Kindergarten Outreach, Application, and Enrollment

Lessons Learned from a Research-Practice Partnership with New York City's Department of Education

Rekha Balu Barbara Condliffe Margaret Hennessy



Kindergarten Outreach, Application, and Enrollment

Lessons Learned from a
Research-Practice Partnership with
New York City's Department of Education

Rekha Balu, Barbara Condliffe, and Margaret Hennessy with Jedediah J. Teres and Vianny Lugo Aracena



MAY 2021

FUNDERS

The authors thank the Walton Family Foundation for its generous support in funding the research used in this report.

Dissemination of MDRC publications is supported by the following organizations and individuals that help finance MDRC's public policy outreach and expanding efforts to communicate the results and implications of our work to policymakers, practitioners, and others: The Annie E. Casey Foundation, Arnold Ventures, Charles and Lynn Schusterman Family Foundation, The Edna McConnell Clark Foundation, Ford Foundation, The George Gund Foundation, Daniel and Corinne Goldman, The Harry and Jeanette Weinberg Foundation, Inc., The JPB Foundation, The Joyce Foundation, The Kresge Foundation, and Sandler Foundation.

In addition, earnings from the MDRC Endowment help sustain our dissemination efforts. Contributors to the MDRC Endowment include Alcoa Foundation, The Ambrose Monell Foundation, Anheuser-Busch Foundation, Bristol-Myers Squibb Foundation, Charles Stewart Mott Foundation, Ford Foundation, The George Gund Foundation, The Grable Foundation, The Lizabeth and Frank Newman Charitable Foundation, The New York Times Company Foundation, Jan Nicholson, Paul H. O'Neill Charitable Foundation, John S. Reed, Sandler Foundation, and The Stupski Family Fund, as well as other individual contributors.

The findings and conclusions in this report do not necessarily represent the official positions or policies of the funders.

OVERVIEW

he New York City Department of Education (NYC DOE) is the largest public school system in the country, and regularly communicates with more families in a month than many school districts do in a year. Innovations in communication or outreach efforts can influence profoundly how families engage with the district, especially innovations in outreach about school application and admissions processes. Getting this outreach right is especially important when it focuses on families' first required encounter with the school system: kindergarten application and enrollment.

A research-practice partnership between MDRC and NYC DOE that began in 2017 focused on mutual learning using insights from behavioral science and human-centered design to achieve five learning goals related to the kindergarten application process: (1) Uncover potential barriers to application for parents using a systematic diagnostic process. (2) Capitalize on NYC DOE's shift to a new digital application platform to identify constraints on outreach and opportunities to innovate. (3) Create an evidence-based intervention to encourage on-time application. (4) Test intervention effectiveness at NYC DOE's full scale with a rigorous randomized field trial. (5) Apply insights and refine admissions processes in a cycle of learning.

This report discusses study results and lessons learned for each of the five goals, including the importance of active outreach to families and ways to remain connected to families who may need more application support. These lessons can inform policymakers looking to implement similar programs in other districts.

CONTENTS

OVERVIEW	iii
LIST OF EXHIBITS	vii
ACKNOWLEDGMENTS	ix
School Applications Move Online; Do Parents?	1
Learning Goal 1: Uncover Potential Barriers to On-Time Application for Parents	2
Learning Goal 2: Identify Opportunities to Innovate	8
Learning Goal 3: Design and Develop Interventions	10
Learning Goal 4: Test the Interventions on a Large Scale	15
Learning Goal 5: Apply Insights, Refine Approaches, Focus on New Gaps	19
APPENDIX A	23
Characteristics of Students Enrolled in Kindergarten in the Fall of 2019	25
Intervention Materials	26
REFERENCES	33
ILL LILIOLO	55

LIST OF EXHIBITS

TABLE

1	Characteristics of Students Enrolled in Kindergarten in the Fall of 2019, by Study Participation	25

FIGURE

1	A Family's Pathway to Kindergarten Application and Enrollment	4
2	Populations the New York City Department of Education Could and Could Not Reach Digitally for Fall 2019 Admissions	10
3	Addressing Behavioral Barriers to Application Through Digital Interventions	12

BOX

1	Kindergarten Admissions Priorities and Process	6
2	Typical NYC DOE Email Campaigns and Samples	11
3	Reaching Target Groups: Families in Shelters	18

ACKNOWLEDGMENTS

he authors would like to thank our research partners at the New York City Department of Education, especially Rachel Leopold and the staff at the Office of Student Enrollment, who helped us plan and execute the intervention and facilitated our visits to family shelters. We are grateful to the families who provided insight on their experiences with kindergarten application and enrollment, and the staff members at Family Welcome Centers and family shelters who contributed to our understanding of challenges in the enrollment process. We are the beneficiaries of their generosity of time and spirit. We thank the staff of the New York City Department of Education's Research and Policy Support Group and of the Department of Social Services, who provided us with critical student records data, and the Institutional Review Board, whose contributions to the study are deeply appreciated.

Thanks to Amena Sengal for assisting with interviews and observations, and to Kriti Singh, who helped code the data. We thank Sam Peterson and the MDRC IT department, who developed or hosted aspects of the intervention described here.

Thanks to our MDRC colleagues William Corrin, Jill Kirschenbaum, Shira Mattera, and Rebecca Unterman, who carefully reviewed earlier drafts of this report and made comments that improved the final product. Mary Bambino kept the project on task and on budget. Ellie Warner-Rousseau coordinated the report. Joshua Malbin edited the report and Carolyn Thomas prepared it for publication.

The Authors

SCHOOL APPLICATIONS MOVE ONLINE; DO PARENTS?

Over the last decade, major school districts in cities across the United States, including New York City, have moved toward centralized application procedures in which parents can apply for all noncharter public schools using a common form or process. Digital application platforms support these centralized processes, ideally to make it easier for parents to apply and for districts to process the applications. Many districts started by using online systems like these for high school applications, but more recently have begun to use them for multiple grades, starting as early as prekindergarten. Meanwhile, more districts, including New York City, now offer parents their choice of schools across a district, rather than directing parents only to their neighborhood schools.² Combining increased choice with digitization can provide more opportunity and efficiency to those parents who understand how to search for schools and how to navigate new web platforms or smartphone apps to submit their applications. But the move to digital applications also could increase inequities.

School selection can already feel like an unequal process. Past research on school choice has found that parents face information gaps regarding available schools and the process itself—meaning that some types of parents are likely to have more information than others and that in general, parents may have more information about some aspects of the process than others.3 Official school selection information in school district guides and websites often is not easy to find or is not organized in ways that align with how parents search. 4 Many parents rely on their social networks to fill in information.⁵ However, because of persistent racial and economic residential and school segregation, there are racial and economic differences in the quantity and quality of school-choice information flowing through these social networks, and in the ways parents use that information.⁷ These differences could perpetuate information gaps in school selection through the application process itself.

Online platforms can also be challenging to navigate, and parents of different economic strata do not have equal access to stable internet and broadband.8 Parents also face challenges with any new

This report uses the term "parents" to describe parents and guardians.

^{2.} Many districts are also moving to unified, usually digital enrollment systems: Charter and traditional public school applications take place in a single search and application system in which children receive a single best offer. Such systems include, for example, New Orleans's OneApp, Indianapolis's Enroll Indy, GoCPS in Chicago, and Camden Enrollment in Camden, NJ. For more information about the different types of unified enrollment systems, see Gross, DeArmond, and Denice (2015).

^{3.} Bell (2009); Fong (2019); Neild (2005); Sattin-Bajaj (2014, 2015).

^{4.} Corcoran, Jennings, Cohodes, and Sattin-Bajaj (2018); Gross, DeArmond, and Denice (2015).

^{5.} Bassok, Magouirk, Markowitz, and Player (2018); Fong (2019); Mavrogordato and Stein (2014); Rhodes and DeLuca (2014).

^{6.} Teske, Fitzpatrick, and Kaplan (2007).

^{7.} Fong and Faude (2018).

^{8.} Horrigan and Duggan (2015).

application procedure,⁹ and online applications may not completely resolve what is complex and potentially confusing about the process.¹⁰ Finally, the move to digital platforms can exacerbate a problem already facing many school districts: how to reach families in the first place? This question is especially critical for kindergarten, because many families do not have contact with their school districts before children are of kindergarten age. In many districts, including New York City, parents need to initiate that contact by actively subscribing to an email list or creating an online account, or they must have applied for or enrolled in prekindergarten. Recent experiments testing opt-in versus opt-out processes in school districts show lower participation in a variety of school-related actions when opting in is required.¹¹ Thus, districts that rely on parents opting in may not connect with parents who most need reminders and encouragement to apply.

In this context, MDRC and the New York City Department of Education (NYC DOE) formed a research partnership to identify kindergarten application challenges facing parents, address underlying barriers to participation in the process, and design and test corresponding interventions. The rest of this report follows the chronology of the partnership and work conducted in support of five learning goals, and shares NYC DOE lessons and insights related to each. The discussion begins with activities that MDRC and NYC DOE completed jointly: (1) understanding and diagnosing barriers that parents face to on-time application and (2) identifying opportunities for NYC DOE to innovate. Then the report describes work MDRC led: (3) designing and developing an intervention to reach parents and (4) using a randomized field trial that included nearly 100,000 email addresses to test whether a package of interventions improved on-time application rates. The report concludes with a discussion of (5) a joint learning cycle to apply insights in the years since the test.

LEARNING GOAL 1: UNCOVER POTENTIAL BARRIERS TO ON-TIME APPLICATION FOR PARENTS

At the start of the partnership in 2017, NYC DOE focused attention on kindergarten as a place where application rates, and to some extent enrollment, were not as high as they were for other grades and where there could be an opportunity—in the wake of universal prekindergarten, which launched in the 2015-2016 school year—for more families to continue to kindergarten. The NYC DOE's Office of Student Enrollment expressed special interest in understanding challenges among groups with lower application rates and additional obstacles to applying, such as families in shelters and those with a preferred language other than English.

MDRC's <u>Center for Applied Behavioral Science</u> uses a systematic process of problem definition, selection, and diagnosis that draws on psychological insights about human behavior and pairs

^{9.} Moynihan, Herd, and Harvey (2015).

^{10.} Dynarski, Libassi, Michelmore, and Owen (forthcoming); Herd and Moynihan (2019).

^{11.} Bergman, Lasky-Fink, and Rogers (2020).

^{12.} This partnership is described in Condliffe, Balu, Hennessy, and Leopold (2020).

processes from human-centered design and product and service design with descriptive research using quantitative and qualitative social science methods.

A Process Map

As a first step in its diagnosis process, MDRC worked with NYC DOE to create a process map that represented the sequence of steps parents had to take and the decisions they had to make to submit a kindergarten application.¹³ In assembling the map, the partnership explored the following descriptive research questions: (1) How do parents get information from NYC DOE? (2) When do parents interact with NYC DOE in person or online? (3) Where are parents getting stuck and why? To start the map, the team had conversations with enrollment staff members and reviewed NYC DOE's application guidebooks and forms, information on the NYC DOE website, websites designed for parents from third parties, and other districts' materials.

How Parents Get Information from NYC DOE

To notify parents about the application process, in 2016 and 2017 NYC DOE made contact with families in several ways. Before the application period, it hosted informational events in different community school districts.¹⁴ During the six to eight weeks that parents could submit applications, NYC DOE emailed parents who subscribed to its kindergarten information email list. 15 In addition, it held special events at large family shelters.

When Parents Interact with NYC DOE

In New York City, children are eligible to start kindergarten in September of the calendar year that they turn 5 years old. The kindergarten application is due in mid-January, eight months before kindergarten will begin. For parents with children born in December, this timeline means that they need to apply to kindergarten when their children have just turned 4 years old, and that they need to be researching schools before a child's fourth birthday. A child turning 5 may cue parents to start thinking about kindergarten, but many parents actually need to start the process long before that.

Where Families Get Stuck

As shown in Figure 1, the team ultimately mapped a kindergarten application process for fall 2019 that involved at least 12 decision points. MDRC and NYC DOE focused their investiga-

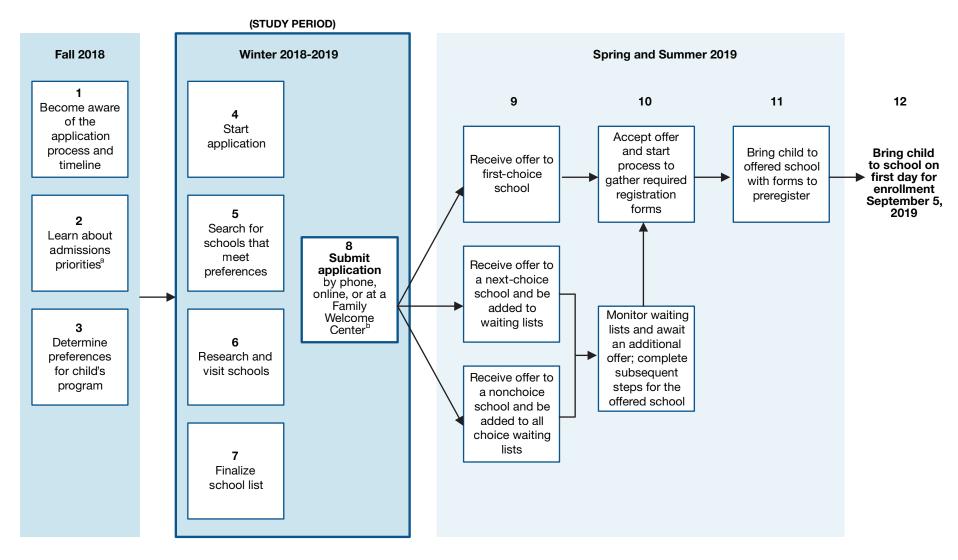
^{13.} More information about how the CABS mapping process can support service design and improvement is available online at https://cabs.mdrc.org/our-approach/cabs-approach/diagnose/part-1-introduction-rolemapping-social-service-innovation and https://cabs.mdrc.org/our-approach/cabs-approach/diagnose/ part-2-how-cabs-approach-mapping-can-lead-service-improvements.

^{14.} The larger school district of New York City is divided into 32 "community school districts," which cover geographical regions of the city, plus districts for students in charter schools and those in special education.

^{15.} At the time, NYC DOE also still distributed paper guides organized by borough to inform parents about their school options. The guides included worksheets to help parents start their school lists to submit with their applications.

FIGURE 1

A Family's Pathway to Kindergarten Application and Enrollment



NOTES: ^aKindergarten programs give admissions priority to specific groups of applicants before others, as detailed in Box 1.

^bFamilies can receive kindergarten application and enrollment assistance from NYC DOE staff members at Family Welcome Centers.

tion about where parents get stuck on those decisions that involved parents initiating contact or submitting a decision to NYC DOE. The team conducted a quantitative analysis focused on potential drop-off points (places where parents could stop the application and enrollment process or skip a step). They focused particularly on the application submission step, shown in Figure 1 as decision point 8. Some families eligible to apply did not: Among families who enrolled in kindergarten for the 2016-2017 school year, 28 percent had not submitted applications during the previous school year. 16 It is possible that some of these families may have moved to the district in the intervening time; many of them could have been living in the district all along. Families who enroll in schools without going through the application process may not get seats at their preferred schools, and when families enroll without applying first, the district is not able to staff schools in proportion to their actual enrollment numbers.

MDRC's analysis for the 2016-2017 enrollees also found that application rates (the percentages of enrollees who went through the application process) in community school districts ranged from as low as 70 percent to as high as 97 percent. This geographic variation in application rates corresponds to some degree to demographic differences among boroughs and neighborhoods in New York City. Application rates were lower in high-poverty community school districts. Rates were also lower among children who were designated as English Language Learners when they entered kindergarten and families who lived in temporary housing at some point during the kindergarten year. The fact that these families were disproportionately affected—families who have been historically underserved in school application processes—suggested that this difference in application rates could be related to inequities in the support available to them. The district could do more to address these inequities in the future.

Why Families Get Stuck: Barriers to Completing Applications

To understand why parents get stuck in the application process, in 2017 and 2018 the MDRC team conducted interviews with families who did not speak English at home and families living in the city's shelter system, as well as with shelter staff members. MDRC staff members also observed NYC DOE admissions informational events for families and events where NYC DOE and shelter staff members advised parents at family shelters, and observed families at libraries interacting with the NYC DOE online application. During these interactions, parents needed to understand NYC DOE admissions priorities and identify schools where their children had priority, as explained in Box 1. Official NYC DOE materials and non-NYC DOE parent websites offered varying degrees of guidance on these decisions and priorities.

The team watched for points of confusion related to the decision points highlighted in Figure 1 or the terms used by NYC DOE in its materials, moments of surprise when parents learned things they had not expected, and indications that parents perceived parts of the process as too

^{16.} See Figure 4 in Condliffe and Balu (2019).

BOX 1

Kindergarten Admissions Priorities and Process

There are 32 community school districts across the city. In 29 of those districts, there are zones, or neighborhood boundaries, in which residents have priority for admission to the local public school. Most families live in zoned neighborhoods and therefore their children have priority to attend specific zoned schools. Kindergarten programs also give admissions priority to other applicants, including:

- · Children with siblings who already attend the school
- Children who attended that same school for pre-K
- For some schools, children or families who belong to underserved groups, such as students in temporary housing, English Language Learners, and students who qualify for free and reduced-price lunches*

Students who fall into a school's first priority group (usually students living in the school's neighborhood zone) will be considered first for seat offers. If seats are still available, then students in the second priority group are considered next, and so on. Families can also apply to nonzoned schools that admit students based on lotteries while giving certain students priority based on factors such as those listed above.† Families can apply to schools for which they do not have priority, but may be unlikely to receive offers to those schools if the schools are in high demand. However, some families are not aware of these priorities, nor of how the priorities might increase or shift the number, type, or location of schools where they are likely to be offered seats.

NOTES: *For kindergarten, a family's list of schools, in rank order of preference, helps NYC DOE's matching system determine a child's school offer(s). Parents can choose up to 12 schools that they want their children to attend, and they are encouraged to rank them with their favorite school options first. NYC DOE's guide for families notes that parents do not have to place their zoned schools first on their lists, but it encourages parents to include their zoned schools somewhere on their lists because families have priority status at such schools.

†See more information and a video at www.schools.nyc.gov/enrollment/enroll-grade-by-grade.

difficult. For example, at one family shelter event, a parent expressed confusion about the difference between a school zone and a community school district.¹⁷

The MDRC team took the barriers they observed or heard about from parents and organized them into three categories—"Know," "Feel," and "Do"—regularly used by the Center for Applied

^{17.} See Box 1 for an explanation of the difference.

Behavioral Science for these purposes.¹⁸ These three types of barriers also align with known barriers from other application experiences.¹⁹

Know: Informational Barriers

These barriers relate either to not having information in time, or to not having clarity about the requirements for applying to kindergarten and the choices available. *Information gaps* regarding eligibility and requirements for all families to participate in the application process meant some parents did not begin the application (step 4 in Figure 1). For example, some parents who already had children in NYC DOE pre-K thought their children would automatically be offered kindergarten seats at the same schools, and thus did not think the application process was necessary.²⁰ Other parents said they did not recall receiving an email from NYC DOE about the application process and thus did not know it was time to apply. Information gaps at critical decision points or action steps in filling out an application (steps 5 through 7 in Figure 1) can also present barriers to submitting an application, which can lead to a parent not completing the process as intended (step 8). For example, some parents were not aware of the concept of school zones, did not know their zoned schools, and did not understand the extent to which they could choose schools outside the zone for their school lists. Once parents understood their choices, some experienced choice overload: They felt overwhelmed by the number of choices and did not know how to gather information to inform their preferences (steps 5 and 6 in Figure 1) and construct final school lists (step 7). At one application event, three parents submitted application forms and all three listed only one school, even though there was space to list more and they had been encouraged to do so.

Feel: Motivational Barriers

Some parents were stymied by feelings of *uncertainty* about how to complete the application when other aspects of their lives were in flux. For example, parents wondered how to proceed with an application that asks for a home address if they expected to move before the start of the school year. This uncertainty was particularly acute among families living in shelters: The team observed that parents had questions about moving that sometimes influenced their decisions about a school list (step 7 in Figure 1) and whether to submit an application at all (step 8). This uncertainty may also have contributed to the relatively low attendance MDRC observed at kindergarten application events hosted at family shelters.

Do: Barriers to Action

For some parents, the timing of the application process interrupted or slowed down action. Parents might have been interested in enrolling their children in kindergarten in September, but were not prepared to apply during the school district's application period in the preceding December and January. Others may have intended to apply in January, but lost track of the

^{18.} Balu, Dechausay, and Anzelone (2019).

^{19.} Richburg-Hayes, Anzelone, Dechausay, and Landers (2017); Carrell and Sacerdote (2017); Bettinger, Long, Oreopoulos, and Sanbonmatsu (2012); Bhargava, Loewenstein, and Sydnor (2015).

^{20.} Parents with children in a school's pre-K did typically have priority for admission into that school's kindergarten, but still had to apply.

deadline, reflecting an *intention-action* gap. Parents also experienced *hassle factors* (nuisances related to wait times, lost connections, unsaved data, etc.) when trying to submit online applications. To complete the digital application, parents needed email addresses to create accounts and verify accounts, and then they had to log in to create and submit their applications. Some parents were slowed even when they worked on applications with NYC DOE staff members in person or by phone, because they needed to access their email to confirm their respective accounts and did not always remember passwords or have reliable wireless internet access in the moment.²¹ These delays and technical glitches could prevent a parent from getting started with the application (step 4 in Figure 1).²² Families who did not speak English also experienced additional hassle factors when seeking support to move through the application process (steps 4 through 8). When MDRC observed NYC DOE events at shelters, NYC DOE did not always have translators on site. Calling 311 for translation support was possible but required additional time.

District Lessons

From this systematic process of mapping, diagnosing, and taking stock, the NYC DOE enrollment office learned to consider how the timing, framing, and sequencing of choices could create both opportunities and challenges for families. When MDRC observations of parents indicated that the jargon of a "zoned school" was confusing, the partnership team discussed solutions such as starting information events and application guidance with discussions of "neighborhoods" and "community districts" instead of "school zones." NYC DOE also considered whether to make the application deadline more salient by having a shorter application period or starting the application period at a different time of year.

LEARNING GOAL 2: IDENTIFY OPPORTUNITIES TO INNOVATE

While Goal 1 analyzed barriers in the application from a family's perspective, Goal 2 sought to address these challenges within the constraints of the NYC DOE system. In 2018, NYC DOE adopted a new application platform called MySchools that would allow parents to search for schools, select them, and submit applications. However, while the change in platform could be an opportunity for easier engagement, it could also create potential new barriers for parents. For example, it meant that parents would need to create new accounts—a new step in a process that already had many. MDRC worked with the Office of Student Enrollment and the NYC DOE communications team to design communications to parents about the application process that drew on the diagnosis done for Goal 1 and that incorporated insights on barriers parents could face with the new MySchools platform.

^{21.} Some parents received in-person help at NYC DOE <u>Family Welcome Centers</u>. These centers corresponding to different community school districts offer in-person support for a variety of application and enrollment questions.

^{22.} NYC DOE staff members brought Wi-Fi-enabled laptops to family shelter sites so that parents there could submit applications immediately, but not all parents they met submitted applications at those meetings.

The partnership's goal was for the Office of Student Enrollment to deliver these new communications using its existing resources, so the team had to design the communications intervention within certain constraints: The office did not have a dedicated kindergarten-enrollment office staff based in community school districts or schools who could reach out to families eligible for kindergarten and provide them with information about the applications process.²³ In addition, as shown in Figure 2, NYC DOE's Office of Student Enrollment had access to contact information only for families who had already applied to pre-K, subscribed to its email updates about the application process, or both. (NYC DOE staff members lacked access to additional lists of kindergarten-eligible families maintained by other city agencies or by outside community organizations—or if they did have access, they did not have permission to use such lists for direct outreach.) As a result, NYC DOE's digital mailing list probably could not reach all families with children eligible for kindergarten (see Box 2).

The partnership team weighed the pros and cons of using email-based outreach. On the one hand, families of special interest to NYC DOE (such as those in temporary housing), might not have already subscribed to NYC DOE email lists or applied to pre-K. The team discussed whether there might be opportunities to use pre-K school or center staff members to collect email addresses or cell phone numbers from parents, or otherwise encourage them to subscribe to the email list, but competing demands on staff time did not make additional personal outreach feasible. On the other, email could be delivered on a large scale at a low cost. And parents would need to link their email accounts to the new application platform, so email-based contact could make that step easier.

District Lessons

From the partnership's analysis of its contact lists and exploration of potential ways to innovate, NYC DOE arrived at some insights about its communication strategy. Some of these insights shaped the interventions designed and developed for this partnership and others are informing continuing innovations. For example, NYC DOE came to realize that it could devise specific messages and outreach (that is, different interventions) for different groups of families based on the families' past and current application behavior. For example, NYC DOE could draw on data from past application and enrollment cycles to identify parents on its contact lists who had missed submitting pre-K applications in the previous year, and offer those parents additional guidance. That guidance could come in emails or could be offered in person, at places convenient to them.²⁴ The enrollment office is also considering new ways to attract parents into its network of email and digital subscribers, to reach all kindergarten-eligible families in advance of the application process.

^{23.} This limitation stands in contrast to applications for other grades in New York City, where active outreach does occur through community outreach teams or school-based guidance counselors. See Crawford, Lader, and Smith (2015).

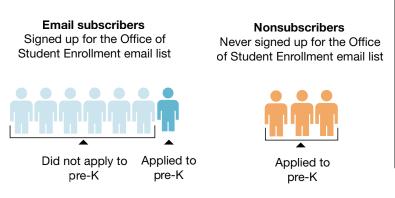
^{24.} For an overview of these types of navigator services see Heyward, Gross, and Jochim (2020).

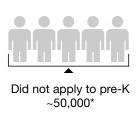
FIGURE 2

Populations the New York City Department of Education Could and Could Not Reach Digitally for Fall 2019 Admissions

Population with Previous Contact with the Office of Student Enrollment (families included in the study sample)

Population with No Previous Contact with the Office of Student Enrollment (families not included in the study sample)





10,000 families

SOURCES: Email subscriber populations and pre-K application data are from NYC DOE records. The population estimate for families not included in the study sample is derived from data from the Citizens' Committee for Children of New York.

NOTES: Relative proportions are approximations rounded to the nearest 10,000 for illustrative purposes. Numbers for email subscribers are based on NYC DOE Office of Student Enrollment (OSE) email addresses, which may not be directly equivalent to the number of eligible families (for example, researchers can sign up for emails without having children eligible for kindergarten). Children who were associated with multiple email addresses were excluded from the analysis. At the time of the study, OSE had contact information and permission to email the families in the study sample, and did not have contact information for the population with unknown eligibility. In 2018, OSE obtained family contact information from pre-K application submissions. Some pre-K applicants may have subsequently enrolled in pre-K.

*This estimate is the number of 5-year-olds in New York City (an estimated 91,000) minus the number of children who applied to pre-K.

LEARNING GOAL 3: DESIGN AND DEVELOP INTERVENTIONS

In the summer of 2018, the partnership team began to use insights from the diagnosis process to design and develop interventions to address specific behavioral barriers to submitting applications, for specific populations of interest and in relation to certain steps in the Figure 1 process map. The goal was to ease the application process for parents and minimize potential confusion related to the new application platform. Because the partnership intended to test an intervention in a randomized field trial and compare the intervention with NYC DOE's usual outreach, the

BOX 2

Typical NYC DOE Email Campaigns and Samples

For kindergarten application, the enrollment office usually starts with NYC DOE's kindergarten email subscription list, where individuals choose to submit their email addresses to receive updates on the kindergarten application process. Although NYC DOE had access to email addresses for parents who had applied to prekindergarten for fall 2018 admissions, and thus could be assumed to have children eligible for kindergarten for fall 2019 admissions, not all of these parents had opted in to receive email updates on application processes. Therefore, NYC DOE wanted to limit the number of informational emails sent to them; in previous years the agency had sent just one message to parents of past pre-K applicants from whom it had not yet received a kindergarten application, just a few days before the deadline.

design process focused on creating an intervention that enhanced the usual email campaign. (The random assignment process is described in Goal 4 below.) The intervention design also builds on and contributes to a growing body of evidence from previous informational interventions and school choice-promoting interventions that were designed and tested in other grade levels, with district and nondistrict outreach, in New York City and in other school districts.²⁵

MDRC designed an intervention with a sequence of three digital components: an email campaign, a planning-support web tool, and text message reminders. 26 These components were designed to address some of the barriers described for Goal 1—specifically to close information gaps related to the school search and application process, reduce uncertainty, promote planning, and remind parents about application deadlines. Taken together, the intervention's three components were intended to help parents set an intention to apply to kindergarten and follow through on that intention. Figure 3 highlights the features that the MDRC and NYC DOE team incorporated into the intervention structure, and how those features responded to the barriers described above. The planning-support web tool and text message reminders were translated for users in English, Spanish, and Mandarin.

The first contact for parents in the intervention group occurred through email. For email subscribers, the team developed an email campaign that delivered seven messages over the course of the seven-week application period. The campaign applied insights from behavioral science and marketing best practices. Each email was aimed at addressing various barriers identified above by dispelling common myths about the need to apply, simplifying and sequencing information about the application process, and sharing deadline reminders about the kindergarten application period. For families who had applied to pre-K in the previous year but had not subscribed

^{25.} Corcoran et al. (2018); Glazerman et al. (2020); Hastings and Weinstein (2008); Weixler et al. (2020).

^{26.} See screenshots of the intervention's digital components in the appendix.

FIGURE 3

Addressing Behavioral Barriers to Application Through Digital Interventions

BEHAVIORAL BARRIERS

BEHAVIORAL SOLUTIONS

INTERVENTION

KNOW Knowledge about the application

process

FEEL

Motivation

to

participate

DO

Planning and

follow-

INFORMATION GAPS

Missing or incomplete information can keep people from participating in a process or making optimal choices.

DISPEL MISCONCEPTIONS

Provide guidance about how the process works, who is eligible, and what is required versus optional.



Email campaign

CHOICE OVERLOAD

When there are too many choices, people can become overwhelmed and make no choice at all.

SIMPLIFY

Start with an address-based search to make it faster to find the zoned school where a family has priority to attend.

Provide information about admissions priorities when



Kindergarten **Application Helper**

UNCERTAINTY

People may feel unsure whether a process or information applies to them and how they should apply given special circumstances (such as homelessness). Uncertainty can slow down the completion of a process.

SCENARIO PLANNING

CLARIFY CHOICES

Help families know how to take action even with uncertainty.

relevant for a decision, through a series of yes/no prompts.

SOCIAL NORMS

Let families know that they are not alone in their questions and that other families like them are taking action.



Email campaign

INTENTION-ACTION GAP

People can experience a disconnection between what they plan to do and what they actually do.

IMPLEMENTATION PROMPTS

Provide tools that help families plan for the next application step they need to complete.

LOSS AVERSION

Frame the application deadlines in a way that capitalizes on people's preference for avoiding losses.



Email campaign

HASSLE FACTORS

People's willingness to take action is often impeded by seemingly small barriers to gaining necessary information or taking an action step.

MAKE IT EASY

Include action-related web links in the first paragraph or sentence of messages.

REMINDERS

Send messages with updates about deadlines and specific actions to take.



Text messages

through on steps needed to apply

to receive emails, the team crafted one, urgently worded message sent close to the application deadline. NYC DOE did not want to send multiple emails to parents who had not opted into receiving them.

The emails included a link to a planning support web tool, created for the study, called the Kindergarten Application Helper. This second component in the intervention was designed and hosted by the MDRC team for parents to use before they started the official NYC DOE application on the new MySchools platform. Once a parent clicked through to the Helper, the web tool guided them through three stages to prepare a child's kindergarten application: (1) Find the school or schools where the family had priority (based on the family's address and other admissions priorities), (2) add additional schools (based on the family's own criteria), and (3) rank the schools (with guidance on including a priority school in the list). Once these three stages were completed, the Helper automatically directed the parent to MySchools to enter the choices right away.

The third component of the intervention allowed parents to opt in to receive text message reminders about the application process and deadline.

Intervention Features

The MDRC and NYC DOE team designed the intervention sequence to tackle the "know," "feel," and "do" barriers described above and in Figure 3, using several content and format approaches.

Incorporate Behavioral Science Principles

Research has shown that even small changes in the way information is presented can make it easier for people to act or make decisions. The intervention's information campaign incorporated various behavioral science principles that have proved to increase user engagement, including personalization, implementation prompts, the use of social norms, messages that activate loss aversion, and reminders:27

- The emails were *personalized* with a parent's first name to encourage the parent to engage with the message content.
- The *implementation prompts* connected parents' intention to apply with an action, for example: "Email yourself a reminder now. Copy and fill in this text with a date before the deadline that's easy for you: 'I will submit my child's kindergarten application by ____ [date]." When parents feel they have made progress toward their goals, they are more committed to achieving them.

^{27.} MDRC (2017); Richburg-Hayes, Anzelone, Dechausay, and Landers (2017); Milkman et al. (2011); Sanders and Kirkman (2019); Allcott (2011); Tversky and Kahneman (1991); Karlan, McConnell, Mullainathan, and Zinman (2014).

- To prime email recipients to identify as NYC DOE public school parents and active applicants, the messages invoked *social norms* with phrasing such as "Your child can start kindergarten in September of 2019—and now is when parents start finding schools." This message was intended to help parents see themselves among many others going through the same process.
- The emails also incorporated the principle of *loss aversion*, using wording such as "Don't miss out on getting your child a spot in one of your top choices." The language touched on application deadlines and limited seat offers to capitalize on people's inclination to avoid losses more than they attempt to make gains.
- *Reminders* were used throughout the email campaign to nudge parents to take action before the application deadline.

Start with Small Decisions and Build Up

The Kindergarten Application Helper—the planning support web tool—organized information about the application process to help parents make a series of small decisions. Presenting parents with multiple decisions at once could overwhelm them and could stop them from proceeding. The Helper guided parents through this information by first identifying their zoned schools based on their addresses, then asking a series of yes/no questions that determined their other admissions priority statuses, then prompting families to consider additional preferences they might have for school programs where they did not have priority, and finally generating a school list based on these criteria. Each web page included tips along with definitions for NYC DOE terms that parents had indicated were confusing (such as "zones"). The pages also encouraged parents to apply even if they thought they might be moving soon, to address uncertainty related to location or housing. The aim was to "train" parents to assemble their school lists as they would need to do on the MySchools platform, so they could submit their applications easily and quickly.

Use Several Modes of Communication

The intervention combined three modes of digital communication: email, web, and text. The parents who engaged with emails and the web Helper had the choice to receive the third mode, text message reminders. During the Goal 3 design phase, the study team learned from parents that they would appreciate text message reminders with important dates and information about their children's applications.

Send Multiple Messages

Industry practice in email marketing is typically to send multiple messages to the target audience over the life of a campaign, and recent research on reaching parents has explored the optimal number of messages to send to avoid overwhelming parents.²⁸ The partnership team decided to send a total of seven email messages (on average one per week) to parents who had opted to receive email updates on kindergarten admission from NYC DOE (email subscribers).

^{28.} Fricke, Kalogrides, and Loeb (2018); Barshay (2021).

The goal was to use different subject lines and progressively more detailed content in each email to encourage parents to open the messages and click through to the Helper.

District Lessons

The enrollment office is working to incorporate elements of the Helper (specifically those that broke down the school-selection and list-creation process into smaller pieces) into tools for other grades and into features that could appear in MySchools at some point. The office has also considered ways to create communications campaigns for other grades that incorporate these principles of delivering messages at different intensities and frequencies for different groups, and that use different modes of outreach as well. For example, NYC DOE is now considering doing automated robocalls with pre-K families to encourage them to apply to kindergarten, using pre-K outreach teams to reach families for kindergarten, and sending different email campaigns to different "segments" of the kindergarten application population. NYC DOE is also exploring ways to use real-time application data to identify parents who have made different amounts of progress in their online applications, and to tailor email messages to those parents to encourage them to complete and submit their applications.

LEARNING GOAL 4: TEST THE INTERVENTIONS ON A LARGE SCALE

To determine whether the interventions affected application outcomes, the partnership team tested the interventions described in Goal 3 using randomized controlled trials. For the trials to work, the enrollment office would have to implement them while it was already simultaneously administering an updated application process. The team therefore focused on samples that could be clearly defined and for which the enrollment office could implement interventions using mechanisms similar to those it would be using with the control groups. The team also focused on those families known to NYC DOE, whom the agency could reach digitally (as shown in Figure 2).29

^{29.} The analysis plan was preregistered at the Registry of Efficacy and Effectiveness Studies, Entry #1739.1, hosted by the Society for Research on Educational Effectiveness, at https://sreereg.icpsr.umich.edu/ sreereg.

The tests sought to answer two different questions:30

- 1. Did early outreach to parents that included ongoing planning support, decision support, and reminders increase on-time applications? To the NYC DOE email subscribers, the study offered the intervention package that began with a seven-week email campaign starting at the beginning of December 2018, with embedded weblinks to access the online Kindergarten Application Helper, and text message reminders. The study randomly assigned about 71,600 subscribers from NYC DOE's kindergarten email list to receive the intervention package or NYC DOE's usual email outreach.³¹
- 2. Did outreach at a critical time with a salient deadline increase on-time applications? To families who had applied to pre-K in the previous year but who were not email subscribers—and who had not yet applied to kindergarten—the study sent one urgently worded email just a few days before the application deadline. The email was sent to about 27,800 email addresses on January 10, 2019, four days before the deadline of January 14. The control group received a business-as-usual version of a last-minute reminder, while the intervention group received a differently worded version, and access to the Helper through which they could receive text message reminders.

For Question 1, the study did not observe a meaningful difference in application rates between the group offered the intervention bundle and the group offered the standard NYC DOE emails.³² For Question 2, the study also did not observe a meaningful difference in application rates

^{30.} The 32 community school districts vary in terms of available number of schools and programs and reflect New York City's residential segregation. The research design used these districts as random assignment blocks, and the analytic model included block fixed effects to account for this underlying variation.

The analysis for each question and sample used the following applicant characteristics as covariates to improve the precision of the effect estimates: community school district, preferred application language, and the applicant's history of applying for or enrolling in pre-K before applying to kindergarten. (There were four categories for this applicant history variable: applied for and enrolled in pre-K, applied for but did not enroll in pre-K, did not apply for but enrolled in pre-K, and did not apply for nor enroll in pre-K.) The study used these available data on prerandomization characteristics to check the balance between the randomized groups. Demographic data were collected primarily at enrollment and were not available before randomization. The team could observe characteristics related to housing, ethnicity, and gender only for people who enrolled.

^{31.} Some subscribers probably had children ready to apply for kindergarten, and others may have subscribed just to stay informed even though they did not have eligible children.

^{32.} In other words, the difference between the groups was neither statistically significant nor practically significant. Statistical significance refers to the likelihood that an observed difference reflects random chance rather than an effect of an intervention. In this case, the difference was also small enough that even if it were statistically significant, it would have no practical, real-world effect from NYC DOE's perspective. The raw application rates were 18.7 percent of 35,771 addresses in the intervention group and 18.7 percent of 35,807 addresses in the control group. The coefficient for the intervention group is 0.002 (meaning the covariate-adjusted difference between groups is 0.2 percentage points); the standard error is 0.001. The p-value is 0.17. The sample size at 80 percent power was designed to detect an effect as small as 1 percentage point to 2 percentage points.

between the group offered an email informed by behavioral science evidence and the group offered a standard NYC DOE email.33

A Closer Look at the Results

This section explores results among people who had different responses to the intervention and among different subgroups defined using baseline data. The goal is to explore potential reasons why the interventions had no effect and the overall application rate did not change.

Intervention Use

Families who were confirmed to be eligible for kindergarten before randomization were much more likely to open the initial email than families who were not. For that first email in the seven-week campaign, nearly 58 percent of the messages were opened when they were sent to email addresses known to be associated with families eligible for kindergarten, compared with about 19 percent of the messages sent to addresses that were not known to be associated with families eligible for kindergarten. This difference shows it could be important to identify eligible families and target them specifically. For Question 2 (the one-time email intervention), open rates were not available.

Of the people on NYC DOE's subscription list who received the emails, fewer than 10 percent of the intervention group clicked through to the Helper from the first email of the campaign. The control group did not get that portion of the intervention at all. Because the click-through rate for the intervention group was so low, the test ultimately became a comparison of email campaigns alone rather than emails plus supplemental planning and decision support. The difference in email content was not designed to yield an effect on its own.

Subgroups

First, although the interventions were designed to help people who faced barriers in the application process, including families in shelters, they could only reach email subscribers and past pre-K applicants (see Box 3). It may be that for parents who were unfamiliar with the process, digital outreach needed to be accompanied by more intensive phone or in-person support. In addition, the first intervention was offered to all of NYC DOE's kindergarten-application email list, including many parents who did not have eligible children.

For example, for Question 1, only about 18 percent of email subscribers (in both the intervention and the control group) ended up submitting applications. However, after matching email addresses to eventual application and enrollment data, the team found that of the roughly 71,600 subscribers in this sample, only 13,766 could be associated with kindergarten-eligible children. Therefore, the application rate for this group probably looks low because the email subscription list included many people who did not have eligible children.

^{33.} The coefficient for the intervention group is -0.002 and the standard error is 0.006, relative to a control group mean of 47.3 percent. The p-value is 0.74.

BOX 3

Reaching Target Groups: Families in Shelters

Among families in shelters who applied for kindergarten, about 40 percent received study emails. There were 1,166 families in shelters who submitted kindergarten applications for their eligible children. Of those, 491 were in the study. A small number were email subscribers, but most (426) were families who had applied for pre-K but had not subscribed to NYC DOE emails. They were in the sample for Question 2, the single email sent close to the January application deadline. This number of addresses is too small to do a separate analysis to detect the effect of the intervention for them.

Subgroup 1: families known to have eligible children. Including the email list subscribers and the nonsubscribers who had previously applied to pre-K, and including the intervention and control groups in both categories, there were about 39,800 addresses of families who were confirmed before randomization to have children eligible for kindergarten.³⁴ Among those families, around 62 percent of the intervention and control groups applied to kindergarten—with no significant difference between the intervention and control groups—and about four-fifths of those applicants enrolled. There is still room for improvement in on-time applications. But those who are not applying may require a more intensive intervention than email outreach.

Subgroup 2: families who enrolled. Of approximately 63,620 children who ultimately enrolled in kindergarten in the fall of 2019, 35 30 percent had not applied, a percentage comparable to the 28 percent who had not applied in 2016-2017. In some community school districts, the proportion of nonapplicants was as high as 45 percent. Even in two of the community districts with full choice (that is, those that did not have zoned schools), more than 30 percent of families who enrolled did not apply. That there was such a high percentage of nonapplicants even in these school districts suggests that lack of engagement is not just about complex priority settings or the structure of choices. Among kindergarten enrollees who were also in the study samples (all the people for whom NYC DOE had contact information) nonapplication rates were lower: Only around 16 percent enrolled without applying. It could be that people on NYC DOE's contact lists are more familiar with the department's requirements, or are different from people not on the contact lists in other important ways.

^{34.} This group of parents was not part of a prespecified analysis plan, because it combines samples of parents who received two different interventions. One cannot make causal inferences about the interventions for this group.

^{35.} This number excludes students who enrolled in districts for charter or special education–only schools. Appendix Table 1 shows demographic characteristics for families who were in the study and those who were not in the study but ultimately became known to NYC DOE by enrolling in kindergarten in the fall of 2019.

District Lessons

NYC DOE learned that it could run a randomized field trial while administering its application process, and in doing so learned new ways to use data for both study and operational purposes. In addition to the analyses of overall effects presented here, randomization makes it possible to answer more detailed questions about of communication, such as which email subject lines led to higher open rates and which calls to action yielded more engagement. NYC DOE can also monitor parents' progress on the application platform to identify parents who may have been ready to submit applications. NYC DOE now more often raises questions related to measurement and impact in its team discussions about new communications and outreach. In addition, the enrollment office recognizes that it could perhaps have a larger impact among the families who would not submit applications otherwise if it conducted more active outreach to parents, beyond those who subscribe to see an informational campaign (the populations shown in Figure 2 as nonsubscribers who did apply to pre-K and nonsubscribers with no previous contact with NYC DOE).

LEARNING GOAL 5: APPLY INSIGHTS, REFINE APPROACHES, FOCUS ON NEW GAPS

The partnership team continues to think about improvements to the kindergarten application process and how insights from the kindergarten intervention design and testing process could apply to other grades and application processes. For example, after COVID-19, pre-K enrollment dropped for the fall of 2020 and pre-K applications for the fall of 2021 are likely to drop too. 36 So over the next few school years, there will be more families with children eligible for kindergarten who are not already connected to the Office of Student Enrollment through the pre-K application cycle. NYC DOE will need to consider outreach approaches for kindergarten that account for that change.

Based on the district lessons described at the end of each learning goal, the partnership team has organized its ongoing conversations around the following themes:

Some parents need more support than others because of structural inequities that persist in New York City. Districts could consider a continuum of different kinds of support. At one extreme, some parents may need only information, while at the other, some may need step-by-step, personalized guidance. In the current era in which applications and enrollment are increasingly moving online and less in-person assistance is available, school districts may need to think about a variety of strategies to support parents and promote equitable school enrollment outcomes. The evidence from this study suggests that light digital outreach is not sufficient to address barriers faced by hard-to-reach populations.

^{36.} Zimmerman and LaMarr LeMee (2021).

As many recent experiments to promote college application, tax filing, and the completion of other multistep processes show, "even the most behaviorally informed low-touch outreach efforts cannot overcome the barriers faced by low-income households."37 Districts could use community centers and community-based organizations to reach more families before the application deadline and to assist them with on-time submission. (NYC DOE does run Family Welcome Centers with staff members trained to assist parents with their children's school applications, but some parents may not be aware of the service.)

Even innovations designed to simplify processes can introduce hassle factors. User testing and the ongoing collection of user reactions can help. The partnership team tested the intervention consisting of emails, a planning tool, and reminders on top of another major innovation: the rollout of NYC DOE's new centralized digital system for school search and application, MySchools.nyc. Observations conducted by the study during the diagnosis and design phases highlighted for NYC DOE areas where users experienced additional hassles that could have impeded their progress. Including the Kindergarten Application Helper tools in the MySchools platform would have reduced hassle factors associated with creating a school list outside of MySchools, and may have been more powerful than emailing people and inviting them to click through to an outside web tool. Although the partnership team explored this idea, it turned out it was not possible during the study year. NYC DOE continues to improve on the application platform iteratively.

Districts need to consider the trade-off between addressing problems on a large scale and solving the problems faced by specific groups. Whether for admissions or instruction, districts regularly debate whether to adopt interventions that serve the most students or to target students with specific needs. Formats like email or text messaging are inviting because they allow districts to reach parents on a large scale, but they may not address the barriers facing specific populations. As districts begin to pay more attention to goals related to equity, they may find that they need to design interventions for smaller, more targeted groups of families.

If they are going to attempt digital interventions on a large scale, as was done in this partnership, districts may need to put forth additional effort to securely collect and store updated email addresses, cell phone numbers, or other pieces of digital contact information. NYC DOE might reexamine the innovative data science and outreach strategies it used when rolling out universal pre-K. For that effort it had to find parents of 4-year-olds using a variety of data sources and communicate with them using a variety of personal outreach methods.³⁸

Future research options can devise more refined outreach methods and messages more closely tailored to different groups, and test them with the groups targeted. The interventions developed in this initial test were motivated by concerns about structural inequities that can lead to inequitable experiences and outcomes in the kindergarten enrollment process. Yet the interventions designed and tested for this initial project of the partnership did not specifically

^{37.} Linos et al. (2020), p. 1.

^{38.} Crawford et al. (2015).

target those groups who face the greatest disadvantages in the process. Instead, this first test was designed to help all parents set an intention to apply to kindergarten on time and to encourage parents who had the intention to follow through. More explicit interventions could ask parents to state their application and enrollment intentions; similar interventions have asked voters to state their intentions during election season.³⁹

While the first tests in the partnership started with people known to NYC DOE, the next step would be to test interventions with people who have not had contact with the agency before. By collecting relevant contact information from other city agencies or community-based organizations, NYC DOE might be able to make contact with some of the unknown population shown in Figure 2. NYC DOE could perhaps reach other parents whose children are the right age to apply to kindergarten but who have not yet made contact with the school system. By designing interventions and conducting additional tests, it could determine whether such families can be induced to apply on time. Additionally, more targeted interventions for families who speak languages other than English might include additional or different explanations of terminology specific to the NYC DOE school search and selection process.

As new barriers to information and action emerge in the wake of the COVID-19 pandemic, the partnership's systematic diagnostic, design, and analysis work continues. If you have ideas or suggestions for work, please email the partnership—the Lab for Equity and Engagement in Enrollment—at E3Lab@MDRC.org.

^{39.} Nickerson and Rogers (2010).

APPENDIX



Characteristics of Students Enrolled in Kindergarten in the Fall of 2019

Intervention Materials

APPENDIX TABLE 1

Characteristics of Students Enrolled in Kindergarten in the Fall of 2019, by Study Participation

	Students in the Study Sample		Students Not in the Study Sample	
	Number	Percentage	Number	Percentage
Race or Ethnicity				
Asian	3,493	16.8	9,191	21.5
Black	3,865	18.6	6,875	16.1
Hispanic	7,787	37.4	17,706	41.4
Multiracial	641	3.1	803	1.9
Native American	235	1.1	536	1.3
White	4,776	23.0	7,671	17.9
Race not listed	14	0.1	27	0.1
Sex				
Female	10,475	50.3	20,591	48.1
Male	10,336	49.7	22,218	51.9
Poverty				
Meets the district poverty definition ^a	12,894	62.0	30,777	71.9
Does not meet the district poverty definition	7,917	38.0	12,032	28.1
Language				
English	15,385	73.9	25,849	60.4
Spanish	2,674	12.9	8,548	20.0
Mandarin	420	2.0	2,060	4.8
Other	2,309	11.1	6,320	14.8
Language not listed	23	0.1	32	0.1
Total	20,811		42,809	

SOURCE: MDRC calculations using data from NYC DOE's kindergarten enrollment files.

NOTES: Rounding may cause slight discrepancies in sums and differences. Demographic data are available for students who enrolled in kindergarten in the fall of 2019. The total number of students in the study sample in this table does not match the total number of students in the study sample overall because this table is limited to those who ultimately enrolled in kindergarten in fall 2019. This table excludes students in District 75 (programs providing highly specialized instructional support for students with significant challenges) and District 84 (charter schools).

^aFamilies are considered to meet the NYC DOE "poverty" definition if they have qualified for free or reduced-price lunches or are eligible for benefits from the New York City Human Resources Administration (the agency responsible for most of the city's social services programs).

Intervention Materials

As part of this project, different interventions were designed and implemented to assist families with eligible children to apply for kindergarten on time: a web tool called the Kindergarten Application Helper, text messages, and an email campaign. The design choices that were made to align with behavioral science principles are highlighted here.

The email campaign provided information about the application process and links to helpful sites and tools, including the Kindergarten Application Helper, to help families apply. The Helper walked families through creating a ranked list of choice schools to apply to, with tips, tools, and additional information along the way. Families received text messages with updates and reminders. Families could choose English, Spanish, or Mandarin for the Helper and text messages.

MDRC Digital Intervention: Emails

Email 1 of 7 (intervention) to subscribers

ESEnrollment=schools.nyc.qov@reply.bronto.com on behalf of New York City Department of Education

To: Subject: It's already time to apply to kindergarten! Wednesday, December 5, 2018 12:01:22 PM Date:

Hi Maggie,

Welcome to the kindergarten application process—it starts this month! Did you know ALL families need to APPLY to KINDERGARTEN, even if your child is currently in pre-K? Even if you want them to stay in the same school for kindergarten?

Your child can start kindergarten in September of 2019—and now is when parents start finding schools. To help you submit your application and get a spot in the school you like the best, give this new Kindergarten Application Helper a try. This web link is just for you!

A research team working with the NYC Department of Education asks for your permission to use data related to your use of this website. On the first page of the website, you will be asked if you want to participate in the study, which is completely voluntary. The research team will maintain user's privacy and keep data confidential at all times.

Barrier: information gaps Solution: dispel myths about requirements

Barrier: hassle factors.

Solution: include action-

complete the application

related weblinks; let families

know what they need to do to

intention-action gap

o do now:

- Use the Kindergarten Application Helper to pick your schools -- in 3 easy steps, it will help you create your kindergarten application list.
- Create your account on MySchools to explore your school options and start your child's personalized kindergarten application.

To do by January 14:

 Finish and <u>submit your application</u> on the NYC DOE MySchools website or by phone by January 14 (last day you can apply). Even if you might move before the start of kindergarten, you should still submit your application now based on your current address.

To do after January 14:

- If you move after submitting the application, update your application by the January 14 deadline or call us with your new address
- Look out for an offer letter in the mail and/or email. Your offer letter will tell you the school that's offering you a seat. The letter should arrive in April.

Pre-register in April:

 Pre-register your child in your offered school before the deadline in April to secure your seat! Preregister in the offered school even if you are on a waitlist for another school that you like better; doing this will not hurt your chances of being offered a spot in any of your waitlist schools.

Don't miss out on your chance to choose your child's elementary school. Visit the Kindergarten Application Helper and be sure to submit your child's kindergarten application by January 14.

We're here and eager to help you! If you need help or have any questions, call us at 718-935-2009 or visit a Family Welcome Center.

We wish you the very best as you take this important step for your child.

The Kindergarten Admissions Team

P.S. Email yourself a reminder now. Copy and fill in this text with a date before the deadline that's easy for you. "I will submit my child's kindergarten application by _

> by New York City Department of Education New York City Department of Education | 52 Chambers St. | New York, NY 10007 | United States Forward to a friend | Join us on Facebook and Twitter | Manage Preferences | Unsubscribe

Barrier: information gaps, uncertainty

Solution: spell out postapplication steps; support

scenario planning

Barrier: intention-action gap **Solution:** provide implementation prompts and planning tools to help families apply on time

From: esenrollment=schools.nyc.qov@reply.bronto.com on behalf of New York City Department of Education

To: Subject: Did you submit your kindergarten application yet? Thursday, January 3, 2019 8:01:07 PM Date:

Hi Maggie,

Design tip: personalize the content to show recipients that the message is intended for them

Happy New Year! Start the New Year off right by submitting your child Monday, January 14, 2019. You can apply:

1. Online via the new application site called MySchools

2. By phone at 718-935-2009

3. In person at a Family Welcome Center

Barrier: hassle factors

Solution: include hyperlinks to relevant sites early in the

message

Are you moving before kindergarten starts in September 2019? Either way, it's better to submit your application now based on your current address.

Thanks!

The Kindergarten Admissions Team

P.S. Check out the Kindergarten Application Helper to build your list of best-fit programs for your child

Barrier: uncertainty

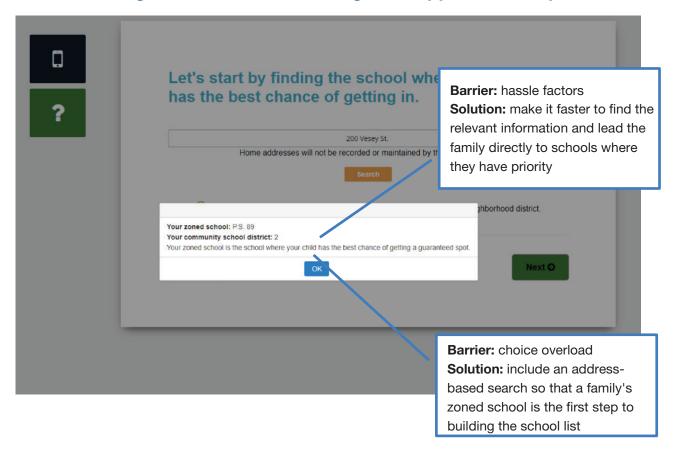
Solution: support scenario planning so families know how to take action, even if they are unsure about their

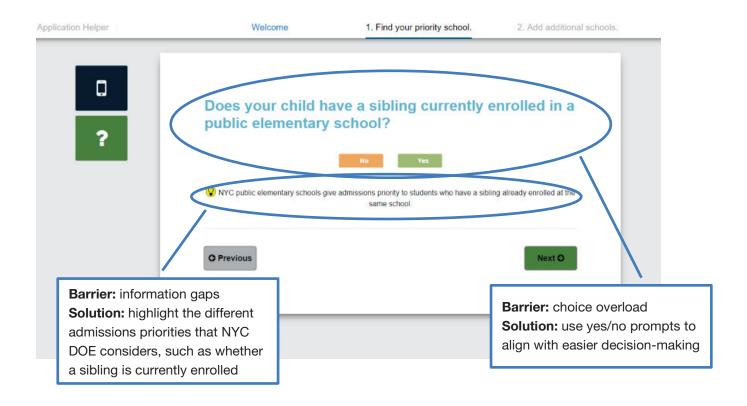
future addresses

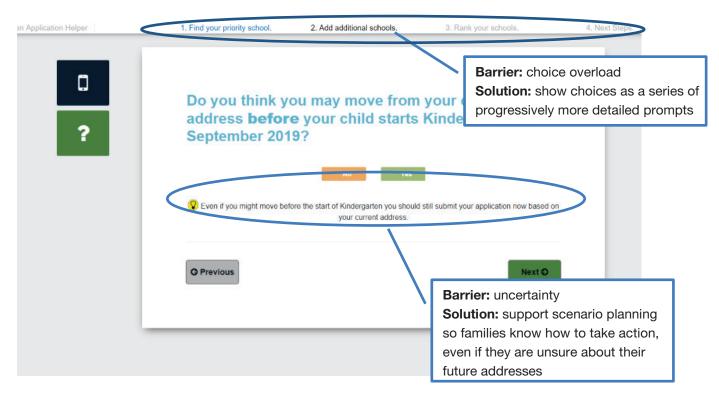
by New York City Department of Education This email was sent to New York City Department of Education | 52 Chambers St. | New York, NY 10007 | United States Forward to a friend | Join us on Facebook and Twitter | Manage Preferences | Unsubscribe

Design tip: use a postscript in emails to draw more attention to the message

MDRC Digital Intervention: Kindergarten Application Helper







MDRC Digital Intervention: Text Messages

Text Messages Dec 10, 2018, 6:00 PM

Hi! K Application Helper team here. Most parents apply to K the first week the app opens. Go to myschools.nyc or call 718-935-2009. Text STOP to opt out

Dec 17, 2018, 6:00 PM

Hi! Do you have your K school list ready? Go to K Application Helper, linked in last week's DOE email. List at least 3 schools on your app!

> **Text Messages** Dec 17, 2018, 6:00 PM

If you have completed your K app or want to stop receiving messages, reply STOP. For more info about K admissions go to myschools.nyc or call 718-935-2009

Don't miss out on getting your child's #1 K choice! Set a date to submit your K. app to DOE at myschools.nyc before Jan. 14th deadline. Reply STOP if submitted.

> **Text Messages** Jan 4. 2019. 12:00 PM

Hi! Start 2019 right! Submit your K app today. You can do it online at myschools.nyc or by phone 718-935-2009. Your app is due in less than 2 weeks!

If you have completed your K app or want to stop receiving messages, reply STOP. For more info about K admissions go to myschools.nyc or call 718-935-2009.

Barrier: uncertainty

Solution: activate social norms and let recipients know that other families like them are applying

Barrier: intention-action gap **Solution:** use the language of loss aversion when discussing application deadlines

> Barrier: intention-action gap Solution: provide an implementation prompt and capitalize on the fresh-start effect of a new year

Text Messages Jan 8, 2019, 10:00 PM

Now's the time! Did you build your school list from K Application Helper? Use that list to submit your app by 1/14. Today: Create account at myschools.nyc

Jan 11, 2019, 12:00 PM

Your app for kindergarten is due this Monday – in 3 days! Visit NYC DOE myschools.nyc to submit your app today. Call NYC DOE at 718-935-2009 for more

> **Text Messages** Jan 14, 2019, 5:00 PM

DEADLINE EXTENDED: Kindergarten applications due on 1/22/19 -- in 8 days! Submit at myschools.nyc or call NYC DOE now at 718-935-2009.

If you have completed your K app or want to stop receiving messages, reply STOP.

Your kindergarten app is due this Tuesday - in 4 days! Visit NYC DOE's website myschools.nyc to submit today. Call NYC DOE at 718-935-2009 for more info.

Today is the kindergarten application deadline! Take 5 minutes and submit at myschools.nyc before 11:59 tonight, or call NYC DOE now at 718-935-2009

Barrier: hassle factors

Solution: send reminders with important updates about deadlines.

REFERENCES

- Allcott, Hunt. 2011. "Social Norms and Energy Conservation." Journal of Public Economics 95: 9-10: 1,082-1,095.
- Balu, Rekha, Nadine Dechausay, and Caitlin Anzelone. 2019. "An Organizational Approach to Applying Behavioral Insights to Policy: Center for Applied Behavioral Science at MDRC." Pages 200-217 in Kai Ruggieri (ed.), Behavioral Insights in Public Policy: Concepts and Cases. New York: Routledge.
- Barshay, Jill. 2021. "Proof Points: New Wave of Research Shows Nudging Students by Text Is Not as Promising as Hoped." The Hechinger Report (blog), February. https://hechingerreport.org/new-wave-ofresearch-nudging-text-not-as-promising.
- Bassok, Daphna, Preston Magouirk, Anna J. Markowitz, and Daniel Player. 2018. "Are There Differences in Parents' Preferences and Search Processes Across Preschool Types? Evidence from Louisiana." Early Childhood Research Quarterly 44: 43-54.
- Bell, Courtney A. 2009. "All Choices Created Equal? The Role of Choice Sets in the Selection of Schools." Peabody Journal of Education 84, 2: 191–208.
- Bergman, Peter, Jessica Lasky-Fink, and Todd Rogers. 2020. "Simplification and Defaults Affect Adoption and Impact of Technology, but Decision Makers Do Not Realize It." Organizational Behavior and Human Decision Processes 158: 66-79.
- Bettinger, Eric P., Bridget Terry Long, Philip Oreopoulos, and Lisa Sanbonmatsu. 2012. "The Role of Application Assistance and Information in College Decisions: Results from the H&R Block FAFSA Experiment." Quarterly Journal of Economics 127, 3: 1,205-1,242.
- Bhargava, Saurabh, George Loewenstein, and Justin Sydnor. 2015. "Do Individuals Make Sensible Health Insurance Decisions? Evidence from a Menu with Dominated Options." NBER Working Paper No. 21160. Cambridge, MA: National Bureau of Economic Research.
- Carrell, Scott, and Bruce Sacerdote. 2017. "Why Do College-Going Interventions Work?" American Economic Journal: Applied Economics 9, 3: 124-151.
- Condliffe, Barbara, and Rekha Balu. 2019. "Missing from the Start: Engagement in New York City's Kindergarten Application." New York: MDRC.
- Condliffe, Barbara, Rekha Balu, Margaret Hennessy, and Rachel Leopold. 2020. "The Promise of a Collaborative Approach to Problem-Solving and Innovation-Testing: Reflections from a New Research-Practice Partnership in New York City." NNERPP Extra 2, 2: 14-18.
- Corcoran, Sean P., Jennifer L. Jennings, Sarah R. Cohodes, and Carolyn Sattin-Bajaj. 2018. "Leveling the Playing Field for High School Choice: Results from a Field Experiment of Informational Interventions." NBER Working Paper No. 24471. Cambridge, MA: National Bureau of Economic Research.
- Crawford, Susan P., Mary-Catherine Lader, and Maria Smith. 2015. On the Road to Pre-k for All: The launch of UPK in New York City. Cambridge, MA: Berkman Center for Internet and Society at Harvard University.
- Dynarski Susan, C.J. Libassi, Katherine Michelmore, and Stephanie Owen. Forthcoming. "Closing the Gap: The Effect of Reducing Complexity and Uncertainty in College Pricing on the Choices of Low-Income Students." Nashville, TN: American Economic Association.
- Fong, Kelley. 2019. "Subject to Evaluation: How Parents Assess and Mobilize Information from Social Networks in School Choice." Sociological Forum 34, 1: 58–180.
- Fong, Kelley, and Sarah Faude. 2018. "Timing is Everything: Late Registration and Stratified Access to School Choice." Sociology of Education 91, 3: 242-262.

REFERENCES (CONTINUED)

- Fricke, Hans, Demetra Kalogrides, and Susanna Loeb. 2018. "It's Too Annoying: Who Drops Out of Educational Text Messaging Programs and Why." Economic Letters 173: 39-43.
- Glazerman, Steven, Ira Nichols-Barrer, Jon Valant, Jesse Chandler, and Alyson Burnett. 2020. "The Choice Architecture of School Choice Websites." Journal of Research on Educational Effectiveness 13. 2: 322-350.
- Gross, Betheny, Michael DeArmond, and Patrick Denice. 2015. Common Enrollment, Parents, and School Choice: Early Evidence from Denver and New Orleans. Seattle, WA: Center on Reinventing Public
- Hastings, Justine S., and Jeffrey M. Weinstein. 2008. "Information, School Choice, and Academic Achievement: Evidence from Two Experiments." Quarterly Journal of Economics 123, 4: 1,373-1,414.
- Herd, Pamela, and Donald P. Moynihan. 2019. Administrative Burden: Policymaking by Other Means. New York: Russell Sage Foundation.
- Heyward, Georgia, Betheny Gross, and Ashley Jochim. 2020. Navigating Choice: How High-Touch Supports Can Address Educational Inequity. Seattle, WA: University of Washington, Center on Reinventing Public Education.
- Horrigan, John B., and Maeve Duggan. 2015. Home Broadband 2015. Washington, DC: Pew Research Center.
- Karlan, Dean, Margaret McConnell, Sendhil Mullainathan, and Jonathan Zinman. 2014. "Getting to the Top of Mind: How Reminders Increase Saving." Management Science 62, 12: 1-19.
- Linos, Elizabeth, Allen Prohofsky, Aparna Ramesh, Jesse Rothstein, and Matt Unrath. 2020. "Can Nudges Increase Take-Up of the EITC? Evidence from Multiple Field Experiments." NBER Working Paper No. 28086. Cambridge, MA: National Bureau of Economic Research.
- Mavrogordato, Madeline, and Marc Stein. 2014. "Accessing Choice: A Mixed-Methods Examination of How Latino Parents Engage in the Educational Marketplace." Urban Education 51, 9: 1,031-1,064.
- MDRC. 2017. "Developing SIMPLER Solutions." Website: www.mdrc.org/publication/developing-simplersolutions.
- Milkman, Katherine L., John Beshears, James J. Choi, David Laibson, and Brigitte C. Madrian. 2011. "Using Implementation Intentions Prompts to Enhance Influenza Vaccination Rates." Proceedings of the National Academy of Sciences 108, 26: 10,415-10,420.
- Moynihan, Donald, Pamela Herd, and Hope Harvey. 2015. "Administrative Burden: Learning, Psychological, and Compliance Costs in Citizen-State Interactions." Journal of Public Administration Research and Theory 25, 1: 43-69.
- Neild, Ruth Curran. 2005. "Parent Management of School Choice in a Large Urban District." Urban Education 40. 3: 270-297.
- Nickerson, David W., and Todd Rogers. 2010. "Do You Have a Voting Plan? Implementation Intentions, Voter Turnout, and Organic Plan Making." Psychological Science 21, 4: 194-199.
- Rhodes, Anna, and Stefanie DeLuca. 2014. "Residential Mobility and School Choice Among Poor Families." Pages 137-166 in Annette Lareau and Kim Goyette (eds.), Choosing Homes, Choosing Schools. New York: Russell Sage Foundation.
- Richburg-Hayes, Lashawn, Caitlin Anzelone, Nadine Dechausay, and Patrick Landers. 2017. Nudging Change in Human Services: Final Report of the Behavioral Interventions to Advance Self-Sufficiency (BIAS) Project. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

REFERENCES (CONTINUED)

- Sanders, Michael, and Elspeth Kirkman. 2019. "I've Booked You a Place, Good Luck: A Field Experiment Applying Behavioural Science to Improve Attendance at High-Impact Recruitment Events." Journal of Behavioral Public Administration 2, 1: 1–9.
- Sattin-Bajaj, Carolyn. 2014. Unaccompanied Minors: Immigrant Youth, School Choice, and the Pursuit of Equity. Cambridge, MA: Harvard Education Press Cambridge.
- Sattin-Bajaj, Carolyn. 2015. "Unaccompanied Minors: How Children of Latin American Immigrants Negotiate High School Choice." American Journal of Education 121, 3: 381–415.
- Teske, Paul, Jody Fitzpatrick, and Gabriel Kaplan. 2007. Opening Doors: How Low-Income Parents Search for the Right School. Seattle, WA: University of Washington, Center on Reinventing Public Education.
- Tversky, Amos, and Daniel Kahneman. 1991. "Loss Aversion in Riskless Choice: A Reference-Dependent Model." Quarterly Journal of Economics 106, 4: 1,039–1,061.
- Weixler, Lindsay, Jon Valant, Daphna Bassok, Justin B. Doromal, and Alica Gerry. 2020. "Helping Parents Navigate the Early Childhood Education Enrollment Process: Experimental Evidence from New Orleans." Educational Evaluation and Policy Analysis 42, 3: 307-330.
- Zimmerman, Alex, and Gabrielle LaMarr LeMee. 2021. "Enrollment in NYC Schools is Down 4% Amid the Pandemic. How Many Students Has Your School Lost?" Chalkbeat New York (blog), January 27. https://ny.chalkbeat.org/2021/1/27/22252172/nyc-school-enrollment-decline.

ABOUT MDRC

MDRC, A NONPROFIT, NONPARTISAN SOCIAL AND EDUCA-TION POLICY RESEARCH ORGANIZATION, IS COMMITTED TO

finding solutions to some of the most difficult problems facing the nation. We aim to reduce poverty and bolster economic mobility; improve early child development, public education, and pathways from high school to college completion and careers; and reduce inequities in the criminal justice system. Our partners include public agencies and school systems, nonprofit and community-based organizations, private philanthropies, and others who are creating opportunity for individuals, families, and communities.

Founded in 1974, MDRC builds and applies evidence about changes in policy and practice that can improve the well-being of people who are economically disadvantaged. In service of this goal, we work alongside our programmatic partners and the people they serve to identify and design more effective and equitable approaches. We work with them to strengthen the impact of those approaches. And we work with them to evaluate policies or practices using the highest research standards. Our staff members have an unusual combination of research and organizational experience, with expertise in the latest qualitative and quantitative research methods, data science, behavioral science, culturally responsive practices, and collaborative design and program improvement processes. To disseminate what we learn, we actively engage with policymakers, practitioners, public and private funders, and others to apply the best evidence available to the decisions they are making.

MDRC works in almost every state and all the nation's largest cities, with offices in New York City; Oakland, California; Washington, DC; and Los Angeles.