

FAST in Philadelphia:

Exploring the Implementation of a Family Engagement Program

Raquel González, Fangyi Huang, Elizabeth Spier, Johannes Bos, and Deborah Holtzman

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Executive Summary

This report describes the implementation of the Families and Schools Together (FAST) program in the School District of Philadelphia (SDP) between 2013 and 2017, as part of a five-year Investing in Innovation (i3) grant from the U.S. Department of Education designed to validate the FAST program. The Wisconsin Center for Education Research led the grant in collaboration with several stakeholders, including the SDP, Turning Points for Children (TPFC) – the local agency that would run the program in the schools, and FAST, Inc. – the program developers who provide technical assistance and training to those running the program on the ground. American Institutes for Research (AIR) served as the i3 grant's independent evaluator. Using data collected from families, school and, district staff, as well as from TPFC and FAST, Inc., this report summarizes challenges and successes experienced during the roll-out of FAST, factors which hindered and facilitated program implementation, and lessons learned by key stakeholders. These findings can inform and support replication of the FAST program, as well as similar family engagement interventions.

The FAST program aims to encourage parental involvement in education, enhance families' social capital, and promote child well-being. FAST is a multifamily afterschool program comprised of eight weekly two-hour multifamily group sessions. Each of the eight group sessions is structured similarly and involves family time, time for parents to engage with other parents while children play separately, and one-on-one time between the parent and a focal child. These parent-led experiential exercises during FAST sessions are expected to build relationships (a) between parents and their children, (b) among parents of children attending the same school, and (c) among children, parents, and school personnel. The FAST program invites all family members to participate. Typically, home visits are conducted to engage with families, begin to establish relationships, and recruit families to participate in FAST.

For this i3 grant, AIR randomized 30 schools into the FAST treatment group and 30 into a delayed treatment control group (that would receive FAST after data collection for the outcome study was completed). The implementation team, led by TPFC, SDP, and FAST, Inc., set out to serve at least 60 percent of all kindergarten students and their families across the 30 treatment schools. However, in fall 2013, when the program was first rolled out, only 24 percent of all kindergarten students and their families attended at least one session. Of the families that did attend any FAST session, only 51 percent completed the program (attended six or more sessions), while FAST, Inc. reports an average program completion rate of 80 percent. In annual surveys of randomly-sampled families recruited for the study, 54 percent of families that attended at least one FAST session (but did not attend FAST regularly) reported that they could not attend more frequently due to work-program scheduling conflicts. Participation rates were similar for the 2014-15 school year.

TPFC engaged in numerous efforts to increase recruitment, advertising the program through various means including flyers, robocalls, and one-on-one outreach to families within the schools. TPFC and FAST, Inc. had expected to be able to recruit families through home visits as other FAST programs typically do. TPFC staff even were trained on how to conduct these home visits. However, SDP policy did not allow home visits to occur. According to TPFC and FAST, Inc. this restriction was a major impediment to their recruitment efforts. Despite not being able to

use home visits, awareness of the FAST program was relatively high in these 30 schools (even though participation in the program was low). That is, the large majority of families knew the program was being offered at the school; annual family surveys found that only 11 percent of respondents reported *not* knowing that FAST was being offered at their child's school.

Other challenges faced by the team included identification and training of FAST team members, and facility use issues (e.g., locating a space within schools to host the program). In our interviews, staff from TPFC, FAST, Inc., and SDP identified additional factors that potentially hindered implementation. These challenges included lack of pilot testing of the program before it was put into place, the use of a standardized approach to working with schools that did not respond to each school's unique strengths or needs, FAST teams with insufficient cultural competency, a lack of authentic school buy-in, and a high rate of staff turnover. Interviewees also discussed factors that potentially facilitated program implementation. These factors included buy-in from, continuous communication within, and learning over time of the team, as well as teacher support of FAST.

The study also captured lessons learned throughout this project that are applicable to the selection of, planning for, and execution of school-based social service programs in general: the relationship building among all partners involved, having adequate planning time, understanding the community context, ensuring a good fit between the program and its target audience, enlisting school staff as liaisons to the program, and setting attainable goals for the number (or share) of intended beneficiaries that will actually be served by the program.

Introduction

In 2012, the Wisconsin Center for Education Research (WCER) at the University of Wisconsin-Madison received a five-year Investing in Innovation (i3) grant from the U.S. Department of Education to validate the Families and Schools Together (FAST) program. WCER led this grant in collaboration with several stakeholders: the School District of Philadelphia (SDP), the district where the program would be implemented for this study; Turning Points for Children (TPFC), the local agency that would run the program in the schools; and FAST, Inc., the program developers who provide technical assistance and training to local providers. American Institutes for Research (AIR) served as the independent evaluator for the grant.

Developed in 1980 by Dr. Lynn McDonald at the University of Wisconsin, the FAST program aims to improve parental involvement in education, enhance families' social capital, and improve child well-being. FAST, which has been deployed throughout the United States and internationally, is a multifamily afterschool program that is implemented in three stages: (a) an outreach effort to encourage parent participation, (b) a program of eight weekly two-hour multifamily group sessions, and (c) FASTWORKS, which continues the program for two years through monthly parent-led sessions.

Typically, each school's FAST sessions are led by its own trained team – a team that represents the diverse racial, linguistic, religious, and ethnic backgrounds of its constituent families. Members of the FAST team include community professionals in areas such as mental health and substance abuse, school representatives (teachers, counselors, and/or family outreach workers), and parents who have children enrolled in the designated schools. FAST is implemented with multiple groups of families meeting simultaneously in the school during out-of-school time. Parent-led experiential exercises during FAST sessions are expected to build relationships (a) between parents and their children, (b) among parents of children attending the same school, and (c) among children, parents, and school personnel. The FAST program invites all family members to participate.¹

Although several randomized control trials (RCTs) of FAST have shown modest program impacts², this i3 Validation study aimed to validate FAST as a school-wide model to turn around persistently low-performing schools (consistent with Absolute Priority 4 of the i3 grant program). As part of the grant, AIR led a 60-school RCT that directly measured children's academic learning, collected family and teacher reports of children's social and behavioral development, and captured family self-reports of family functioning. Thirty schools were randomized to receive FAST over two kindergarten cohorts beginning in the 2013-14 school year (Cohort 1) and 2014-15 school year (Cohort 2). The 2015-16 school year would include FASTWORKS in these schools, and during the 2016-17 school year, after data collection was complete, FAST would be offered to the control group (as a delayed treatment approach). This RCT will hereafter be referenced as the main outcome study.

¹ To learn more about FAST, please visit <u>http://www.familiesandschools.org/</u>

² To see a list of RCTs on FAST, please visit <u>http://www.familiesandschools.org/why-fast-works/rcts/</u>

During the 2013-14 school year, as FAST was being rolled out across 30 schools, enrollment in the FAST program was significantly lower than initially anticipated and proposed. Only 24 percent of kindergarten students and their families ever participated in FAST (even just one session) compared to an anticipated participation rate of 60 percent. Of those who attended at least one session, only 51 percent completed FAST (attended six or more sessions) compared to FAST, Inc.'s typical 80 percent completion rate.³ Therefore, only a small proportion of the students and families in the 30 treatment schools in the main outcome study completed, or even attended, the FAST program.

With only relatively few families participating in the program, the main outcome study was no longer well positioned to detect school-level program effects. With only a minority of families getting the "treatment," it was unlikely that the program would affect a whole grade level of students. In response, we conducted additional student-level analyses in which we matched students whose families had attended three or more FAST sessions with students in a matched control school to explore program effects at the individual student level. These individual student-level analyses, focusing on families who participated in FAST, found a positive effect on student reading at the end of Grade 1, but a strong negative effect on student school attendance in kindergarten. Detailed results for both the main outcome study and these supplemental analyses can be found in Bos, Spier, Bandeira de Mello, González, & Huang, 2018.

To better understand why program participation was far lower than anticipated, in 2016, WCER asked AIR to conduct a supplemental study to identify the challenges faced during the roll-out of FAST, highlight any successes experienced, investigate factors that hindered or facilitated the ability to execute the program, and capture lessons learned. For this supplemental study, AIR used multiple data sources (i.e., telephone interviews with stakeholders, family focus groups, family surveys, and planning meeting notes) to triangulate findings. As part of the identification of the hindering and facilitating factors, we also performed a deviant case analysis, in which we mapped schools based on the extent to which we observed positive change in student and family outcomes and compared the schools with the most growth to the schools with the least growth (in other words the deviant cases) on a set of school characteristics. The purpose of the deviant case analysis was to understand what conditions were associated with different growth trajectories for these schools. This supplemental study was also intended to gather stakeholder perceptions regarding the nature of family and school relationships within SDP in order to provide context for understanding how FAST fit within this landscape. The report seeks to inform not only the key stakeholders involved in this particular FAST validation study, but other researchers, program developers, and district leaders who may wish to pursue similar family engagement programs.

In this report, we provide an overview of the FAST program and report on the impact of FAST as found in other RCTs. Next, we discuss our study methods and give an overview of the SDP context during the study years. Then, we highlight the ways in which some schools and families within SDP experience family engagement as an illustrative example of what family engagement can look like. Next, we analyze the main results of this supplemental study and discuss FAST implementation, including challenges and successes experienced. We then present conditions

³ http://www.familiesandschools.org/how-fast-works/

that facilitated or hindered FAST as it was being rolled-out in SDP and share lessons learned. Finally, we conclude the report with a discussion of the limitations of this study.

About FAST

FAST aims to empower parents to improve their parenting skills, build positive relationships and social capital between families and schools, and create a supportive community to foster children's well-being and education.⁴ FAST is an eight-week program, with weekly sessions lasting approximately two and a half hours. In each session, a trained FAST team leads families through a series of activities intended to "enhance parenting skills and reduce family stress while encouraging family bonding."⁵ The FAST teams generally include parents who have previously participated in FAST, teachers and other school representatives who serve as the school partners, and community based professionals who typically represent a local agency. Each FAST team forms a "hub" that serve eight to ten participating families.

The FAST cycle involves four phases, described on the FAST website as: learn, plan, do, and review.⁶ During the learning phase, a certified FAST trainer conducts a two-day training session to prepare the FAST team to implement the program within the school. During the planning phase, the FAST team organizes the logistics, such as determining a location for the program and program schedule, plans how it will recruit families, and gathers any necessary materials. In the "do" stage, the FAST team invites families and children to participate in the program. Active recruit families. In this stage, families are recruited and then they participate in the eight weekly sessions. After the third session, no new families are allowed to enroll. In the final stage – "review," the certified FAST trainer works with the FAST team members to review the results of pre- and post-program surveys and to evaluate outcomes achieved.

During a typical FAST session, the first hour begins with family activities in which families share a meal. All family members—including parents, grandparents, siblings, cousins, and other relatives—are invited to participate in FAST. Following the first hour, families then play a variety of games that encourage creativity and foster discussion within the family. Next, parents engage with other parents in pairs, and then together in larger groups. During this time, children go into "kids' time" and play; the activities for the kids' time and play is site specific, and is selected and organized by each FAST team. Then, there is one-on-one time between the parent and a focal child (as selected by the FAST team, typically the child in the grade level that is participating in FAST), during which they play together. Finally, all participants rejoin as a group to conclude the session, and to participate in a lottery in which each week, a different family wins the prize basket. The basket includes items for the family to keep as well as a gift card the family can use to bring the following week's meal. Throughout the room to coach parents on the different activities that will take place. Parents then provide the directions to their children, which is expected to further solidify the parent's role as family leader.

⁴ http://www.familiesandschools.org/how-fast-works/

⁵ http://www.familiesandschools.org/how-fast-works/

⁶ http://www.familiesandschools.org/how-fast-works/program-structure/

Parents who complete at least six of the eight sessions are considered FAST graduates. They then are invited to participate in a parent-directed family activity and support group referred to as FASTWORKS. FAST graduate families can continue to meet monthly for two years as part of FASTWORKS.

FAST is considered an evidenced-based program due to a body of research that has been conducted on the impact of the program on participants. To date (excluding this new i3 impact study), five RCTs on FAST have been conducted, and each RCT has identified modest impacts. All five RCTs have found impacts on child behavioral measures (Gamoran, López Turley, Turner, & Fish, 2012; Kratochwill, McDonald, Levin, Scalia, & Coover, 2009; Kratochwill, McDonald, Levin, Young Bear-Tibbetts, & Demaray, 2004; Layzer, Goodson, Creps, Werner, & Bernstein, 2001; Moberg, McDonald, Posner, Burke, & Brown, 2007) as reported by parents or teachers. Other impacts include better academic skills as measured by an academic skills inventory (Kratochwill et al., 2004) and improved social capital for families (Gamoran et al., 2012). The main outcome study conducted for this i3 grant was initiated to validate FAST as an approach to turn around persistently low-performing schools. It sought to widen the research base on FAST to include measures of family functioning, measures of children's social and behavioral development, and direct assessment of children's academic learning.

Methods

In order to explore the roll-out of the FAST program for the i3 impact study and to identify lessons learned when introducing this type of programming in schools, we developed this supplemental study to address the following four broad research questions (RQs):

- 1. How is family engagement experienced within the schools and by families?
- 2. What does it look like to implement a family engagement program? What are the challenges and successes associated with implementation?
- 3. What are the conditions that facilitate or hinder implementation of a family engagement program?
- 4. What are the lessons learned from implementing the FAST program for the i3 Validation study of FAST?

Our data sources were drawn from five stakeholder groups: (1) families, (2) principals and school staff who supported the implementation of FAST, (3) FAST, Inc. staff, (4) TPFC staff, and (5) district staff (see Exhibit 1). We collected data through a review of planning meeting notes, through family focus groups conducted in 2015 that captured feedback from families about FAST, and via a comprehensive set of interviews conducted in 2017 that specifically addressed the above RQs. In addition, where useful, we incorporated the results of family surveys from our main outcome study across the two cohorts represented in that study. We also conducted a "deviant case analysis" to identify schools that exhibited the highest and lowest growth across a range of outcomes. Because our main RCT found no meaningful differences in growth between FAST treatment and control schools, this deviant case analysis would explore if there were conditions that may have supported these extreme (i.e., high and low growth) cases.

Data for those analyses came from our main outcome study and included data from the family surveys as well as data from direct child assessments. Below, we elaborate on the data collected from each group of stakeholders (more detail about our data sources as well as our analysis of the data can be found in the appendix to this report).

Data collection method	Participant Type	Year of data	п
		collection	
Telephone Interviews	Families	2017	6
	Principals	2017	3
	Teachers	2017	8
	TPFC	2017	4
	FAST, Inc.	2017	3
	SDP	2017	2
Focus groups	Families	2015	43
Surveys	Families	2014	519 ⁷
Implementation meeting notes	WCER, SDP, TPFC, FAST, Inc.	2013-2017	67
Steering committee meeting notes	WCER, SDP, TPFC, FAST, Inc., AIR 2013-		22
Direct student assessments and	Subsample of students and families	2014–15 SY	291
family surveys	from Cohort 2 ⁸	2015–16 SY	

Exhibit 1. Stakeholder Data Collection

To explore the execution of FAST, we conducted hour-long telephone interviews with ten respondents across three key stakeholder groups: two respondents from SDP; four quality control manager (QCM) respondents from TPFC, and three respondents from FAST, Inc., including the program developer. The purpose of these interviews was to learn about challenges and successes in rolling out FAST and factors that hindered or supported implementation, as well as to capture lessons learned. We also spoke with teachers and principals in a select group of focal schools to understand how FAST ran at the school level.

Throughout the study period, hour-long implementation team telephone meetings, led by WCER, typically were held bi-weekly to allow the various stakeholders involved in program implementation (i.e., SDP, TPFC, and FAST, Inc.) to plan, provide updates, discuss challenges, and strategize how to resolve issues that arose. WCER also led bi-weekly steering committee meetings that included one representative from each stakeholder group and included AIR. For both sets of meetings, WCER drafted meeting notes and distributed them shortly after each meeting. To provide additional detail for this supplemental study, we analyzed these contemporaneous meeting notes captured during these planning meetings.

Interviews and focus groups with families allowed us to capture participants' experiences with FAST and – more generally – to learn about the ways in which families and schools engaged (or not). We also included additional analyses of family survey data and direct student assessments

⁷ This number represents 252 families from Cohort 1 and 267 families from Cohort 2 in the 30 treatment schools implementing FAST who answered the questions about their FAST experience.

⁸ We included Cohort 2 students in the treatment schools who still remained in the study during the follow up data collection.

from the main outcome study. These additional analyses further provide insights regarding parent knowledge of the FAST program and reasons why parents did not attend FAST. As noted above, they also served as the basis for the deviant case study.

Because we interviewed only a small number of families and stakeholders, our findings do not represent the experiences or opinions of all participating schools or even of all the different stakeholders who helped to run FAST. This supplemental study also occurred after the initial roll-out of the program, so with the exception of the meeting notes, respondents had to respond retroactively about their experiences. Despite these limitations, we are confident in the findings and discussion presented in this report. The themes we heard around implementation were consistent. Issues raised in interviews with the implementation team also were captured in the meeting notes, or were confirmed through the family surveys or focus groups. The purpose of this report, moreover, is not to present broadly generalizable results, but use FAST as a case study from which others may also learn. Specifically, in this report we describe challenges involved with this FAST implementation, reflect on the lessons learned from this large roll-out of a family engagement program, and inform not only the stakeholders involved in this study, but program developers, district leaders, or researchers who may wish to pursue a similar program.

SDP During FAST Study Years

The SDP is the eighth largest school district in the country,⁹ enrolling more than 134,000 students (as of the 2014-15 school year) from preschool through high school.¹⁰ SDP's mission is to "deliver on the civil right of every child in Philadelphia to an excellent public school education and ensure all children graduate from high school ready to succeed, fully engaged as a citizen of the world."¹¹ Despite SDP's mission to provide an excellent public education for all children, many schools in the district struggle to achieve this goal, placing those schools in the "persistently-low-performing" category. The 60 primary schools selected for the main outcome study either were already in the persistently-low-performing category or were at risk of falling into that category based on low student academic performance during the 2011-12 school year.¹²

Like several other Pennsylvania school districts, SDP faced challenging economic conditions and funding shortfalls during the study period. The district received significantly fewer state funds and also saw an increasing share of its funding being diverted to a growing number of charter schools in the district (Resnikoff, 2013; Sanchez, 2014). In 2013, these cuts led to a severe budget crisis, ultimately leading to a budget shortfall of \$304 million. This shortfall necessitated significant reductions in school staff, including vice principals and school guidance counselors – categories of staff who typically support the administration and execution of programs such as FAST (Smetzer-Anderson & Roessler, 2016). In addition, SDP had to close or consolidate a significant number of elementary schools (Smetzer-Anderson & Roessler, 2016). The budget cuts strained the relationship between SDP and the Philadelphia Federation of Teachers—the local teachers' union—as the district scaled back teachers' benefits in order to reduce costs (Sanchez, 2014). Families and advocacy groups blamed the state for having an inequitable

⁹ https://www.philasd.org/about/

¹⁰ https://nces.ed.gov/ccd/

¹¹ https://www.philasd.org/about/

¹² See Bos et al., 2018 for details about the process through which these 60 schools were selected and recruited.

funding formula for schools. In 2014, seven parents and a parent advocacy group filed a lawsuit against legislative leaders, state education officials, and the governor, alleging that the state of Pennsylvania failed its constitutional obligation to provide a public education system with all the resources needed to meet state-imposed academic standards (Shamlin, 2014).

It was within this historical context that the FAST program and this study were launched. Feedback gathered from family members and program implementers frequently pointed to the strain caused by the challenging economic climate. Many respondents noted a lack of school resources; families described having to bring in paper, pencils, sanitizers, dry erase boards, headphones, and other products as school supplies for their children and their teachers. FAST program implementers reported a lack of adequate space for program activities and storage. Families also highlighted other school problems such as inadequate staffing, including a lack of vice principals, and extremely limited activities for students, such as sports teams or other afterschool programs.

RQ1: How is family engagement experienced within the schools and by families?

Families engage with schools in myriad ways, as they develop relationships with teachers, principals and other school staff. These relationships develop through interactions between families and schools. In order to explore family engagement, we looked at two critical ways in which families and schools interact through: (a) communication between families and schools and (b) school activities offered to families. We asked teachers, principals, and families to describe how they communicated with each other, the types of activities offered to families, and more generally to discuss school-family relationships.¹³

Family engagement was emphasized by all respondents as important in fostering students' overall success. District staff described family members as key partners in children's learning and important advocates for their children. They also shared that activities within schools (e.g., volunteering) or resources (e.g., offering books to a family to promote their child's literacy) could improve family engagement by building relationships with and empowering families. District and school staff reported that it was their responsibility to establish a welcoming atmosphere in the school, be aware of community needs, and support and engage families by connecting them to local resources.

Below, we elaborate on how families and schools communicate, describe to what extent school activities are offered to families, and present stakeholder experiences of the school-family relationship.

¹³ Note that the discussion below represents only a small sample of teachers, families, principals, and district staff within SDP and should not be interpreted as representative of the entire district.

Communication

In our interviews, families and school staff identified common school-family communication channels, including one-way strategies, such as school flyers, robocalls, an online student portal, and the student communication folder.¹⁴ Respondents also reported engaging in two-way communication. These two-way communication included individualized texts, telephone calls, emails from teachers, and one-on-one conversations with teachers/principals when parents/caregivers pick up their children from school. Staff at schools with large numbers of English language learners (ELLs) also reported the availability of bilingual counseling assistants to provide interpretation services and assist with teacher-parent communication. The one Spanish-speaking parent we interviewed spoke about a Spanish-speaking school counselor with whom she engaged regularly to support her communication with her child's teacher.

At one school, the principal described a specific mechanism used by the school to promote twoway communication with parents. According to the principal, the school provided parents with "parent concern forms" that parents could fill out and submit in cases where they wanted to convey a concern to the school; for example, if they were having an issue with a particular teacher. Upon receiving the form, the school would investigate and intervene as needed to ensure the parent's concern was addressed.

All the teachers we interviewed said they felt comfortable reaching out to families and satisfied with modes and levels of current communication. These teachers had volunteered to serve as FAST school partners, and it is possible that they were more comfortable working with families than were other teachers not engaged in FAST. One teacher mentioned she had made her contact information available via a letter introducing herself to her students' families at the beginning of the school year, and had encouraged families to contact her with any questions, issues, or problems. A few teachers commented that they were themselves parents of school-age children in Philadelphia and thus could empathize with their students' parents with regard to school-home communication. Teachers talked about the importance of direct teacher-family communication to better support children, and said they knew that young children were unable to deliver messages to families effectively. Thus, most of these teachers/principals reported taking a more hands-on approach and using multiple communication channels to ensure that families receive needed information.

That said, a few teachers reported challenges to effective school-family communication. These included language barriers when working with non-English-speaking families, particularly given that interpreters were not always available. Other factors included large class sizes (24 students on average),¹⁵ which teachers said made it difficult to establish meaningful communication with the family of every student. A number of teachers discussed their methods for overcoming these challenges; personal resources often played a role. For example, one teacher said that at the

¹⁴ As participants elaborated, each student has a communication folder that he/she will bring home Monday through Thursday. The folder contains one sheet of homework, a behavior chart for family members to sign daily and other information (e.g., school flyers) that represent a major component of the daily communication between the school and family.

¹⁵ This number represents the average kindergarten class size for the 2013-14 and 2014-15 school year as we calculated based on kindergarten enrollment provided by SDP for the 60 schools in our main outcome study.

beginning of each school year, she asked her husband, a fluent Spanish speaker, to help her translate as needed when she called families for the first time.

We asked families and school staff not only how communication occurred, but also what they valued communicating about. Overall, families said they valued receiving information from teachers about their children's behavior and school performance. School staff discussed the importance of learning from families about their children's unique characteristics and needs, including preexisting health or academic issues, the individual child's interests, family cultural backgrounds (e.g., language use, traditions and customs, and what the teacher could do to be more culturally sensitive and respective), life-altering events, and special needs. For example, when asked what types of information they would like the school to receive from families, one principal stated that, "We want to know as much as possible about a student, if a student has had some behavioral interventions in the past so that we can connect with the agency, meet with them, come together so that we know what they're doing, they know what we're doing, and we can work together....The more we know about a student, the better able we are to serve [him or her]."

Five of the six interviewed families and all of the interviewed teachers reported they were happy with the frequency and quality of school-family communication and did not see a need for improvement. It appeared that both parties trusted each other and believed that each would notify the other and provide necessary support if any child-related issues arose. One parent was not satisfied with school-family communication, indicating she wanted to be informed about struggles her child was having in school, to have the teacher be more sympathetic to the needs of her child, and to have more frequent communication with school staff.

School Activities

School activities are another vehicle through which schools and families interact and engage. According to the school staff we interviewed, schools organized a variety of activities to engage parents and strengthen school-family relationships. These activities included back-to-school nights, talent shows, and afterschool programs. A few schools reported that they had staff who worked to recruit parent volunteers or that they had made efforts to engage families in school decisions and to build families' leadership capacity. Obstacles to such efforts also were mentioned. For example, one school staff member reported that the school had previously had numerous parent volunteers engaged in school activities but that was no longer the case due to the enactment of district-mandated background clearance requirements (i.e., child abuse clearance, FBI clearance, and criminal clearance) for volunteers. We also heard from families in our focus groups that these additional clearance requirements made it harder for parents to be in the school. While the parents in the focus groups realized the importance of background checks to ensure children are safe, they suggested that schools could do more to support parents in this process-for example, by providing information on how to obtain clearances and by helping parents pay for the costs associated with obtaining these clearances. In addition, several parents reported that school staff informed them that volunteers were not allowed in the classrooms, regardless of clearances.

School staff reported that school programs and events were announced to families multiple times during the school year through flyers, reminders, and in-person meetings and that these programs

and events were free and available to all families. Despite these efforts, however, almost every staff member we interviewed reported low attendance rates at school programs and events, including those organized as part of the FAST program. They mentioned attempts to boost attendance, such as varying event times to accommodate parents' work schedules, providing child care during the event, and serving food; but attendance remained consistently low. One school cited an attendance rate of 50 families out of 800 children; another cited ten families of 1,100 as the average attendance rate for a typical school activity. One of the schools announced a raffle for a free television for families attending a school event and, even so, only six families participated.

When asked about what might account for low attendance at school activities, a teacher shared that "I think for different people it's different things. Some people are working parents, and the times that things happen, they're not necessarily available. I also think that the language barrier puts a lot of people off, because we have a whole lot of children and families who don't speak English. We can't always have an interpreter available at all of those things, so I think sometimes if they speak a different language, they're automatically put off, or they're automatically apprehensive about coming in. I think that's a huge problem too." As we will discuss later, low attendance rates for school activities were reflected in low participation rates for FAST despite an intensive effort to recruit families for the program. Work schedule conflicts and language barriers also challenged families' abilities to attend FAST.

School-Family Relationships

All but one of the families we interviewed expressed positive sentiments about their child's teachers, noting how much their children enjoyed their teachers. They expressed appreciation for teachers' abilities to maintain strong parent-staff partnerships and to address children's needs in a timely manner, especially given a lack of school resources and a high number of students with behavioral issues. Several family members we interviewed commented that teachers needed more support in the classroom, were under-paid, and were under-appreciated. Families expressed great admiration for teachers' capacity to work through obstacles and for their dedication to their students. For example, one mother spoke of a teacher who provided additional tutoring to her son after school every week in order to ensure her son would not fall behind academically.

Most schools reported sharing information with families about community resources (e.g., free dental checkups, how to obtain insurance for children), and teachers we interviewed had direct experience connecting children and families with local agencies and arranging multi-agency meetings. A few teachers confirmed that they voluntarily worked with families during out-of-school hours to provide more individualized support.

As noted earlier, we interviewed only a small number of families and school staff. Therefore, our respondents may not have been representative of all staff and families. As one of the interviewed principals noted, few families had ongoing, productive relationships with the school, and those who did probably held the school in higher esteem than the majority of families who had minimal relationships with the school. It is possible that most of the families we interviewed were families of the former type—i.e., those more likely to engage with schools and regard schools positively—as families in the latter group may have been less likely to participate in interviews. Nonetheless, we present this discussion as an illustrative example of the ways in

which some families and teachers can and do engage with each other. Several issues that arose in these discussions, such as low family turnout for school programs and events, schedule conflicts for families when programming was offered, and language barriers for non-English speaking families were also significant factors impacting the effective roll-out of FAST as described in further detail below.

RQ2: What does it look like to implement a family engagement program? What challenges and successes are associated with implementation?

Planning for 2013-14 FAST implementation began in February of 2013. As noted earlier, WCER held bi-weekly planning team meetings with key stakeholders (i.e., SDP, TPC, and FAST, Inc.). Many challenges that were identified when the program was first rolled out persisted into later stages of implementation. Over the years, the key stakeholders continued to meet regularly, actively tried to improve the execution of the program, built strong working relationships with one another, and believed in the common goal of supporting families. In the section that follows, we discuss the challenges encountered and the strategies used to address them. We conclude with a discussion of successes.

Implementation Challenges and Strategies

The primary challenge experienced in implementing FAST was in the recruitment and retention of families, a challenge that also was mentioned in another study of FAST (Moberg, et al., 2007). However, the team had challenges with all four phases of the FAST Cycle (i.e., learn, plan, do, and review). In the following sections we describe barriers faced by program implementers – these include recruitment and retention of families, staffing, training, and facilities. We synthesize information collected from interviews with TPFC, SDP, school staff, and FAST, Inc.; family surveys, interviews, and focus groups; and meeting notes. It is important to note that where data come from the meeting notes, we were not always able to discern who recommended a particular strategy, given that meetings notes presented summary statements of the group discussion.

Recruitment

As discussed, the purpose of this i3 grant was to test whether FAST could provide an effective, targeted approach to turn around persistently low-performing schools. Therefore, we designed our main outcome study to explore the school-level impacts of FAST, and as such, we randomized 30 schools into the FAST treatment group and 30 into a delayed treatment group (that would receive FAST after data collection for the outcome study was completed). This undertaking was a huge endeavor, especially for the team tasked with rolling out the program at scale in 30 schools simultaneously. In contrast, the other 5 RCTs conducted of FAST (Gamoran, et al., 2012; Kratochwill, et al., 2009; Kratochwill, et al., 2004; Layzer, et al., 2001; Moberg et al., 2007) included only between 1 and 14 treatment schools.

In order to assess the school-level impact of a program such as FAST, it is important that the program is implemented with fidelity and that enough parents and children in each school

participate in it. The i3 proposal governing this project assumed that 60 percent of all kindergarten families in the 30 treatment schools (representing approximately 3,000 children in two cohorts) could be recruited to participate in and complete FAST (WCER, 2012). As provided by SDP, actual kindergarten enrollment across the 30 treatment schools was approximately 4,500 children across the two cohorts. Therefore, to meet their target participation rate of 60 percent, TPFC needed to recruit 2,717 families across both cohorts and of those 80% would need to complete six or more FAST sessions. However, only 1,076 families (24% of kindergarten enrollment) participated in even one FAST session (Smetzer-Anderson & Roessler, 2016).¹⁶

As these figures illustrate, the implementation team was unable to recruit the number of anticipated participants. The team realized early in the process that they were not reaching their recruitment targets. As documented in the meeting notes, TPFC used a variety of strategies to address this issue, engaging in a series of advertising efforts such as distributing FAST registration forms, providing promotional materials for families and students (e.g., buttons, headbands, stickers, and magnets), distributing flyers with the FAST school schedule, hanging up posters at each school site, using robocalls to inform families about FAST, and advertising on schools' websites. Staff from participating schools tried to help by demonstrating their own excitement about the program, stopping at the registration sessions to voice support, and fostering a welcoming school atmosphere.

TPFC also engaged in direct one-on-one recruitment of families. For example, team members conducted outreach about the program at school pick-up, during coffee and donuts on the school campus and during events such as a pizza night (pizza offered during a FAST session), and a "chat and chew," when families could stay for breakfast after dropping off their child. After a family registered for FAST, the QCMs sent them texts and mailings to remind them of program sessions. They also called families who had registered but did not show up at the weekly FAST session. TPFC assigned each team member a set of families to maintain regular communication.

The implementation team encouraged principals and teachers to facilitate recruitment by conducting additional events such as assemblies and recruitment gatherings. The program team also reached out to the local community for support. For example, Children's Hospital of Philadelphia helped by distributing FAST flyers to families when they talked to them about community resources.

To accommodate working families' schedules, TPFC held alternative FAST sessions after working hours or on weekends in a few of the schools. However, these alternative sessions did not result in significantly higher turnout in these schools, possibly because working parents prioritized other non-work activities during those times. In addition, the team tried to compensate for the initial lack of enrollment by extending the recruitment period for each cohort, letting families join FAST after the third session and allowing families to attend sessions across multiple eight-week cycles, which the FAST model normally does not permit.

¹⁶ Specifically, 545 families (24% of kindergarten enrollment) from Cohort 1 and 531 families (24% of kindergarten enrollment) from Cohort 2 participated in at least one FAST session. Not all of these families graduated from FAST (attended at least six sessions).

In other settings, the FAST program has used home visits as a preferred recruitment strategy. Indeed, TPFC had administered a version of the FAST program (i.e., Kids FAST) in several schools within SDP for a number of years, using home visits to recruit families. However, as the i3 project was rolled out, SDP policy did not allow home visits for FAST recruitment in the 30 treatment schools due to privacy, safety, and liability concerns. Since the administration of Kids FAST was not done in conjunction with the SDP, TPFC was unaware of and surprised by this district policy. Despite efforts to work with the district to resolve this issue and re-introduce home visits as a recruitment and engagement tool, FAST, Inc. and TPFC were unable to use home visits as part of the program. Instead, TPFC used space in the schools for face-to-face visits as an alternative to home visits, but both FAST, Inc. and TPFC viewed such recruitment methods as less effective.

Although the use of home visits might still have not resulted in a 60 percent participation rate, this difference in expectations among the organizations involved in this project was indicative of the growing pains experienced by the implementation team as they began to develop relationships across various agencies. Members of the team described a steep learning curve in which they had to continuously reflect on the effectiveness of recruitment strategies and make mid-course corrections as needed. While the meeting notes indicate that the effectiveness of recruitment strategies appeared to vary across schools, interviews with the implementation team, principals, teachers, and families revealed that a common and useful approach was to build excitement for the program among children, who would then tell their families they wanted to attend. In focus groups, many families reported attending FAST because of their child's enthusiasm for the program.

During the family focus groups, several participants described learning about the FAST program through the methods described above, suggesting that the recruitment methods may have been effective in informing families about the program. In addition to public outreach efforts at schools, several participants said they had been encouraged to attend the program by FAST staff or teachers they personally knew.

Of the 519 families surveyed across both cohorts who attended a school offering FAST, only 11 percent of respondents reported *not* knowing that FAST was available to them. However, despite the fact that almost all families were aware of FAST, program enrollment never matched the anticipated recruitment target, suggesting that parents prioritized other obligations and activities over participating in the FAST program.

In summary, although awareness of the FAST program was relatively high, recruitment into the program remained low.

Retention

The project struggled not only to recruit families, but also to retain families. According to FAST, Inc., 80 percent of families who attend one session of FAST typically will complete the entire eight-week session.¹⁷ For this study, however, only 51 percent of participants completed at least six of the eight sessions.¹⁸ The meeting notes document that retention was a common topic of discussion among stakeholders. During our interviews, QCMs reported that citywide events (e.g., public transportation strike, Pope's visit), bad weather, low principal buy-in, competition for resources (participants, facilities) with other afterschool programs, family schedules, and early school dismissal negatively impacted retention.

To address the challenges with retention, TPFC tried numerous approaches. For example, when there was an early dismissal, team members came to the school with board games and snacks to encourage families to wait until the program started (typically 3:30 p.m.). Team members observed an increase in participation when they hosted a special event, such as a pizza night. However, these incentives were of limited effectiveness since they could not be offered for every session. Families would come to one or two sessions but not to all eight. At several schools, a ninth week of FAST was added (the program's usual duration is eight weeks) to allow families who started late or had sporadic attendance to complete the six sessions needed to graduate from FAST. QCMs noted that language issues may have deterred families who were non-English speakers from returning after their first session. Given that FAST requires parents to interact with each other, a parent who cannot communicate with other families may feel particularly isolated from the program. None of these varied efforts resulted in the desired level of retention in the program.

We also asked families about program retention. In the annual survey of families, 53 percent of those who attended at least one FAST session (but reported not attending FAST regularly) reported that conflict between work schedules and program times was the main reason they could not attend FAST more regularly. Seven percent reported health issues or disabilities (affecting themselves or other family members) and six percent reported that too many responsibilities at home made it difficult to participate.

The family focus groups held in 2015 provided additional insights into retention challenges. Several participants across a few of the focus groups used the word "disorganized" to describe the FAST program, which dissuaded them from returning to future sessions. A few participants noted the program seemed to become more disorganized over time; as one of these participants described, by the end of the program it was unclear to her who was in charge. Another focus group participant reported dropping out of the program near its end because the sessions no longer "felt purposeful and organized" and she had competing demands on her time. Respondents also reported dissatisfaction with FAST staff turnover, and staff showing up late or not showing up at all. Other issues included sessions changing location, a lack of volunteers, and sessions starting late.

¹⁷ http://www.familiesandschools.org/how-fast-works/

¹⁸ We do not have attendance data that provides more specific detail to determine what percent of families attended all eight sessions. Presumably, it will be somewhat less than 51 percent.

Another critique of the program was made by a participant who found the activities repetitive and unengaging. Several participants suggested that FAST could be improved by changing the activities each week to keep them fresh and families excited. As described by QCMs and staff from FAST, Inc., FAST purposefully uses repetition in the activities to promote stability for children and allow parents to practice the skills and techniques learned in the program. However, this purposeful use of repetition was not articulated to or well understood by families. A few participants also reported that it was challenging to share personal stories and struggles in FAST sessions when other parents in the program seemed more guarded or disengaged.

Staffing

As noted earlier, the FAST model at the school level relies on three types of staffing: a local agency partner who will implement the program (in this case TPFC), school partners (i.e., school staff) who participate in the program, and volunteers who are often parents who have graduated from the FAST program. Collectively, they compose the FAST team that will run the program within each school. Our study found that it had been difficult to fully staff these teams, particularly in regard to parent volunteers and school partners. In addition, the implementation team had to deal with the sudden and traumatic death of a key leader of TPFC who worked on this project. All interviewees described the difficulty of this loss, particularly so for the QCMs who worked most closely with this person.

QCMs and Agency Partners

During initial roll-out of FAST, TPFC hired one staff member (a QCM) per school to run the FAST program. Each QCM had to manage six schools, which included building partnerships, recruiting families at each site, and ultimately running the program at each school. As a QCM reported, it was challenging to allot the necessary time and attention at each site with such a heavy workload. In addition, there was a high level of turnover among QCMs, creating additional challenges at the school level.

In subsequent phases of the project, agency partners were used to support school-level implementation, in addition to QCMs. Having agency partners significantly reduced the burden placed on QCMs and enabled those agencies to develop deeper connections with families, pay greater attention to families who needed extra help (e.g., non-English speakers) and coordinate referrals to community-based services needed by families. Interviewees generally agreed that having agency partners contributed to stronger program participation. However, due to the temporal nature of the job (agency partners are paid hourly and the job is seasonal), interviewees shared that it was not easy to find staff with the appropriate skills and experience as well as to train them on the FAST model efficiently.

Volunteers

As noted above, TPFC had administered a version of FAST in a handful of schools within SDP for many years. Therefore, FAST, Inc. and TPFC initially anticipated recruiting FAST graduate parents to serve as volunteers during this i3 study. As they later learned, however, SDP policy required volunteers to obtain multiple levels of clearances and many parents and other volunteers from the community were not able to meet these requirements (e.g., due to a criminal record). TPFC then tried to recruit university students in the community as volunteers, although found that the students were often unable to commit the time required. In addition, the implementation team struggled to recruit volunteers with diverse backgrounds, as well as volunteers who were culturally and linguistically representative of the local community, a requirement of FAST.

School Partners

In this project, the majority of the school partners were teachers, as opposed to guidance counselors or other school staff who are typically the school partners in other FAST programs. Where possible, the implementation team attempted to recruit kindergarten teachers as school partners, as that was the focal grade for this study. However, as described in the meeting notes, teachers were in the midst of contract negotiations with the district during this time period, which created tension between them and the school district. The reduction in school staff due to budget constraints also meant that teachers were more overwhelmed than usual. To address this issue, the team reduced what they typically required of the school partner. For example, instead of asking school partners to stay in the program for its duration, the school partners were asked to participate for the first 45 minutes of the program, when it was most interactive. The training also was modified to reduce the burden on school partners (see below for more details regarding training).

Several of the school staff interviewed reported that there were unclear and shifting expectations in regard to the school partner role. For example, many school staff noted they were unaware of the required six-hour meeting in which the site team reviews data to evaluate the outcomes achieved at the site. School partners suggested the need for a contract detailing the program, the school partner's responsibilities, anticipated hours, and compensation, as well as describing the responsibilities of the lead agency.

Training

Issues around staff training created additional challenges. First, as noted earlier, FAST team members were not always hired or did not have their clearances prior to the beginning of training. In other instances, the training was held at a time that conflicted with the FAST team members' schedules. In particular, many training sessions occurred during the school day, and school partners were unable to participate. The meeting notes suggest that these challenges began during the first year of the program. In addition, the notes highlight that FAST team members sometimes failed to attend or complete the training. Several school partners reported that they were not given enough advance notice regarding the training schedule or were asked to come to the training without compensation during their vacation.

The implementation team developed several strategies to address training attendance issues, including varying the training location, offering "refresher" trainings, and providing child care during the training sessions. The team also developed a condensed version of the training to ensure that trainees had opportunities to review program expectations and get a minimal level of training before they began administering the program at schools. The team kept trying different strategies to reduce the complexity of training requirements, such as reducing the hours of in-person training and encouraging trainees to read the self-study guide and FAST manual independently.¹⁹

In the first year, as documented in the meeting notes, the majority of FAST team members were "not prepared to run the program" due to insufficient training. The need to increase participation in the training was a recurring focus of discussion. QCMs and FAST, Inc. staff shared that over the years, the implementation team did a better job of identifying FAST team members earlier in the process and ensuring they were effectively trained – they pointed to occasions in which the full team was jointly trained, which helped things run more smoothly at the school site.

Facilities

The implementation team also struggled with locating space in the schools for the program (as well as storage space), particularly given many of the sites had multiple after-school programs. As a result, program activities were often held in multiple rooms within each session (e.g., meal time was done in the cafeteria and then the group moved to a classroom for subsequent activities).

The meeting notes also captured tension between the FAST team and building engineers. For example, one QCM noted that the building engineer would forget about the program almost weekly and would want to close the school before the FAST program ended. The conflict with this building engineer was finally resolved with the intervention of SDP. In many cases, the schools would close immediately after the FAST session, which meant the FAST team members did not have space to conduct their debriefing meetings.

Successes

Launching a family engagement program across 30 schools is a tremendously challenging endeavor for any team. Despite all the challenges experienced, one of the major successes was the implementation team's continued and deep commitment to the project. Based on the meeting notes, whenever a new challenge arose, the team worked collaboratively to identify solutions, maximize its resources, and help and encourage one another to address the issue. Based on our interviews, all stakeholders from the implementation team demonstrated great buy-in into the program and worked hard to engage as many families as possible. While it took time to develop relationships among the various organizations and despite tensions at times amongst the different stakeholders, the team appeared to be committed to a positive and collaborative approach to the work. Thus, while the initial recruitment and engagement targets were not met, the unflagging

¹⁹ This adjustment was one of several made by the team, along with extending recruitment past the third session, not using home visits to recruit families, and adding a ninth week of FAST. While the main outcome study found high fidelity in the implementation, it is possible these adjustments affected the program as it was administered and experienced by families.

efforts, flexibility, and teamwork of the implementation team likely contributed significantly to the high fidelity with which the program was delivered to those who did participate (see Bos et al., 2018 for more details about the fidelity of program implementation as measured in the main outcome study).

How Participants Perceived Their FAST Program Experience

All of the interviewees, including most FAST participants, expressed positive opinions about the FAST program. During family focus groups, respondents talked about a variety of ways in which FAST had benefitted their families. Many participants reported that FAST improved their communication with their children's teachers and principals. As one participant stated, FAST was like an "*icebreaker between the family and school*." Another participant explained that FAST helped teachers connect with parents and helped both teachers and parents connect with the children. A QCM also shared this observation, stating that "*FAST has helped with other family engagement programs, making families more engaged beyond the FAST program.*"

Teachers and principals shared a similar sentiment and reported greatly appreciating the opportunity to engage with families through FAST activities, as well as getting to know about each other at a personal level. As one school partner reported, "*I liked that you got to see parents in a whole different and relaxed sort of non-academic atmosphere, and then the fact they were cooking and bringing the food, so you got to talk about their life outside of the school. You got to see them as parents, not just somebody who picks up and drops their kid off every day.*" Another teacher respondent also noted the strategies she learned through FAST taught her how to use activities in her classroom to engage with the families of her students.

Respondents also reported that FAST helped make the school feel more welcoming. As one participant reported, FAST made the school feel *"like more of your school."* A few family members indicated they previously did not find their school welcoming, however, FAST made them feel better about going to the school, and that FAST was the best thing about the school.

Another benefit of FAST reported by participants was the opportunity to meet and learn from other parents. Indeed, FAST was cited as the main vehicle for parents feeling connected to other families at the school. Through FAST, participants reported sharing recipes and networking about jobs and other resources in the community. One participant also was surprised how much FAST helped her open up to others. She described the program as having a greater impact on her personally than her grandchild. A QCM also echoed this sentiment, "they [families] had baby showers for each other, they helped each other learn how to drive, they shared resources about housing and employment."

Focus group respondents also described the various benefits FAST had for their children, including improved communications and stronger connections between family members and children. One participant indicated that the program helped her child, who had speech problems, learn new words while being exposed to other children during the FAST sessions. Another participant said her children enjoyed FAST so much that she could use it as a tool to get them to behave better on the days leading up to FAST. And one participant relayed an incident in which her child, who was a picky eater, was convinced by the FAST worker to eat a new food before he

was given a cookie. The child tried the new food, liked it, and had been more open to trying new foods since the program. For this participant, this was a huge victory for her child.

In the main outcome study (Bos et al., 2018) we examined these kinds of program benefits by comparing outcomes between treatment and control group schools and families. As discussed in that report, we did not find enduring and meaningful impacts on family-school relationships or family social support. However, the lack of sustained participation would have made finding such broad impacts very difficult. Also, some families would have experienced some of the program benefits mentioned here in other school- or community-based family engagement programs or activities, even if they did not have access to or participate in FAST.

RQ3: What are the conditions that facilitate or hinder implementation of a family engagement program?

We asked TPFC, SDP, and FAST, Inc. staff to describe factors that potentially hindered or facilitated implementation of FAST, described below. We also present the results of the deviant case analysis to further explore under what school conditions students and families showed greater improvement in key outcomes across the years.

Hindering Factors

Based on interviews and on the meeting notes, we identified five factors that appear to have hindered implementation.

- 1. No pilot testing prior to execution of the program. The original i3 proposal included a pilot study before the full-scale rollout of the program in the SDP. However, the U.S. Department of Education requested that the timeline and budget be cut, necessitating the elimination of the project's pilot phase. As reported by many implementation team members, the lack of a pilot phase meant that the stakeholders were just starting to know each other when the collaborative partnership was established. A pilot could have allowed all the partners to work together, learn about each stakeholders' priorities, engage with the recruitment challenges earlier in the process, and develop processes and systems prior to full implementation (or make major changes to the project as originally conceived and funded).
- 2. A non-flexible approach to working with schools. In order to administer the program across 30 schools simultaneously, decisions were often made across the board without considering the individual circumstances, strengths, and needs of schools and families. While the meeting notes illustrate that the team at times did attempt to address site-specific issues, the large-scale nature of the implementation meant that this happened less often than may have been ideal.
- **3. Lack of cultural representation of teams.** FAST strives to ensure that school-level teams are culturally and linguistically representative of the families served. However, in this project, the implementation team was unable to consistently recruit and create culturally and linguistically representative teams to engage families. One teacher,

reported, for example, that the absence of an on-site interpreter discouraged families who did not speak English from participating in the program. A bilingual parent also raised this issue as she noted that monolingual families in her child's school did not return because of language barriers.

- 4. Lack of authentic school buy-in. In order to recruit schools for this study, a meeting was held with principals of schools in turnaround or school improvement status as required by the i3 grant. While schools opted into the study and to having FAST at their school, QCMs described that some school leaders had not fully bought into the program. As one QCM noted, team members were often perceived as outsiders. The third-party status of QCMs, along with the direct involvement of SDP, could send the message that, as described by a QCM, "we are bringing this program to your school, and this is what we want." For some schools, this made the program appear top-down, rather than reflecting the bottom-up nature desired by FAST.
- **5. Turnover.** Turnover was experienced at all levels, from the retirement of a district staff member (who, initially, was expected to work on the project), to turnover of TPFC and school staff. Each time turnover occurred, a new team member had to be recruited, trained, and brought up to speed on the project.

Facilitating Factors

Several factors also emerged that facilitated implementation of FAST, as described below:

- 1. Teacher support of FAST. As noted by the program developer, a strength of this FAST as administered in Philadelphia, was that the school-level teams working with families included a large group of teachers as the school partners. Typically, guidance counselors or other support personnel administer the program within the school. Having teachers as the school partner allowed them to integrate elements from FAST into their classroom. Families in the focus groups whose children's teachers were the school partners reported appreciating the opportunity to interact with their children's teachers outside of the classroom, which they reported fostered stronger relationships and bonds with the school.
- 2. Implementation team member buy-in. The implementation team was strongly committed to the FAST program. For example, QCMs were able to articulate the strengths of the program and to witness the positive effects of FAST in schools and families. The team's commitment to FAST may have provided the resilience to continue implementing FAST despite the various obstacles faced throughout the life of the project.
- **3.** Continuous communication among key stakeholders. While the lack of a pilot test meant that the implementation team could not establish sound internal relationships prior to program start-up, the regular team meetings allowed for the development of relationships and effective collaboration over time. Additional meetings, such as the weekly check-ins between designated trainers and QCMs, further promoted and facilitated problem solving.

4. Team learning over time. The implementation team learned and adapted over time. For example, the team was constantly developing new ways to try to recruit and engage families. Despite many obstacles, the team kept following up, reaching out, and assessing what was happening. For example, QCMs recognized the need for agency partners to support their work, and agency partners eventually were hired to provide more hands-on support at the school level.

Deviant Case Analysis

To further understand under what conditions, children have improved growth in academic learning and families improved family functioning after FAST, we conducted a deviant case analysis (see Seawright, 2016 for more information on deviant case analysis). As noted in the methods section, we selected four schools that had the most and four schools that had the least growth on a set of student and family outcomes. We present several characteristics of these schools in Exhibit 2.

School Characteristics	Data Collection Timeline	Data Source	Average of 4 Schools With Highest Growth	Average of 4 Schools With Lowest
School climate	2013-14 SY ²⁰	District record	39.5	Growth 43.3
Kindergarten enrollment	2013-14 ST 2014-15 SY	District record	71.5	80.5
Percent kindergarten ELL	2014-15 SY	District record	7.7	19.1
DIBELS Initial Sound Fluency Kindergarten level (Raw score)	Fall 2014 ²¹	District record	7.1	10.8
% children attended preschool	Fall 2014	Baseline Parent Survey	69.7	78.5
% mother with no high school degree	Fall 2014	Baseline Parent Survey	19.5	14.1
% ELL students always/most of the time hear English spoken at home	Fall 2014	Baseline Parent Survey	45.8	76.7
Average number of FAST sessions attended	2014-15 SY	FAST attendance record	1.9	2.2

Exhibit 2. Select School Characteristics for Eight Schools in Deviant Case Analysis

We compared selected school characteristics across a number of variables for the average top and bottom four schools in our deviant case analysis. Due to the small sample size, we did not conduct any statistical testing to determine if the observed differences between the high- and low-growth schools were statistically significant. However, the eight select characteristics shown in Exhibit 2 capture a snapshot of these schools.

²⁰ We used the school climate scores, collected during the 2013-14 school year, to indicate the school climate prior to the enrollment of these students within the school.

²¹ The DIBELS score capture a child's pre-kindergarten level of literacy skills.

The schools that demonstrated the most growth had smaller kindergarten enrollments (71.5 students versus 80.5 students, respectively), and fewer ELLs (7.7% versus 19.1%). The schools with the highest growth also had a lower school climate score (39.5 versus 43.3, respectively), a smaller percentage of students who had attended preschool (69.7% versus 78.5%), a greater percentage of students whose mothers did not have a high school diploma (19.5% versus 14.1%) and a smaller percentage of ELL students who always/most of time hear English spoken at home (45.8% versus 76.7%). In addition, students were measured on the Dynamics Indicators of Basic Early Literacy Skills (DIBELS) Initial Sound Fluency (ISF), Kindergarten Level, at the beginning benchmark period using the DIBELS. The ISF score demonstrates how aware individual students are of the sounds of letters presented in words. Students in the schools with the most growth had lower initial ISF scores than students in the schools with lower growth (scores of 7.1 versus 10.8). All of this suggests that schools and students with greater initial need showed stronger growth over time. (In other words, the gaps between more disadvantaged schools and students and their less disadvantaged counterparts shrank.) This in turn suggests that a program like FAST may be most beneficial in contexts of greater need. However, such a broad conclusion is quite speculative and not necessarily borne out by larger-scale subgroup analyses we conducted for the main outcome study (Bos et al., 2018).

As part of the deviant case analysis, we also looked at the average number of FAST sessions attended for all families within a school. In the schools with the highest growth, families attended on average 1.9 FAST sessions versus 2.2 FAST sessions for the lowest-growth schools. Hence, the intensity of FAST enrollment and attendance does not seem to be associated with greater growth or better student outcomes.

RQ4: What are the lessons learned from implementing the FAST program for the i3 validation study of FAST?

In our interviews with the various stakeholders of the implementation team we asked each interviewee to describe lessons learned from implementation of the FAST program for the i3 validation study of FAST. Below we discuss these lessons learned:

- 1. Focus on relationship building. Across all stakeholders who comprised the implementation team, respondents emphasized the importance of relationship building and the need to build trust among stakeholders. The different members of the team noted that each stakeholder had his or her competing priorities, different opinions on action that should be taken and required procedure of how things should be done. They noted the importance of understanding the constraints involved and the flexibility allowed as well as ensuring all stakeholders understand the requirements of the program. Stakeholders also consistently noted that relationship building is a process that takes time.
- 2. Ensure adequate planning time. One factor that participants described as hindering the execution of this program was a lack of pilot testing. It is not surprising then, that one lesson learned shared among team members was the need for planning time to effectively roll out the project and develop strategies to address barriers. Team members emphasized the importance of conducting a pilot test, working at a smaller scale, and using lessons learned from that pilot to expand the program.

- **3.** Develop a strong understanding of community strengths and needs and adapt the program as needed. QCMs discussed the importance of understanding the local context when administering a program. They noted that it would have been useful to understand at the onset the district's policy, procedures, and protocols that could affect how the program was run. They also described differences in implementation between Kids FAST and FAST for this study, highlighting ways in which the study itself constrained their work (e.g., specific grade level to target, specific set of schools with which to work). Schools are not homogenous and program planners should consider school personnel and principal turnover, the number of languages spoken by families in a school (to inform translation efforts), the current afterschool programming and how that could impact program enrollment, as well as what other challenges the school/community is facing.
- 4. Ensure that the program fits the needs and realities of intended beneficiaries. A potential factor that hindered implementation was a lack of authentic school buy-in and top-down approach. Similarly, understanding the needs and interests of families could enhance participation in family engagement programing (Smetzer-Anderson & Roessler, 2016; Spier, González, & Osher, in press). For example, despite the fact that most families appear to know about FAST, few came. Although alternative sessions were provided to accommodate work schedules, attendance remained low. It is possible that FAST may not have been the medium in which most families wanted to engage in their children's schooling.
- 5. Enlist school staff as liaisons to the program. QCMs suggested having a designated school staff be a FAST representative who could understand the program and develop buy-in from other school staff. For example, the representative, who is already a part of that school or that community and who is onsite, would be able to answers families' questions, connect them to local resources, address their concerns, and advocate for the program whenever he/she sees a need.
- **6.** Set goals that are realistic and attainable. Several respondents noted that a goal of 60 percent participation in schools with traditionally low participation in school-based programming was unrealistic. Setting goals that are unattainable can contribute to subsequent frustration and low morale among team members when they then fail to meet the unrealistic goal.

Limitations of this Study

There are several limitations of this study. First, there is the possibility of participation bias. The study's interview participants represent a small number of all the participants engaged with FAST. We did not have an opportunity to interview agency partners, and only a small crosswalk of the QCMs. As such, our findings do not represent the experiences or opinions of all participating schools, or even all different stakeholders who worked to implement FAST.

Second, our interviews and focus groups collected data retrospectively and not during initial rollout of the program. Our initial study was only focused on outcomes, and it was only within the last year that AIR and WCER formally added an implementation component to this study. Interviewees might not remember all the nuances of a situation or remember it differently. Due to staff turnover, when we conducted this supplementary study, we did not have the chance to interview more members of TPFC or FAST, Inc. who were intimately involved in earlier stages of the program execution. We focused on challenges and lessons learned, but were not able to assess the team's readiness for large scale implementation of FAST. "Readiness" is a critical component to implementation quality (see Dymnicki, Wandersman, Osher, & Pakstis, 2016), and thus, we are unable to address this component.

And while the meeting notes were captured in real-time, they mainly represent discussions that focused on challenges and solutions and less so on successes. In addition, there was not always a follow-up discussion to help us illuminate what happened over time with a particular scenario. Our analysis of the meeting notes may selectively capture challenges and not solutions.

Despite these limitations, we still are confident in our findings and discussion presented in this report. The purpose of this report is not to present generalizable results, but rather map and describe the challenges involved with this FAST implementation. In addition, we saw triangulation of themes among the various stakeholders that comprised the implementation team, as well as within the meeting notes. Lastly, our findings and discussion align with other reports of struggles encountered by other i3 awards focused on family engagement (Geller, 2016) – namely that effective program implementation requires a "goodness of fit" between the intervention and the community and population served; flexible implementation is critical; cultural brokers between families and the program are needed; and strong partnerships and relationships amongst stakeholders, schools, and families take time to develop.

References

- Bos, J., Spier, E., Bandeira de Mello, V. González, R., & Huang, F. (2018). Investing in Innovation (i3) Validation Study of Families and Schools Together (FAST). San Mateo, CA: American Institutes for Research.
- Dymnicki, A. B., Wandersman, A. H., Osher, D. M., & Pakstis, A. (2017). Bringing interventions to scale: Implications and challenges for the field of community psychology. In M. A. Bond, I. Serrano-García, C. B. Keys, & M Shinn (Eds.), APA handbook of community psychology: Methods for community research and action for diverse groups and issues (Vol. 2, pp. 297–310). Washington, DC: American Psychological Association.
- Gamoran, A., López Turley, R. N., Turner, A., & Fish, R. (2012). Differences between Hispanic and non-Hispanic families in social capital and child development: First-year findings from an experimental study. *Research in Social Stratification and Mobility*, *30*, 97–112.
- Geller, J. D. (2016). Ensuring that family engagement initiatives are successful, sustainable and scalable. *Voices in Urban Education*, 44, 2–5.
- Kratochwill, T. R., McDonald, L., Levin, J. R., Scalia, P. A., & Coover, G. (2009). Families and schools together: An experimental study of multi-family support groups for children at risk. *Journal of School Psychology*, 47, 245–265.
- Kratochwill, T. R., McDonald, L., Levin, J. R., Young Bear-Tibbetts, H., & Demaray, M. K. (2004). Families and schools together: An experimental analysis of a parent-mediated multi-family group program for American Indian Children. *Journal of School Psychology*, 42, 359–383.
- Layzer, J. I., Goodson, B., Creps, C., Werner, A., & Bernstein, L. (2001). National evaluation of family support programs. Volume B: Research Studies. Final report. Cambridge, MA: Abt Associates.
- Moberg, D. P., McDonald, L., Posner, J. K., Burke, M. L., & Brown, R. L. (2007). Randomized trial of Families and Schools Together (FAST): Final report on NIDA grant R01-10067. Madison, WI: University of Wisconsin–Madison.
- Resnikoff, N. (2013, June 13). State cuts to education spur Philadelphia school budget crisis. *NBC News.com.* Retrieved from <u>http://www.nbcnews.com/id/52196892/t/state-cuts-</u> education-spur-philadelphia-school-budget-crisis/#.WkMo0FWnHio
- Sanchez, C. (2014). Philadelphia schools: Another year, another budget crisis. *NPREd*. Retrieved from <u>https://www.npr.org/sections/ed/2014/11/04/360146623/philadelphia-schools-another-year-another-budget-crisis</u>
- Seawright, J. (2016). The case for selecting cases that are deviant or extreme on the independent variable. *Sociological Methods & Research, 45,* 493-525.

- Shamlin, W. (2014, September 11). Parents, advocates sue public school district. *The Philadelphia Tribune*. Retrieved from <u>http://www.phillytrib.com/news/parents-advocates-sue-public-school-district/article_32ae6e29-d766-5d4e-a32e-9ea89235b96d.html</u>
- Smetzer-Anderson, S., & Roessler, J. (2016). "Buy-in" vs. "Allowed in": Lessons learned in family engagement program recruitment and retention. *Voices in Urban Education, 44*, 53–63.
- Spier, E., González, R., & Osher, D. (*in press*). The role of the community in learning and development. In G. E. Hall, L. F. Quinn, & D. M. Gollinck (Eds.), *The handbook on teaching and learning*. Hoboken, NJ: Wiley-Blackwell.

Wisconsin Center for Education Research. (2012). *Families and Schools Together: An innovative, targeted strategy for removing key barriers to school turnaround*. Grant proposal, retrieved from <u>https://www2.ed.gov/programs/innovation/2012/uofwisconsinnar.pdf</u> **Appendix: Methods**

Data Sources

Our data sources come from five stakeholder groups: (1) families, (2) principals and school staff who supported the administration of FAST, (3) FAST, Inc., (4) TPFC, and (5) district staff. Our data sources include interviews conducted in 2017 that specifically address the RQs, family focus groups conducted in 2015 that captured feedback from families about FAST, and implementation and steering committee meeting notes. In addition, where useful, we include results of family surveys from our main outcome study across the two cohorts represented in that study. We also conducted a deviant case analysis to determine if we could learn from schools that exhibited the highest and lowest growth across a range of outcomes. Data for those analyses come from our main outcome study and include data from the family survey as well as data from direct child assessments. Below we elaborate on the data collected from each group of stakeholders.

Families

This report combines data from families collected in three ways: focus groups, telephone interviews, and telephone surveys. By collecting data directly from families, we learned about their experiences with FAST as well as their understanding of and experience with family engagement in general. We incorporated their experiences throughout this report as relevant.

Focus Groups. In December 2015, AIR conducted six focus groups with families whose children were enrolled in schools that offered FAST and were part of the main outcome study. To recruit focus group participants, AIR invited a sample of families from our second cohort as they would have been the families eligible for FAST during the prior school year (and thus would be better able to remember their experiences with FAST).²² AIR used the FAST participation records provided by TPFC to categorize families based on their level of program participation during the 2014-15 school year. We formulated three categories of participation:

- 1. No FAST participation: Families that had not attended a FAST session
- 2. *Partial FAST participation*: Families that had attended one or two FAST sessions, but discontinued participation (while FAST sessions were still being offered for that cycle)
- 3. *Full FAST participation*: Families that had participated in three or more FAST sessions

We held two focus groups for each level of participation. In the *No FAST* and *Full FAST* categories, we randomly selected 120 families from each group and invited them to participate. We invited all 47 families in the *Partial FAST* category to participate in the focus group. The research team sent out focus group invitations by mail and email. The invitation letter included a brief introduction to the study and invited families to participate in the focus groups. Because we

²²We invited families from 26 of the 30 FAST implementing schools. We did not include the other four schools due to institutional barriers at the school that limited effective implementation of FAST (and in which family desire to participate would thus be less relevant).

would conduct all focus groups in English (only about 9% of the sample was Spanish dominant), we sent all recruitment materials solely in English.

We recruited only one primary caretaker per child for the focus groups. While the overwhelming majority of focus group participants were mothers, the focus groups also included (by order of highest frequency) grandmothers, fathers, and in one case, an uncle.

In total, 43 participants attended a focus group session (17 No FAST, 7 Partial FAST, 19 Full FAST); they represented 19 of the 30 schools that implemented FAST during the 2014-15 school year. Participants received an incentive for partaking in the focus groups.

Telephone Interviews. In June 2017, we conducted hour-long telephone interviews with families from four study schools that implemented FAST during the 2016-17 school year. Using FAST session attendance data provided by TPFC, we purposefully selected these four "focal" schools because they (a) had FAST in the then-current school year, (b) had more FAST participants compared to other study schools, and (c) appeared to have a mix of families who had attended six to nine FAST sessions (as opposed to fewer). The primary purpose of these interviews was to learn about families' current communication with the school, to explore families' engagement in school activities, and to learn about families' experiences with FAST.

We worked with SDP's Office of Research and Evaluation to recruit families for the telephone interviews. The school district began by emailing a random subset of the kindergarten, first, and second grade teachers from the selected schools about the upcoming study and the need for their help in distributing recruitment materials to students to bring home. We chose a random subset of teachers to distribute materials as this represented engagement with several hundred families and our goal was to recruit about 16-24 families. Each of these teachers then received recruitment flyers about the study for distribution to their students. The flyers, which were written in English, Spanish, and simplified Chinese, included basic information about the study and provided AIR contact information for families who wanted to participate in the interviews. We had six families; half had participated in FAST and the other half had not.²³ Of the three that had participated in FAST, two had completed the FAST program and one had attended four sessions. The six families we interviewed represented three of the four focal schools. We conducted one interview in Spanish and the remaining interviews in English. We provided participants with an incentive for partaking in the interviews.

Surveys. As part of our main outcome study, we conducted annual surveys with families, which captured a variety of family outcomes. The surveys also asked a series of questions to families in schools implementing FAST to gather families' awareness of the program and their experience with FAST. Specifically, we asked families if they had participated in FAST and if so, then the frequency of participation. If FAST participants indicated that they participated *less than half of the sessions* or *very rarely, or only once or twice,* we then asked them a follow-up question to determine the main reason they did not participate more frequently in FAST. For

²³ To minimize burden on families, SDP's Office of Research and Evaluation recommended sending recruitment materials to school sites after they closed their annual survey of families. As a result, recruitment materials were sent late in the school year and there was not an opportunity to resend another round of materials to families in order to identify additional families to interview.

those families that reported not participating in FAST, we asked them why they had not attended a FAST session. To provide additional context, we present results from these items, collected at the end of each cohort's kindergarten year (summer 2014 for Cohort 1 and summer 2015 for Cohort 2). We provide results for 252 families in Cohort 1 and 267 from Cohort 2 for a total of 519 families.

School Staff

In 2017, at the same four focal schools we selected for the family interviews, we also conducted school-level interviews with the principals and school staff members who have served as the school-level partner (i.e., the school staff member engaged in running FAST at the school site). The purpose of these interviews was to capture a snapshot of FAST implementation at schools that appeared to have been more successful in recruiting and retaining families to participate in FAST. We worked with TPFC to identify the school staff members at each of these four sites who had been involved in the FAST program and randomly selected two per school to interview, in addition to the principal. Each interview was an hour long and again, we worked with SDP's Office of Research and Evaluation to recruit participants. We interviewed three principals²⁴ and eight school-level staff members.

Program Implementers

To better understand the roll-out of FAST, we conducted hour-long telephone interviews with ten respondents across each of the three implementing organizations: two respondents from SDP, four QCMs from TPFC, and three respondents from FAST, Inc., including the program developer. The purpose of these interviews was to learn about challenges and successes in implementing FAST, factors that hindered or supported the administration of FAST, and capture lessons learned. Because the individuals we interviewed at each organization are potentially identifiable, we shared a summary of our interview notes with them to ensure we had accurately captured their responses.

Meeting Notes

During the study period, hour-long telephone meetings, led by WCER, were typically held every other week to allow the various stakeholders involved in program implementation (i.e., SDP, TPFC, and FAST, Inc.) to plan, provide updates, discuss challenges, and strategize how to resolve issues that arose. AIR also sat in on these meetings (though generally did not participate). WCER also led steering committee meetings every other week and included one representative from each stakeholder, as well as AIR. Each representative from the various stakeholders (including AIR) would provide updates. For both sets of meetings, WCER drafted meeting notes and distributed them a few days after each meeting. To provide additional detail, AIR reviewed and coded 89 sets of steering committee and implementation meeting notes from meetings occurring from February 28, 2013 through April 20, 2017. We only included meeting notes during this timeframe to capture major issues during implementation in the treatment schools.

²⁴ We scheduled interviews with all four principals. However, one principal asked to reschedule the interview and ultimately, this principal did not have availability to complete the interview.

These meeting notes only represent a portion of the program implementers' efforts; the meeting notes suggest numerous offline meetings were held to further discuss issues and strategies. These meeting notes capture issues and challenges as they arose. While there was not always follow-up discussion in the notes (limiting our understanding of how issues evolved over time), the review of the notes allowed us to triangulate findings from other data sources.

Outcome Data for Deviant Case Analysis

For the deviant case analysis, we used data from our main outcome study. Our main outcome study included a variety of direct child assessments, as well as a series of family outcomes. In order to identify schools with most and least improvement, we compared the student and family functioning outcomes when children were in the end of first grade to the outcomes when they were in the beginning of kindergarten.

The student outcomes we used to map the level of change are student level assessments we used in the main outcome study: *Woodcock Johnson (WJ) III Tests of Achievement*, which measured children's skills in the areas of literacy and mathematics, and *Peabody Picture Vocabulary Test (PPVT), Fourth Edition* which assessed children's vocabulary acquisition.

The family functioning outcomes we used to map the level of change are the data we collected from our annual family surveys. Specifically, the Conflict and Closeness subscale of the Child-Parent Relation Scale which capture caregivers' perception of their relationship with their child and the Reciprocal Support from Other Parents Scale that measures parent reciprocal support from other parents. We include Cohort 2 students in the treatment schools who have data on at least one student outcome or family functioning outcome (i.e., PPVT, WJ Reading, WJ Mathematics, Child Parent Relation Scale, Reciprocal support from other parents) at baseline and at the end of first grade. As such, the analytic sample used to identify the deviant cases is 291 out of 360 students from the main outcome study in the treatment schools.

Analysis

Qualitative Data

We analyzed the qualitative data (i.e., interviews, focus groups, and meeting notes) in an iterative manner using NVivo. The research team would code a handful of qualitative data around the RQs and then meet on a weekly basis to review the codes developed, further define and refine the codes, and address any issues that arose. Then, the following week, another round of coding would occur, and the research team would again meet to review and further revise and define the codes. This iterative process ensured a robust coding scheme.

We used the coded data to identify themes as they arose across stakeholders and data type and developed the narrative for this report informed by our coding.

Quantitative Data

We pulled the data of FAST-related questions from family surveys and combined two cohorts' data to conduct descriptive statistics. We included the family survey data from our main outcome study as the student sample was randomly selected and thus representative of students in the schools offering FAST. Where appropriate, we recoded the "Other" response option to existing close-ended categories based on the open-ended description families provided to the "Other" response.²⁵ For the closed-end questions, we generated the percentage and the frequency of each answer option.

Deviant Case Analysis

Our main outcome study did not show the expected impact of FAST on the child and family outcomes selected for the evaluation. To better understand this finding, we conducted a deviant case analysis, more closely examining schools that had high and low growth in student and family outcomes. These deviant cases could potentially illuminate reasons for differential differences in growth.

To determine which schools to focus on for this analysis, we looked at growth among Cohort 2 students from our main outcome study, but excluded those students who were no longer enrolled in schools in the district or in any of the study schools by the end of first grade. As we were only interested in the growth of students attending schools offering FAST, we removed data for students in the control schools. We focused on Cohort 2 students to allow for an additional year of program implementation.

We defined the growth of student outcomes in terms of the difference in student academic learning at baseline, which was at the beginning of the 2014-15 school year when they were in kindergarten and compared their scores at baseline to their scores at the end of first grade. We operationalized student achievement by children's vocabulary acquisition, as measured by the PPVT, and children's skills in literacy and mathematics, as measured by WJ.

We defined the growth of family outcomes in terms of the difference in family functioning when the child was in pre-kindergarten (i.e., baseline) and at the end of first grade. As noted above, we included two aspects of family functioning for this analysis: the Conflict and Closeness subscale of the *Child-Parent Relation Scale* and *Reciprocal Support from Other Parents Scale*.

We computed growth by subtracting the scores in the end of first grade from baseline for each of the student and family outcome variables listed above. We then averaged the difference score for students and families within the same school for each outcome variable and computed an overall growth score for each school by outcome variable. Then, we sorted the schools by school-level growth scores, and assigned a growth ranking to the school representing its relative position to the other 29 treatment schools. For example, if a school had the highest growth in PPVT scores, then it would get a rank value of one, representing that it had the largest growth in PPVT scores

²⁵ If a family selected "Other" as their response, they were asked a follow-up question in which we asked them to elaborate on their response.

compared to the other 29 schools. The school with the lowest growth on the PPVT would get a rank value of 30, suggesting it has the lowest possible growth among all 30 treatment schools.

In order to create a total improvement score we summed the school's improvement standing values on all outcome variables for these analyses (i.e., PPVT, WJ Reading, WJ Mathematics, Child Parent Relation Scale, Reciprocal support from other parents). We then selected the four schools with the most improvement and the four schools with the least improvement for our deviant case analysis. We used data from multiple sources available from our outcome study to create a list of school-level characteristics for these eight schools. Those school level characteristics included kindergarten enrollment, percentage of children who attended preschool, percentage of mothers without a high school degree, percentage of ELL students who always/most of the time hear English spoken at home, the DIBELS (which captures various aspects of student kindergarten readiness), FAST attendance, and 2013-14 SY school climate score to indicate the pre-existing school climate status prior to these students' enrollment at the school.²⁶

²⁶ We were unable to obtain additional school site specific information such as turnover of FAST staff at each site or school leadership turnover and therefore, do not provide any additional analyses by these variables. The meeting notes did not contain sufficient detail by school level to illuminate any differences across schools.

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