

Evaluation of Families Forward Learning Center

Participant Perspectives and Student Outcomes

JILL S. CANNON, JONATHAN SCHWEIG, RACHEL PERERA

Sponsored by Families Forward Learning Center



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Preface

The Families Forward Learning Center (FFLC), which is based in Pasadena, California, sought to understand how mothers and children participating in its two-generation learning program fare after they leave FFLC and children enter school. The overall objectives of the mixed-methods evaluation summarized in this report were to understand how program participants perceive the benefits of the program and to observe whether FFLC children improve on educational outcomes through third grade compared with demographically similar peers. The report offers guidance to FFLC leaders and others interested in two-generation programs serving children ages 0–5 years. The study analyses draw on interviews with 20 FFLC mothers who had children graduating from the program between 2013 and 2017 and on administrative student data (2010–2011 to 2018–2019) from Pasadena Unified School District.

This study was undertaken by RAND Education and Labor, a division of the RAND Corporation that conducts research on early childhood through postsecondary education programs, workforce development, and programs and policies affecting workers, entrepreneurship, and financial literacy and decisionmaking. This study was sponsored by FFLC, which seeks to prepare families living in poverty and isolation to succeed in school and in life through two-generation learning programs.

More information about RAND can be found at www.rand.org. Questions about this report should be directed to cannon@rand.org, and questions about RAND Education and Labor should be directed to educationandlabor@rand.org.

Contents

Preface.....	iii
Figures.....	v
Tables.....	vi
Summary.....	vii
Acknowledgments.....	ix
Abbreviations.....	x
1. Introduction.....	1
Overview of the Research Study.....	1
Families Forward Learning Center (FFLC) Core Morning Program.....	1
Evaluating Program Outcomes.....	4
2. Study Data and Methods.....	7
The Pasadena Unified School District Context.....	7
Families Forward Participants.....	9
Data Collection, Study Samples, and Analytic Methods.....	9
3. Participant Perspectives.....	17
Anticipated Benefits and Reasons for Enrolling.....	17
Perceptions of Realized Program Benefits.....	19
Influences on Families’ School Choice.....	26
Barriers to Program Participation and Ongoing Benefits.....	27
Participants’ Perceptions of Program Delivery.....	28
4. Student Outcomes.....	30
Near-Term Effects—Kindergarten.....	30
Longer-Term Effects—Third Grade.....	31
5. Conclusions and Implications.....	35
Methodological Limitations of the Study.....	36
Implications for Future Families Forward Learning Center Outreach and Programming.....	37
Appendix A. Participant Interview Data Collection and Methods.....	39
Appendix B. Student Outcome Analysis Methods.....	44
References.....	53

Figures

Figure 2.1. Comparability of Matched Students at Baseline: Kindergarten	14
Figure 2.2. Comparability of Matched Students at Baseline: Third Grade	14
Figure 4.1. Effect of Families Forward Learning Center Program on Attendance and Chronic Absenteeism (Kindergarten)	31
Figure 4.2. Effect of Families Forward Learning Center Program on Nontest Outcomes (Third Grade)	32
Figure 4.3. Effect of Families Forward Learning Center Program on Academic Achievement (Third Grade).....	33

Tables

Table 2.1. Pasadena Unified School District Demographics.....	8
Table 2.2. Outcome Measures for Near- and Longer-Term Analyses.....	15
Table B.1. Number of Included Strata with Matched Units	45
Table B.2. Example of Five Strata from the Coarsened Exact Matching Algorithm	45
Table B.3. \mathcal{L}_1 Multivariate Balance Statistics for Unmatched and Matched Samples	46
Table B.4. Descriptive Statistics for Families Forward Learning Center and Comparison Groups	47
Table B.5. Descriptive Statistics for Student Outcomes.....	49
Table B.6. Effect of the Families Forward Learning Center Program on Kindergarten Outcomes	51
Table B.7. Effect of the Families Forward Learning Center Program on Third-Grade Outcomes	52

Summary

The Families Forward Learning Center (FFLC) offers a two-generation learning program for low-income families with children from birth to five years old in Pasadena, California. The program aims to prepare participants—mothers and their children—to succeed in school and life. The program consists primarily of a structured learning environment organized around three curricular strands: early childhood education, parent education, and adult education.

FFLC funded the RAND Corporation to conduct a mixed-methods evaluation of their program. This report summarizes findings from retrospective interviews with former program participants on their perceptions of program benefits as well as analyses of student kindergarten and third-grade educational outcomes using Pasadena Unified School District administrative data for the 2010–2011 to 2018–2019 school years. During spring 2018, we conducted one-hour interviews with 20 mothers from the previous five graduating cohorts (from 2013 to 2017). Nearly all mothers experienced benefits for themselves and perceived benefits for their children and/or families that exceeded their expectations. Mothers reported they benefited from English lessons, other educational and professional opportunities, parenting lessons, access to mental health and other social services, increased social capital, increased engagement in their children’s education, and learning about nutrition and dietary health. Mothers also perceived a number of benefits for their children, including improved academic outcomes and social and emotional development. At the same time, interviews with mothers highlighted several potential barriers to mothers’ full participation in the program, namely personal circumstances, work obligations, and time constraints.

Analyses of district data suggest several positive short- and longer-term effects on educational outcomes for FFLC participants compared with demographically similar peers. FFLC students had statistically significant higher attendance and reduced chronic absenteeism in kindergarten, though the effects appear to diminish by third grade. FFLC students also demonstrated meaningfully higher scores on English Language Arts (ELA) and mathematics assessments in third grade. We view these findings cautiously as preliminary evidence of program impacts because of potential unobserved differences in the families that participate in FFLC.

We conclude this report with several implications for program leadership with regard to ongoing programming and FFLC’s impact on participating families. First, personal referrals appear to be an effective recruitment strategy for the program. Second, although mothers perceived benefits that align with the program’s stated goals, many of them were unaware of some or all of the expected program benefits. The program may therefore consider ways to communicate the full scope of benefits offered through the program to prospective participants. Third, participants noted important characteristics about the staff and program climate that

contributed to their positive experiences. The program should continue to emphasize program aspects such as cultivating a welcome and trusting environment, creating a strong sense of community, providing holistic and flexible support, and treating children with care and compassion. Finally, FFLC should further examine which program components and implementation factors relate to improved parent and child outcomes. This will help program leadership to understand better which specific aspects of the two-generation model are contributing to intended outcomes and where the program can be strengthened.

Acknowledgments

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Abbreviations

CAASPP	California Assessment of Student Performance and Progress
CDE	California Department of Education
CELDT	California English Language Development Test
CEM	coarsened exact matching
ECE	early childhood education
EL	English learner
ELA	English Language Arts
ELPAC	English Language Proficiency Assessments for California
ESL	English as a second language
FFLC	Families Forward Learning Center
MC	Mothers' Club
PUSD	Pasadena Unified School District
SD	standard deviation
SMD	standardized mean difference

1. Introduction

The Families Forward Learning Center (FFLC), known as Mothers' Club Family Learning Center (MC) until 2017, offers a two-generation learning model for disadvantaged families in Pasadena in Los Angeles County to help them succeed in school and life. FFLC funded the RAND Corporation to conduct a mixed-methods research study examining how the children and mothers who participate in their core morning program fare after they leave the program. This report presents the research findings on mothers' perceptions of benefits associated with FFLC program participation and on selected student outcomes measured through third grade.

Overview of the Research Study

The overarching goal of this study was to provide information about the relationship between participation in the FFLC core morning program and student educational outcomes, and about other perceived benefits of program participation. Specifically, this report aims to address the following research questions:

1. How do FFLC participants perceive the benefits of the program retrospectively? How do these perceived benefits compare with the intended benefits?
2. What is the relationship between FFLC participation and children's educational outcomes through third grade?
 - a. Does participation in FFLC improve students' English language proficiency, improve attendance, and reduce chronic absenteeism in kindergarten (near-term effects)?
 - b. Does participation in FFLC positively affect student outcomes in later grades by improving achievement and reducing grade retention, chronic absenteeism, disciplinary infractions, and improving English learner (EL) reclassification (longer-term effects)?

This report is based on (1) interview data collected in the spring of 2018 from 20 program participants (i.e., mothers) about the benefits of program participation and (2) several years of administrative student data from Pasadena Unified School District (PUSD), where the majority of FFLC students enroll. The objective of these research questions is to better understand how participants view the benefits of the program, the extent to which these benefits align with the intended program benefits, to characterize barriers and facilitators of program participation and effectiveness, and examine how students fare in early elementary grades.

Families Forward Learning Center (FFLC) Core Morning Program

FFLC began as a Mothers' Club in 1961 and today offers a parent education center and five early learning classrooms for children ages 0–5 years in a single location. The core morning program serves a predominantly low-income, Latinx population, and most parents' primary

language is Spanish. Children and their mothers enroll in a part-day structured early learning and parent education program five days a week 1–4 years before the child enters kindergarten.¹

FFLC is guided by the principles that both the parent and child should be educated together, and the most critical time to do so is when children are between birth and five years old. FFLC offers an integrated family education program in which participants engage in structured activities that focus on goals in four component areas: early childhood education (ECE), adult education, parent education, and parent-child activities. The program encompasses a wide range of activities across the components to increase knowledge, develop skills, improve social networks, and provide supplemental supports in order to promote improved child learning, parenting practices, and family well-being.

Early Childhood Education Component

The program's goal for children is to prepare them for kindergarten and later school success by developing social and emotional, physical, cognitive, language, and literacy skills, as well as identifying developmental delays and other concerns early (in order to help provide appropriate interventions). FFLC offers center-based ECE classrooms for infants through preschoolers. The core morning program requires both children and mothers to attend daily (Monday through Friday) from 8:30 a.m. to 12 p.m. for 11 months out of the year.

Programming meets Early Head Start (ages 0–3) and California State Preschool Program (ages 3–5) quality standards. More specifically, 70 percent of all teachers have an associate's or bachelor's degree, and all teachers have a California Department of Education (CDE) Child Development Permit at the teacher, master teacher, or site supervisor level. Classroom teacher-child ratios are 1:3 for infants and toddlers and 1:8 for preschoolers, with group sizes up to 8 or 9 for the youngest age groups and 16 and 21 for 3- and 4-year-olds, respectively.

FFLC uses the Creative Curriculum model that focuses on meeting individual child needs, providing a supportive and stimulating environment, facilitating developmentally appropriate experiences, and partnering with families. The FFLC curriculum intentionally fosters first and second language development to meet the goal of competency in both English and the child's home language. The program also uses the Desired Results Developmental Profile assessment tool to inform instruction and to share goals with parents and help them identify strategies for home learning activities to reinforce classroom learning. Other family engagement activities include home visits by teachers and family support, referrals, and resources provided by an FFLC family engagement specialist. For example, referrals are available for special education, nutrition and housing assistance, health insurance, government benefits, and immigration services.

¹ FFLC administrators indicate most families participate for at least two years, and many for three to four years. During our study time period, the policy was to allow families to enroll siblings, so many mothers participated in the program longer as more than one child attended.

Parent Components

The core morning program's goals for participating mothers are to

- improve parenting skills
- strengthen parent and child relationships
- develop English as a second language
- increase educational attainment and adult literacy
- increase parents' ability to engage in and support their children's education
- decrease isolation, stress, and depression
- increase parents' self-esteem and confidence
- promote family well-being and positive family relationships
- build social capital
- promote volunteerism
- develop leadership and advocacy skills.

The program focuses on three interrelated components to achieve these goals. Through the adult education component, FFLC promotes the advancement of education and increasing English language skills. Parents are offered English as a second language (ESL) classes from beginner through advanced levels. The classes provide intensive instruction with qualified instructors, including content covering oral communication, reading comprehension, grammar, and writing. Additionally, one-on-one tutoring is available once a week for extra support for parents having difficulty. To support other formal education, FFLC also offers to help purchase books, supplies, or parking permits for parents enrolled in college or vocational courses.

The parent education component comprises several strands designed to give parents regular, individualized support and to provide family case management to help manage participants' parent development plans. Core strategies include building on family strengths, developing mutual respect, developing trusting relationships, and empowering parents.

Parent education classes are provided weekly with a parent educator facilitator to increase understanding of child development and develop positive parenting skills. More specifically, the core classes provide interactive parent education to

- increase parenting skills that promote healthy development in children
- encourage adults to engage in frequent and increasingly complex verbal interactions with their children
- broaden parenting strategies
- increase the skills parents need to support their children's early educational success
- promote positive family relationships, self-esteem, and self-confidence in parents
- strengthen partnerships between families and schools.

Family literacy classes teach parents the value of reading to their children and how to exemplify the importance of lifelong learning. Parent leadership skills are developed through weekly parent meetings and participation in the parent advisory board and event committees, which encourage time management, conflict resolution, and budgeting skills, and the opportunity for parents to discover the personal skills they can offer. These activities also aim to encourage volunteerism,

community involvement, and building a working network among parents. Mental health and emotional support through education and group discussion is a final strand within parent education programming. Parent support groups provide parents with a safe forum to express concerns about parenting or other personal challenges. Family crisis counseling is also available on a voluntary basis. Mental health interns from Pacific Oaks College can provide parents with individual therapy sessions weekly for up to ten weeks or as needed. Additionally, referrals to other resources are available through the FFLC Family Engagement Specialist.

Finally, FFLC provides a parent and child component that allows parents to practice the skills they are learning in parenting classes. Parents assist the teachers in the ECE classrooms one morning per week to observe first-hand child development and behavior. The program also offers family celebrations to teach families how to support and show appreciation for each other to promote positive family relationships.

The FFLC services described are offered for free to families. Participants do not receive stipends for attending, but they can access supports and resources as needed, which can include financial resources in some situations. Parents are encouraged to volunteer on a weekly basis in the classroom and/or social kitchen with the nutrition program. Most of the morning program participants do not work, or if they do, it is part-time work, which is why they are able to attend the program.

Evaluating Program Outcomes

FFLC monitors outcome data to determine whether the program is successful at achieving these goals. For example, the 2017 annual report notes that all participating children entered kindergarten with school readiness skills, and nearly two-thirds of adults showed gains in English proficiency. A 2011 independent evaluation of the program by the Institute at Indian Hill at Claremont Graduate University found that participating children and mothers achieved gains in several areas during the program, including increases in child and parent literacy and reported decreases in stress among parents (Zargarpour et al., 2011).

FFLC leaders now seek to examine what happens to participating mothers and children after they graduate from the program. This study will contribute to a limited evidence base surrounding intensive two-generation programs. A growing body of early childhood research demonstrates the potential for a program such as FFLC, combining early learning and parent education, to achieve positive effects for participating families and generate benefits that outweigh the costs (see Cannon et al., 2017). Evidence also suggests that targeting programs to families facing more risk factors can have larger returns. A recent meta-analysis examined 11 fully developed parent enhancement programs that were added to ECE programs to instruct parents in supporting their children's early learning. The programs included in the analysis had a variety of formats, generally focused on one area, such as cognitive development, and ran for less than one year. The study found positive and significant effects on child behavioral, health, socioemotional, and cognitive outcomes measured near the end of the program (Joo et al., 2020).

The analysis did not find that children’s pre-academic skills such as reading, math, letter recognition, and other achievement tests were significantly improved. The study authors hypothesize that pre-academic skills may be learned through ECE classroom activities rather than through parent programs, and designing parent programs that integrate academic skill development could help improve these skills.

The research on specific two-generation models that require significant involvement among both parents and children is still limited, though conceptual frameworks have been proposed based on extant research and theory. Chase-Lansdale and Brooks-Gunn (2014) propose a “Two-Generation 2.0” program change model that considers the need for equal intensity of services for both the parent and the child to achieve family economic security and child well-being. The change model posits an intentionally coordinated service design encompassing both parent services—such as education, job training, family-centered supports, and parenting classes—and child services largely provided through high-quality ECE programming (Chase-Lansdale and Brooks-Gunn, 2014; Sommer et al., 2018). This model also assumes cross-generational benefits from services received within each generation and mutually reinforcing outcomes. The hypothesized outcomes include improved education and workforce attachment, higher earnings, enhanced well-being, improved parent-child relationship, and improved school readiness, academic achievement, and school engagement for children (Sommer et al., 2018).

The FFLC model overlaps in several key areas with the 2.0 change model. Although FFLC does not have a specific focus on economic security as a family outcome, some of the services and referrals available through the FFLC case management model attend to family economic security issues. Furthermore, the FFLC parent education and ECE programs include many activities such as English language development, parenting skills development, and center-based ECE that are in alignment with the 2.0 change model. Likewise, FFLC’s anticipated outcomes such as improved school readiness for children and improved parent well-being and parent-child relationships are similar to several outcomes hypothesized in the 2.0 change model. Finally, Ascend at the Aspen Institute proposes a two-generation framework that is broadly similar to the 2.0 change model in its focus on core components related to education and economic supports, but the Ascend framework also considers social capital, and the resources gained through social networks, as a core component (Lombardi et al., 2014). This additional component for a two-generation framework is also one of the FFLC goals.

This study is the first effort to describe the extent to which the FFLC is successful in attaining the specific goals for mothers and children detailed above. We do this by documenting how mothers perceive their FFLC program participation after children have entered elementary school compared with what they initially expected, as well as the social and emotional, cognitive, language, and literacy skills of FFLC students in early grades. For maternal outcomes, we are able to inquire about a host of perceived benefits, although these are self-reported and not directly observed in this study. In considering student outcomes, in addition to mothers’ perceptions we rely on existing administrative data, collected annually by PUSD.

In the next chapter, we describe our primary data sources, analytic samples, and methods. In Chapter 3, we present the main findings for research question 1, which include participants' (1) stated retrospective reasons for enrolling and anticipated benefits; (2) perspectives on realized program benefits, facilitators and barriers to program participation and postprogram continuation; and (3) perspectives on program delivery. Chapter 4 presents findings related to research question 2 and near- and longer-term student outcomes. We conclude with a discussion of implications for program leadership. We include additional information about our data collection and analysis approach for the study in the appendixes.

2. Study Data and Methods

This chapter describes the data sources and methods used for the two study components. We first present background on the context of PUSD, where most graduates of FFLC enroll, followed by characteristics of FFLC children more specifically. Next we detail the two approaches used to address our research questions: (1) qualitative data analysis for the FFLC mother interviews and (2) quantitative data analysis of PUSD student outcomes.

The Pasadena Unified School District Context

Pasadena is a midsize city in Los Angeles County. As of 2019, PUSD served just over 16,000 students, operated 28 schools (including 17 elementary schools), employed nearly 1,000 teachers and had an annual operating budget of approximately \$200 million (CDE, 2020). In many ways, PUSD is similar to the demographic composition of California as a whole. In 2018–2019, the district was approximately 60 percent Latinx (compared with 55 percent statewide) and 17 percent white (23 percent statewide). See Table 2.1 for detailed Pasadena demographics. Just over half of the students (52 percent) lived at or below the federal poverty line (as indicated by free lunch eligibility), slightly lower than the statewide percentage (61 percent). In 2018–2019, approximately 16 percent of students were classified as EL students, also slightly lower than the statewide percentage (19 percent).

The district faces a number of common challenges, including declining enrollment (from a high of nearly 20,000 pupils in 2009–2010) and persistent race-based disparities in academic achievement. While achievement has generally increased over the past several years, according to CDE data in the 2018–2019 academic year nearly 70 percent of white students met grade-level standards in English Language Arts (ELA) tests compared with 36 percent of Latinx students and 33 percent of black students.¹ In mathematics, 60 percent of white students met grade-level standards, compared with less than 26 percent of black and Latinx students. Approximately 13 percent of students are chronically absent from school.² In 2018–2019, less than 10 percent of EL students were reclassified as English language proficient (CDE, 2020). Furthermore, according to PUSD performance dashboards, less than half of the EL students in the district (44.6 percent) progressed at least one proficiency level on state EL assessments in the 2018–2019 school year³ or maintained a level four (bridging level)

¹ For reference, approximately 65 percent of white students, 41 percent of Latinx students, and 33 percent of black students met grade-level ELA standards statewide. In mathematics, approximately 54 percent of white students, 28 percent of Latinx students, and 21 percent of black students met grade-level standards.

² Ten percent of students were chronically absent statewide.

³ Compared with 48.3 percent statewide.

Table 2.1. Pasadena Unified School District Demographics

	2010–2011		2014–2015		2018–2019	
	<i>N</i> Students	<i>N</i> Schools	<i>N</i> Students	<i>N</i> Schools	<i>N</i> Students	<i>N</i> Schools
Total enrollment	18,652	29	17,159	28	16,180	28
Total kindergarten enrollment	1,576	29	1,521	28	1,376	28
Average school enrollment	643.170	29	612.820	28	577.860	28
Average kindergarten enrollment	54.340	29	54.320	28	49.140	28
Proportion male	0.515	29	0.521	28	0.524	28
Proportion female	0.485	29	0.479	28	0.476	28
Proportion white	0.136	29	0.162	28	0.170	28
Proportion black	0.168	29	0.135	28	0.116	28
Proportion Latinx	0.608	29	0.602	28	0.602	28
Proportion Asian	0.049	29	0.066	28	0.071	28
Proportion Pacific Islander	0.002	29	0.002	28	0.002	28
Proportion American Indian or Alaska Native	0.003	29	0.003	28	0.002	28
Proportion two or more races or unknown	0.035	29	0.030	28	0.037	28
Proportion eligible for free lunch	0.595	29	0.575	28	0.524	28
Proportion designated EL	0.218	29	0.212	28	0.158	28
Chronic absenteeism rate	N/A		N/A		0.129	28
Suspension rate	N/A		0.053	28	0.047	28
Expulsion rate	N/A		0.000	28	0.000	28
Grade 3 proficiency rates						
ELA	0.487	20	0.342	18	0.479	18
ELA for EL students	0.206	14	0.106	16	0.095	8
ELA for economically disadvantaged Latinx	0.416	19	0.225	18	0.373	15
Math	0.714	20	0.384	18	0.485	18
Math for ELs	0.567	13	0.173	16	0.167	8
Math for economically disadvantaged Latinx	0.659	19	0.263	18	0.356	15

SOURCE: CDE, 2020.

proficiency,⁴ and approximately one out of every five students (21.1 percent) decreased at least one proficiency level (California School Dashboard, 2019).

The district offers preschool programs for 3–5-year-olds, including a subsidized part-day, school-based, daily program for low-income children. Head Start preschool programs are also available in the city at no cost for families with income below the federal poverty level. Although data are not available on how many children attend these preschool programs or other private preschool programs in the area, a recent statewide report estimates that more than half of

⁴ The California English Language Development Standards define four proficiency levels for EL students: Emerging, Expanding, Expanding/Bridging, and Bridging. EL students at the bridging level of proficiency have well developed oral and written skills (CDE, 2012).

California’s Latinx children ages 3–5 years attend a preschool program (Stipek, 2019), and we would anticipate that the percentages of students participating in preschool programs in Pasadena would be similar to these statewide trends.

Families Forward Participants

Recent data shows that nearly 10 percent of all the children in Pasadena are experiencing developmental vulnerabilities and may not be on track when entering into kindergarten (City of Pasadena Human Services Commission, 2015). Many families in Pasadena, regardless of income, are experiencing stresses that may adversely affect their ability to nurture their child’s development, including difficulties with access to high-quality and affordable child care (City of Pasadena Human Services Commission, 2015). Within this city context, FFLC focuses its programming on the most vulnerable and at-risk populations. For example, while approximately 52 percent of the students in PUSD lived at or below the federal poverty line, 87 percent of the families served by FFLC lived at or below the federal poverty line (FFLC, 2018). And, while 16 percent of students districtwide are classified as EL by PUSD, 67 percent of children served by FFLC programs were classified as EL students according to data from FFLC. Additionally, over one-third of FFLC parents did not have a high school diploma, and over one-third of families lived in shared and/or dense households (often with more than one family) (FFLC, 2018).

Students served by FFLC also experienced higher rates of mobility relative to other students in PUSD. According to our analyses of PUSD administrative data, about 26 percent of FFLC students changed schools at least once between kindergarten and third grade compared with only 16 percent of non-FFLC students in PUSD who changed schools at least once.

Data Collection, Study Samples, and Analytic Methods

Analyses of Mothers’ Perceptions

We gathered data for this report from a randomly selected sample of 20 mothers from the five most recent Families Forward cohorts at the time of data collection (i.e., from 2013 to 2017).⁵ We randomly selected participants within each cohort to ensure that the perspectives of mothers across all recent cohorts (i.e., with varying degrees of temporal distance from their experience in the program) were represented in the study. A one-hour phone interview with each mother took place between April and June 2018; all were conducted in the mother’s preferred language of Spanish.

We developed semistructured interview protocols to gather information about the perceived benefits (anticipated and unanticipated) of participating in the program. This method allowed us

⁵ Cohort year is defined as the year participating children complete the program (i.e., the year they graduate from pre-kindergarten). Interviews were conducted more than one year before PUSD approved the use of district student data for the second component of our study.

to ask open-ended questions on a set of preidentified topics. Because we were asking about participation retrospectively, we had an opportunity to look at mothers' pre- and postconceptions of what the program offered to their families. We first wanted to know which aspects of the program they knew about and enrolled in FFLC to receive (e.g., parent or child program components) and whether, subsequent to the full program, they recognized other benefits after experiencing the different components and learning the goals targeted by FFLC. This approach to the interviews also informs FFLC about how they might promote the program based on mothers' understanding when they enroll. We coded and analyzed all interview data in Dedoose, a web-based application to analyze qualitative data (SocioCultural Research Consultants, 2016). Data analysis was guided by our research aims. For more information about data collection, study sample, and analysis, see Appendix A.

Our final sample consisted of 3–5 families from each of the five cohorts. Most interviewees in our sample (16 of 20) had more than one child that participated in the program: 13 mothers had two children in the program, three had three children in the program, and four had only one child participant. Half of mothers (10 of 20) attended the program for four or more years, nine attended for less than four years, and information was missing for one mother. Most respondents (13 of 20) had less than a high school education, five had a high school equivalency or some college experience, and the level of education was unknown for two interviewees. Most mothers (11 of 20) reported that they spoke English well (7) or very well (4). Less than half of mothers (8 of 20) said they spoke English not that well. Most mothers in our sample were currently married or had a long-term partner (17 of 20), and a few (3 of 20) were single and had never married, separated, or divorced.

For mothers with more than one participating child, we anchored the interview questions to a “focal child” and asked mothers about that child's outcomes specifically.⁶ We coded mentions of nonfocal children separately when they emerged. We also asked respondents with more than one child about perceptions of variation in program benefits across children. The average length of program attendance was 3.8 years (the minimum was one year, the maximum was seven years, and the modal time was three years).

Because of the limited sample of mothers, the findings presented in this report do not generalize to the full population of FFLC participants and apply to only those who participated in this study. However, these findings provide insights into how participants experience the program and later outcomes, and help illustrate which program aspects are perceived as more beneficial and where barriers to participation may exist.

⁶ Because families often had more than one child attend the program, mothers were associated with multiple cohort years. In this study design, we randomly selected children from each of the five cohorts (vs. selecting mothers) and interviewed mothers associated with the randomly selected child. Mothers were associated with the cohort year of the child randomly selected into the study. This child is referred to as the “focal child” even if the participant had more than one child who had attended the program. We anchored the interviews to the focal child for interview clarity. More details on our sampling strategy, final sample, and interview protocol can be found in Appendix A.

Analyses of Student Educational Outcomes

In order to examine the impact of FFLC participation on near-term and longer-term student outcomes, we used a quasi-experimental between-groups design. The design is *between-groups* because our estimation of program impacts is based on comparisons between two groups of students: those who participated in FFLC and those who did not. The design is *quasi-experimental* because we did not randomly assign individual students to those groups. However, a simple comparison of outcomes for FFLC students and other students enrolled in PUSD is problematic because, as described in the previous sections, there were likely important systematic differences between FFLC students and other students enrolled in PUSD (Shadish, Cook, and Campbell, 2002)—a phenomenon that is often referred to as selection bias. Specifically, the FFLC program focuses programming on the most vulnerable students and serves predominantly Latinx families living in poverty. In order to obtain the most robust information about possible program impacts, we needed to be sure to compare the outcomes of FFLC students with outcomes for demographically similar students in the district. For example, because the FFLC families identify as Latinx, we selected PUSD students that were also Latinx.⁷ Then, we used a statistical procedure to match comparison students enrolled in the same schools as the FFLC students whose parental education levels and home language were similar to the FFLC students (Iacus, King, and Porro, 2012). After matching, we used statistical regression models to determine the extent to which FFLC participation affected student outcomes. Complete details about these matching methods and analytical models are available in Appendix B.

There are two important limitations of this quasi-experimental design. First, while we are able to ensure that our groups are as comparable as possible on our observed characteristics, we are unable to make any claims about their comparability on unobserved characteristics. To the extent that FFLC graduates are different in unobserved ways from the matched comparison students, our estimates of program impacts may be adversely affected by selection bias. Ideally, we would control for selection bias by using baseline measures of our outcomes. However, in many cases, these baseline measures of our outcomes are unavailable. Second, the baseline measures we were able to include (e.g., race/ethnicity, home language) were measured *after* FFLC participation upon the student's entry into kindergarten. We assume that these traits or characteristics are static and did not change over the course of FFLC participation.

Sample Recruitment

FFLC staff attempted to contact all families with children who graduated from FFLC programming during the time frame of the current study (from 2010–2011 to 2017–2018) to obtain verbal permission to participate in research and evaluation activities. Subsequently, FFLC provided to PUSD the names of the students whose parents were able to be contacted and then

⁷ For analyses of EL reclassification, we also limited the comparison group to include only students whose home language was Spanish.

consented so that educational records could be identified. FFLC provided 112 names to PUSD and 84 percent ($N = 94$) were identified in PUSD administrative files.⁸ In addition to the FFLC participants, PUSD provided to RAND administrative records for 12,328 non-FFLC kindergarten students.

Analytic Sample

In order to address the two research questions concerning student educational outcomes, we created five different analytic samples: one for near-term EL outcomes, one for near-term attendance outcomes, one for longer-term EL outcomes, one for longer-term academic achievement, and one for all other longer-term outcomes. All of these analytic samples were based on eight entering kindergarten cohorts in PUSD from the academic year 2010–2011 to the academic year 2017–2018. In order to be included in the analytic sample, students needed to have available baseline and outcome data. Each of these samples is described below. Descriptive statistics for the FFLC students and comparison students in each of the analytic samples are provided in Appendix B (Table B.4). The first two columns of Table B.4 display means of the baseline variables used for matching—race/ethnicity, parental education level, and home language—by treatment status. These statistics show that FFLC students are systematically different along several observable characteristics than PUSD students across all samples. For example, in the near-term EL outcomes sample, 62 percent of FFLC EL students have parents with less than a high school education relative to 33 percent of PUSD EL students.

Near-Term English Learner Student Outcomes

For analyses of kindergarten EL student outcomes, there were 86 FFLC students enrolled in kindergarten in 14 PUSD elementary schools whose home language was not English according to PUSD administrative data. Of these 86 FFLC students, 71 had available baseline and outcome data (83 percent), and all 71 of these students were matched. The sample of PUSD EL students eligible to be matched (i.e., had available outcome and baseline data) included 3,879 students, of which 1,785 were matched within the 14 schools attended by FFLC students (46 percent of the eligible sample).

Near-Term Attendance Outcomes

For analyses of kindergarten attendance outcomes (i.e., average daily attendance and chronic absenteeism), there were 91 FFLC students enrolled in kindergarten in 14 PUSD elementary schools.⁹ Of these 91 FFLC students, 75 had available baseline and outcome data (82 percent) and were matched. The sample of PUSD kindergarten students with available outcome and baseline data eligible to be matched included 10,493 students. The 75 FFLC students were

⁸ According to FFLC, approximately 5–10 percent of graduating students enroll in private or parochial schools each year.

⁹ Three of the 94 FFLC students provided in the PUSD data files were unable to be included in the analyses because they either entered PUSD after kindergarten or we were not able to link them across all data files received.

matched to 1,897 PUSD students in the 14 schools attended by FFLC students (18 percent of the total eligible sample).

Longer-Term EL Outcomes

For analyses of the third-grade EL student outcome (i.e., reclassified to fluent English proficient by third grade), there were 59 FFLC EL students enrolled in third grade. Of these 59 FFLC students, 48 had available outcome and baseline data in 12 PUSD elementary schools and 47 of those 48 were matched.¹⁰ The sample of PUSD EL students in third grade eligible to be matched included 1,726 students, of which 853 were matched (49 percent of the total eligible sample).

Longer-Term Student Achievement Outcomes

For analyses of third-grade student achievement outcomes (i.e., ELA and mathematics test scores), there were 61 FFLC students enrolled in third grade. Of these students, 46 had available outcome and baseline data and were matched. The sample of PUSD students in third grade eligible to be matched included 4,355 students, of which 837 were matched within the 12 PUSD elementary schools (19 percent of the total eligible sample).

Longer-Term Nontest Student Outcomes

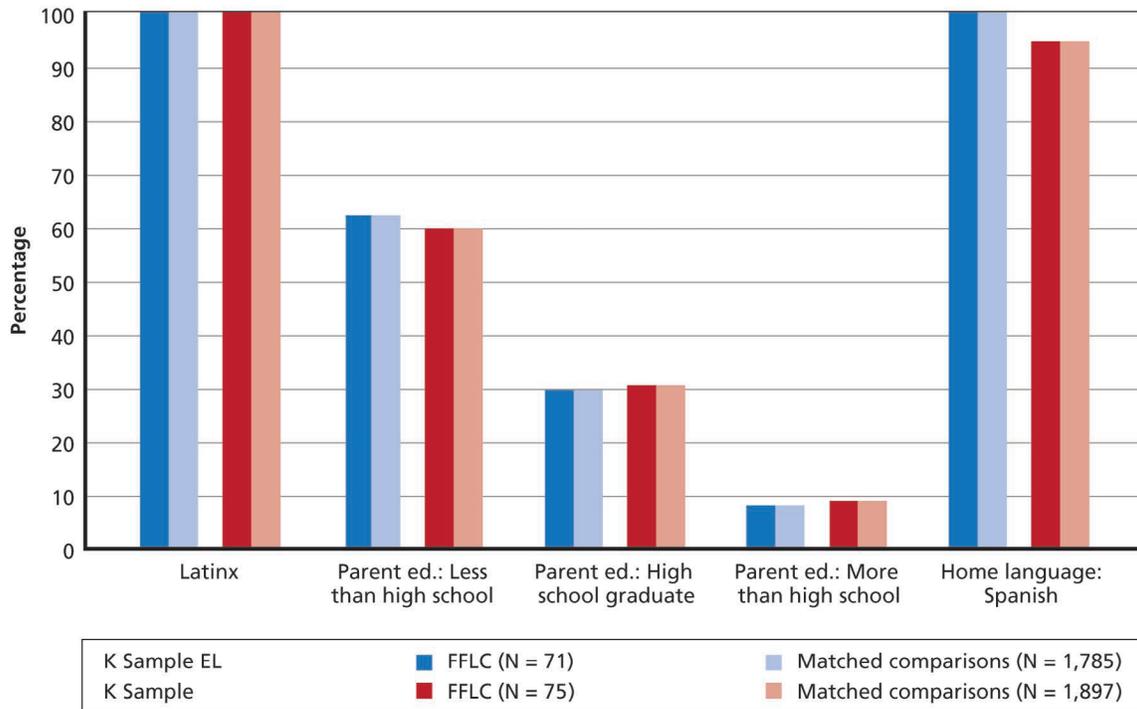
For analyses of other third-grade student outcomes (i.e., grade retention by third grade, receipt of at least one suspension by third grade, average daily attendance, and chronic absenteeism), there were 61 FFLC students enrolled in third grade. Of these 61 students, 50 students had available outcome and baseline data, 49 of which were matched. The sample of PUSD students eligible to be matched included 5,635 students, of which 1,095 were matched within the 12 PUSD elementary schools (19 percent of the total eligible sample).

Comparability of the FFLC and Matched Comparison Students

The matched FFLC and comparison students were very similar after we conducted our matching procedure. In fact, Figures 2.1 and 2.2 show that the characteristics of the two groups look almost identical after matching. Figure 2.1 shows descriptive information for the kindergarten analytic samples for three background characteristics that were measured prior to kindergarten enrollment: race/ethnicity, parental education, and home language. The blue bars represent the EL sample and the red bars represent the full kindergarten sample. The bars are paired so that the FFLC and matched comparison students can be compared directly. In both samples, the groups are identical in terms of race/ethnicity, parent education, and home language. Mean values for the FFLC and matched comparison students on these baseline variables before and after matching, and the standardized mean differences for each variable, are presented in Appendix B.

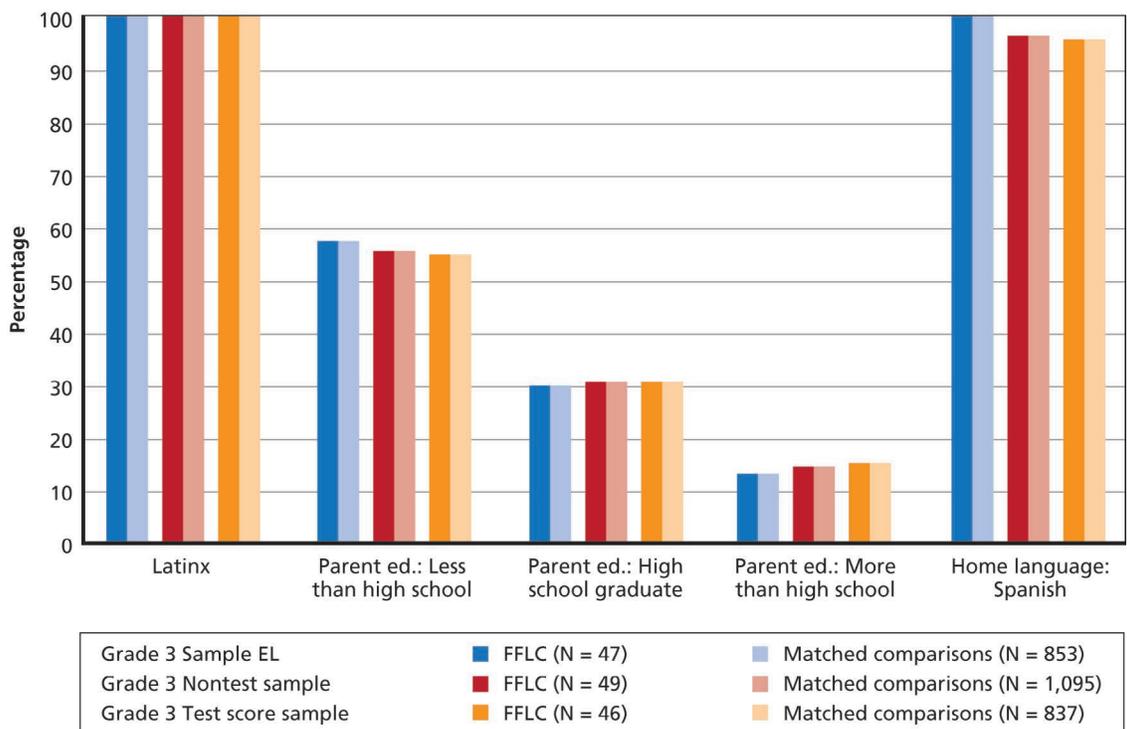
¹⁰ For longer-term outcomes analyses, we use kindergarten school placement as one of the matching variables. See Appendix B for more details on matching.

Figure 2.1. Comparability of Matched Students at Baseline: Kindergarten



SOURCE: Authors' analysis of PUSD administrative data (academic years 2010–2011 through 2018–2019).

Figure 2.2. Comparability of Matched Students at Baseline: Third Grade



SOURCE: Authors' analysis of PUSD administrative data (academic years 2010–2011 through 2018–2019).

In Figure 2.2, we can see similar information about the comparability of the groups for the three third-grade analytic samples. In this figure, the EL sample is shown in blue, the nontest-score sample is shown in red, and the test score sample is shown in orange. Overall, the FFLC groups and the matched comparison groups are highly comparable in terms of these background characteristics. More diagnostic information about the quality of the matches is available in Appendix B.

Outcome Measures

As described in the previous chapter, a key objective of FFLC’s programming is to prepare participating children for kindergarten and later school success by developing social and emotional, cognitive, language, and literacy skills. We categorize these outcomes as near-term (measured in the kindergarten year) and longer-term (measured in third grade) and measured these outcomes using administrative data from PUSD.¹¹ Table 2.2 provides information about the measures and how they align with expected program outcomes.

Table 2.2. Outcome Measures for Near- and Longer-Term Analyses

Outcome	Measure
Near-term	
English language skills	CELDT scores ELPAC scores
Parent engagement in child’s schooling	Average daily attendance Chronic absenteeism
Longer-term	
English language skills	EL reclassification rate
Parent engagement in child’s schooling	Average daily attendance Chronic absenteeism
Cognitive skills	CAASPP scores (ELA) CAASPP scores (mathematics)
Social and emotional skills	Suspension
Cognitive skills	Grade retention by third grade

SOURCE: PUSD administrative data.

Because FFLC places particular emphasis on developing English language skills for the mother as well as the child, we examine early English language proficiency and EL status. We used the California English Language Development Test (CELDT) (for 2010–2017) and English Language Proficiency Assessments for California (ELPAC) (for 2018) as measures of English language proficiency. Being classified as an EL student is intended to be temporary during schooling, and research in California suggests that becoming reclassified as fluent in English is

¹¹ We did not have access to other relevant outcomes, including K–2 grades or information about student social and emotional development. These data were either unavailable or could not be provided by PUSD.

associated with improved academic outcomes compared with remaining an EL student (Hill, Weston, and Hayes, 2014).

FFLC also directly encourages parents to support their child’s schooling. We did not have access to a direct measure of parent engagement in schooling, and so we operationalized engagement using data on school attendance and chronic absenteeism. There is a substantial body of research that suggests that, particularly in the early years, parent engagement is associated with increased school attendance and decreased chronic absenteeism (Epstein and Sheldon, 2002; Sheldon and Jung, 2015; Smythe-Leistico and Page, 2018). We conducted analyses of the extent to which FFLC improved attendance and reduced chronic absenteeism, defined as being absent more than 10 percent of the days of enrollment within an academic year.

Another set of skills emphasized by FFLC are social and emotional skills—including both interpersonal and intrapersonal skills and competencies. We use information on disciplinary rates to capture aspects of student behavior that provide relevant information about social and emotional skills; research has shown that social and emotional learning is associated with school suspension: students with better self-regulation and conflict resolution skills tend to have lower instances of discipline, including suspension and expulsion (e.g., Skiba et al., 2012). Suspension was defined as an indicator of whether a student was ever suspended (in or out of school) before third grade.

Finally, we examined cognitive skills. We used the California Assessment of Student Performance and Progress (CAASPP) assessment scores as measures of cognitive skill. We also examined impacts on grade retention by third grade. Grade retention is an indicator of poor grade-level performance.

Many of these variables are interrelated. For example, information about chronic absenteeism also provides some insight into student engagement and social and emotional competencies (Taylor et al., 2018). Chronic absenteeism and suspension are both factors that influence the opportunity to learn—being present in school is a contributing factor to school success. Fewer days in class reduces a student’s opportunity to learn and can lead to lower academic achievement (Anderson, Ritter, and Zamarro, 2019; Gottfried, 2014; Robinson et al., 2018; Spradlin et al., 2012).

While the available data is useful for obtaining a preliminary understanding of FFLC impacts on student outcomes, it is also limited in important ways. Many of the measures are, at best, proxies for the outcomes of interest. This is particularly true for our measures of parent engagement and student social and emotional competencies. While, in general, such proxy measures should not be interpreted in isolation as evidence of social and emotional competencies or parent engagement, these were the only measures that were consistently available for both treatment and comparison students throughout the entire time frame of the study. Detailed information about how these variables are defined and descriptive information about their statistical distributions are available in Appendix B.

3. Participant Perspectives

In this chapter, we present findings addressing the first set of research questions, based on interviews with mothers participating in FFLC. Findings indicate that nearly all mothers interviewed experienced benefits for themselves, their children, and/or their families that exceeded their expectations. Mothers reported benefiting from English lessons and other educational and professional opportunities, parenting lessons, access to mental health services and other social supports, increased social capital, increased engagement in their children's education, and learning about nutrition and healthy dietary habits. Additionally, according to mothers, their children benefited from academic preparation, social and emotional development, physical and mental health services, and access to arts and other cultural experiences. Moreover, mothers mentioned receiving information to inform choosing a school for their child. Several mothers also noted improvements in fathers' or partners' parenting skills and other miscellaneous benefits for nonparticipating children. The breadth and depth of benefits received exceeded the anticipated benefits that most mothers described as motivating their initial participation. At the same time, several mothers reported barriers such as work obligations or personal circumstances that affected their ability to fully participate in the program and realize all the intended benefits. Overall, mothers generally perceived program delivery and staff experiences to be supportive of their family needs.

The majority of participants (16 of 20) were referred to the program by family, friends, or other acquaintances. Referrals were from individuals who had or were currently taking part in the program or by individuals who knew someone with a positive experience in the program. Two mothers were referred through connections to other social service agencies or programs, and two others learned of the program because they lived near the center.

Anticipated Benefits and Reasons for Enrolling

Participants joined Mothers' Club¹ primarily for English lessons, parenting classes, and anticipated child academic and social benefits.

Most mothers (14 of 20) initially joined MC for both their own anticipated benefits and their children's. Mothers reported they were attracted to the program because it gave them the opportunity to pursue their own personal and professional goals while simultaneously supporting their child's development. A few mothers (3 of 20) mentioned reasons for joining the program that were driven primarily by anticipated benefits for themselves. For example, one mother

¹ Families Forward was known as Mothers' Club until 2017. Because most respondents knew the program as Mothers' Club, we referred to the program by its former name in all interviews. We refer to Families Forward as Mothers' Club, or MC, throughout this section of the report.

wanted to learn English while somebody took care of her son. On the other hand, some mothers (3 of 20) joined primarily for the anticipated benefits for their children. One mother enrolled her child because she wanted them to be prepared for kindergarten and was unaware that she too could take English lessons. The latter group of mothers were largely unaware of the benefits for mothers and joined to support their child's development.

Anticipated Maternal Benefits

The opportunity to take English lessons was the primary reason that many mothers decided to join MC (13 of 20). For a subset of mothers, MC was especially attractive given the opportunity to take English lessons while having access to child care. The desire to improve English proficiency was also related to other reasons mothers highlighted as influencing their decision to participate. For example, one participant wanted to learn English so she could become more engaged in her children's development and education: "I wanted to learn to speak English so that I could help my children with their homework and so that I could read to them." Another wanted to learn English to improve her career prospects. Two participants also framed their desire to take English classes as related to broader educational aspirations.

To a lesser extent, parenting classes and supports for parents were mentioned as a primary reason that mothers decided to join the program (8 of 20). For example, a few mothers said they wanted to "learn to be a better parent" or "better mother" through participating in MC. One mother noted she wanted to join because she realized she needed help as a first-time parent. Another mother said she "wanted [MC] to teach me how to help [my child] with . . . behavioral issues."

A few mothers (3 out of 20) mentioned social and/or relational reasons for wanting to join the program. These reasons included mothers who wanted either to build new relationships and social connections with other mothers or to improve existing relationships with their family, including spouses.

Anticipated Child Benefits

Nearly half of mothers (9 of 20) said they joined the program for anticipated academic benefits for their children. Specific reasons mothers mentioned included wanting their children to "learn to write and read early," "learn letters and the alphabet," "learn more vocabulary," and improve motor and cognitive skills. Mothers also specifically cited wanting their children to be kindergarten-ready as a reason for joining the program. Two participants also specifically noted wanting their children to learn English before starting kindergarten, given their children's limited exposure to English in a predominantly Spanish-speaking household.

Nearly half of participants (9 of 20) decided to participate in the program for reasons related to their children's social and emotional development across a variety of dimensions. For example, one mother said, "I went [to MC] because my son was not very sociable and he was always fighting and didn't know how to play with other children." Other competencies that mothers mentioned that we categorized as social and emotional development included learning how to socialize and relate to others, share with others, and become more independent.

Perceptions of Realized Program Benefits

We also asked mothers about their perceptions of program benefits now that at least one child had completed the program. These could include those they anticipated based on reasons for enrolling in MC as well as others they may not have initially expected.

Mothers' (Anticipated and Unanticipated) Benefits for Themselves

Most mothers saw their anticipated benefits realized, while also experiencing significant unanticipated benefits.

Learning English

Mothers identified English lessons and other educational and/or professional opportunities as primary benefits of participating in MC (17 of 20). A majority of mothers (12 out of 20) said that MC improved their English proficiency. Two mothers also noted they learned to read and write in Spanish in the program, with one stating,

I benefited from learning how to write in both Spanish and English. I graduated from elementary school but I didn't know how to write. Through Mothers' Club, I was able to take Spanish classes for a few months.

Five mothers reported that their improved English proficiency provided them with access to new work and/or educational opportunities resulting in improved educational and employment outcomes. In other words, these mothers believed they had access to opportunities that would have been otherwise unavailable without the level of English proficiency they achieved through participating in MC. As one participant commented,

I was interested in learning English so that I could help my children. Thank God I went and thank God for what I learned and now I have a job in which I'm constantly speaking in English and that's thanks to what I learned in the program, I've never had difficulty in making myself understood.

Two mothers credited the English lessons through MC with a renewed focus on continuing their education. One mother said that MC encouraged her to start studying again. For her, English proficiency was no longer a barrier to having a career. According to another mother,

I finished the ESL classes and they motivated me to keep on going so I also finished my GED [General Education Diploma] and then, if I wanted to keep on studying, they were going to support me.

Improving Parenting Skills

Increased parenting skills were also identified a benefit of participating in the program (18 out of 20). Mothers mentioned a variety of knowledge and skills they learned from participating in parenting classes and other parent-child activities, including learning about child development, understanding why children may exhibit certain behaviors, and learning how to respond to children in ways that are developmentally appropriate (e.g., giving children more independence at certain developmental stages). For example, one mother said parenting classes helped her

understand her children's behavior and what to expect as they get older. After MC, she felt prepared and knew what to do when they threw a tantrum or were upset.

Parents also learned different approaches for disciplining their children that they perceived to be more effective. Parents reported they stopped physically disciplining their children, yelling, being harsh or mean, and ignoring their children when they were misbehaving. One mother noted, “[MC] taught me how to behave as a mother, how to talk to [my child].” This mother went on to say,

When [my son] used to fight or misbehave (he would bite, pull someone’s hair), I would scream at him. I wanted them to teach me how to help him. I would get frustrated, nervous, irritable. I was scared that others would complain. [The program] helped me a lot—in how to talk to him, how I should behave/react, it helped me even to this day.

Mothers also reported improved communication with their children. One mother said she learned how to help her children, talk to them, and be patient, noting that “children also have feelings and needs, and I learned how to deal with them better.” Finally, parents said both they and their children benefited from implementing more routines in their household activities. Per one mother, creating routine has had a significant effect on her children as she has seen them become more responsible: “They don’t need for me to tell them what to do, they already know what they need to do and what to expect.”

Improving Mental Health and Well-Being

Access to social and emotional supports through mental health and counseling services and more general well-being and empowerment programming was an unanticipated benefit of MC (13 of 20). For several mothers, the access to mental health and counseling services was particularly valuable. According to one mother, “I received counseling because I was very depressed. They evaluated me and they provided counseling (with the psychologist) and that helped me a lot.” Another mother said a program staff member encouraged her to go to therapy and the “psychological support” she received was a significant benefit for her.

Mothers also reported improvement on several dimensions of well-being, including increased sense of empowerment and independence as a result of participating in the program. They reported increased self-confidence, sense of self-worth, and respect for themselves. One mother said the program helped her find her voice. Another said she learned to put herself first. Yet another said she “learned to fight for her future.” One mother said, “I learned that everybody is the same and has the same worth. Sometimes you don’t feel you are worth it, but the classes taught me differently.” Moreover, two mothers connected the increased self-confidence to their ability to engage with their children and in their children’s education:

It gave me confidence in myself. Earlier, I wanted to participate in the school of my older son, but I didn’t know how to do it. I was afraid of doing it.

Sometimes we are shy to ask for help but at Mothers’ Club they teach you to ask for help. At Mothers’ Club they help you to talk out the fear and open yourself to opportunities, to learn and help our children.

Together, these data suggest that mothers adopted new attitudes and practiced important skills during their participation in MC (e.g., putting oneself first, learning to ask for help) which led to improvements in their self-confidence and self-worth and ultimately increases in their sense of empowerment.

Increased Social Capital

Another unanticipated benefit that emerged for mothers (13 of 20) was increased social capital. Social capital refers to social relationships or networks that provide members with access to material resources (including, for example, information and social and emotional supports) (Bourdieu, 1986; Coleman, 1988). For mothers in the present study, evidence of increased social capital included gaining access to a network of mothers and friends for support, increased civic engagement and leadership, and increased ability to navigate other institutions (e.g., their child's K–12 school) and advocate for themselves. According to one mother, "I made beautiful friendships that I still keep. We have a lot of things in common. We want to do things for our children and be better people. Now I have a support community." Several mothers reported becoming more involved in community activities and in leadership capacities. One mother said she "learned how to be a leader and participate in committees." Similarly, another said MC "prepared me to be a leader in the community, among other parents." The former has now taken on leadership positions on parent committees in her child's school. According to another mother,

Having participated as a volunteer—I would work in the kitchen or in different classes—this helped me learn how to work as part of a group. Thanks to that now I'm a volunteer at a church and I have experience in how to help in the kitchen and how to help with the children. Before that I didn't know anything. The teachers taught me over time. I learned all that and now I can lead a classroom of children at the church.

Several mothers also mentioned ways in which they have learned to navigate institutions and advocate for themselves in challenging times. For example, one mother indicated that she learned her rights as a parent when it came to getting her child with special learning needs access to special education services in their K–12 school. In a similar example, two mothers reported that MC helped them find lawyers to advocate for their child's treatment and access to services in K–12 schools. One mother said she learned how to ask for help for her children. Similarly, another said, "Mothers' Club helped me learn how to defend myself and manage situations, how to look for help and benefits for my children." One mother connected these benefits to employment outcomes: "I can negotiate a salary, I can defend myself and be fair to [my employer]."

Relatedly, two mothers mentioned the benefit of referrals to external services that MC provided during extraordinarily difficult times for their families. Three additional mothers also mentioned material support they received from the program during times of need as important benefits (e.g., getting financial support to pay rent, getting access to food banks, receiving gifts for their families at Christmas). For example:

During Christmas time there were programs in which people would adopt us for Christmas or Thanksgiving. I worked a lot but didn't have a lot of money but thanks to these programs I would feel happy because I knew that at least my

children were going to receive a new pair of shoes. That was through Mothers' Club—they would have a dinner for us and would give the children gifts and even though my children were no longer in the program, they kept helping us.

These data suggest that mothers gained access to important social networks as a result of their participation in MC, which led to increased social capital. Further, the examples above highlight the types of information and access that mothers gained as a result of increased social capital.

Engaging in Child's Education

Nearly all mothers (18 out of 20) reported increased engagement in their child's education. This included engaging in educational activities at home and becoming more engaged and active in their children's schools. Several parents reported helping their children with homework more, reading to their children more, and playing educational games at home:

Well we just read. I read the books like they showed me at Mothers' Club—to show them the story and see what it's about. Also, sometimes I take him swimming at the Rose Bowl. And we do homework and read.

Another mother said she learned from MC that her children can learn from playing games and now she has a board at home where they can learn the multiplication table and win prizes. Mothers also reported becoming aware of how they can and should engage with their children's teachers. One mother described her children's education as "teamwork" and MC helped her learn how to participate in it. Another mother said she learned to communicate with her child's teachers, including how to ask for their help and how to offer her own support (e.g., volunteering in their classes). One mother described her increased engagement in her child's education:

I always encourage him to learn more, to read more than it is recommended. [My son] likes to write small stories and we are always creating new stories with him. He also likes drawing so I always have these materials at hand, so he can develop this ability.

Finally, four mothers mentioned learning about nutrition as an unexpected benefit of program participation. For example, one mother said she now pays attention to her family's caloric intake, and she has incorporated eating healthier foods into her family's diet, including more fruits and vegetables.

More broadly, the vast majority of respondents (17 out of 20) said they did not expect at least some of the benefits provided by the program and/or they did not anticipate the extent of the benefits received. Half of mothers (10 out of 20) did not anticipate the educational and work benefits they received via participation in the program. Some mothers were either unaware of the parenting lessons or did not anticipate the benefits associated with taking parenting classes. According to one mother,

I wasn't expecting for the program to have all of these benefits. I thought MC was a normal school like the other children went to, but it wasn't. I had to learn English, volunteer, and go to parenting classes.

Many mothers (11 out of 20) said they did not expect the mental health and general well-being and empowerment benefits of participating in the program. Nearly half (9 out of 20) also did not anticipate increased social capital as a result of program participation. Finally, a few mothers acknowledged that their increased engagement in their children's education was a surprise benefit of MC.

Mothers' Perceptions of (Anticipated and Unanticipated) Benefits for Their Children

All mothers noted significant academic and social and emotional benefits for their children. For some parents, these benefits were unanticipated.

Increasing Academic Readiness

While not all mothers joined MC for anticipated academic benefits for their children (only 9 of 20 recalled joining for potential academic benefits for their children), 80 percent of participants (16 out of 20) perceived academic benefits for their children on completion of the program. A subset of mothers (4 out of 20) specifically said their children were academically prepared for kindergarten as a result of their participation in MC. Mothers interviewed mentioned a number of academic benefits, including increased vocabulary; improved speech; learning to read, write, and count early; along with other cognitive and motor skills.

Interviewees described the following benefits for their children:

- “He already knew how to read when he went to Kinder and was ready for school. He knew letters and numbers.”
- “He learned to speak very early.”
- “He learned a lot of things that helped him when he started Kinder—letters, colors, motor skills, control emotions.”

Additionally, a few mothers saw the program spark an interest in learning and reading in their children, describing it in the following ways:

- “Her vocabulary is high. She loves to learn.”
- “His dedication to study . . . and his interest in science and mathematics.”
- “He learned math and how to count . . . and he also likes reading a lot. He likes to read books every night.”

While our interviews asked mothers to describe the experiences of one focal child, a few mothers (3 out of 16 who had more than one child in the program) mentioned academic benefits for their other children who participated in MC without being prompted. Mothers said their children learned to read and write early. One said her child is now taking advanced classes in school, which she attributes to MC.

Improving Social and Emotional Development

All mothers identified social and emotional development as important benefits their children experienced through the program. This included one unprompted mention of social and

emotional benefits for a nonfocal child that had also participated in the program. Interviewees mentioned several improved social and emotional competencies, including improved behavior, more self-control, increased independence, improved socialization, increased ability to share and communicate, and improved self-confidence. One mother said her daughter became very independent and described her as “great at socializing.” Another mother said her daughter learned to express her feelings, pay attention, socialize with others, and follow routines. Other mothers described similar benefits:

- “[MC taught my son] how to ask for things (he used to just grab things and run) . . . and to not hit or pull someone’s hair and to say you are sorry.”
- “[My son] developed his communication and sharing skills. He started to respect other people’s spaces.”
- “[My son] shares his things. He is more independent. MC teaches children to do their own chores and to be more independent.”
- “[My daughter] is not shy. She defends herself. If she doesn’t like something she says it. My daughter has the emotional capacity of succeeding at schools.”

While most mothers anticipated academic and social and emotional benefits for their children, more mothers mentioned realizing those benefits afterward than had anticipated them. That is, all mothers noted social and emotional benefits, while only nine said that they had joined for those reasons.

Unanticipated Benefits

Moreover, mothers also discussed several unanticipated benefits for their children, including physical and mental health-related benefits and beneficial arts, cultural, and holiday experiences. These were benefits that went beyond the types of outcomes they originally expected to see from program participation, but which they appreciated after the fact. Five mothers mentioned benefits stemming from program service referrals, including referrals to speech therapy for three MC children, which their mothers perceived as helpful. Other children in the family were referred to specialists and counseling, which their mothers perceived as benefits. Four mothers also mentioned access to healthy and nutritious food as an important benefit for their children. According to one mother, “The food was healthy and good and food in kindergarten is bad.” Two mothers attributed their children’s emerging interest in art classes to their time in the program. Three others highlighted opportunities their children had to go on field trips (e.g., “[My child] went to places that, for economic issues, he would have never been able to go to without MC”) and participate in holiday celebrations as unanticipated benefits of participation. Mothers also did not fully anticipate the range of academic and cognitive benefits (11 of 20) and the social and emotional development their children experienced (12 out of 20). According to one mother,

I wasn’t expecting these benefits. I didn’t know he was going to get all this inspiration and eagerness to learn. I thought he would only learn to follow routines and some academics at MC.

Of the 16 mothers that had more than one child participate in the program, seven reported their perceptions of variation in the benefits their children received. The majority (5 of 7) said that the program was equally as beneficial for all their children that participated. Two noted some observed variation in child benefits. One mother said the program was more helpful for her daughter who was “a little bit shy and more serious,” while another noted that her child that attended for two years longer than her other participating child “learned a lot faster.”

Mothers' Perceptions of Unanticipated Benefits for Their Families

Mothers reported improved parenting skills for husbands and partners.

While the program required daily participation of at least one parent or primary caregiver (e.g., mother, father, grandparent, or other primary caregiver), our sample consisted entirely of mothers that participated in the two-generational program with their children. The program provided opportunities for families with two parents to have the nonprimarily engaged parent participate in programming offered by MC. In our sample, eight mothers reported that their husband or partner participated in father classes and/or other aspects of the program (e.g., English lessons). Four mothers said their husbands or partners could not participate in the program given work obligations or other time constraints. Eight mothers did not mention partner involvement during the interviews.

The eight mothers whose husband or partner participated in MC reported improved father or partner parenting skills as a result of participation. Additionally, one mother reported improved partner parenting skills as a result of sharing what she learned through the program (vs. her partner's direct participation). These changes in parenting were similar to those mothers reported for themselves. One mother explained,

They were very helpful . . . they taught him the importance of being involved in his child's life. Now, he takes them to the park and wants to do things with them. Before he didn't do those things.

These changes included increased understanding of their child's developmental stages, improved communication with their children, changes in general approaches toward their children (e.g., “learn to be patient”), adoption of different approaches to disciplining children (e.g., “learned not to shout and hit the children”), and more engaged and active parenting (e.g., “does more activities with the children”). Three mothers said partners were now more engaged in their children's education. For example, one mother said she and her husband learned how to better support their child's homework needs by letting the child take the initiative on homework and projects and providing guidance (vs. telling the child what to do) along the way.

Finally, a few mothers (3 of 20) mentioned support for their nonparticipating children and/or entire family as a benefit. Examples included help navigating educational resources for siblings and broad support for a family during a difficult period.

Perceptions Were Stable Across Time and Cohort Year

Less than half of respondents (8 of 20) discussed whether their perceptions of the program and its associated benefits had changed since they completed the program. Most (6 of 8) said their positive opinions remained the same or improved, and the other two said their opinions had worsened. One mother said her opinion has not changed because it is a “good program that helps mothers that need it” and she “only has good things to say.” Another mother said her opinion has improved with time after seeing all of the varied and unexpected ways the program supported her and her family through a difficult time. Two mothers said with time they realized that their children had not learned as much as either their other children in other programs or relative to children they see in their child’s elementary school classrooms. According to one mother, her child learned to be independent and socialize, but they did not learn enough letters or words. From her perspective, her child was behind other children academically when they arrived in kindergarten.

We did not find differences in perceptions of anticipated and unanticipated program benefits across cohort years. Apart from benefits that take time to realize (e.g., whether children were, in fact, kindergarten-ready), findings were consistent across cohorts.

Influences on Families’ School Choice

While MC provides comprehensive programming across a number of areas, how and to what extent program benefits are realized is in part dependent on factors outside of the program’s control. For example, families may be unable to act on new knowledge provided by the program for a variety of reasons. Here we provide insights into one such issue that all graduating families encounter: the role of MC information in guiding how families choose their children’s elementary school.

Information and support provided by Mothers’ Club factored into most mothers’ schooling decisions for their children. Some families reported making substantively different decisions because of the program.

Nearly all mothers (19 of 20) interviewed described how they chose the elementary school that their focal child ultimately attended.² A majority of mothers (16 of 19) reported that information they learned about school choice options and how to choose a school through programming and workshops provided by MC factored into their decisions about where to send their children. For a few mothers (3 of 19), information from MC did not inform their schooling decisions for their children. For these mothers, school decisions were influenced by family recommendations, geographic proximity, or other programs their other children attended.

The 16 mothers that acknowledged MC’s influence in choosing a school reported that they learned about various schooling options, what factors they should consider when choosing a

² One interview was stopped early by the respondent and did not address this issue.

school, and how to navigate their district's enrollment processes. Of these mothers, all incorporated this type of information learned from MC into their decisionmaking process, even though some parents either were unable to send their children to their first-choice school or were constrained in their choice set given other considerations and challenges. Ultimately, six mothers reported choosing schools different than their geographically assigned schools. Two mothers mentioned that their children were not accepted to their first-choice schools.

Geography and other logistical concerns factored into the decisionmaking for half of the sample (10 of 19). The need for geographic proximity was a concern for mothers, given unreliable access to transportation (public or private). Geographic proximity and logistical concerns were often a trade-off as their nearest schools were often ones that were not rated highly on various dimensions of school quality. One mother wanted to enroll her child in a bilingual school she learned of through MC but could not because of limited access to reliable transportation, so she chose her second option. Mothers also took into consideration other logistical challenges, including which schools their older children were already enrolled in and the preferences of family members that provided child care support. For example, one mother said she understood that the school she chose was "the worst in the district," but because she gets child care support from her mother and sister, it was logistically easier for everyone to send her child to their neighborhood school.

Barriers to Program Participation and Ongoing Benefits

In interviews, we asked mothers to describe factors that prevented them and/or their families from fully participating in the program.

Outside factors including personal circumstances, work obligations, and time constraints influenced mothers' ability to fully participate and realize the program's intended benefits.

FFLC programming represents a significant commitment of time and other resources from participating families. Mothers noted that it was important to have the time and availability to remain engaged with the program (3 of 20).

Nearly half of the mothers interviewed (9 of 20) noted that there were personal circumstances, work obligations, and other time constraints that inhibited their ability to attend the program regularly. These included family obligations, such as caring for other children and caring for other children or adults with serious illnesses, and work obligations (6 of 20). For two of those mothers, participating in MC became untenable as their changing work requirements required having access to full-day child care for their children. In select cases, family disruptions associated with intimate partner violence hindered participants' ability to fully engage with the program activities (although those mothers attributed MC with providing comprehensive support to their families during these challenging times, just in a manner that deviated from regularly planned programming).

Half of mothers reported challenges in continuing their education after program completion. Specifically, these mothers reported that they were unable to continue English lessons and/or pursue other educational opportunities after they completed the program. Again, these challenges included personal circumstances and other work and/or time obligations. Personal circumstances for four of these mothers included caring for other children, spousal/partner separation, and a lack of support from their current partner. The remaining six mothers said they could no longer continue English lessons or related educational activities because of work or other time commitments. In one case, however, the mother said she gave up English lessons due to limited time when she became more involved in her child's school as a volunteer and in the parent-teacher association.

Participants' Perceptions of Program Delivery

Program Staff and Climate Matter for Participants' Experiences

All interviewees indicated they would recommend or had already recommended the program to others. Nearly all mothers (18 of 20) mentioned specific aspects of the program, program staff, and the overall program climate that positively contributed to their overall positive experiences in the program. For more than half of mothers (13 of 20), characteristics of the program staff and how they were treated were important for their experiences. Several mothers said program staff created a warm, welcoming, and trusting environment. Respondents described staff members as "always trying to uplift them" and "approachable." According to interviewees, the program staff also provided them with comprehensive and flexible support. Program staff helped parents navigate issues as they arose. Program staff made referrals to mental health and counseling services, and to immigration services and lawyers. Parents also described the program staff as flexible. When outside circumstances prevented their regular participation, the program staff was understanding and adaptable. Mothers also said they continued to rely on program staff after they completed the program as a source of support and advice. Moreover, mothers reported that the program staff treated their children well. For example, one mother said the teachers were "loving to her children." Respondents also appreciated the regular communication they received from teachers and program staff about their children's development and progress.

Relatedly, slightly less than half of respondents (8 of 20) described aspects of the program's culture and climate that were important for their experiences. Several participants described MC as a "family." Mothers also reported that the program incorporated parents' opinions and requests when designing programming and workshops. For example, one mother said,

Mothers wanted dads to be more involved in the children's education so we asked for these classes for our husbands/partners and [the program staff] listened to them and came up with these classes.

One mother also noted her appreciation for the program's commitment to her child who had severe behavioral challenges: "They didn't kick him out of the program; they kept him in the program and helped him."

Some mothers (6 of 20) specifically mentioned various workshops and classes that were related to their positive program experiences. Parents mentioned English lessons, parenting classes, and other seminars that covered a variety of topics including family health, nutrition, immigration, and finances.

At the same time, half of mothers interviewed (10 of 20) highlighted aspects of the program that they were unsatisfied with. The majority of these (7 of 10) noted concerns about recent changes in program staff, culture, and climate. For a few of these mothers (3 of 7), the program no longer felt as welcoming and the sense of community among mothers and staff has diminished. Some mothers noted that their perception is that mothers in the program today no longer have the same level of comprehensive support as several years ago, and that some areas related to children's academic experiences as well as experiential and cultural opportunities (e.g., field trips) have deteriorated in recent years.

A few mothers (3 of 10) mentioned more general concerns unrelated to recent changes in the program, including unequal participation across mothers and the need for more behavioral support for their children. Regarding the latter, one mother said, "I would have liked there to be a psychologist or someone who was trained to help children with behavioral problems."

In summary, our analyses found the following perceived benefits and barriers for FFLC mothers:

- increased English proficiency
- improved parenting skills, including learning about child development and behavior, learning new approaches to child discipline, learning how to communicate with children and respond to them in developmentally appropriate ways, and creating routine with children; skills that also extended to mothers' spouses or partners in some cases
- increased engagement in various aspects of their child's education, such as reading to children, helping with school work, playing educational games at home, volunteering at school events, and engaging more with their children's teachers and schools
- increased social capital and community engagement, including increased volunteerism and taking leadership roles within their children's schools
- improved mental health and general well-being, including access to services and counseling receipt; increased confidence, self-respect and sense of inherent worthiness; ability to defend themselves and speak up for what they need or want, and long-term planning and goal setting
- improved child cognitive, language, and literacy skills, and increased readiness for kindergarten
- improved social and emotional competence in children, including decreased externalizing behaviors, increased self-control and independence, learning to communicate with others, and increased self-confidence
- family referrals to services when needed, including early identification of health-related challenges for their children
- supportive program staff and overall program climate
- barriers to full participation for some because of personal circumstances, work obligations, and time constraints.

4. Student Outcomes

In this chapter, we examine the second set of research questions related to student outcomes for FFLC participants. The students included in these analyses are not linked to the students from families interviewed in the previous chapter, thus we cannot relate the findings to mothers' perceptions of FFLC participation. Instead, we seek to explore how students fare in early elementary grades on a number of outcomes that are aligned with the mission of FFLC programming. We first present results on near-term effects, including CELDT/ELPAC scores, attendance, and chronic absenteeism. These results describe the extent to which FFLC did or did not affect student outcomes relative to similar students at the end of the kindergarten year. We then present longer-term results that capture the extent to which FFLC participation led to improved student outcomes after third grade in terms of EL reclassification, academic achievement (as measured by state-standardized assessments), chronic absenteeism, average daily attendance, suspensions, and grade promotion relative to outcomes for other similar students in PUSD. Complete regression results including parameter estimates, standard errors, and associated p -values are presented in Appendix B.

Near-Term Effects—Kindergarten

English Learner Proficiency

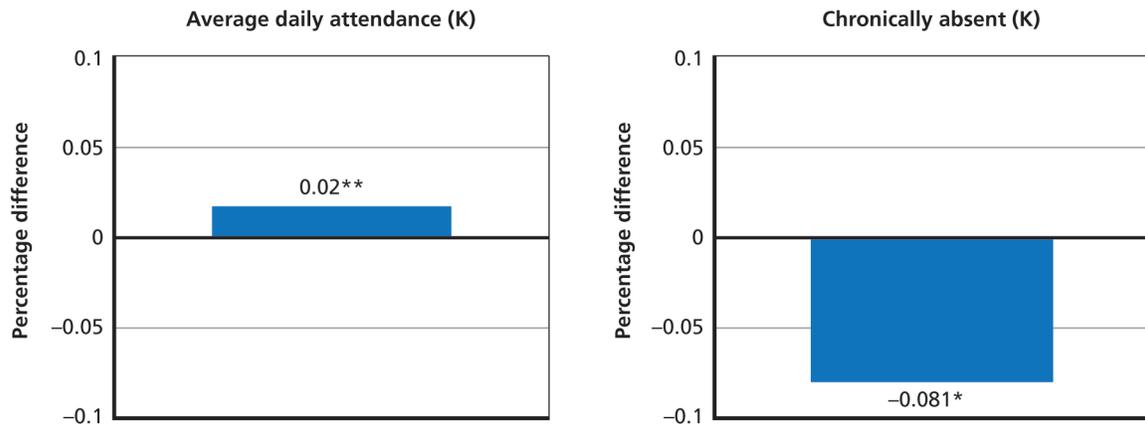
Our estimates of the effects of FFLC participation on EL proficiency represent the covariate-adjusted difference between the average standardized CELDT/ELPAC scores of the FFLC participants and the average standardized scores of the comparison students. A positive difference here indicates that, on average, FFLC students outperformed the comparison students in terms of CELDT/ELPAC scores at kindergarten entry.

The estimated effect on CELDT/ELPAC scores is positive (0.069) and may be meaningful in a practical sense (e.g., recent work by Kraft, 2018, suggests that educational effect sizes greater than 0.05 standard deviations [SDs] could be considered medium sized). However, importantly, this effect is not statistically distinguishable from zero. Given our small sample size, our analysis had limited statistical power to identify medium-sized effects that may be practically significant.

Attendance and Chronic Absenteeism

Figure 4.1 shows our estimates of the effect of the FFLC program on attendance and chronic absenteeism. Attendance was measured as the percentage of enrolled days that a student attended school. Chronic absenteeism was measured as an indicator of whether a student was absent for more than 10 percent of enrolled days. Findings suggest that there were statistically significant differences between FFLC students and the comparison group. Specifically, we find that FFLC

Figure 4.1. Effect of Families Forward Learning Center Program on Attendance and Chronic Absenteeism (Kindergarten)



SOURCE: Authors' analysis of PUSD administrative data (academic years 2010–2011 through 2018–2019).
 NOTES: * = $p < 0.05$; ** = $p < 0.01$.

students had higher overall attendance rates (2 percent higher) compared with other similar kindergartners in PUSD, suggesting that, on average, FFLC students attended approximately four more days of school in their kindergarten year. FFLC students were also 8.1 percent less likely to be chronically absent compared with other similar kindergartners in PUSD. Causal inferences should be made cautiously in the analyses of attendance outcomes, as we were unable to control for any baseline measures of school attendance. Thus, there is the possibility of selection bias: unobservable differences between FFLC students and the comparison students may contribute to these differences in attendance outcomes.

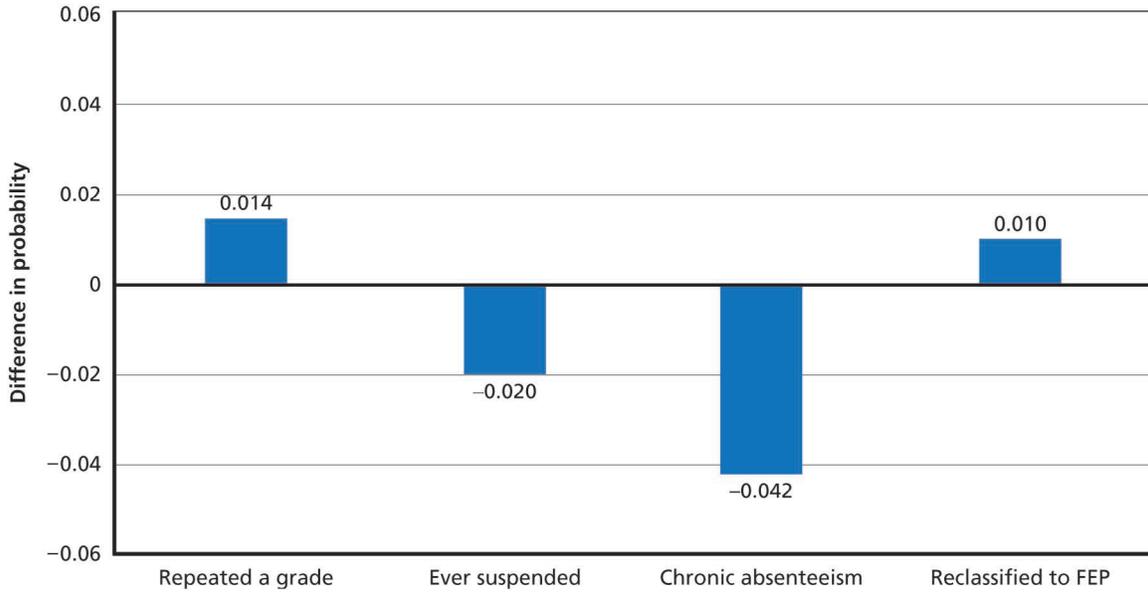
Longer-Term Effects—Third Grade

Nontest Outcomes

Figure 4.2 presents our estimates of the effect of FFLC on nontest outcomes, including grade retention, discipline, chronic absenteeism, and EL proficiency reclassification. Each of these outcome variables is measured as a dichotomous indicator, and the estimated effects can then be interpreted as the difference in the likelihood of an event occurring. For example, negative coefficients would suggest that FFLC students are less likely to have repeated a grade and positive coefficients would suggest that FFLC students are more likely to have repeated a grade.

We measure grade retention as an indicator of whether a student ever repeated a grade before third grade. Discipline was measured as an indicator of whether a student had ever been suspended. Chronic absenteeism is measured as described above. EL reclassification was measured as an indicator of whether an EL student had been reclassified as fluent English proficient (FEP) by third grade. None of these estimates are statistically significant at the nominal 0.05 alpha level.

Figure 4.2. Effect of Families Forward Learning Center Program on Nontest Outcomes (Third Grade)



SOURCE: Authors' analysis of PUSD administrative data (academic years 2010–2011 through 2018–2019).
 NOTE: No outcomes were significant at $p < 0.05$.

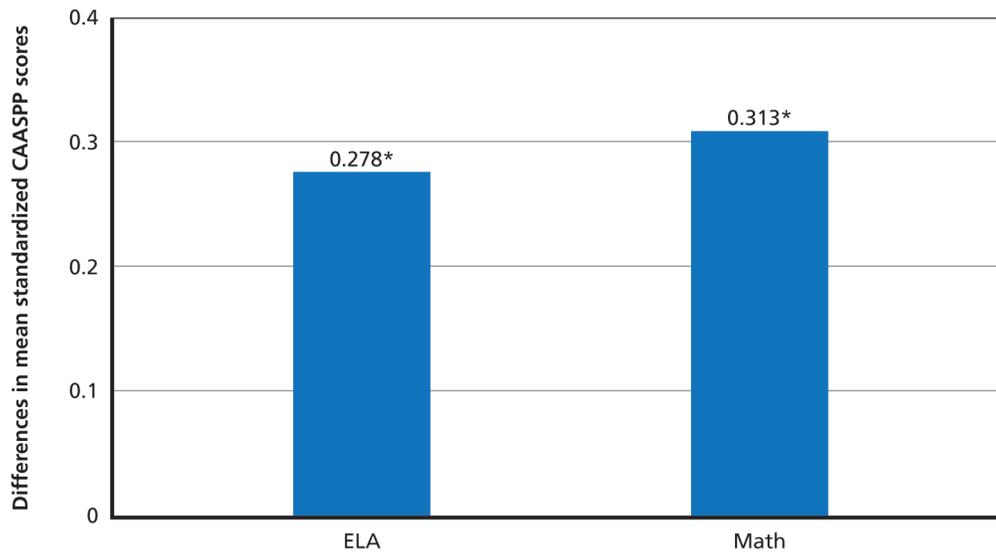
In addition to the four outcomes described in the previous paragraph, we investigated the extent to which FFLC participation affected averaged daily attendance. These investigations suggest that there were statistically significant differences between FFLC students and the comparison group in terms of average daily attendance. Specifically, we find that FFLC students had higher overall attendance rates (1.3 percent higher) compared with other similar third graders in PUSD, suggesting that, on average, FFLC students attended approximately two more days of school in their third-grade year. Again, we advise that causal inferences should be made cautiously in the analyses of attendance outcomes because of the possibility of selection bias.

Academic Achievement

Figure 4.3 shows our estimate of the effect of FFLC participation on student performance on ELA and math assessments. The student achievement estimates represent the covariate-adjusted difference between FFLC participants and similar matched comparison students in PUSD in terms of their average standardized scores on the CAASPP ELA and mathematics assessments. Our estimates are positive and statistically significant, suggesting evidence that students who participated in FFLC programming had higher academic achievement when compared with other similar students enrolled in PUSD.

These effects are quite large and meaningful. FFLC students' scores were nearly one-third of a SD higher than their PUSD peers. In our analytic sample, the Latinx-white gap for ELA is 0.77 SDs, and for mathematics this gap is 0.69 SDs. Given that the effect estimates here are 0.28 and 0.31 respectively, this suggests that the treatment effect is approximately 37 percent of the

Figure 4.3. Effect of Families Forward Learning Center Program on Academic Achievement (Third Grade)



SOURCE: Authors' analysis of PUSD administrative data (academic years 2010–2011 through 2018–2019).
NOTE: * $p < 0.05$.

gap in ELA and approximately 45 percent of the gap in mathematics (Baird and Pane, 2019).¹ Causal inferences should be made cautiously in the analyses of achievement outcomes, as we were unable to control for any baseline measures of achievement and selection bias may compromise these findings.

In summary, our analyses found the following results for FFLC participants:

- positive, statistically significant effects on attendance and chronic absenteeism, though the effects appear to diminish over time
- measurable longer-term academic benefits on ELA and mathematics achievement
- positive effects on EL outcomes and suspension, though these benefits are too small to be statistically significant in the given sample
- negative effects on grade retention, though these effects are too small to be statistically significant in the given sample.

We take a holistic approach to the interpretation of these results in order to describe the effects of the FFLC program. By synthesizing the information across all of our analyses, these results suggest that the FFLC program may confer short-term and longer-term benefits for students. However, these findings may be vulnerable to selection bias in which families choose

¹ While these effects are quite large and meaningful, it is also important to contextualize them appropriately. The effects show that, comparatively, the FFLC students scored higher than their PUSD peers—but this does not suggest that the FFLC students' scores were high in an absolute sense. As detailed in Appendix B, in order to facilitate the multiyear analysis, we have standardized the scores within the sample. On average, neither the FFLC students nor their PUSD peers are meeting grade-level standards for academic achievement.

to participate. In particular, families that chose to participate in FFLC programming may have been more engaged than other similar families, or may have had access to other resources (extended family support) that enabled mother and child program participation. To the extent that these factors are positively correlated with both program participation and the outcomes we investigated, it is possible that our appraisal of program benefits may be biased upward. Thus, we view these findings cautiously and consider them preliminary and exploratory evidence of program impacts.

5. Conclusions and Implications

The preliminary evidence from the two components of this study suggests that the FFLC program is generally supporting families and children in ways aligned with its stated goals. The results presented in this report suggest that mothers and their children are perceiving the benefits that the program intends its participants to realize. Mothers joined the program because they were interested in taking English lessons and parenting classes. Mothers also wanted to improve their children's academic readiness for kindergarten, along with improving their social and emotional development. These benefits were realized for mothers and often exceeded many mothers' expectations; moreover, students were observed to have better outcomes than their demographically similar peers for several educational measures. In addition, mothers noted a number of unanticipated benefits for themselves and their children. For mothers, these included access to mental health services and other social and emotional supports; increased social capital, including the ability to successfully navigate a variety of institutions; increased volunteerism and civic engagement; and increased engagement in their children's education. For their children, mothers perceived the following additional benefits: getting access to healthy and nutritious food, exposure to art and other cultural experiences, and positive outcomes from service referrals (e.g., speech therapy). These results shed some light on the effects FFLC is having on participating families.

These findings provide additional evidence showing promise for equal-intensity two-generation programs. However, similar to extant literature on the topic, this study is unable to specify the mechanisms by which the program is beneficial to mother and child outcomes (Chase-Lansdale and Brooks-Gunn, 2014; Joo et al., 2020). Exploring these mechanisms in the future would provide additional insight for FFLC and the broader examination of two-generation programs in general. For example, we find significantly improved third-grade achievement scores, but we cannot tell if these academic benefits are affected by the component activities across the full model, including parents' improved support of child learning at home and school, or if they relate primarily to children's participation in a high-quality ECE program supporting children's cognitive development. FFLC also aims to develop social and emotional skills among participating children, which emerged as a major theme in our participant interviews. Our data do not allow us to examine specific social and emotional skills among students. However, we did find a positive, though not statistically significant, effect for reduced suspension rates by third grade among FFLC students compared with similar peers. This is suggestive that the program's help with improving social and emotional skills and mitigating behavior problems, as noted by mothers, may relate to fewer serious school behavioral issues in early grades. It is unclear again to what extent any social and emotional competencies improvement occurs through ECE program experiences or in combination with improved parenting skills through parent education. Likewise, our findings are suggestive that the program might be influencing students' English language skills, either through direct English language development while participating in FFLC or also

through their mothers' increased English language proficiency, which may be promoted within the home.

Implementation quality and intensity are also important factors influencing program success, and we are unable to examine these factors for the different model components within the current study. This is an area ripe for future examination and would present a fuller picture of FFLC and potentially strengthen its design (Chase-Lansdale and Brooks-Gunn, 2014; Sama-Miller and Baumgartner, 2017).

Methodological Limitations of the Study

There were a number of methodological limitations to this study. First, with a relatively small number of FFLC students across eight cohorts, the statistical power of our analysis was limited. This was particularly true for the longer-term analyses, and for analyses of outcomes like suspension that had relatively low base rates in the district. Additionally, our approach to creating a matched comparison group was limited in several ways. Because of sample size considerations, we were not able to incorporate academic year into the matching process (though year-fixed effects are incorporated into all analytic models). Also, there were likely unobserved differences between students who participated in the FFLC program and those who did not that we are unable to fully account for. This is particularly true because for most of our analyses we did not have access to a baseline measure (e.g., a measure taken before FFLC participation) of the outcome. Selection bias poses a threat to the validity of any causal claims that can be made based on these analyses, and attribution of student outcomes to the FFLC program participation should be made cautiously.

Beyond these issues with baseline equivalence, we were limited in our ability to estimate appropriate variance components for the treatment arm of the study. Some children in the sample are siblings from the same family, and the FFLC program is administered at a single site. Therefore, students who participated in the FFLC program may have positively correlated outcomes. However, it is not possible to estimate this correlation in the current design. This unmodeled correlation may have impacts on our estimates of precision and, consequently, our statistical inferences (see Lohr, Schochet, and Sanders, 2014).

We also faced limitations in the data that compromised our ability to examine several outcomes. CDE changed the English language test from the CELDT to the ELPAC in the 2017–2018 academic year. Although we standardized within year and grade level to conduct our EL analyses, it should be noted that the two assessments differ in their administration protocols and content coverage.

Finally, there are limitations to the generalizability of our findings. The FFLC program is administered at a single site and all of the students included in our statistical analyses attend schools in a single school district. We were also limited to the students for whom FFLC had permission to include in research and whose parents chose to enroll them in a PUSD school, which may be a selected group that is not generalizable to all FFLC children. Moreover, the

mothers who chose to participate in the interviews may not be fully representative of the FFLC population of mothers. The findings cannot, therefore, be generalized to other school districts or programs.

Implications for Future Families Forward Learning Center Outreach and Programming

Our research highlighted some opportunities for the organization to continue to improve participants' experiences and increase their impact on participating families. Suggestions for additional ways to further investigate the program model effects are presented at the end of the chapter.

Word-of-Mouth Recruiting Is Working Well

Nearly all interviewed mothers were referred to the program by others who had participated or were currently participating in the program. Moreover, all program participants indicated they would recommend the program to others with young children. Despite some variation in program experiences and perceived benefits, program participants' willingness to recommend the program to others likely reflects a largely positive experience among mothers and buy-in to the general objectives and activities of the family education model. Personal referrals also appear to be an effective recruitment strategy for the program.

Participants Are Unaware of Some Expected Program Benefits

The majority of mothers acknowledged benefits that they or their children received that were unexpected. More than half of mothers either did not anticipate some or all of the child benefits and/or the extent of the benefits. More pronounced, most mothers said they did not anticipate some or all of the benefits and/or the extent of the benefits that they themselves received, even though these were often targeted goals of the program. While parents may still find the nature and extent of the benefits unexpected, the program may consider ways to more fully communicate to prospective families the scope of activities and intended benefits of their comprehensive two-generation model. Families that more fully comprehend the strategies and goals may also be more likely to fully engage in all activities as part of the integrated education model, and this hypothesis could be further examined in relation to parent and child outcomes.

Characteristics of Program Staff and Climate Matter for Perceptions

Recent changes in program staff and climate have highlighted for participants certain characteristics that are important for a positive programmatic experience. It is important for participants to feel like program staff are creating a welcoming and trusting environment. This aligns with the program model's core strategies, which include developing trusting relationships and mutual respect. It is also important for participants to feel like they are a part of a community

(or a “family” as a few participants described). Mothers appreciated the holistic and flexible support that program staff provided to them. Mothers also appreciated that they could continue relying on program staff as a resource after they had completed the program. Parents also valued the way program staff and teachers interacted with their children (e.g., mothers said teachers were “loving” and treated their children well). Future hiring decisions and staff training and development should continue to emphasize these characteristics as key components of quality program implementation.

Future Research Could Enrich the Understanding of Program Implementation and the Mechanisms Producing Program Effects

Building from the promising results presented here, FFLC should continue to examine more specifically to what degree the program model is implemented as intended as well as areas where it might be strengthened to help guide continued FFLC program improvement. For instance, some participants may not receive all program components as intended (e.g., not attending sessions because of work or family constraints). Further exploration of the reasons for lower engagement, where occurring, should help FFLC determine if there are feasible programming adjustments to address the barriers. For example, by considering providing sibling child care support or additional program sessions at different times when needed. Understanding from participants which program components are working well or not well should help FFLC explore which pieces of the two-generation model may be contributing more specifically to expected outcomes.

Given FFLC’s current size, its single-site administration, and structure for program participant selection, conducting studies with causal inference remains difficult. But FFLC could consider future research that attempts to include a comparison group of similar mothers using a quasi-experimental design. It would also be useful to interview and follow a greater number of mothers at both program entry and after program completion and consider including objective measures of their outcomes to gauge program effects (e.g., administer English language assessments or use an observation tool to assess parenting practices in the home). Likewise, the program could collect social and emotional measures for participating children and comparison children independently, as this is an important outcome where district data do not exist currently. Finally, if improved parent outcomes such as parenting knowledge and skills from the FFLC model persist longer term, exploring outcomes for younger siblings of FFLC participants could examine how the program affects additional children. This research could be coupled with a deeper understanding of the receipt of specific program components for each family to help understand which program factors are related to improved outcomes and inform where targeted resources may have greater impact.

Appendix A. Participant Interview Data Collection and Methods

This appendix provides details on data collection and analysis for the interviews with mothers who participated in the program. We also provide a copy of our interview protocol.

Sampling

We randomly sampled within each of five recent FFLC “graduating” cohorts (i.e., mothers of children who completed the program as 4–5-year-olds between 2013 and 2017) to arrive at a final sample of 20 interviewees. Initially, FFLC provided RAND with a list of mothers’ names from each of the previous five cohorts for whom FFLC had up-to-date contact information.¹ Within each cohort, we randomly rank-ordered mothers and asked FFLC to contact the first six mothers in each cohort to request permission for RAND interviewers to contact them directly about participating in the study. If FFLC was unable to reach or obtain permission from any of the first six mothers, it moved down the rank-ordered list to numbers seven, eight, and so on. After this process, FFLC sent RAND the contact information for the first six mothers from each cohort who granted permission to be contacted by RAND, yielding a list of 30 mothers from across the five cohorts. We conducted interviews with the first 20 mothers who responded to our outreach. In general, each cohort has between 18 to 21 children, and we interviewed 3–5 mothers per cohort. Trained bilingual interviewers conducted 20 one-hour interviews between April and June 2018 over the phone in either English or Spanish depending on the respondent’s preference. All respondents received a \$25 Target gift card in appreciation for their participation in our study. Mothers were associated with the cohort year of the child randomly selected into the study (we refer to this child as the “focal child”) even if the participant had more than one child that had attended the program.

Data Collection

We developed a semistructured interview protocol to guide our data collection with input from program leadership at FFLC. The interviews covered two primary topics: (1) anticipated benefits and (2) unanticipated benefits for participants’ children and themselves. Specifically, we asked former FFLC participants to articulate their reasons for initially becoming involved in the program (what they anticipated would be the benefits of their participation) and the benefits that they continue to see (including any unanticipated benefits). To address the first topic (anticipated

¹ FFLC did not have up-to-date contact information for all mothers for each cohort, thus limiting our sampling frame to those mothers still in contact with the program.

benefits), we incorporated retrospective interviewing techniques to elicit participants' perceptions on their anticipated benefits *prior* to their participation in the program. Retrospective interviews ask respondents to reflect back and recall their perceptions or beliefs prior to participation in the program (Aiken and West, 1990; Howard, 1980; Moore and Tananis, 2009). Specifically, we asked interviewees to retrospectively describe why they chose to go to MC and what they perceived the benefits to be immediately after their child graduated from their program.

Our interview protocol covered the following themes: participants' initial reasons for joining the program (i.e., anticipated benefits), perceptions of program benefits *after* their focal child graduated from the program, assessment of benefits they continue to see (including any unanticipated benefits), and challenges and barriers to program participation and engagement. We also included questions to ascertain demographic information about participants, including level of education and marital status.

For mothers with more than one child that had participated in the program, we anchored the interview to the focal child and included an additional question about perceptions of variation in program experience and benefits for their other children.

Coding and Analysis

Interview notes were first translated from Spanish to English and were then uploaded to Dedoose 7.6.21 (SocioCultural Research Consultants, 2016), a cloud-based qualitative analysis software for coding and analysis. Interview notes were coded by a single researcher after the data collection activities were completed in June 2018. The researcher began by applying descriptor codes to all documents that identified the cohort year of the interviewee's focal child. These descriptor codes allowed us to assess whether findings varied by cohort.

We performed iterative coding in which initial coding preceded thematic coding (Creswell and Poth, 2017; Miles and Huberman, 1994; Yin, 2015). The initial set of topic codes stemmed from key constructs in the interview protocols, which reflected the research question motivating the qualitative retrospective study. Topic codes (and subcodes) included, for example, primary reasons for participating (e.g., child—academic, child—social-emotional, mother—English lessons, mother—parenting skills), perceived benefits (e.g., child—academic, child service referral, mother—educational opportunities, mother—mental health and well-being, father—parenting skills), and program engagement (e.g., attendance of partner/father, challenges and barriers to participation).

Our team of three researchers met to establish an initial coding scheme, define the codes, and agree on decisions rules related to the coding scheme. We held regular meetings to discuss and resolve ambiguities in coding. As a result, we revised the coding scheme and documented associated decision rules.

Data analysis was guided by analytical questions that we developed a priori that were related to our primary research question. Analysis involved running multiple relevant queries on

substantive codes of interest to answer analytical questions that corresponded to our research questions. We identified themes following techniques established in the extant literature, including, for example, the identification of similarities and differences across sets of excerpts within and across respondents (Bernard, Wutich, and Ryan, 2016; Ryan and Bernard, 2003).

Interview Protocol

Below, we present the semistructured protocol we developed and used to guide the data collection activities.

I. Background Questions

1. Did you (or do you) have more than one child who attended Mothers' Club?
2. What year did your [first] child graduate from Mothers' Club?
[If more than one child in program:] What years did other children graduate?
3. How many years did [child/children] attend Mothers' Club?
[If more than one child in program:] How many years total did you also personally attend Mothers' Club parents' morning program?
4. How did you first learn about Mothers' Club?
5. Did your child go to kindergarten in Pasadena Unified School District?

II. Reasons for Participating and Perceptions of Experiences

6. Thinking back to when you first started Mothers' Club, why did you choose to go to Mothers' Club?
 - i. Probe: What were you hoping to get from the program for your child? For yourself?
7. Thinking back to right after your child graduated from the program, how did you feel about it? [*This question should refer to child from cohort we selected from*]
 - i. Probe: What worked well for you and your child? Anything that did not work well? Was there anything unexpected about the program? Was there anything that prevented you from fully participating as you wanted to (e.g., time, transportation)?
 - ii. Probe: If more than one child, ask if she felt the same or differently second (or more) time around.
8. [X] years later, how have your feelings changed toward the program?
 - i. Probe: Are there some things that you see now as benefits that you didn't see back then? Are there some things that you thought were benefits but that you think about differently now?

III. Perceptions of Outcomes

9. What do you think are the three primary benefits your child received from attending? *[This question should refer to child from cohort we selected from]*
 - i. Can you tell me more about those benefits? Was the program helpful in attaining those benefits? In what ways?
 - ii. Were those benefits that you expected?
 - iii. Any other benefits you want to mention?
10. What do you think are the three primary benefits you personally received from participating? *[This can be asked for overall perceptions, even if more than child]*
 - i. Can you tell me more about those benefits? Was the program helpful in attaining those benefits?
 - ii. Were those benefits that you expected?
 - iii. Any other benefits you want to mention?
11. Were there any ways the program helped you learn about your child's health and development, such as through interactions with teachers or the screening process? *[This question should refer to child from cohort we selected from]*
 - i. Probe: What did you learn? Was your child referred or recommended for any special interventions as a result? Did you follow up on any of these?
12. How did you select the school your child attends? *[This question should refer to child from cohort we selected from]*
 - i. Probe: Did you consider magnet schools, dual language schools, or other special programs? Why or why not? Did you discuss the process of school selection with anyone? What resources did you use to help you make a selection? Were there any ways in which Mothers' Club helped you select a school?
13. Were there any ways Mothers' Club helped you and your family think about your roles in your child's education? Please describe.
 - i. Probes as examples: Have you been involved as a volunteer in your child's school? (e.g., hallway monitor, field trip chaperone, classroom aide, special events, parent advisory council, etc.)
 - ii. Do you engage in any educational activities at home? How are these activities connected to your child's work at school?
14. Were there any ways Mothers' Club helped you with your own formal education or English language (ESL) skills? Please describe.

15. What resources do you rely on most for advice about parenting and your child's education?
 - i. Probe: What kind of information do they provide? Are there any adults in your home besides you and your husband/partner who help with any child caregiving responsibilities?
 - ii. If not mentioned, ask: Do you feel Mothers' Club was a source of advice for things like the role of each parent and involving both parents in parenting and your child's education? In what ways? What about the role of other household members (if applicable)?

IV. Additional Background Questions

16. What is the highest level of education you have completed?
17. How well do you speak English? (Very well, well, not well, not at all)
18. What is your marital status?
19. Have you recommended this program to other families? If not, why not?

Appendix B. Student Outcome Analysis Methods

In this appendix, we provide additional details about the quasi-experimental methods used in the near- and longer-term student outcome analyses. First, we describe the coarsened exact matching (CEM) algorithm. We then describe the statistical models used to estimate FFLC program impacts. Additional details are also provided on the baseline equivalence of the treatment and comparison groups, and the outcome variables. We conclude this appendix by presenting complete results for the analyses that examined near- and longer-term outcomes, including parameter estimates, standard errors, sample sizes, and p -values.

Coarsened Exact Matching Methods

When comparing FFLC participants with other students in PUSD, selection bias poses a serious threat to the validity of inferences because those children who participate in the FFLC program are likely systematically different from those children who do not (Shadish, Cook, Campbell, 2002). To mitigate this threat, we use CEM methods (Iacus, King, and Porro, 2012) to create a comparison group that is as similar as possible to the FFLC students based on a set of observable baseline characteristics.

Our CEM procedure followed three steps. The first step was to limit the PUSD students to be similar in racial/ethnic composition. Because the FFLC families all identify as Latinx, we selected PUSD students that were also Latinx. Subsequently, we used the following variables in a CEM algorithm:

- parent education level
- school of kindergarten enrollment
- home language.¹

The second step was to use a CEM algorithm to identify comparison students enrolled in the same schools as the FFLC students whose parental education levels and home language were similar to the FFLC students. Essentially, by using the CEM process, we created a set of strata, with one stratum for each school, parent education level and home language combination. We keep all of the units in strata that contain at least one FFLC student and at least one comparison student. Importantly, because of concerns about student privacy, PUSD does not provide information about socioeconomic status. However, we know from census data that socioeconomic status is highly correlated with neighborhood and with school catchment areas. Thus, by including school of attendance in the matching algorithm we aim to match on neighborhood characteristics including poverty.

¹ Because all of the FFLC students whose home language was not English had a home language of Spanish, for analyses of EL outcomes we did not include this variable in the CEM procedure, but rather limited the sample to include only comparison students with a home language of Spanish.

While in general, it is desirable to use a wide range of baseline variables in the matching procedure, including baseline measures of the outcomes, because this study focused on young children, there are only a limited number of baseline variables available in administrative records, and many of our outcomes are not measured prior to kindergarten entry.

We use the *cem* command in the general-purpose statistical software package Stata (Blackwell et al., 2009) to conduct the CEM so that the comparison group closely matches the FFLC group. The *cem* command allows for the user to use prior knowledge to select the extent of the coarsening of the variables included in the matching process (Blackwell et al., 2009). In our case, we specified that school should not be coarsened at all, and that home language and parental education level should be coarsened using an automated coarsening procedure where appropriate. We conducted these matches on the entire pooled sample (pooled across the kindergarten cohort).

We conducted the CEM separately for each of our five analytic samples: short-term EL outcomes, short-term attendance outcomes, longer-term EL outcomes, longer-term nontest outcomes (including discipline, grade retention, and attendance), and longer-term test outcomes (including achievement). The numbers of included students and strata with matched units (e.g., at least one FFLC and comparison student in each stratum) are presented in Table B.1.

Table B.1. Number of Included Strata with Matched Units

Analytic Sample	N FFLC Students	N Matched Comparison Students	Total Strata
Short-term EL outcomes	71	1,785	25
Short-term attendance outcomes	75	1,897	28
Longer-term EL outcomes	47	853	22
Longer-term nontest outcomes	49	1,095	24
Longer-term other outcomes	46	837	23

Analysis Methods

After conducting the CEM algorithm, the effect of the FFLC program on student outcomes is obtained by comparing the outcomes of the FFLC students and the matched comparison students. Importantly, the strata described in the previous section are not balanced with respect to the number of FFLC and the number of comparison students. Table B.2 shows the first five strata

Table B.2. Example of Five Strata from the Coarsened Exact Matching Algorithm

Strata	FFLC	Comparison	Total
Stratum 1	1	47	48
Stratum 2	4	91	95
Stratum 3	1	72	73
Stratum 4	1	58	59
Stratum 5	1	35	36

and the number of FFLC and comparison students in each stratum. Because of this imbalance, weights are estimated that normalize these distributions.

All unmatched students get a weight of 0. Matched FFLC students get a weight of 1. Matched comparison students are assigned weights as:

$$W_{isT=0} = \frac{N_{sT=1}}{N_{sT=0}} \cdot \frac{N_{T=0}}{N_{T=1}} \quad (1)$$

Where the weight (W) for student i in stratum s is given by the product of two fractions, which involve the number of matched FFLC students in stratum s ($N_{sT=1}$), the number of matched comparison students in stratum s ($N_{sT=0}$), and the total number of matched treatment and comparison students ($N_{T=1}$ and $N_{T=0}$, respectively).

The treatment effect is estimated using a weighted least squares model, weighted by weights given in Equation (1). All of our models include covariates to account for the small remaining differences between FFLC and weighted comparison students to obtain estimates of the treatment effect:

$$y_{ic} = \beta_0 + \beta_1 T_{ic} + \beta_2 p_{ic} + \beta_3 h_{ic} + \delta_c + e_{ic} \quad (2)$$

Where y_{ic} is the outcome for student i in cohort c , T_{ic} indicates the student's treatment assignment (0 for comparison and 1 for FFLC), δ_c is a cohort-specific fixed effect, and e_{ic} is a random effect with mean zero and variance σ^2 . The effect of FFLC on student outcomes is tested by testing the null hypothesis that $\beta_1 = 0$. Two preintervention covariates were included in the models examining student outcomes: (1) home language (h_{ic}) and (2) parental education (p_{ic}).

Baseline Equivalence of Treatment and Comparison Groups

The *cem* command includes an estimate of overall imbalance between the treatment and matched comparison groups. This estimate is given by a statistic called the \mathcal{L}_1 statistic (Iacus, King, and Porro, 2012), which is based on the difference in the relative bin frequencies for the treatment and comparison groups. An \mathcal{L}_1 value of 0 indicates perfect global balance (up to coarsening), and perfect global imbalance is represented by an \mathcal{L}_1 value of 1. While Blackwell and colleagues note that the value of \mathcal{L}_1 is not interpretable on its own, the change in \mathcal{L}_1 can be interpreted in the same way that comparative statistics like the change in R^2 . In addition, we examined the standardized mean differences (SMDs) in the baseline covariates for the treatment and weighted comparison groups. The U.S. Department of Education's What Works Clearinghouse criteria define SMDs greater than 0.25 SDs as evidence that treatment and control groups are not equivalent.

In Tables B.3 and B.4 it is evident that, prior to matching, characteristics of the treatment and comparison group students had substantial differences. FFLC students tended to come

Table B.3. \mathcal{L}_1 Multivariate Balance Statistics for Unmatched and Matched Samples

Analytic Sample	Pre-	Post-	Change
Short-term EL outcomes	0.431	0.000	0.431
Short-term attendance outcomes	0.618	0.000	0.618
Longer-term EL outcomes	0.385	0.000	0.385
Longer-term achievement outcomes	0.614	0.000	0.614
Longer-term other outcomes	0.594	0.000	0.594

Table B.4. Descriptive Statistics for Families Forward Learning Center and Comparison Groups

Characteristic	Full Sample			Matched Sample		
	FFLC	PUSD	SMD	FFLC	PUSD	SMD
K EL sample	N = 71	N = 3,879		N = 71	N = 1,785	
Race/ethnicity						
Percent Latinx	1	0.788	0.522	1	1	0
Percent white	0	0.076	-0.288	0	0	0
Percent black	0	0.004	-0.065	0	0	0
Percent Asian	0	0.129	-0.387	0	0	0
Percent Pacific Islander	0	0.001	-0.036	0	0	0
Percent American Indian/Alaska Native	0	0.002	-0.046	0	0	0
Parent education						
Less than high school	0.620	0.329	0.616	0.620	0.620	0
High school graduate	0.296	0.294	0.004	0.296	0.296	0
More than high school	0.085	0.377	-0.605	0.085	0.085	0
Home language						
English	0	0	0	0	0	0
Spanish	1	0.794	0.514	1	1	0
Other non-English	0	0.206	-0.514	0	0	0
K sample	N = 75	N = 10,493		N = 75	N = 1,897	
Race/ethnicity						
Percent Latinx	1	0.549	0.908	1	1	0
Percent white	0	0.199	-0.500	0	0	0
Percent black	0	0.126	-0.381	0	0	0
Percent Asian	0	0.118	-0.367	0	0	0
Percent Pacific Islander	0	0.002	-0.050	0	0	0
Percent American Indian/Alaska Native	0	0.006	-0.075	0	0	0
Parent education						
Less than high school	0.600	0.153	1.234	0.600	0.600	0
High school graduate	0.307	0.216	0.220	0.307	0.307	0
More than high school	0.093	0.632	-1.113	0.093	0.093	0
Home language						
English	0.053	0.625	-1.177	0.053	0.053	0
Spanish	0.947	0.298	1.412	0.947	0.947	0
Other non-English	0	0.077	-0.291	0	0	0
Grade 3 EL sample	N = 48	N = 1,453		N = 47	N = 853	
Race/ethnicity						
Percent Latinx	1	1	0	1	1	0
Percent white	0	0	0	0	0	0
Percent black	0	0	0	0	0	0
Percent Asian	0	0	0	0	0	0
Percent Pacific Islander	0	0	0	0	0	0
Percent American Indian/Alaska Native	0	0	0	0	0	0

Characteristic	Full Sample			Matched Sample		
	FFLC	PUSD	SMD	FFLC	PUSD	SMD
Parent education						
Less than high school	0.562	0.457	0.212	0.574	0.574	0
High school graduate	0.312	0.344	-0.067	0.298	0.298	0
More than high school	0.125	0.199	-0.186	0.128	0.128	0
Home language						
English	0	0.001	-0.038	0	0	0
Spanish	1	0.994	0.080	1	1	0
Other non-English	0	0.005	-0.071	0	0	0
Grade 3 nontest-score sample	N = 50	N = 5,635		N = 49	N = 1,095	
Race/ethnicity						
Percent Latinx	1	0.580	0.853	1	1	0
Percent white	0	0.191	-0.487	0	0	0
Percent black	0	0.125	-0.380	0	0	0
Percent Asian	0	0.097	-0.329	0	0	0
Percent Pacific Islander	0	0.003	-0.054	0	0	0
Percent American Indian/Alaska Native	0	0.004	-0.067	0	0	0
Parent education						
Less than high school	0.540	0.183	0.917	0.551	0.551	0
High school graduate	0.320	0.229	0.216	0.306	0.306	0
More than high school	0.140	0.588	-0.908	0.143	0.143	0
Home language						
English	0.040	0.600	-1.141	0.041	0.041	0
Spanish	0.960	0.339	1.306	0.959	0.959	0
Other non-English	0	0.061	-0.255	0	0	0
Grade 3 test score sample	N = 46	N = 4,355		N = 46	N = 837	
Race/ethnicity						
Percent Latinx	1	0.575	0.861	1	1	0
Percent white	0	0.191	-0.488	0	0	0
Percent black	0	0.120	-0.371	0	0	0
Percent Asian	0	0.107	-0.347	0	0	0
Percent Pacific Islander	0	0.003	-0.055	0	0	0
Percent American Indian/Alaska Native	0	0.004	-0.067	0	0	0
Parent education						
Less than high school	0.543	0.177	0.953	0.543	0.543	0
High school graduate	0.304	0.223	0.194	0.304	0.304	0
More than high school	0.152	0.600	-0.912	0.152	0.152	0
Home language						
English	0.043	0.610	-1.159	0.043	0.043	0
Spanish	0.957	0.330	1.327	0.957	0.957	0
Other non-English	0	0.060	-0.254	0	0	0

SOURCE: PUSD administrative data.

from families with lower levels of parental education and were less linguistically and racially diverse than their PUSD peers. For example, in the kindergarten EL student sample (Table B.4), we can see that 62 percent of FFLC students have parents with less than a high school–level education, compared with 33 percent of their PUSD peers. However, variables with large differences prior to matching show dramatic improvements in balance. This is apparent both by the reduced SMDs and the \mathcal{L}_1 statistics, which are 0 for all analytic samples. Examining parental education for the kindergarten EL student sample, for example, we can see that the two samples now match exactly in the percentage of students whose parents have less than a high school–level education (62 percent).

Measures

In this section, we provide additional details on variable definitions and statistical distributions (see Table B.5). All data used in these analyses were provided to RAND by PUSD for all kindergartners enrolled in PUSD schools for the academic years between 2010–2011 and 2018–2019.

English Learner Proficiency

We used the CELDT and ELPAC as measures of EL proficiency. CELDT was administered from 2001 until 2017 to all students whose home language was not English according to the

Table B.5. Descriptive Statistics for Student Outcomes

	FFLC			PUSD		
	Mean	SD	N	Mean	SD	N
Near-term outcomes						
Chronically absent	0.053	0.226	75	0.157	0.363	5,757
Average daily attendance	0.969	0.036	75	0.943	0.053	5,757
EL proficiency exam	0.009	0.800	71	−0.037	0.951	3,036
Longer-term outcomes						
Repeated a grade by third grade	0.129	0.338	62	0.112	0.315	4,081
Ever suspended	0	0	61	0.017	0.130	4,081
Average daily attendance	0.975	0.026	61	0.960	0.045	4,081
Chronically absent	0.016	0.128	61	0.074	0.261	4,081
Reclassified by third grade	0.441	0.501	59	0.391	0.488	1,928
CAASPP ELA (standardized)	−0.021	10.139	58	0	0.997	3,162
CAASPP mathematics (standardized)	0.056	1.138	57	−0.001	0.997	3,158
CAASPP ELA (raw scale score)	2,398.431	97.384	58	2,398.114	83.754	3,162
CAASP mathematics (raw scale score)	2,414.228	85.597	57	2,408.453	74.227	3,158

Home Language Survey. Beginning in the 2018 academic year, the CDE transitioned from the CELDT to the ELPAC, which was designed to be aligned with the California English Language Development Standards. The ELPAC is also administered to all students whose home language is not English. The primary purpose of these assessments is to measure a student's progress in learning English and to identify a student's level of English language proficiency. We standardized individual student assessment scores into *z*-scores within the year of test administration using district-wide means and SDs, which we calculated from student-level administrative data for all kindergartners enrolled in PUSD in a given school year.

English Learner Reclassification

We used information from CELDT and ELPAC test administrations to create a variable indicating whether a student was reclassified from EL to fluent English proficient by third grade. Specifically, a student is given a value of 1 indicating reclassification if they took CELDT or ELPAC in kindergarten, first, or second grade *and* did not take CELDT or ELPAC in third grade. Students who took CELDT or ELPAC in kindergarten, first, or second grade and took CELDT or ELPAC again in third grade receive a value of 0 (indicating that they have not reclassified). For students with prior CELDT or ELPAC scores, not taking CELDT or ELPAC in third grade is an indication that the student reclassified in some year prior as students are retested annually until they score above a certain threshold to reclassify.

Academic Achievement

We used CAASPP assessment scores as measures of academic achievement. California's CAASPP assessments include the Smarter Balanced Assessment Consortium Summative Assessments in ELA and mathematics. These assessments are administered annually to students in grades 3–8 and grade 11. We standardized individual student assessment scores into *z*-scores within the year of test administration using sample means and SDs, which we calculated from student-level administrative data for all third graders in our analytic sample in a given school year.²

Average Daily Attendance and Chronic Absenteeism

For average daily attendance and chronic absenteeism, we used district administrative data about both the number of days enrolled and the number of days absent. Average daily attendance is based on the proportion of enrolled days that a student is present. In order to measure chronic absenteeism, we constructed a variable showing the proportion of enrolled days that a student was absent. Students missing more than 10 percent of enrolled days were flagged as chronically absent.

² Our analytic sample included all Latinx students in third grade who were also present in the kindergarten sample and had nonmissing values for the covariates included in the CEM procedure, which were race, home language, parent education level, and a school identifier.

Grade Promotion and Suspension

We identify students that were retained using the grade variable provided by PUSD. If a student is associated with the same grade in multiple school years (i.e., the grade variable indicates that they were in second grade in both 2014–2015 and 2015–2016), they are flagged as having been retained. We create an indicator variable that takes a value of 1 if a student was retained in kindergarten, first, or second grade, and of 0 otherwise.

PUSD administrative data included the number of times a student has received in-school and out-of-school suspensions. Because suspensions are low in PUSD, and California more broadly, we use this information to create an indicator variable that takes a value of 1 if a student ever received either an in- or out-of-school suspension before third grade, and of 0 otherwise.

Impact Estimates

Tables B.6 and B.7 provide estimates of the impact of attending the FFLC program on kindergarten outcomes (including chronic absenteeism, average daily attendance, and CELDT/ELPAC scores) and third-grade student outcomes (including repeated a grade, suspension, average daily attendance, chronic absenteeism, EL reclassification, and academic achievement). As described in the report, we found largely positive effects on both kindergarten and third-grade outcomes. In kindergarten, we found that the FFLC program led to reduced likelihood of chronic absenteeism ($\beta_1 = -0.081$) and higher average daily attendance ($\beta_1 = 0.0196$). The FFLC program had a positive effect on CELDT/ELPAC scores; although the effect was not statistically significant at conventional levels. In third grade, we found positive effects on average daily attendance ($\beta_1 = 0.0132$), CAASPP ELA scores ($\beta_1 = 0.278$), and CAASPP math scores ($\beta_1 = 0.313$). The effects of the FFLC program on suspensions, chronic absenteeism, and EL reclassification were largely positive, but not statistically significant. Finally, FFLC students are slightly more likely to have been retained at least once before third grade; although, this estimate is not statistically significant.

Table B.6. Effect of the Families Forward Learning Center Program on Kindergarten Outcomes

Outcome	Estimate	Standard Error	N
Chronic absenteeism	-0.0810*	0.0401	1,972
Average daily attendance	0.0196**	0.0062	1,972
CELDT/ELPAC	0.0694	0.1230	1,856

NOTES: * $p < 0.05$; ** $p < 0.01$. Not shown in this table are the coefficients for variables representing baseline characteristics.

Table B.7. Effect of the Families Forward Learning Center Program on Third-Grade Outcomes

Outcome	Estimate	Standard Error	N
Repeated a grade	0.0143	0.0415	1,144
Received at least 1 in- or out-of-school suspension	-0.0196	0.0200	1,144
Average daily attendance	0.0132*	0.0067	1,144
Chronic absenteeism	-0.0422	0.0355	1,144
Reclassified to fluent English proficient	0.0097	0.0664	900
CAASPP ELA (standardized)	0.2780*	0.1390	883
CAASPP mathematics (standardized)	0.3130*	0.1510	883

NOTES: * $p < 0.05$. Not shown in this table are the coefficients for variables representing baseline characteristics.

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