human capital. At the same time, experienced principals reported lower levels of satisfaction with some aspects of their districts' working conditions. These findings suggest that principals' perceptions of the adequacy of their working conditions might change as they gain experience in their schools and as they have opportunities to reshape those conditions. In particular, their growing satisfaction with human capital could reflect the fact that experienced principals are able to influence the quality of school staff over time.

Being a New Leaders principal was also associated with lower scores on the scale measuring level of authority over school staffing and with higher scores on the scale measuring the extent to which this level of authority over school staffing is perceived as a hindrance. In other words, compared with match principals, New Leaders principals tended to report lower levels of authority over school staffing and were more likely to perceive this as a hindrance. The other scale with a negative association with being a New Leaders principal was the one measuring satisfaction with the principal's supervisor. These findings suggest that New Leaders principals might have higher expectations regarding the school and district conditions that they believe are necessary for supporting their leadership practices.

Our final set of analyses explored whether the scales related to school and district conditions were associated with student-achievement outcomes to explore whether growth in student achievement was higher in schools where principals reported favorable working conditions than in other schools. We regressed reading and mathematics gain scores for SY 2010–2011 separately on each factor scale, on an indicator variable for New Leaders principal, on an interaction between the factor scale and the New Leaders principal indicator variable, an indicator variable for experience as a principal greater than one year, and on an interaction between the experience variable and the factor scale. We also included controls for school level and district.

Essentially, we explored some of the plausible pathways through which the New Leaders program could indirectly influence student outcomes. In response to the New Leaders intervention, principals might modify their practices, and these changes could, in turn, influence student outcomes. However, the data do not allow us to make causal conclusions regarding the actual reasons for any program effects or practices, so findings from this analysis need to be interpreted cautiously.

We observed a few significant findings across the models:²

- *More-favorable school working conditions* (e.g., the degree of parent support, access to resources, and whether day-to-day issues consume a lot of a principal's time) related to the school environment were positively associated with gain scores in reading and in mathematics.
- *Higher ratings of teacher capacity* were related to gain scores in reading.
- Principals' self-reports of *more time spent on instructional leadership* were positively associated with gain scores in mathematics, as were more-favorable ratings of strategies and actions taken by the district.

These results suggest that principals who believe they are working in schools with supportive working conditions and high-quality teachers are more likely than other principals to experience gains in student achievement, as are principals who devote more time to instructional leadership activities. It is important to recognize that these findings reflect within-district differences in achievement and working conditions and that, as discussed earlier, we did not observe large differences in overall perceptions across districts.

² Appendix B, available online, provides the results for these models (Tables B.38 through B.41).

Conclusion

Despite these analyses, no clear patterns emerged that would explain differences in achievement results among districts based on district conditions. No single factor appeared to drive the magnitude of the New Leaders program-effect measures.

Largest Program Effects

In the districts with the largest positive program effects, Baltimore and Oakland, New Leaders principals reported below-average levels of autonomy, but, on average, these principals did not view the lack of authority as a hindrance to their leadership. This finding is inconsistent with our expectation that the program effect would be larger in locations that provide more autonomy to principals. Comparison-group principals in both districts were unlikely to have participated in a residency-based preservice program similar to New Leaders, which is consistent with our expectation that program effects would be larger in cities where the treatment is different from business as usual. Baltimore principals, on average, viewed the district vision and strategy related to school leadership more favorably than principals in other districts.

Weakest Program Effects

In contrast, in districts where our New Leaders program-effect measures are mixed and not statistically significant—Chicago and New York—we know that some of the match principals have experienced a training program similar to New Leaders, but we were unable to control for such participation in our analysis. Principals in both districts reported above-average autonomy. However, in New York, principals rated the district vision and strategy, quality of district process and supports (including processes for removing teachers and quality of teacher professional development), and quality of supervisors lower, on average, than principals in other districts did. Similarly, principals' views on the district vision and strategy were not consistently related to our program-effect findings. Our analysis suggests a need to better understand the role of autonomy in principals' success and the other district conditions that are required for principals to effectively lever-

age autonomy. Our analysis also suggests that the presence of similar, alternative programs in a district influences the results, although it is impossible to estimate such a relationship with the small number of districts in this study.

Working Conditions

We found that some school working conditions were associated with student-achievement gains at the school level. For instance, higher ratings of teacher capacity were related to gains in reading, and more time spent on instructional leadership was related to gains in mathematics. These findings suggest that some of the variation in achievement effects between individual principals might be a result of differences in practices and perceived working conditions. However, most of the differences in principals' effectiveness cannot be explained by these factors.

Allocation of Time

Responses to our surveys suggest that, for the most part, New Leaders principals and match principals allocate their time in similar ways and have similar perceptions of school and district conditions. The similarities between New Leaders and non–New Leaders principals might be due, in part, to the fact that New Leaders has tried to induce district-wide changes in working conditions. We did observe differences between the two groups in their perceptions about the adequacy of the effort they devote to different tasks, the capacity of their teachers, and a few district conditions. New Leaders principals tended to rate their teachers as having lower capacity and their district working conditions as less adequate than other principals in their districts did. This could indicate that New Leaders principals have higher expectations than non–New Leaders principals. If so, such differences could stem from New Leaders principals' exposure to the New Leaders training and vision.

It is important to keep in mind that most of the analyses in this chapter relied on self-reported survey measures, and it is impossible to determine whether differences in responses reflect differences in actual conditions or practices or merely the perceptions of survey respondents. The findings do not provide any definitive evidence regarding the rea-

sons for positive effects of the New Leaders program in some districts. The lack of systemic relationships to explain cross-district differences could stem in part from the fact that the interactions among program effects, aspects of implementation, and conditions on the ground are complex; additional autonomy might enhance the program effects in some contexts but diminish them in others.

The findings do suggest that some aspects of principals' working conditions are associated with principals' effectiveness at improving student achievement, but, as noted earlier, these working conditions could reflect a combination of factors that were influenced by the principals and those over which the principals lack control. Programs like New Leaders need to be attuned to these working conditions if they hope to have an impact on student outcomes. In the next chapter, we draw on findings from this report to discuss some implications for districts and program providers.

Conclusion

In the preceding chapters, we described New Leaders' approach to improving school leadership and the extent to which the approach has been associated with changes in student achievement. In this chapter, we summarize the key findings and discuss their implications for policymakers and practitioners who are interested in improving the quality and effectiveness of school leaders.

Key Findings

What Are the Features of the New Leaders Program?

Three Core Elements

New Leaders strives to ensure high academic achievement for all students through improvements in school leadership. To achieve that goal, it designed an approach that involved both preparing high-quality principals and partnering with school districts to improve the conditions in which principals work. Their program to prepare high-quality principals includes three core elements. The first is a process of *recruitment and selective admission* that takes into account a wide variety of applicant attributes. As of 2013, this program element consisted of two broad strategies: a national recruitment and selection process to identify high-quality participants from across the country, and the Emerging Leaders Program, a pipeline-building strategy targeting teachers, instructional coaches, and assistant principals in partner districts who seek to become principals within a few years. The second core element is *residency-based training* offered through the Aspiring Principals Pro-

gram and *endorsement* upon successful completion of the program. Participants in the Aspiring Principals Program pay no fee, and residents receive a salary from the district during their residency years. Participation concludes with a rigorous assessment that contributes to New Leaders' decision to endorse the candidate. The third core element of the New Leaders program is the provision of *support to new principals*. The nature of this support has varied over time. As of 2013, that support was provided through the Principal Institute and coaching.

District and Charter-Management Organization Partnerships That Support Execution

New Leaders executes this program through its partnerships with school districts and CMOs. New Leaders engages in an extensive process of recruitment and evaluation of potential district partners, with a goal of ensuring that leaders in partner districts share the organization's goals and are willing to adopt policies and practices consistent with New Leaders' vision. Districts must not only commit to placing New Leaders principals in high-need schools but also agree to make the necessary changes to enable all principals to work in environments that support high-quality leadership. Such conditions often include expanded autonomy for principals and adoption of data-driven approaches to assessing student and school progress. As a result of these requirements, principals in all partner district schools, not just New Leaders principals, are likely to experience changes in working conditions as a result of the partnership.

Commitment to Continuous Improvement

Since its inception, New Leaders has set high, outcome-oriented standards, monitored its progress against those standards, and modified the program as needed in response. This comprehensive national evaluation sponsored by New Leaders is without precedent in the field of school leadership. New Leaders responded to interim findings by making changes that addressed any issues that surfaced each year. For example, in 2012, New Leaders implemented major changes that affected the three core elements of its program and established the Emerging Leaders Program and the Principal Institute along with important modifications to the Aspiring Principals Program. Some of these changes

were made in response to findings regarding the importance of skills in managing adults and the lack of opportunities that teacher leaders have to develop those skills. Although these changes grew out of the ongoing evaluation, our study does not capture their effects. A future RAND report, funded by a recently awarded Investing in Innovation Fund grant to New Leaders, will explore the effects of the revamped program.

How Was the New Leaders Program Implemented in Partner Districts?

Growing Number of Evolving Partnerships

New Leaders began with three partnerships and has added more over time as its capacity to prepare principals has increased. Early on, New Leaders faced challenges in identifying high-quality residency placements in high-need schools with effective mentor principals because those districts were suffering from the same leadership challenges that New Leaders sought to address. This challenge subsided over the years as the pool of New Leaders principals grew. Although the same core elements of the program have been implemented in all partner districts, the manner in which those core elements are implemented in each district has evolved over time, partly in response to feedback from district partners.

Varied Implementation to Meet Partner Districts' Needs

Partner districts differ in terms of the concentration of New Leaders principals (i.e., the total number and proportion of district principals who participated in the New Leaders program). In addition, partner districts look to New Leaders to serve different roles depending on the current needs in their districts, as well as the districts' access to other principal-preparation program partners. Some districts, such as Chicago and New York, work with several other partner organizations that prepare new principals using an approach that is broadly similar to that used by New Leaders. Other districts, such as Memphis and Oakland, have few, if any, partners that use a similar approach. Charlotte has other partners but views New Leaders as unique in terms of its focus on preparing leaders to serve in high-need schools. And although

all partner districts perceived a need for more high-quality leaders at the inception of the partnerships, budget challenges and enrollment declines in many of the partner districts placed limits on the actual demand for leaders.

District partners have also differed in terms of their ability to fulfill the commitment to providing a high level of authority to principals and to support principals in using that authority effectively. For example, in New York, surveyed principals reported being given substantial authority over budget and curriculum issues but more-limited authority over veteran-teacher placements. In Prince George's County, by contrast, surveyed principals reported a relatively low level of authority across all areas.

From an evaluation perspective, these varying conditions mean that program implementation—and, thus, the New Leaders program treatment—varied across districts and over time. Although this variation presents challenges for a rigorous national evaluation, it reflects New Leaders' responsiveness to district needs and commitment to ongoing data-driven program improvement. In 2012 and 2013, all participating partner districts reported that the partnerships had benefited their districts, and they remained committed to continuing the partnerships in some form.

How Did New Leaders Principals Affect Student Achievement in Their Schools?

Statistically Significant Achievement Gains

Our analysis of the effects that attending a school led by a New Leaders principal has on student achievement found evidence that students who attend such schools experience slightly larger achievement gains than similar students in schools led by non-New Leaders principals. At the lower grade levels, spending three or more years in a school with a New Leaders principal was associated with achievement gains that translated to a change of 0.7 to 1.3 percentile points for a typical student. At the high school level, students in schools where the New Leaders principal had three or more years of tenure experienced gains in reading achievement of about 3 percentile points. Although these effects are not as large as those observed in some classroom- or student-

level interventions, they demonstrate that effective principals positively influence student achievement—despite the fact that principals do not teach students every day.

Differing Effects Across Districts

The magnitudes of achievement effects varied substantially across districts. In four sites (Baltimore, Memphis, Oakland, and Washington, D.C.), the effects were positive and statistically significant in at least one subject. However, we observed statistically significant and negative effects in at least one subject in three districts (Milwaukee, New Orleans, and Prince George’s County). In Chicago and New York, the effects were small and not statistically significant; however, both districts have principal-preparation programs similar to New Leaders, so it is possible that the effects of those programs masked the New Leaders effects.

Characteristics of Non–New Leaders Principals Influence Estimates

Because our program-effect measures are relative ones, the characteristics and experiences of the non–New Leaders principals who serve as the comparison group for New Leaders principals influence the size of those estimates. As a result, our estimates do not reflect the total impact of introducing the New Leaders partnership in a district or CMO. First, the estimates of New Leaders effects may be low because of district-wide changes that confer advantages to all principals, New Leaders and non–New Leaders principals alike. Second, some districts have non–New Leaders principals who received training similar to New Leaders training, so comparing the effects of New Leaders principals with those of a group that includes those similar to New Leaders principals would not be expected to surface substantial differences. This is of particular concern in Chicago and New York. Finally, although our effect estimates compare New Leaders principals and non–New Leaders principals in the same districts who have similar numbers of years of experience, our analysis of principal retention reveals that New Leaders principals are somewhat more likely to remain in their schools for three or more years. If poorly performing principals are less likely to survive into their third years and more New Leaders than non–

New Leaders principals are making it to that point, these differences in retention could bias the estimates downward.

What Factors Might Help Explain the Observed Relationship Between New Leaders Principals and Outcomes?

No Systematic Explanations for Varying Effects

We looked for characteristics of the districts or the principals that could account for the differences in effects that we observed across districts, but we did not find any systematic differences in our data. In fact, survey responses revealed that New Leaders and non–New Leaders principals were generally similar in the practices they adopted and their perceptions of many of the school and district conditions that could influence their effectiveness. These similarities might be attributable in part to New Leaders’ efforts to promote district-wide change. At the same time, we recognize that myriad factors are likely to have contributed to the differing effects across districts, and additional study of these potential factors could identify ways to strengthen the implementation of programs like New Leaders. In particular, our analysis suggests the need for further examination of the interplay between student outcomes, a district’s overall emphasis on and support for school leadership, and the extent to which principals have autonomy over hiring and staffing, budgeting, curriculum, professional development, facilities, and scheduling.

Differences in Perceptions Between New Leaders and Non–New Leaders Principals

However, we did observe some differences between New Leaders principals and non–New Leaders principals in their perceptions about the efforts devoted to specific activities, their expectations for teachers’ capacity and behaviors, and their satisfaction with a few specific district conditions. In particular, we found that New Leaders principals tended to rate their teachers as having lower capacity and their district working conditions as less adequate than other principals in their districts did. This suggests that New Leaders principals might have higher expectations than non–New Leaders principals, perhaps as a result of their exposure to the New Leaders training and vision.

Influence of Working Conditions

We also found that more-favorable working conditions in the school environment were positively associated with achievement gains in reading and mathematics. We found that higher ratings of teacher capacity were related to gains in reading. More time spent on instructional leadership was positively associated with gain scores in mathematics. Similarly, more-favorable ratings of strategies and actions taken by the district or CMO were positively associated with gain scores in mathematics. These findings suggest that some of the variation in effectiveness across individual principals might be partly attributable to their practices and working conditions (or at least their perceptions of those conditions), but most of the differences in principals' effectiveness could not be easily explained.

Implications

The findings summarized in the preceding section are intended to help policymakers and practitioners understand how New Leaders approaches the challenging work of ensuring that all students have access to high-quality school leaders and to share some of the evidence we gathered regarding districts' experiences with New Leaders and the ways in which student achievement has changed in partner districts. The results of this evaluation can help inform decisions regarding potential partnerships with New Leaders or other providers of principal training and support. We highlight the implications in this section.

Principals and Their Preparation Matter

The fact that we observed a statistically significant program effect in a comprehensive evaluation of a national program is consistent with a growing body of research that suggests that principals matter. Although they are not in the classroom teaching students on a daily basis, the actions of successful principals support and enable effective teaching and learning. Although some New Leaders principals are leading privately run charter schools, most New Leaders principals serve in district-run schools—suggesting that principals can be effec-

tive in a variety of settings. Our findings also suggest that New Leaders principals differ in effectiveness from their traditional counterparts to a greater degree in some districts than in others, although we were unable to identify the drivers of these district-level differences. Were it possible to identify those drivers and adjust the program or district conditions accordingly, the measurable effects of such a program could be much larger.

Greater Attention to Principals' Working Conditions Is Needed

Districts considering partnerships to improve school leadership must recognize that high-quality training is only part of the story. Significant work is involved in creating the conditions for high-quality leaders to be successful in the district as well. The original premise of New Leaders was that high-quality leadership results from the combination of well-trained, high-quality leaders working in conditions in which they are provided the autonomy and supports needed to enable them to improve student achievement. In the past decade, New Leaders has trained more than 800 aspiring principals, increasing the pool of high-quality principal candidates in partner districts around the country. During that time, other providers with similar approaches have emerged, further contributing to this enhanced pool of principals. The New Leaders approach addresses autonomy and working conditions. Our evaluation suggests that there is still work to be done on working conditions, especially with regard to providing principals with the tools and flexibilities they need to staff their schools with highly effective teachers.

Evaluating the Effectiveness of a Program Like New Leaders by Relying on Within-District Comparisons Could Underestimate Effects

Within-district comparisons of program participants and nonparticipants are common in rigorous evaluations, such as this one, partly because of the need to obtain comparable outcome data for treated and untreated students and to follow students over time as they change schools. However, there is a risk of spillover resulting from exposure of nonparticipants to the intervention, particularly for programs that,

like New Leaders, emphasize district-wide changes. District leaders or others who are seeking to determine whether a program is effective should consider other sources of evidence, such as qualitative information; should explore opportunities to gather information from non-participants in other districts; and should gather information to help understand the extent to which nonparticipating principals might have been influenced by the program.

Benefits of the New Leaders Partnership Can Extend Beyond New Leaders Principals to Other Schools in the District

The previous paragraph noted challenges in characterizing the effect of a program that is explicitly intended to influence those who do not participate directly in the program. At the same time, this approach has potential advantages, and those who are seeking to partner with an external provider should consider the extent to which the program is likely to induce district-wide improvement and not just whether staff members who directly participate in program activities, such as training, will reap benefits. The possibility for system-wide change is an important consideration when evaluating the costs and benefits of a program.

Constructive Partnerships Between the District and the Program Provider Require Ongoing Communication and Willingness to Modify the Program

The willingness of New Leaders to modify its approach in response to changes in districts' needs and local contextual conditions appears to have been helpful in supporting effective partnerships with districts. These changes have been informed by frequent communication between districts and New Leaders, along with feedback from the formative evaluation. When districts form partnerships with external program providers, both the districts and the providers are likely to benefit from frequent communication about what is working well and where changes might be needed.

There Is Sometimes a Tension Between Continuous Improvement and Maintaining a National Program Model That Can Be Evaluated Across Contexts

As we described in Chapter Three, New Leaders continuously monitors the outcomes of its programs and revises the program in response to that information. It also strives to be responsive to partner districts' needs. Although doing so might have improved the program and strengthened the partnerships, the changes posed challenges for a comprehensive evaluation because the nature of treatment varied over time and across districts. Looking ahead, cross-district differences in the extent to which the Emerging Leaders Program is a focus could lead to additional differences across districts in what it means to be exposed to the New Leaders program and pose further challenges for interpreting effects across districts. This tension must be kept in mind when designing evaluations and when interpreting findings from them. At a minimum, it suggests a need for careful documentation of cross-district differences in program features over time and an effort to examine effects separately by district in addition to any aggregated findings.

Future Research Should Further Explore How the Combination of Principal Preparation, Autonomy, and Support Contributes to Student Success

Our evaluation of New Leaders provided detailed information on the program and its implementation, but our ability to make clear policy recommendations is limited by the focus on a single program and by a lack of detailed information on the school and district conditions that might have influenced the performance of both New Leaders and match principals. In the future, we expect more districts to have improved data systems that would permit comparisons that control for such factors as training given by other providers. Ideally, the data systems will provide information on principal training and characteristics along with systematic school-level data on such factors as autonomy and leadership supports to allow for cross-school and cross-district analyses of these important issues. These data would need to incorporate objective measures rather than relying exclusively on principals' perceptions. Moreover, data systems that could track conditions, such as teacher

capacity (e.g., by using scores from teacher evaluation systems), before and after a principal is placed in a school could help us understand the extent to which newly placed principals are influencing those conditions through their leadership. Analyses of these quantitative data could be supplemented by case studies that examine instances of both successful and unsuccessful implementation in an effort to identify factors that distinguish these two groups. We suspect that the presence or absence of particular conditions, such as autonomy over curriculum and the quality of principals' supervisors, is less important than the presence of *effective combinations of conditions*. Cross-district analyses of these issues could generate useful insights for the field—providing a menu of options for districts to consider based on their circumstances.

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New Leaders is a nonprofit organization with a mission to ensure high academic achievement for all students by developing outstanding school leaders to serve in urban schools. Its premise is that a combination of preparation and improved working conditions for principals, especially greater autonomy, would lead to improved student outcomes. Its approach involves both preparing principals and partnering with school districts and charter management organizations (CMOs) to improve the conditions in which its highly trained principals work. As part of the partnerships, New Leaders agrees to provide carefully selected and trained principals who can be placed in schools that need principals and to provide coaching and other support after those principals are placed. The districts and CMOs agree to establish working conditions that support, rather than hinder, the principals' efforts to improve student outcomes. This report describes how the New Leaders program was implemented in partner districts, and it provides evidence of the effect that New Leaders has on student achievement.



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