The Big Lift Evaluation

Research Findings Five Years In

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Key Findings

- A little less than half of the 2016–2017 kindergarten class participated in at least one Big Lift service by third grade. Participation rates were higher among children from households with very low annual incomes.
- In third grade, children who attended Big Lift preschool had higher rates of attendance and English language reclassification status than children who did not attend any preschool, family and child characteristics held constant. These differences were also found in the sample of children from households with incomes of $50,000 or less. No significant differences were found between Big Lift preschoolers and children who attended non–Big Lift preschools.
- About half of children in the 2016–2017 through 2019–2020 kindergarten classes were kindergarten-ready.
- Among children who were likely eligible for Big Lift Inspiring Summers (BLIS), children who attended Big Lift preschool and BLIS before kindergarten were more likely to be kindergarten-ready than demographically similar children who attended only Big Lift preschool or who attended only BLIS without attending preschool.
- Children who attended BLIS following enrollment in a non–Big Lift preschool program were more likely to be kindergarten-ready than children who did not attend BLIS following a non–Big Lift preschool program, demographic characteristics held constant.
- Among children who did not attend any preschool, there were no statistically significant differences in kindergarten readiness between those who did and those who did not attend BLIS, although the lack of a significant result might be due to small sample sizes.

INTRODUCTION

The skills that young children build in their preschool and early elementary school years serve as a foundation for the knowledge they will acquire throughout their formal education (Duncan et al., 2020; Yoshikawa et al., 2013). Indeed, children's kindergarten readiness skills are positively related to their third-grade outcomes, and children with proficient-level reading and math skills in third grade are more likely to graduate from high school (Annie E. Casey Foundation, 2010; Duncan et al., 2020; Goldhaber, Wolff, and Daly, 2021). Therefore, educational investments in the early years (birth to age eight) that promote early childhood development may have a positive impact on children's long-term educational outcomes (Sullivan-Dudzic, Gearns, and Leavell, 2010).

An appreciation of this logic motivated educational and community leaders in San Mateo County, California, to launch The Big Lift™—"a bold social venture working to transform early learning" (The Big Lift, undated). The educational initiative, which provides services from preschool through third grade, was started in 2012 by the County of San Mateo, the Silicon Valley Community Foundation, and the San Mateo County Office of Education (SMCOE) with the goal of improving third-grade reading scores for all children in San Mateo County. The initiative takes a collective impact approach, whereby more than 300 community organizations collaborate and work toward a single common purpose—improving children's educational experiences and outcomes.[1] The Big Lift initiative (hereafter referred to as *Big Lift*) consists of four programmatic pillars with services provided in county school districts that have third-grade reading levels that are below the county average. The four Big Lift pillars are as follows:

1. **High-Quality Preschool:** A comprehensive school-readiness strategy focused on high-quality preschool for both three- and four-year-olds
2. **Family Engagement:** Strengthening family engagement through strategies that promote home literacy practices

3. **Summer Learning:** Inspiring summer learning opportunities for rising kindergartners through third-graders that enable children to maintain their academic and developmental gains from high-quality preschool through third grade
4. **Attendance:** A focus on reducing chronic absenteeism from preschool through second grade through interventions using evidence-based attendance reminders for families.

The 2015–2016 school year was the first year of Big Lift service implementation. Prior to implementation, the Big Lift initiative engaged in a competitive review process to select the districts in the county that would receive grants to implement the services under each pillar. In spring 2015, the initiative awarded grants to four districts in the county: Cabrillo Unified School District, La Honda–Pescadero Unified School District, Jefferson Elementary School District, and South San Francisco Unified School District. These districts, referred to as the *Cohort 1 districts*, began implementing Big Lift services in the 2015–2016 school year. In spring 2016, three more districts were awarded grants: Ravenswood City School District, Redwood City School District, and San Bruno Park School District. These three districts—dubbed *Cohort 2*—began services in the 2016–2017 school year.

Since 2015, the RAND Corporation has been conducting a multiphase evaluation of the Big Lift initiative. The evaluation began with a focus on implementation of the Big Lift pillars; see *The Big Lift Implementation Study: Final Report* (Faxon-Mills et al., 2018) for details. To track progress toward the goal of improving third-grade reading skills, we have conducted a series of regular analyses documenting the learning outcomes of children who participated in Big Lift services. This report is the fourth in a series focused primarily on two Big Lift pillars—High-Quality Preschool and Summer Learning.

The first report, *Big Lift Participation and School Entry Indicators: Findings for the 2016–2017 Kindergarten Class* (Gomez et al., 2017), focused on the early education experiences (prior to kindergarten entry) and kindergarten readiness outcomes of the 2016–2017 kindergarten class—the first set of children to experience Big Lift services. In the second and third reports—*The Big Lift Descriptive Analyses: Kindergarten Readiness and Elementary School Reading Outcomes for the 2016–2017 and 2017–2018 Kindergarten Classes* (Gomez et al., 2018) and *The Big Lift Descriptive Analyses: Progress Across Three Kindergarten Classes* (Gomez, Whitaker, and Cannon, 2020)—we continued to follow the 2016–2017 kindergarten class through elementary school and added the 2017–2018 and 2018–2019 kindergarten classes as data became available.

This report marks a milestone for the Big Lift initiative and its evaluation efforts because we feature third-grade data for the first time. Because the goal of the initiative is to promote third-grade reading proficiency, the ideal outcome measures would be children's scores on standardized third-grade reading, language, and literacy assessments. The 2016–2017 kindergarten class was the first to reach third grade; these children were in third grade during the 2019–2020 school year. Because of the coronavirus disease 2019 (COVID-19) pandemic, schools across the nation, including those in the Big Lift districts, closed their doors and transitioned to remote learning during spring 2020. During this time, California waived its annual testing mandate such that districts were not required to implement the California Assessment of Student Performance and Progress System; therefore, those data were not available for this report. However, we use this report to document the participation rates of these children in Big Lift services throughout their early childhood years and explore other third-grade outcomes of interest.

In addition, we build on our past reports by continuing to focus on children's skills at kindergarten entry. We capitalize on the information from children in all kindergarten classes for which data are available and explore the relationship between children's participation in Big Lift services prior to kindergarten and their kindergarten readiness skills. Overall, this report provides a cumulative view of what we have learned about the Big Lift initiative and the children served by it since implementation began.

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THE BIG LIFT PILLARS

The Big Lift initiative comprises educational services and resources for children organized under four pillars: High-Quality Preschool, Family Engagement, Summer Learning, and Attendance. The services under each pillar were designed so that families might layer multiple programs based on individual need and preference.

During the 2015–2016 school year, only Cohort 1 districts began implementing Big Lift programming. By the 2016–2017 school year, all seven districts had begun implementation. Because of the timing of data availability, this report includes data collected through the 2019–2020 school year and tracks the outcomes of children in four kindergarten classes: 2016–2017, 2017–2018, 2018–2019, and 2019–2020 (hereafter the *2016, 2017, 2018, and 2019 K classes*). Figure 1 documents when the programs under each Big Lift pillar were available to the four K classes covered in this report. In the following sections, we draw on material from the past evaluation reports to detail the services under each pillar. We focus on describing what each K class experienced and how the programs changed and evolved over time.

High-Quality Preschool

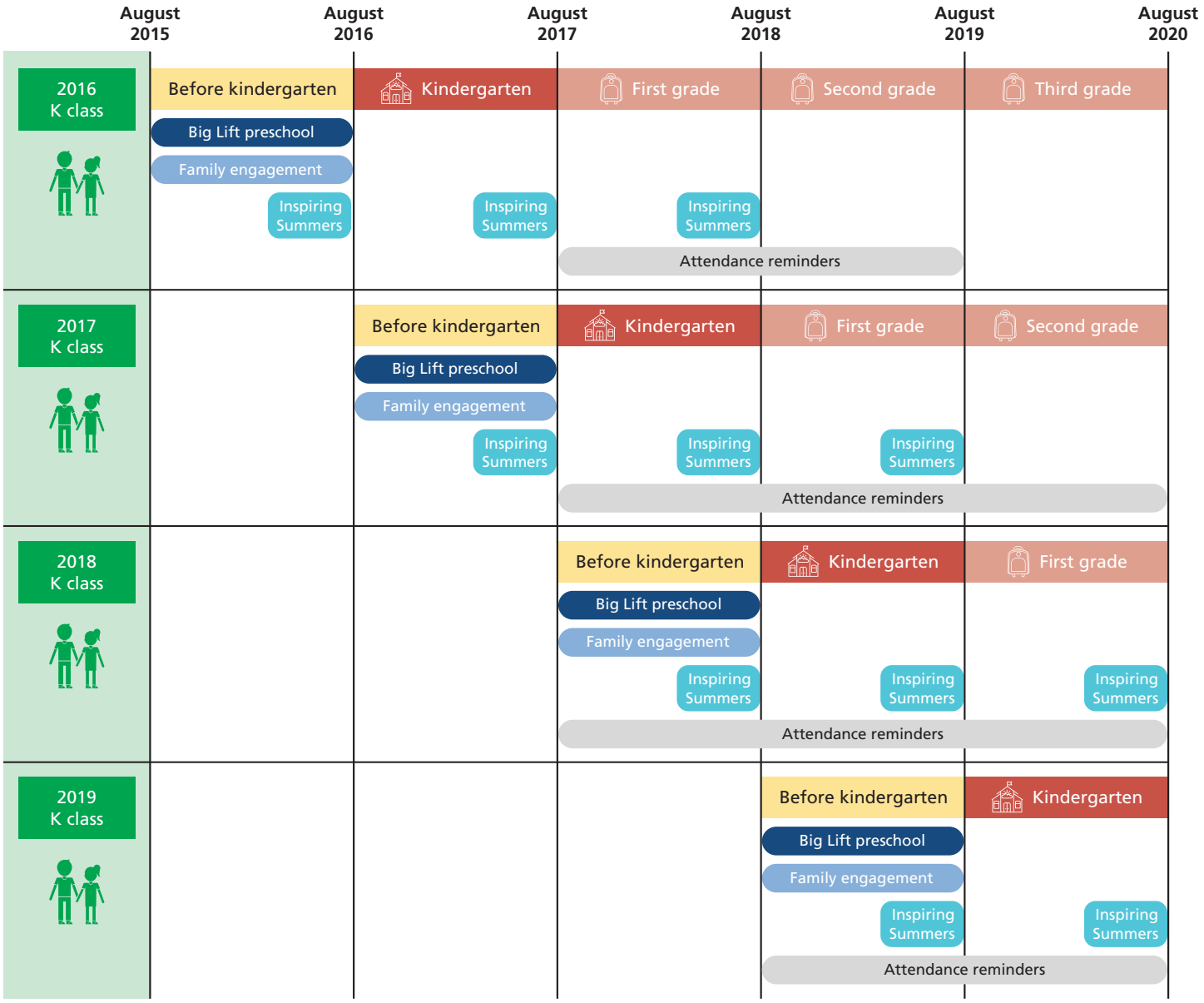
Under this pillar, Big Lift districts use grant funds from the initiative to increase the number of center-based preschool slots available for both three- and four-year-olds in the community and to increase the quality of preschool overall (Gomez et al., 2017). When applying for Big Lift funds, the San Mateo County districts identified the preschool providers they would partner with if the grant were awarded; these programs became Big Lift preschools in the funded districts. Big Lift preschool programs represent a variety of center-based early care and education programs, including nonprofit providers, district-operated programs, state-funded preschool programs, and Head Start centers. The programs vary in their recruitment practices, enrollment, hours (full or half day), months of programming (traditional school year or full calendar year), and curricula (Gomez et al., 2017). All Big Lift preschools serve children from lower-income families, although specific income requirements for enrollment vary by program, as do program fees.

High-quality preschool is defined by the standards of the San Mateo County Quality Rating and Improvement System (QRIS), which is part of the California statewide QRIS (Gomez et al., 2017). The QRIS has a five-tier rating system based on seven quality indicators. Tier 1 represents the minimum level of quality that a center can have while still meeting California licensing standards, and Tier 5 represents the highest level of quality. To be eligible for the districts' Big Lift funds, centers were required to have an entering quality level of at least Tier 3 (the middle level of quality) and to commit to making progress to increase that level over time (Gomez et al., 2017).

All Big Lift preschool programs receive a variety of quality improvement supports from SMCOE, including targeted coaching for teaching staff and professional development supports. Starting in the 2018–2019 school year, some coaching and professional development opportunities focused on targeted curriculum approaches, especially those focused on evidence-based emergent literacy. Big Lift preschool programs also receive discretionary grant funding from the initiative to support quality improvement. Examples of how programs spend their discretionary funds include lowering teacher-child ratios by hiring additional teaching staff; hiring specialists to work with children, program staff, or both (e.g., family engagement coordinators, early childhood mental health consultants, or behavior specialists); providing vision and dental screenings; purchasing equipment; and providing technology and learning materials to enhance the learning environment. In addition, it is a goal for Big Lift preschool centers to partner with community-based organizations and local school districts to align, integrate, and maximize the effectiveness of all four Big Lift pillars (Gomez et al., 2017).

Figure 1 shows when Big Lift preschool was implemented during the years covered in this report. The Big Lift model is intended to support two years of preschool for children in the county. As described, the Big Lift preschool programs offered slots to three-year-olds who were two school years from entering kindergarten and four-year-olds who were one year from entering kindergarten. Preschool programs in Cohort 1 districts began implementing Big Lift preschool in the 2015–2016 school year; programs in Cohort 2 districts began in the 2016–2017 school year. Given this timing, the 2016 K class had access to Big Lift preschool as four-year-olds for one year prior to kindergarten entry. Similarly, children in the 2017 K class in Cohort 2 districts could have attended just one year of Big Lift preschool. We note that many children in these groups likely attended their preschool programs as three-year-olds (in the year prior to the start of Big Lift funds). Although these children did not have two years of *Big Lift–funded* preschool, many likely attended two years of preschool before starting kindergarten. All other children—the Cohort 1 district programs

Figure 1. Big Lift Services Available to the 2016–2019 Kindergarten Classes



NOTE: The 2016 K class reflects Cohort 1 districts only. The 2017–2019 K classes reflect Cohort 1 and Cohort 2 districts. Both three- and four-year-old children were eligible for Big Lift preschool. Because of the timing of implementation, the 2016 K class and children in Cohort 2 districts in the 2017 K class were only eligible for Big Lift preschool as four-year-olds, one year before kindergarten. All other eligible children could have attended Big Lift preschool for two years before kindergarten. Attendance reminders began in the 2017–2018 school year at different times for K classes and age and grade levels.

in the 2017 K class and all children in all districts in the 2018 and 2019 K classes—could have attended Big Lift preschool for two years. For simplicity, Figure 1 depicts Big Lift preschool only in the school year immediately before children entered kindergarten.

Family Engagement

The programmatic strategies under the Family Engagement pillar are implemented as part of Big Lift preschool. All Big Lift preschool programs use some combination of three programs as part of an evidence-based family engagement approach: (1) Raising a Reader (RAR), (2) Play to Grow, and (3) Ready4K. The programs are voluntary and open to all parents at the Big Lift preschool sites that implement them.

The RAR programs are designed to support preschool children's literacy skills by engaging children and their parents in regular book reading practices (RAR, undated). As part of the standard RAR program, parents are invited to participate in an orientation in which staff present information about child

development, early literacy skills, book reading, and home literacy practices. To ensure ready access to books, the program provides families with a weekly bag of books to take home throughout the school year. Raising a Reader Plus (RAR+) is an augmented version of the standard program in which parents are offered a series of interactive education sessions focused on promoting home literacy practices (Gomez, Whitaker, and Cannon, 2020). Nearly all Big Lift preschools began using the RAR programs prior to the start of the Big Lift initiative and continued with the programs upon receiving Big Lift grant funding. Using the Big Lift funds, some programs that had been using RAR began using RAR+ during the 2015–2016 school year or after.

Play to Grow is a five-session parenting series adapted from evidence-based parenting interventions. It focuses on family home practices that promote optimal child development, including language-rich interactions, parent-child play, routines, and positive discipline. Play to Grow was piloted at select Big Lift preschools in the 2018–2019 school year (Gomez, Whitaker, and Cannon, 2020). Starting in the 2019–2020 school year, other Big Lift preschools also chose to take up the program. Thus, of the K classes represented in this report, only some children and families in the 2018 and 2019 K classes (in select Big Lift programs) may have experienced Play to Grow.

Ready4K is an evidence-based text messaging program that sends weekly text messages to preschool families with information and tips to promote children's language, literacy, and social-emotional skills (York and Loeb, 2014). The first year of implementation of Ready4K was the 2016–2017 school year. Consenting parents of all Big Lift preschool programs are enrolled in the program. Therefore, all children and families in the 2017, 2018, and 2019 K classes had the option to participate in this program.

Summer Learning

The Big Lift initiative offers Big Lift Inspiring Summers (BLIS), a summer enrichment program for rising kindergartners, first-graders, and second-graders that is free of charge. The program is a partnership between Building Educated Leaders for Life (a national education service provider), San Mateo County Libraries, and the seven Big Lift school districts. As part of the program, children attend full-day camp from 8:00 a.m. to 4:00 p.m., Monday through Friday (Gomez et al., 2017). The instructional day begins with three hours of literacy-focused instruction that is based on the Building Educated Leaders for Life curriculum (Chaplin and Capizzano, 2006) and taught by credentialed teachers. This is followed by three hours of science, technology, engineering, art, and mathematics enrichment activities in the afternoon, which are provided by San Mateo County Libraries (Gomez et al., 2017). The program also includes family engagement activities that vary by district and implementation year. For example, all programs hold community breakfasts during which children, families, and program staff share a morning meal, and other programs provide resources to promote learning activities at home.

BLIS is held at school sites in the participating districts; the number of children served varies by district and year. Reports from district stakeholders indicate that demand typically outpaces the number of available slots. The Big Lift initiative advertises for BLIS on the Big Lift website, at elementary schools in Big Lift districts, and at Big Lift preschools. BLIS uses the initiative's definition of *low-income* to set income eligibility criteria. As mentioned earlier, the Big Lift initiative aims to serve families facing economic disadvantage. Eligibility for Big Lift services is set at 80 percent or less of the area median income; BLIS uses this threshold to admit families to the program. Because eligibility is set by local median income, it varies by year and family size. BLIS also prioritizes enrolling families whose children have previously participated in BLIS and Big Lift preschool.

BLIS was first implemented in summer 2016 in all four Cohort 1 districts. Thus, the 2016 K class was the first K class to have access to the program before starting kindergarten. By summer 2017, all seven districts across both cohorts were implementing the program. BLIS has varied in length since the first summer of implementation. In the summers of 2016 and 2017, BLIS was a five-week summer program. Monday through Thursday were instructional days that followed the schedule described above; Friday was dedicated entirely to enrichment (i.e., there was no literacy instruction) and sometimes included field trips for all of the children. Starting in summer 2018, all but one district implemented BLIS for four weeks (La Honda–Pescadero Unified School District continued to run a five-week program). In the summers of 2019 and 2020, all districts implemented the program for four weeks. Under the four-week models, every day followed the instructional day schedule; specifically, the program implementers no longer treated Friday as an enrichment day. Thus, under both the four- and five-week BLIS models, children experienced 20 days of instructional content.

In past evaluation reports, our analyses have focused on children's BLIS experiences as rising first- and second-graders

(see Gomez et al., 2018; and Gomez, Whitaker, and Cannon, 2020). In this report, we document the BLIS experiences of the 2016 K class children during all three summers for which they were eligible (2016, 2017, and 2018; see Figure 1). We also present analyses focused on children's BLIS experiences as rising kindergartners for all four K classes.

Attendance

In the 2015–2016 school year, the Big Lift Cohort 1 and Cohort 2 districts (along with other districts in the county) participated in a program to deliver six attendance reminders to parents of children in kindergarten through fifth grade via postal mail (Gomez et al., 2017). The program was part of a Harvard University research study on the effectiveness of such reminders to improve attendance rates. At the time, this program and the research study were not an official part of the Big Lift initiative. Following positive study results (Rogers et al., 2016), the initiative incorporated the attendance reminders into the program under the Attendance pillar. Big Lift districts rolled out the reminders in the 2017–2018 school year at different times for different children. Starting in fall 2017, districts in Cohort 1 provided attendance reminders to all parents of children in transitional kindergarten (TK) through second grade; in January 2018, all Big Lift preschoolers from both Cohorts 1 and 2 were added, along with TK–second-grade students in Cohort 2 districts. The messages focused on the importance of good attendance from an early age and primarily targeted families whose students' attendance was in the bottom 50 percent of the district (Gomez, Whitaker, and Cannon, 2020).

As Figure 1 shows, the timing of the implementation for this pillar led to variation in children's experiences with the attendance reminders. The parents of children in the 2016 K class did not receive reminders until the class's first-grade year; the parents of children in the 2017 K class began receiving reminders when their children were kindergartners. The parents of children in the 2018 and 2019 K classes who were enrolled in Big Lift preschool first received reminders during the children's preschool year. This report does not include data on receipt of these reminders; however, we do explore third-grade attendance outcomes for children in the 2016 K class. Indeed, the 2016 K class's attendance rates may have been influenced by the attendance messages.

RESEARCH QUESTIONS ADDRESSED IN THIS REPORT

In this report, we address two topics. First, we focus on the experiences and outcomes of the 2016 K class, the first class of children to age into third grade after having access to Big Lift services from before kindergarten through early elementary school. Second, we look at all four K classes for which we have data to focus on children's kindergarten readiness, a key predictor of third-grade skills. Research question 1 is as follows:

1. What were the experiences of the 2016 K class?
    a. What are the participation rates in Big Lift services from preschool through third grade?
    b. How do the third-grade outcomes of children who enrolled in Big Lift preschool compare with those of children who enrolled in non–Big Lift preschool or who did not attend preschool at all?

In the first three reports in this series, we looked at the performance of children in the 2016 K class from kindergarten to second grade. The analyses in this report provide the first opportunity to compare third-grade outcomes of children who did and did not receive Big Lift services. To provide context for children's third-grade outcomes, we first document the 2016 K class's participation in Big Lift programs (specifically Big Lift preschool and BLIS) from preschool through third grade. Then, in our analysis of outcomes, we focus exclusively on Big Lift

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preschool. Big Lift preschool is the most time- and resource-intensive of the Big Lift services. In addition, it is the service for which we can identify Big Lift participants and an accurate comparison group. As in our past reports, we focus on comparing children who attended Big Lift preschool with demographically similar peers who had other preschool experiences.

In this report, we explore two measures in third grade: attendance for all students and English language reclassification status for English learner students. As noted earlier, the Big Lift initiative is designed to promote children's literacy skills. We originally intended to analyze third-grade reading proficiency as measured by standardized assessments, but, because of the pandemic and school closures, spring reading assessments were not administered in the 2019–2020 school year. However, school districts collected data on attendance throughout the year and language reclassification status; both are outcomes of interest that we hypothesize could be positively affected by preschool participation. For instance, a recent study in California found that participation by children from low-income families in a two-generation early learning program was associated with higher kindergarten and third-grade average daily attendance than that of similar peers (Cannon, Schweig, and Perera, 2020). Furthermore, many preschoolers in Big Lift districts are dual language learners. At kindergarten entry, nearly 50 percent of the 2016 K class spoke a language other than English at home (Gomez et al., 2017). Although reclassifying English learner students as English proficient by third grade is not an explicit goal of the Big Lift initiative, it is a reasonable expectation that English fluency is crucial to improving literacy outcomes as measured by standardized assessments. The San Mateo County Board of Education has stated a commitment to rapidly developing English language proficiency so that students can access full instructional content (San Mateo County Board of Education, 2020). Moreover, a California statewide study found that reclassified students were more likely to score higher on standardized literacy assessments than their peers who remained classified as English learner students (Hill, Weston, and Hayes, 2014). These third-grade analyses, although not assessing causal impact, provide insight for Big Lift stakeholders on longer-term nonreading outcomes associated with Big Lift preschool participation.

Next, research question 2 is as follows:

2. Among children in all available K classes (2016, 2017, 2018, and 2019) who were eligible for all Big Lift services before kindergarten, how do kindergarten readiness skills compare among children who experienced different combinations of Big Lift preschool and/or BLIS before their kindergarten year?

In all three of the earlier reports in this series, we compared the kindergarten readiness skills of Big Lift preschoolers from the 2016–2018 K classes with the kindergarten readiness skills of demographically similar peers who had other preschool experiences. Consistent with the research literature (Phillips et al., 2017; Yoshikawa et al., 2013), we found that children who attended preschool—Big Lift preschool and other community preschools—began kindergarten with stronger skills, on average, than children who did not attend preschool. Big Lift preschoolers tended to score lower than children who had other preschool experiences (Gomez et al., 2017; Gomez et al., 2018; Gomez, Whitaker, and Cannon, 2020). However, our past work has not explored one of the other Big Lift services that children could have accessed before kindergarten—BLIS. Research on elementary school students suggests that participating in high-quality summer enrichment opportunities can have a positive impact on students' academic outcomes (McCombs et al., 2020). Yet much of this research focuses on children during the summer before first grade and onward; much less is known about the potential benefits of summer learning programs in the summer before kindergarten.

New research suggests that, among a sample of children who attended publicly funded prekindergarten during the school year, those who also attended center-based care in the summer before kindergarten showed more growth in early math skills during the summer months than children who did not (McCormick et al., 2021). Some hypothesize that the benefits of summer learning programs during the summer before kindergarten might vary depending on children's preschool experiences (Early et al., 2015; Sengal, McCormick, and Castleman-Smith, 2021). For example, children who did not attend preschool might stand to benefit the most from the introduction to school routine and the opportunity to build kindergarten readiness skills. At the same time, children who attended preschool might also benefit from the continuation of their school-year educational experiences into the summer months, particularly in cases in which their preschool experiences, summer experiences, and kindergarten environments are pedagogically aligned (Atchison and Pompelia, 2018). In this report, we will contribute to this emerging literature by exploring the extent to which children's school readiness skills varied by their experiences with Big Lift services before kindergarten. Specifically, we will examine whether children who attended Big Lift preschool and BLIS, Big Lift preschool alone, non–Big

Lift preschool and BLIS, or BLIS alone fared better at kindergarten entry than children who did not participate in any Big Lift services before starting school.

STUDY POPULATION AND DATA SOURCES

Sample

The study population for this report consists of children in Big Lift districts in all available K classes: 2016–2019. Only the first four Big Lift districts (Cohort 1) are represented in the 2016 K class; all seven Big Lift districts from Cohorts 1 and 2 are represented in the 2017–2019 K classes. For research question 1, we draw on only the 2016 K class; for research question 2, all four K classes are represented. We also conducted subgroup analyses focused on children from families experiencing economic disadvantage. We are interested in these groups because research suggests that early childhood education supports, such as those provided by the Big Lift initiative, might be particularly beneficial to children from low-income homes (Reynolds, Magnuson, and Ou, 2010). We define our subgroups based on federal income guidelines used by the Big Lift initiative. Following income guidelines from the U.S. Department of Housing and Urban Development (HUD) and the state of California, the County of San Mateo categorizes *low-income households* as those with 80 percent or less of the median household income in the county (County of San Mateo, undated). Eighty percent of the area median income is also the threshold that the Big Lift initiative uses to define who is eligible for the initiative's services—BLIS in particular (County of San Mateo, undated). Median household income varies by year and household size. For example, across the years covered in this report, 80 percent of the median household income for a family of four varied from just under $100,000 to just under $130,000 (County of San Mateo, undated). As a result, there is no one absolute threshold applied to all families. The available data on family income for our sample are measured in discrete bands. Families with a self-reported annual income of $100,000 or less are the closest approximation to most families who would have been eligible for BLIS. Therefore, we will refer to *children from families with low incomes* as those from families with reported incomes of $100,000 or less. This subgroup is the most relevant for analyses that include BLIS participation.

Per guidelines from HUD and the state of California, the County of San Mateo categorizes families with 50 percent of the median household income as *very low income* (County of San Mateo, undated). Given the available data, the best approximation for this group is families with annual incomes of $50,000 or less. We will refer to this group as *children from families with very low incomes*. Although the specific income criteria for Big Lift preschools vary by program, approximately 80 percent of children who attended Big Lift preschool met this threshold. Thus, the very-low-income subgroup is the most relevant for analyses that focus on Big Lift preschool only.

Outcomes

We analyzed data collected from multiple sources (see the online Technical Appendix for additional information on data sources and analysis [Gomez, Cannon, and Bongard, 2021]). We used different outcome measures for research questions 1 and 2.

Attendance

Third-grade student attendance is measured by dividing the number of days attended by the number of instructional days a student was enrolled in the full school year. The district data include only the enrollment and attendance counts for the full school year and do not allow analysis of attendance for only the portion of the year prior to school closures and remote learning caused by the pandemic. To account for children who were enrolled for a substantial portion of the school year, including before the pandemic, we include children who attended a Big Lift district for at least 90 days (i.e., half of a school year).[2]

English Learner Reclassification Status

We use a binary language classification outcome that indicates whether a student who was formerly an English learner had been reported in the third-grade data as *reclassified as fluent-English proficient* (RFEP)—i.e., the student exited the *limited English proficient* status—by spring 2020. In the aggregate, we present a percentage of students reported as RFEP, calculated as the number of students who were reported as RFEP divided by the total number of students who were reported as RFEP or as English learners.

Brigance

The Brigance Early Childhood Screen III (Brigance and French, 2013) is our measure of kindergarten readiness. The assessment is administered to all children in the Big Lift districts in the fall of their kindergarten year. The Brigance measures skills in a variety of domains, including cognitive development, language development, and physical development. We use this measure as an outcome for research question 2 and make use of the assessments' total score, which is a global measure of kindergarten readiness across domains.

Kindergarten Entry Form

All Big Lift districts use a common kindergarten entry form, and most of the child and family demographic data were drawn from these forms. The voluntary form is a one-page questionnaire filled out by children's parents, caregivers, or guardians during the first few weeks of the school year. The form includes questions on family characteristics (e.g., family income, parent education level) and children's preschool experiences. The kindergarten entry form was used by all seven districts for all four K classes represented in the sample. For entering kindergartners who did not attend Big Lift preschool, data on their prior year of preschool attendance were based on the responses on this entry form.

Administrative Database and District Data

SMCOE collects and stores information on children's participation in Big Lift preschool and BLIS in a countywide administrative data system; we used these data to track children's enrollment in different Big Lift programs. In addition, the attendance data, the language classification data, and some demographic data were also drawn from data collected by the Big Lift school districts. SMCOE provided all data for the analyses to us using a unique child-level identifier.

EXPERIENCES AND OUTCOMES OF THE 2016 KINDERGARTEN CLASS

In this section, we address research questions 1a and 1b. First, we document the participation rates in Big Lift services among the 2016 K class; second, we explore how these children were faring in third grade.

Participation in Big Lift Services

Here, we focus on two of the four Big Lift pillars for which we have data: High-Quality Preschool and Summer Learning.[3] By the start of third grade, children from the 2016 K class districts had had access to four possible Big Lift service touchpoints across these pillars: (1) Big Lift preschool, (2) BLIS as rising kindergartners, (3) BLIS as rising first-graders, and (4) BLIS as rising second-graders (see Figure 1 for an illustration of the timing of these services). In Table 1, we present the number and percentage of children in the 2016 K class who experienced these services. The sample for this analysis consists of the full 2016 K class—1,496 children whom we first observed at kindergarten entry (see Gomez et al., 2017, for demographic characteristics of this sample).

Just under half of the 2016 K class (46 percent) participated in at least one of the four focal Big Lift services by the start of third grade. As described, the Big Lift districts prioritize serving families with lower incomes, and these data suggest that they were successful at doing so. Participation rates were higher among families in the two income-based subgroups. For example, about two-thirds of children from families with very low incomes received at least one Big Lift service.

Consistent with the statistics from our past reports, about one-quarter (23 percent) of the 2016 K class attended Big Lift preschool. A higher percentage of the entire K class—37 percent—attended at least one summer of BLIS. Among children who were eligible for Big Lift services based on income, nearly half attended the summer program at some point before third grade. The majority who participated in BLIS attended for one or two summers; only 12 percent received BLIS enrichment in three consecutive summers prior to third grade. Among those who attended for only one summer, the largest share participated during the summer before kindergarten. Among those who attended for two summers, the majority did so in consecutive summers. This is encouraging, given that evidence from studies of slightly older elementary school students shows that attending summer enrichment programs over two consecutive years is related to positive learning outcomes (McCombs et al., 2020).

The Big Lift services are intended to build on each other to provide aligned continuous support. To achieve this goal, the participating districts intended to target BLIS first to students who attended Big Lift preschool. As shown in Table 1, 15 percent of the K class attended Big Lift preschool and at least one summer of BLIS. Only a relatively small share of the K class (4 percent) received all possible services—preschool and

Table 1. Almost Half of the 2016 Kindergarten Class Received at Least One Big Lift Service Before Third Grade

Big Lift Service	Number of Children	Percentage of the Total K Class	Percentage of the Low-Income Sample	Percentage of the Very-Low-Income Sample
Any Big Lift service	687	46	62	67
Big Lift preschool	350	23	38	44
Any BLIS	555	37	48	52
One BLIS touchpoint	223	15	18	19
Only rising kindergarten BLIS	92	6	8	9
Only first-grade BLIS	76	5	6	6
Only second-grade BLIS	55	4	4	4
Two BLIS touchpoints	199	13	18	19
Rising kindergarten and first-grade BLIS	85	6	8	8
Rising kindergarten and second-grade BLIS	16	1	2	2
First- and second-grade BLIS	98	7	8	9
Three BLIS touchpoints	133	9	12	13
Big Lift preschool + any BLIS	218	15	24	28
Big Lift preschool + one BLIS touchpoint	79	5	9	10
Big Lift preschool + two BLIS touchpoints	79	5	9	10
Big Lift preschool + three BLIS touchpoints	60	4	7	8

SOURCE: Data provided by SMCOE.
NOTES: The total sample consists of 1,496 children from the 2016 K class at kindergarten entry. Within the total sample, the sample sizes for the low-income and very-low-income samples are 853 and 685, respectively. The total percentage rows might not equal the exact sums of relevant rows because of rounding.

three summers of BLIS. However, not all children in the K class were eligible for these services. The rate of participation in all possible services was higher among those from families with low and very low incomes (8 percent in the latter group). We also explored whether BLIS participation varied based on children's preschool experiences (see Table TA.1 in the Technical Appendix). As we would expect given the initiative's goals, Big Lift preschoolers had the highest rate of BLIS participation—64 percent attended at least one summer of the program. By contrast, 42 percent who attended other community preschools participated in at least one summer of BLIS. Children who did not attend preschool were the least likely to attend BLIS; only 31 percent participated in at least one summer of the program. Given that summer programming can help support the education of children who may not have had formal learning experiences before kindergarten, targeting BLIS toward children who did not attend preschool might be an area of future focus for the Big Lift districts.

Children's Third-Grade Outcome Results

To examine the third-grade outcomes of children in the 2016 K class, we drew from a sample of 1,189 children who had both kindergarten entry data and outcomes (attendance or reclassification status) measured in third grade. That is, these are the children in the 2016 K class who were present in a Big Lift district in third grade. About 58 percent of these children were from families with incomes of $50,000 or less in kindergarten. We focus on this very-low-income subgroup because it represents the majority of children who attended Big Lift preschool.

This sample represents 79 percent of the entering K class (see Gomez et al., 2017, for a complete description of the entering K class). The children in the third-grade sample differ from the children we could not follow into third grade. Specifically, in analyses not shown, the children in the sample had statistically significantly higher Brigance scores at kindergarten entry than the children we could not follow. In addition, the children who remained in the third-grade sample had families with slightly higher income on average. The results presented in this

report are thus applicable only to the children who remained in the district through third grade.

Attendance Rate

Variation in Children's Third-Grade Attendance

The sample for the attendance outcome is 1,164 children who were enrolled for at least 90 days (half of a school year) in third grade in one of the Big Lift districts. We note that this third-grade school year was interrupted by pandemic-related school closures in spring 2020. Teachers still recorded attendance, but there may have been some variation in how it was done among classrooms, given the disruption and how different schools and teachers defined attendance once distance learning began. That said, we would not expect there to be systematic differences in attendance reporting among the groups of children with different preschool experiences that we focus on in our analysis.

Students in the 2016 K class had high rates of attendance on average in third grade. The mean percentage of days attended was 97.3 percent in the full sample (Table 2). Children who did not attend preschool had the lowest mean percentage (96.7 percent), about 0.5 to 1 percentage point lower than the other preschool groups.

Students from families with incomes of $50,000 or less also had high rates of attendance on average in third grade (97.2 percent). Likewise, as with the full sample, children in the very-low-income sample who did not attend preschool had the lowest mean percentage (96.2 percent), about 1 percentage point lower than the other preschool groups. Overall, these findings indicate that all groups of children experienced high attendance in third grade, with only slightly lower rates for children who did not attend preschool.[4]

Adjusted Differences in Third-Grade Attendance by Preschool Group

The children in the three preschool groups described come from varying family backgrounds, and, on most demographic indicators, children in the Big Lift preschool group are more disadvantaged than their peers (see Table TA.2 and Gomez et al., 2017, for a detailed discussion of the demographic characteristics of the 2016 K class). Because these demographic differences might help explain differences in outcomes among groups, it is important to consider them when comparing the preschool groups.

Here, we present the results of the adjusted comparisons of children's attendance rates. As we described in the three earlier reports in this series, the adjusted differences are akin to comparing the outcomes of children in the three preschool groups who have similar family and demographic characteristics. This provides a more accurate picture of how Big Lift preschoolers fared in relation to peers from similar home and family situations. However, as we explained in the prior reports, although our adjusted differences take into account many important factors, there could be differences between groups that are unmeasured in our data but are the causes of differences in outcomes. Thus, any results based on adjusted comparisons in this report should be viewed as descriptive, not causal, differences among groups. In Figure 2, we present the predicted attendance rates for each of the three preschool groups. The predicted mean percentages were estimated using ordinary least squares (OLS) regression models (see the Technical Appendix for details). These predicted percentages can be thought of as the attendance rate for a child who has average values on all of the demographic characteristics in Table TA.2. An asterisk (*) indicates whether the estimated differences between the adjusted

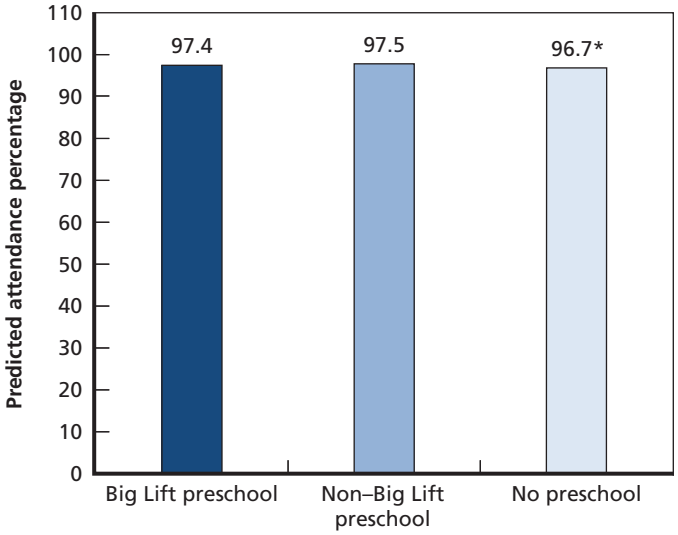
Table 2. Children in the 2016 Kindergarten Class Had High Attendance Rates in Third Grade

Preschool Experience	Total K Class Attendance Percentage	Very-Low-Income Sample Attendance Percentage
All children	97.3	97.2
Big Lift preschool	97.2	97.3
Non–Big Lift preschool	97.6	97.5
No preschool	96.7	96.2

SOURCE: Data provided by SMCOE.

NOTES: The total K class sample consists of 1,164 children from the 2016 K class who attended at least 90 days of school during the 2019–2020 school year. Within the total sample, the sample sizes for the Big Lift preschool, non–Big Lift preschool, and no preschool groups are 286, 645, and 160, respectively. Included in the all-children row are 73 children with unknown preschool experiences. The sample size for children from families with very low incomes is 532 children with family incomes of $50,000 or less from the 2016 K class. Within the very-low-income sample, the sample sizes for the Big Lift preschool, non–Big Lift preschool, and no preschool groups are 247, 199, and 84, respectively. Included in the all-children row are two children with unknown preschool experiences.

Figure 2. Big Lift Preschoolers Had Slightly Higher Predicted Attendance Rates than Demographically Similar Children Who Did Not Attend Any Preschool



SOURCE: Authors' analysis of Big Lift data.
NOTES: Models control for demographic characteristics as described in the Technical Appendix. To calculate the predicted means, all covariates have been set to the sample means. The sample consists of 1,164 children from the 2016 K class who attended at least 90 days of school during the 2019–2020 school year. Within the total sample, the sample sizes for the Big Lift preschool, non–Big Lift preschool, and no preschool groups are 286, 645, and 160, respectively.
* = difference between comparison group and Big Lift preschool group is statistically significant at $p < 0.05$.

means of each comparison group and the Big Lift preschool group are statistically significant. As in our previous studies, the differences among the adjusted means can be thought of as the differences between the groups when the demographic characteristics are held constant. If a result is statistically significant, we have confidence that the estimated difference represents a true trend and is not caused by chance or the idiosyncrasies of the particular sample or measurement occasion.

The bars in Figure 2 represent the adjusted mean attendance rate for each of the three groups—dark blue for Big Lift preschoolers, medium blue for non–Big Lift preschoolers, and light blue for children who did not attend preschool. As the graph shows, the predicted attendance percentage for the Big Lift preschool group was 97.4 percent, almost identical to the predicted attendance percentage for children who went to non–Big Lift preschools (97.5 percent), after accounting for child and family characteristics. The predicted attendance percentage for demographically similar children who did not attend any preschool was almost 1 percentage point lower, at 96.7 percent, and this difference is statistically significant. Put another way, on average, children who participated in Big Lift preschool attended school almost 1.5 days more in the third-grade year than children who did not attend preschool.[5]

We also examined differences among groups for children living in families with incomes of $50,000 or less. We found the same statistically significant pattern as that noted in Figure 2; the predicted attendance percentages were 97.4 percent for both the Big Lift preschool and non–Big Lift preschool groups, and the predicted attendance percentage was lower (96.1 percent) for the group of children attending no preschool.[6] The difference between the Big Lift preschoolers and the children attending no preschool is slightly larger in this sample of children from families with very low incomes than in the full sample. For context, this difference equates to just over two more days of attendance in a school year for the Big Lift preschoolers compared with demographically similar children with no preschool experience.

There are several unique limitations of these data in a school year that was affected by pandemic disruptions and a move to remote learning. It is likely that the meaning of attendance captured during remote learning differs from that of regular in-person attendance (e.g., time engaged, amount of content covered), and we cannot discern the difference in these data. Moreover, for some children, the pandemic likely affected attendance, and we do not know what that effect was and whether it differs for different groups of children and would therefore bias the results. Although we have about two-thirds of a school year with normal attendance recording, about one-third of the year has attendance data that were recorded in potentially different ways. However, we do not have evidence that the differences would vary by a child's preschool participation status, which the results above are focused on.

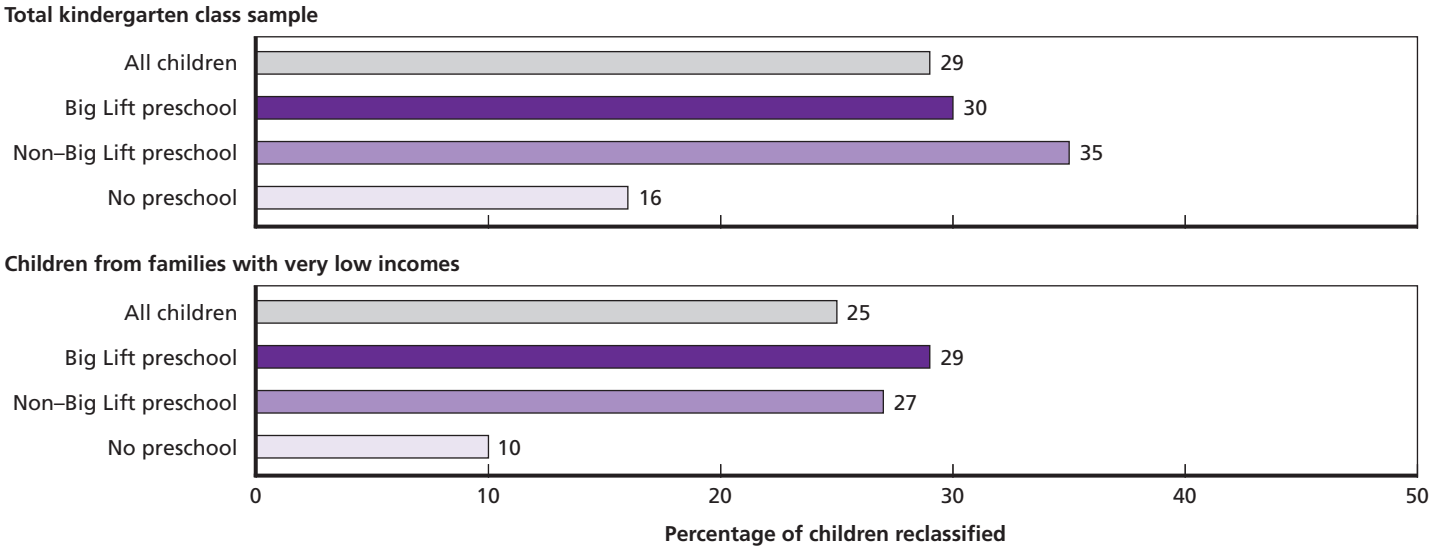
English Learner Reclassification Status

Variation in Children's Third-Grade Reclassification Status

The analysis sample for the reclassification status outcome consists of 584 students who were classified as English learners prior to third grade and either were still classified as English learners in third-grade data or were RFEP (which could have occurred during any grade from kindergarten through third) in one of the Big Lift districts. That is, the sample consists of only those students who were ever classified as English learners (49 percent of the total third-grade sample).

Figure 3 shows the percentage of English learner students in each of the three preschool groups who had RFEP status in

Figure 3. Less Than One-Third of Kindergartners in the Big Lift Districts Were Reclassified as Fluent English Proficient by Third Grade



SOURCES: SMCOE database; kindergarten entry forms.
NOTES: The total K class sample consists of 584 children from the 2016 K class. Within the total sample, the sample sizes for the Big Lift preschool, non–Big Lift preschool, and no preschool groups are 208, 257, and 90, respectively. Included in the all-children bar are 29 children with unknown preschool experiences. The sample size for children from families with very low incomes is 377 children with family incomes of $50,000 or less from the 2016 K class. Within the very-low-income sample, the sample sizes for the Big Lift preschool, non–Big Lift preschool, and no preschool groups are 183, 130, and 62, respectively. Included in the all-children bar are two children with unknown preschool experiences.

third grade. Among the full sample (top panel), almost one-third (29 percent) of students were reclassified by third grade. The percentage of reclassified students was highest among children who attended non–Big Lift preschool (35 percent) and slightly lower among children who attended Big Lift preschool (30 percent). The percentage of reclassified children among those who did not attend preschool was far lower, at 16 percent, about half the rate of children who attended Big Lift preschool.

Among English learner students from families with very low incomes (bottom panel), about one-quarter (25 percent) were reclassified by third grade. Unlike the pattern from the full sample of English learners, the percentage of reclassified students was higher among children from families with very low incomes who attended Big Lift preschool (29 percent) compared with children from families with very low incomes who attended non–Big Lift preschool (27 percent). The percentage of reclassified students among those who did not attend preschool was 10 percent within the very-low-income sample; this is 19 percentage points lower than the percentage of children who attended Big Lift preschool.

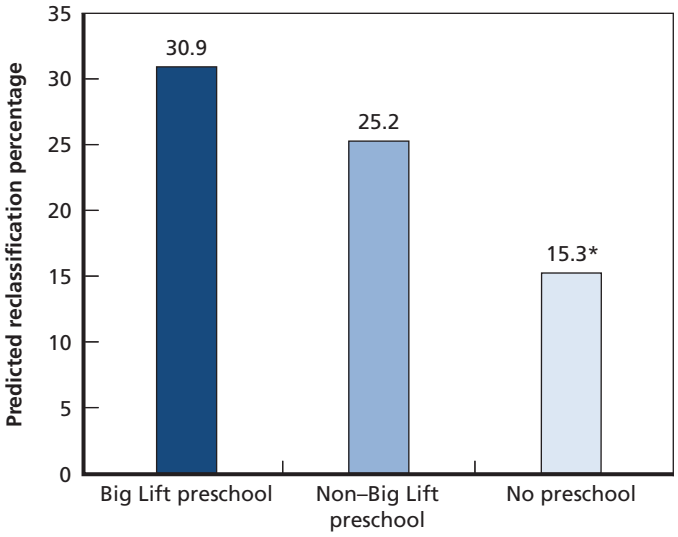
Adjusted Differences in Third-Grade Reclassification Status by Preschool Group

Figure 4 shows that the predicted mean reclassification rate for the Big Lift preschool group was about 31 percent,[7] which is almost 6 percentage points higher than the predicted mean for the non–Big Lift preschool group (25.2 percent) but is not statistically significantly different. Big Lift preschoolers had about double the predicted mean rate of reclassification by third grade of children who did not attend any preschool (30.9 percent versus 15.3 percent). This difference is statistically significant.

We also examined differences in reclassification status among preschool groups for children that are part of families with incomes of $50,000 or less. We found the same statistically significant pattern as that noted in Figure 4, albeit with lower predicted reclassification rates for each preschool group than in the full sample.[8] The predicted percentages were 23.1 percent for Big Lift preschoolers, 19.6 percent for non–Big Lift preschoolers, and 8.3 percent for children who did not attend preschool. The difference between the Big Lift preschoolers and the children with no preschool was statistically significant.

There are some important limitations to the data on students' reclassification status. Districts and teachers have substantial discretion to determine a student's readiness for reclassification (California Department of Education, undated).

Figure 4. Big Lift Preschoolers Had Higher Predicted Reclassification Rates than Demographically Similar Children Who Did Not Attend Preschool



SOURCE: Authors' analysis of Big Lift data.
NOTES: Models control for demographic characteristics as described in the Technical Appendix. To calculate the predicted means, all covariates have been set to the sample means. The sample consists of 584 children from the 2016 K class.
* = difference between comparison group and Big Lift preschool group is statistically significant at $p < 0.05$.

Indeed, there is wide variation in reclassification rates among the four districts in the 2016 K class sample, ranging from none of the third-graders to almost half of the third-graders in our analysis sample (n = 584). Therefore, the specific circumstances and characteristics of students for reclassification may differ among districts. Because of the size of the available sample, we were limited to conducting analyses using the total sample that pooled across the districts. Although we controlled for district in the analyses, we could not conduct separate analyses using each within-district sample. As a result, we were not able to explore whether the associations estimated in the pooled sample held in each individual district. The nature of our modeling strategy is such that the larger districts in our sample are weighted more heavily in the results than the smaller districts.[9] As a result, the findings that compare reclassification rates among the preschool groups might be more generalizable to the larger districts; if these patterns do differ substantially among districts, the results presented here do not capture that variation.

BIG LIFT SERVICES AND KINDERGARTEN READINESS

In this section, we address research question 2 and examine the relationship between children's participation in Big Lift services prior to kindergarten and their kindergarten readiness skills. For these analyses, we drew from a sample of children in the 2016–2019 K classes for which we have data; in total, there were 9,268 children in this pooled K class sample (Table 3). The first K class, 2016, was the smallest (with just under 1,500 children) because this class represented only the four Cohort 1 districts. The 2017–2019 K classes each contained approximately 2,500 students and represented all seven Big Lift districts.

For context, we first examined children's kindergarten readiness, as measured by the Brigance (Table 3). The Brigance assessment is scaled so that a total score of 100 is equivalent to the national average among children at kindergarten entry. Any child scoring 90 or above is thought to be ready for kindergarten, and 90 to 110 is considered the average score range (Gomez et al., 2017). The average Brigance score of the pooled K class sample was 90.6. Thus, over a four-year period, the average child in the Big Lift districts began school kindergarten-ready. However, the average score was at the bottom of the kindergarten-ready range. Indeed, about half of the children cleared the kindergarten-ready threshold and half did not. There was very little variation in children's Brigance scores among the K classes, with only a slight uptick in scores for the 2019 K class.

In past Big Lift evaluation reports, we have compared the Brigance scores of Big Lift preschoolers with those of their peers who attended other community preschools and peers who did not attend preschool at all. We have found consistent evidence that Big Lift preschoolers outperformed children who did not attend preschool and lagged behind their peers who attended other community preschools (Gomez et al., 2018; Gomez, Whitaker, and Cannon, 2020). This pattern was consistent in both raw comparisons and analysis that adjusted for key child and family demographic characteristics.

In this report, we build on this past work by incorporating both children's preschool experiences and their summer learning prior to kindergarten. As shown in Figure 1, children in all four K classes had access to BLIS prior to starting kindergarten.

Table 3. About Half of Kindergartners Across Four Consecutive Kindergarten Classes in the Big Lift Districts Were Kindergarten-Ready at School Entry

K Class	Number of Children	Average Brigance Score	Percentage of Kindergarten-Ready Children
Pooled K classes	9,268	90.6	52
2016 K class	1,496	90.3	51
2017 K class	2,701	90.4	51
2018 K class	2,605	90.6	51
2019 K class	2,466	91.2	53

SOURCE: SMCOE database.

Children can belong to one of eight possible groups describing their enrollment in Big Lift services before kindergarten:

1. Big Lift preschool plus rising-kindergarten BLIS
2. Big Lift preschool, no rising-kindergarten BLIS
3. non–Big Lift preschool plus rising-kindergarten BLIS
4. non–Big Lift preschool, no rising-kindergarten BLIS
5. no preschool plus rising-kindergarten BLIS
6. no preschool, no rising-kindergarten BLIS
7. unknown preschool experience plus rising-kindergarten BLIS
8. unknown preschool experience, no rising-kindergarten BLIS.

In the remainder of this section, we report analyses that compare kindergarten readiness among these groups.

Comparing Kindergarten Readiness Among Big Lift Participants

Variation in Kindergarten Readiness and Participation in Big Lift Services Before Kindergarten

To examine the kindergarten readiness skills of children who had different Big Lift service experiences before kindergarten, we drew from a sample of children from all four K classes presented in Table 3. Given the focus on BLIS, we limited the analytic sample to the children who were likely eligible for the program: children from families with low incomes (annual incomes of $100,000 or less). With this condition, we included a total of 5,180 children in these analyses. In Table 4, we present a summary of participation rates for children's preschool and BLIS experiences prior to starting kindergarten in the analytic sample.

Big Lift preschoolers (including both those who did and those who did not attend BLIS) made up the largest share of the sample, at about 43 percent. Big Lift preschoolers had the highest rate of BLIS participation, consistent with the findings presented in the previous section on Big Lift service participation rates.[10] Just over one-quarter of Big Lift preschoolers also attended BLIS before starting school; this group made up about 12 percent of the whole sample. About 31 percent of the sample attended only Big Lift preschool, and only about 2 percent of the sample attended BLIS without any preschool. Five percent of children attended BLIS as rising kindergartners after having attended other community preschool programs.

Among the preschool groups, just under 20 percent of the sample attended BLIS before kindergarten. Notably, BLIS attendance rates among this group of children was high; 80 percent enrolled in BLIS attended for at least 75 percent of possible program days.[11] Research suggests that regular attendance in summer enrichment programs is critical (Condliffe, Foster, and Jacob, 2017) because children with higher attendance tend to benefit from the programs (McCombs et al., 2020). It is encouraging that the large majority of children who enrolled in BLIS in the summer before kindergarten attended at high rates.[12]

About 16 percent of children in the sample entered kindergarten without having gone to any preschool program or having attended BLIS. To note, we only have data on whether children attended BLIS; it is possible that some of these children (and other children in the sample) attended a different summer program prior to entering kindergarten.[13] We do not have data on available programs local to San Mateo County. However, past research suggests that there are limited summer enrichment opportunities for rising kindergartners. For example, in a recent systematic review of summer programs for children entering kindergarten to 12th grade, less than 5 percent of programs served children entering kindergarten (McCombs et al., 2019).

Figure 5 shows kindergarten readiness among children who had different Big Lift experiences prior to kindergarten.

Table 4. Participation Rates in Big Lift Preschool and Rising Kindergarten BLIS

Preschool and BLIS Experience	Number of Children	Percentage of the Preschool Group Attending Rising K BLIS*	Percentage of Sample
Big Lift preschool	2,245		43.3
Attended rising kindergarten BLIS	635	28.3	12.3
Did not attend rising kindergarten BLIS	1,610	—	31.1
Non–Big Lift preschool	1,945		37.5
Attended rising kindergarten BLIS	260	13.4	5.0
Did not attend rising kindergarten BLIS	1,685	—	32.5
No preschool	934		18.0
Attended rising kindergarten BLIS	101	10.8	1.9
Did not attend rising kindergarten BLIS	833	—	16.1
Unknown preschool experience	56		1.1
Attended rising kindergarten BLIS	15	26.8	0.3
Did not attend rising kindergarten BLIS	41	—	0.8
Total	5,180		100.0

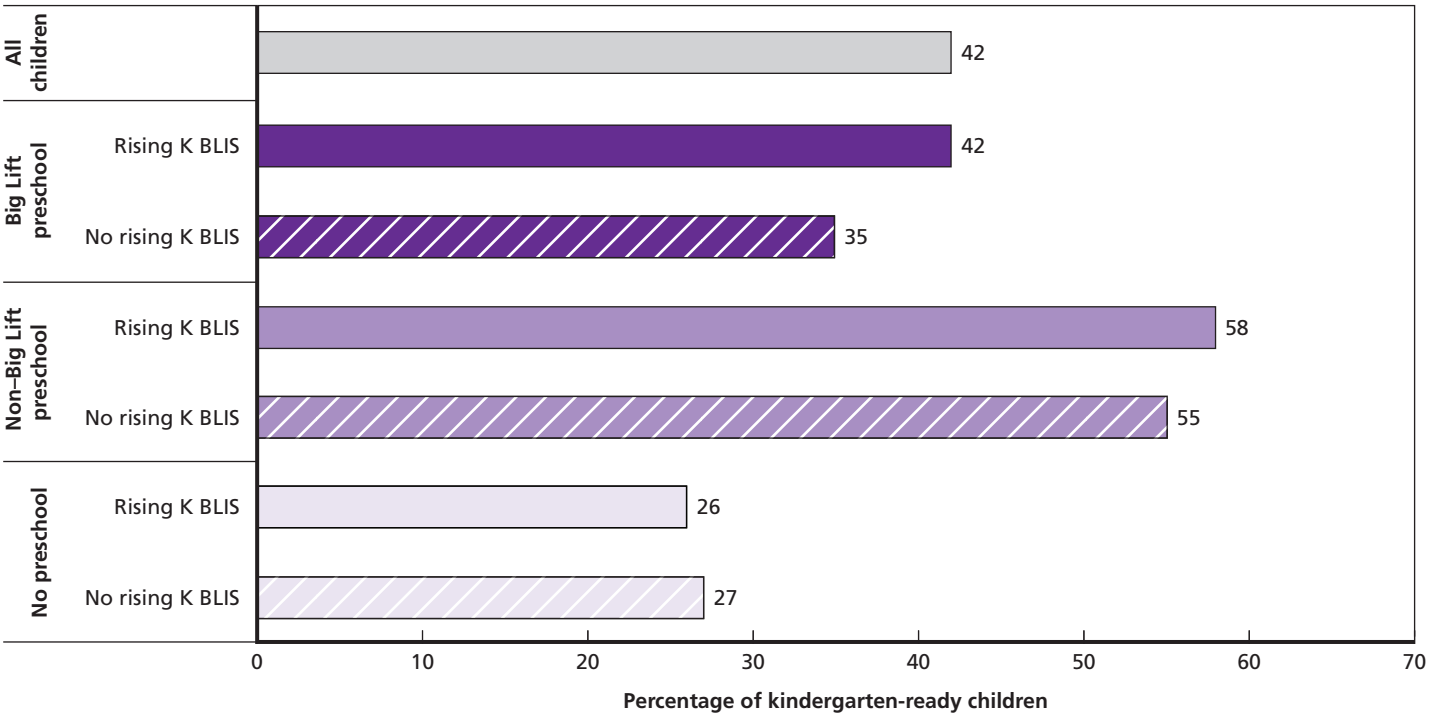
SOURCES: SMCOE database; kindergarten entry forms.
NOTES: The sample consists of children with family income of $100,000 or less in the 2016–2019 K classes in the seven Big Lift districts.
* A Pearson's chi-squared test indicated that the percentages of children who attended BLIS were significantly different across the preschool groups at the $p < 0.05$ alpha level.
— = not applicable.

Among all children in the sample, 42 percent of children were kindergarten-ready. Note that this percentage is lower than the average rate of kindergarten readiness among the full pooled K class sample presented in Table 3 (52 percent). This difference indicates that a smaller percentage of children who were eligible for BLIS started school scoring in the kindergarten-ready range, in comparison with all children (across income groups) in the K classes. Children who went to non–Big Lift preschool (both those who did and those who did not attend BLIS) showed the highest rates of kindergarten readiness, followed by Big Lift preschoolers and children who did not attend preschool at all; this is in line with findings from past analyses of kindergarten readiness in the Big Lift districts (Gomez et al., 2018; Gomez, Whitaker, and Cannon, 2020). Among the preschool groups, children who attended BLIS had a slight advantage in skills over children who did not; about 45 percent of all BLIS attendees scored in the kindergarten-ready range, compared with 41 percent of children who did not attend BLIS (not shown in Figure 5). This pattern was consistent within both the Big Lift preschool group and the non–Big Lift preschool group. For example, 42 percent of children who attended both Big Lift preschool and BLIS scored in the kindergarten-ready range on the Brigance, compared with only 35 percent of children who only went to Big Lift preschool (Figure 5). Children who attended both Big Lift services also had higher rates of kindergarten readiness than children who only attended BLIS and did not go to preschool. However, among children who did not go to preschool, there was little difference in the rate of kindergarten readiness between children who did and did not attend BLIS.

Adjusted Differences in Kindergarten Readiness by Different Experiences with Big Lift Services

There are key demographic differences among children who received different combinations of Big Lift services (Table TA.5). Consistent with the trends described for the 2016 K class, Big Lift preschoolers—including those who did and did not attend BLIS—faced more social and economic disadvantage than their peers who did not attend Big Lift preschool. Within each preschool group, the comparisons between children who did and did not attend BLIS do not tell a consistent story. Within the Big Lift preschool group, children who attended BLIS came from families with higher annual incomes (among families with annual incomes of $100,000 or less) and higher levels of education. The opposite pattern was true for

Figure 5. Children Who Attended Big Lift Preschool and BLIS Before Kindergarten Had Stronger Kindergarten Readiness Skills than Children Who Only Attended Big Lift Preschool and Children Who Only Attended BLIS and No Preschool



SOURCES: SMCOE database; kindergarten entry forms.
NOTES: The sample consists of 5,180 children from families with annual incomes of $100,000 or less in the 2016–2019 K classes. Within the total pooled sample, the sample sizes for the six service combination groups—children who attended Big Lift preschool and BLIS, children who attended Big Lift preschool and did not attend BLIS, children who attended non–Big Lift preschool and BLIS, children who attended non–Big Lift preschool and did not attend BLIS, children who attended no preschool and attended BLIS, and children who attended no preschool or BLIS—are 635; 1,610; 260; 1,685; 101; and 833, respectively. The total sample includes 56 children whose preschool experiences are unknown; 15 of them attended rising K BLIS, and 41 did not. *Kindergarten-ready* is defined as a Brigance composite score of 90 or above.

children who attended other community preschools and children who attended no preschool at all. This might suggest that the factors that influence children's participation in BLIS might vary by preschool group. These differences among the groups make the adjusted analyses even more important for comparing children's outcomes.

Before estimating our primary model to compare the six key groups of children with different combinations of preschool and BLIS experiences, we conducted a preliminary analysis to examine the general association between these early education opportunities and children's school readiness among all children from families with low incomes.[14] First, this analysis allowed us to compare the association of children's preschool experiences and school readiness in this sample with results from our past Big Lift evaluation work. Indeed, we found similar patterns in this analysis as in past analyses (see Gomez, Whitaker, and Cannon, 2020); on average, Big Lift preschoolers scored statistically significantly higher on the Brigance than children who did not attend preschool and significantly lower than children who went to other community preschool programs (regardless of whether they went to BLIS).[15] New in this report is our focus on children's BLIS participation before kindergarten. In the preliminary analysis just mentioned, we found that children who attended BLIS scored significantly higher on the Brigance than children who did not, regardless of their preschool experience.[16] This analysis suggests a positive "BLIS advantage" for children who attended the program. Next, we explored research question 2 by investigating the relationship between different combinations of these two Big Lift services and children's kindergarten readiness.

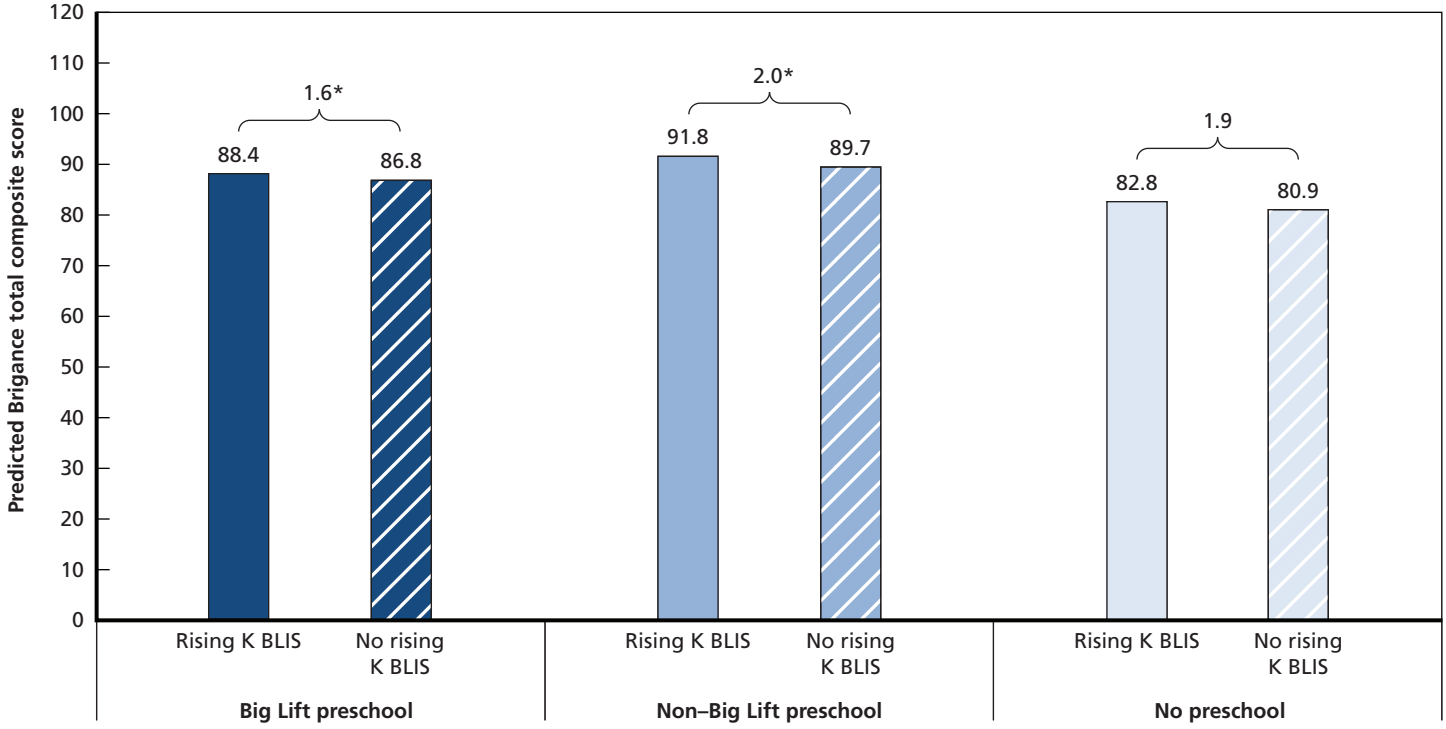
Figure 6 presents the results of adjusted analyses comparing the Brigance scores of children who had different Big Lift experiences before kindergarten. The results suggest that children who attended both Big Lift preschool and BLIS as rising kindergartners had significantly higher Brigance scores than children who attended only Big Lift preschool, key family and child characteristics held constant. The average difference in scores was 1.6 points; this difference was statistically significant

and is equivalent to an effect size of 11 percent of a standard deviation, a small but meaningful effect.[17] Children who attended BLIS following the enrichment of Big Lift preschool were better prepared for kindergarten than those who did not attend BLIS. In addition, children who attended both Big Lift preschool and BLIS had a predicted mean Brigance score that was 5.6 points higher than that of children who attended only BLIS without having gone to preschool at all. This significant difference is an effect size of 38 percent of a standard deviation, a moderately sized difference. (Note that this specific difference is not highlighted with an asterisk in Figure 6).[18] Taken together, these results indicate that, among children who exclusively attended Big Lift services before kindergarten (i.e., not children who attended non–Big Lift preschool), layering both available Big Lift programs was associated with stronger kindergarten readiness skills than participating in only Big Lift preschool or BLIS.

The adjusted analyses also provide evidence of a BLIS advantage for children who attended non–Big Lift preschool. Children who attended BLIS following enrollment in a non–Big Lift preschool program had a predicted Brigance score that was two points higher, on average, than that of children who did not attend BLIS following a non–Big Lift preschool program, demographic characteristics held constant. This significant difference is equivalent to an effect size of 14 percent of a standard deviation.[19] These patterns suggest that there is a benefit to layering BLIS on preschool in general—both Big Lift preschool and non–Big Lift preschool.

We did not find a statistically significant difference between those children who did and did not attend BLIS among the no preschool group. In other words, attending BLIS alone—in the absence of any preschool—is not associated with stronger kindergarten readiness skills. However, we note that the difference in the predicted mean Brigance scores of children who did and did not attend BLIS in the no preschool group is 1.9, similar in size to the BLIS advantage estimated within the other preschool groups and for all children in the preliminary analyses. The lack of statistical significance might be due to the relatively small sample size of children who attended BLIS but did not attend preschool; this might suggest that there was a practically significant advantage of attending BLIS even among children who did not attend preschool.[20]

Figure 6. Among The Children Who Went to Preschool, Those Who Attended BLIS Had Higher Brigance Scores than Those Who Did Not



SOURCE: Authors' analysis of Big Lift data.
NOTES: Models control for demographic characteristics as described in the Technical Appendix. To calculate the predicted means, all covariates have been set to the sample means. The sample consists of 5,180 children from families with annual incomes of $100,000 or less in the 2016–2019 K classes.
* = difference between the bracketed groups is statistically significant at $p < 0.05$.

DISCUSSION AND IMPLICATIONS

This report marks a milestone in any preschool–third-grade initiative like the Big Lift initiative: The first K class of children to receive services has completed third grade. Although the COVID-19 pandemic kept us from measuring and analyzing children's third-grade reading proficiency—the initiative's target outcome—we used available data to reflect on children's participation in Big Lift services and how these children fared on other key outcomes. In addition, we continued to focus on understanding the kindergarten readiness skills of all children among the K classes for which we have data. Given that kindergarten readiness is a critical interim outcome for stakeholders to consider when aiming to improve third-grade reading proficiency, these descriptive analyses shed light on the extent to which the Big Lift initiative is on track to meet its student learning goals. In this final section, we summarize the key findings from the analyses and discuss implications for the future of the initiative.

The Experiences and Outcomes of the 2016 Kindergarten Class

Nearly half of the first Big Lift K class participated in at least one Big Lift service from the High-Quality Preschool and Summer Learning pillars before third grade. About one-quarter of children attended Big Lift preschool, and nearly 40 percent of children attended at least one summer of BLIS. In line with the initiative's goals, participation rates were higher among children from families facing economic disadvantage. However, only 7 percent of children from families with low incomes experienced all possible Big Lift services that we examined—preschool followed by three summers of BLIS. Research and theory suggest that children stand to benefit from aligned, consistent preschool–third-grade educational experiences (Reynolds, Magnuson, and Ou, 2010; Sullivan-Dudzic, Gearns, and Leavell, 2010). In the future, the Big Lift initiative might consider expanding recruitment efforts and program slots (with available funding) to increase the percentage of children who receive multiple Big Lift services before third grade.

Adjusted analyses indicated that, in third grade, Big Lift preschoolers had significantly higher attendance rates than children who did not go to preschool. This finding is consistent with past research showing a positive relationship between participation in preschool programs and attendance in elementary school (e.g., Cannon, Schweig, and Perera, 2020). Research suggests that high student attendance is associated with families' engagement in their children's schools, especially for young children (Epstein and Sheldon, 2002). The programs under the Big Lift Family Engagement pillar are implemented as part of Big Lift preschool; as described earlier, all Big Lift preschools implement some family engagement activities. Although the descriptive results presented in this report cannot be interpreted causally, the increased attendance rates for Big Lift preschoolers might suggest that the Big Lift preschool and family engagement supports promote a positive home-school connection and an appreciation for the importance of school attendance. The Big Lift attendance reminders may also play a role; indeed, they may have influenced the high average attendance rates observed for all children in the 2016 K class. However, the analyses in this report did not explicitly test the association between parents' receipt of the Big Lift attendance reminders and children's attendance. Given the positive attendance findings for Big Lift preschoolers, future Big Lift evaluation efforts might explore the efficacy of the reminders, particularly when paired with different combinations of Big Lift services, such as Big Lift preschool. It is also important to keep in mind the limitations of attendance data collected during a school year that was disrupted by the COVID-19 pandemic. Future analyses using data from later school years will help confirm whether the associations estimated in this sample are replicated during more-typical school years.

In part because of data availability, we also focused on language reclassification for English learner students by third grade. Our analyses indicated that English learner students who attended Big Lift preschool were significantly more likely to

Nearly half of the first Big Lift K class participated in at least one Big Lift service from the High-Quality Preschool and Summer Learning pillars before third grade.

English learner students who attended Big Lift preschool were significantly more likely to be reported as RFEP by third grade than children who did not attend preschool.

be reported as RFEP by third grade than children who did not attend preschool. There is some research to suggest that attending well-regulated preschool programs, such as Head Start, can have a positive effect on the early English language and literacy development of dual language learners (Buysse et al., 2014). Big Lift preschool may have helped strengthen children's language skills early, preparing them to continue mastering English and other academic skills throughout elementary school. In future research, Big Lift stakeholders could examine language proficiency at kindergarten entry as measured by the English Language Proficiency Assessments for California (ELPAC) to assess skills right after preschool participation. Analyzing ELPAC scores might provide insight into whether preschool students enter school with higher levels of English proficiency than similar peers. These data were not available for analysis in this report but are worthy of further examination to assess whether higher proficiency at school entry is associated with earlier reclassification or academic outcomes. Additionally, because of the potential limitation of the reclassification findings given the considerable discretion within districts to reclassify students, further research that compares the reclassification results among the districts would be fruitful to see whether the positive preschool effects persist.

Given the large number of children in the Big Lift districts who speak multiple languages and these results, which suggest a positive association between Big Lift preschool and English learner students' third-grade language outcomes, future Big Lift efforts might focus on services that continue to meet the needs of this population. For example, research suggests that early childhood education programs that provide language-rich environments can support dual language learners' English oral language skills (Castro, Espinosa, and Páez, 2011). In addition, practices that value and promote children's development in their first (or home) language, such as bilingual instruction and strong family engagement, are key in supporting full bilingualism—or multilingualism—among children learning two or more languages (Castro, Espinosa, and Páez, 2011; Magruder et al., 2013).

Third-Grade Reading Proficiency: What We Might Have Found

Pandemic-related data limitations prevented us from estimating associations between Big Lift preschool and children's third-grade reading skills. However, trends in the existing research literature provide some insight—although speculative—into what we might have found had the analyses been possible. Our earlier analyses of children's reading assessments indicated that Big Lift preschoolers showed significantly higher test scores at kindergarten entry through first grade than children who did not go to preschool (Gomez et al., 2018). Would this trend have continued through third grade if the statewide standardized reading assessment had been administered? Overall, the evidence base for the sustained effects of preschool programs on third-grade academic skills and other elementary school outcomes is mixed (Phillips et al., 2017). Some experimental and quasi-experimental evaluations of preschool programs show positive and significant effects of preschool through elementary school and beyond (Ansari et al., 2017; Karoly and Auger, 2016). However, a range of evaluations consistently shows that preschool effects attenuate as children progress through elementary school (Karoly and Auger, 2016). Often, the positive effects of preschool found at kindergarten entry have nearly disappeared by third grade (Bassok, Gibbs, and Latham, 2019; Lipsey, Farran, and Durkin, 2018; Puma et al., 2010; Weiland et al., 2020).

There are various hypotheses as to why preschool effects might not persist (Abenavoli, 2019). For example, it is possible that the learning gains that children make in preschool fade over time because of a lack of alignment and instructional continuity between their early childhood environments and elementary school (McCormick et al., 2017). It may also be the case that children who do not attend preschool experience steeper learning trajectories in the early elementary years and thus catch up to their peers who attended preschool (McCormick et al., 2017). Kindergarten teachers might spend more instructional time supporting children who enter school with lower skill levels (Yoshikawa, Weiland, and Brooks-Gunn, 2016). Indeed, some research suggests that kindergarten

instruction includes substantial focus on skills that are commonly taught in preschool classrooms (Engel, Claessens, and Finch, 2013); this instruction would tend to benefit children who did not go to preschool more than it would benefit children who did.

Knowing this, the Big Lift stakeholders might focus on ways to help Big Lift preschoolers maintain the skills they developed before entering kindergarten. Although the evidence is mixed (Bailey, Jenkins, and Alvarez-Vargas, 2020), theory and some research suggest that preschool fadeout might be mitigated by the quality of children's learning environments in early elementary school, including teachers' receipt of professional development (Jenkins et al., 2018; Magnuson, Ruhm, and Waldfogel, 2007). In addition, a smooth preschool-to-kindergarten transition and pedagogical alignment between children's preschool and early elementary school classrooms might help sustain the learning gains that children make before entering kindergarten (Early et al., 2015; Kauerz, 2006). Although the Big Lift initiative includes active partnerships with district leaders in all participating districts (Faxon-Mills et al., 2018), the explicit programs under the Big Lift pillars do not focus on elementary school instruction. In the future, Big Lift stakeholders might consider focusing on the alignment of children's classroom experiences from Big Lift preschool through third grade. Promising alignment strategies used in similar initiatives include instructional leadership teams representing multiple grades, intentional sequencing of curricula and skill building as children transition from preschool to elementary school, and common professional learning experiences for preschool–third-grade instructional staff (Kauerz and Coffman, 2019; McCormick, Mattera, and Hsueh, 2019; University of Chicago Urban Education Institute and Ounce of Prevention Fund, 2012).

Big Lift Services Before Kindergarten and Kindergarten Readiness

When looking across the four K classes for which we have data, we observed interesting variation in children's participation in Big Lift services before starting kindergarten. Among a sample of Big Lift–eligible children, about 40 percent participated in Big Lift preschool, and participation in BLIS in the summer before kindergarten varied by children's preschool experiences. Unsurprisingly, Big Lift preschoolers had the highest BLIS participation rate, at nearly 30 percent. Children who did not go to any preschool were the least likely to attend BLIS; only 10 percent of this group attended the summer enrichment program. This pattern echoed findings from the 2016 K class; we found that children who did not attend preschool were also the least likely to attend BLIS during any summer before third grade. Given that children who do not attend preschool might stand to benefit the most from summer enrichment (Early et al., 2015) and that we found a potential beneficial effect of attending rising kindergarten BLIS in our analysis, Big Lift stakeholders might consider new ways to recruit this population of families into BLIS. Indeed, research suggests that families who are not connected to an early education provider are the hardest to reach for summer enrichment prior to kindergarten (Sengal, McCormick, and Castleman-Smith, 2021). A recent study of summer learning programs for rising kindergartners identified promising practices to overcome recruitment challenges, including canvassing door to door to raise awareness about the summer programming before kindergarten, capitalizing on kindergarten application and registration processes to recruit families for summer programming, and hiring staff dedicated to conducting outreach to families who do not have existing ties to the early education services in the community (Condliffe, Foster, and Jacob, 2017). Big Lift stakeholders also might draw on lessons learned from recruiting families into preschool. These and other dedicated efforts might help increase rates of participation in summer learning.

Among a sample of Big Lift–eligible children, participation in BLIS in the summer before kindergarten varied by the children's preschool experiences. Big Lift preschoolers had the highest BLIS participation rate.

Adjusted analyses comparing children's Brigance scores indicate that, among children who exclusively attended Big Lift services before kindergarten (i.e., not children who attended non–Big Lift preschool), children who attended both Big Lift preschool and BLIS were more likely to be kindergarten-ready than children who attended only one service. This finding provides evidence of the potential benefit of layering multiple early education programs prior to kindergarten entry. In addition, we found evidence that children who attended BLIS were more likely to be kindergarten-ready than children who did not, particularly among children who went to preschool—both Big Lift preschool and other community programs. This pattern of results is consistent with emerging research indicating that attending center-based learning opportunities before kindergarten is positively associated with children's skill levels at school entry (McCormick et al., 2021). Among our Big Lift sample, we found less-reliable evidence of a BLIS advantage for children who did not go to preschool. However, the lack of significant association for these children may be due to small sample sizes. Indeed, the findings indicate the possibility of a practically significant association between BLIS and kindergarten readiness for the no preschool group. Overall, these findings provide support for the continued use of resources on BLIS for rising kindergartners, particularly given that summer programs for this age group tend to be scarce (McCombs et al., 2019).

We found evidence that children who attended BLIS were more likely to be kindergarten-ready than children who did not, particularly among children who went to preschool—both Big Lift and non–Big Lift programs.

CONCLUSIONS

This report and the earlier reports in the series provide initial outcomes analyses from the first years of Big Lift program implementation. Big Lift leaders commissioned this evaluation work to provide information to help improve the initiative as it continues to grow. Although the insights in this report suggest many directions for future policy, practice, and research efforts, it is important to acknowledge the limitations of this work. First, and as described previously, the COVID-19 pandemic had innumerable effects on the children, families, and practitioners involved with the Big Lift initiative. Indeed, we were unable to analyze the initiative's primary outcome because data were missing as a result of the pandemic. The data that we do have from the 2019–2020 school year are likely not representative of a typical year. The results of children's third-grade outcomes should be interpreted with some caution. Given what we now know about the effects of the pandemic on the 2020–2021 school year and plans for the 2021–2022 school year, data disruptions will likely continue for some time. It might be several years before the Big Lift initiative can explore child outcomes that are not affected by the pandemic.

Second, it is important to note that, like in all of our other reports, our research design and analyses are descriptive in nature, and the results cannot be interpreted causally. That is, we cannot say that attending Big Lift preschool caused children to have high attendance in third grade or that attending BLIS before kindergarten caused children who attended preschool to have stronger school readiness skills. Although the lack of an experimental or quasi-experimental research design limits our interpretation of the results, the decision to begin with descriptive analyses rather than jump to a causal evaluation should be viewed as a strength of the initiative. Before rigorous causal evaluations are conducted, it is important to document that social interventions, such as the Big Lift initiative, are being implemented as intended and that data systems are in place to track key outcomes (Cannon, Gomez, and Whitaker, 2020; Epstein and Klerman, 2012). Indeed, implementation theory suggests that it can take educational interventions multiple years to mature before they are fully implemented and are functioning as planned (Fixsen et al., 2005). RAND's early assessment of the Big Lift implementation efforts (Faxon-Mills et al., 2018) provides a solid foundation from which the initiative can continue to document whether and how the programs under the Big Lift pillars have shifted. The Big Lift initiative stands to benefit from more current and in-depth implementation evalu-

ation focused on the aspects of the programmatic pillars that might contribute to the positive outcomes we have documented or that can help explain why some differences in outcomes were not found. In particular, a focus on the alignment and continuity of the preschool–third-grade continuum of services across the pillars might help stakeholders identify where certain services can be strengthened and improved to promote sustained long-term outcomes.

In addition, the series of descriptive analyses has established the efficacy of the Big Lift data systems; these analyses contain the information necessary to evaluate the initiative's programs. Furthermore, the findings of the descriptive analyses provide evidence of associations between Big Lift services and child outcomes that can now be tested using more-rigorous research designs. Drawing on the Big Lift collective impact goals, the initiative's stakeholders—including county, district, and community leaders; preschool providers; elementary school educators; and families—are poised to continue building knowledge regarding the efficacy of the Big Lift social venture.

NOTES

[1] *Collective impact* is a process through which individuals and organizations from a variety of sectors commit to a common agenda for solving a complex problem (Preskill, Parkhurst, and Juster, 2014).

[2] This criterion excluded 24 students with total days attended less than 90.

[3] We focus on these two pillars because they are programs for which we have complete and reliable data on participation. Data were not available for the Family Engagement and Attendance pillars.

[4] We lack comparable data from prior school years to determine whether these attendance rates are similar to those of recent years for the districts in our sample. Anecdotal data from Big Lift stakeholders suggest that attendance rates are generally high, like the rates we find in these data.

[5] This is determined by calculating the percentage point difference divided by 180 days.

[6] We also examined differences within the sample of children from families with incomes of $100,000 or less, and results were very similar to those presented here.

[7] Here, the predicted rates were estimated using logistic regression models (see the Technical Appendix for details).

[8] We also examined differences within the sample of children from families with incomes of $100,000 or less, and results were similar to those of children from families with incomes of $50,000 or less.

[9] In the sample used for the reclassification analyses, the number of children in a district ranges from 13 in La Honda–Pescadero Unified School District to 288 in Jefferson Elementary School District.

[10] A Pearson's chi-squared test indicated that the percentages of children who attended BLIS were significantly different across the preschool groups at the $p < 0.05$ alpha level.

[11] As we noted in the description of BLIS, the length of the program varied by year and district, with BLIS running for either four or five weeks during the summers covered in this report. When the program was four weeks, we defined *high attendance* as being present for at least 15 of 20 possible days, or an attendance rate of 75 percent or higher. When the program was five weeks, we defined high attendance as being present for at least 21 of 25 possible days, or an attendance rate of 84 percent or higher. These definitions were based on how attendance was recorded in the administrative data; specifically, we did not have access to exact days of attendance but rather to categorical variables with discrete recordings of a range of days.

[12] The SMCOE database does not have similar attendance data for all children's preschool experiences. Specifically, we lack information on attendance for children who attended non–Big Lift preschool.

[13] In addition to the possibility of other non-BLIS summer programs before kindergarten, some children in the sample were enrolled in preschool programs that offered year-round programming. These children may have experienced some formal instruction over the summer. The available data do not allow us to accurately identify which children who attended preschool (but did not attend BLIS) were still enrolled in preschool over the summer. In this way, the comparison between children who did and did not attend BLIS (among those who also attended preschool) is just that—an isolation of participation in the BLIS program. This comparison does not necessarily identify the children who did and did not have any formal care or education over the summer before kindergarten. This comparison, and its focus on BLIS, is appropriate for our research question because we are primarily interested in understanding the relationship between Big Lift services and children's learning.

[14] These results are based on OLS and logistic regression models (see the Technical Appendix for details). We present the results in this section in two ways. First, we present mean differences in the groups' Brigance scores estimated from OLS regression models. We express these differences as effect sizes in standard deviation units, using the sample standard deviation of 14.6. We can also think of the comparison between groups in terms of the likelihood of children scoring in or above the kindergarten-ready range. These results are estimated using the logistic regression models.

[15] Specifically, we found that Big Lift preschoolers scored an average of 5.8 points higher on the Brigance than children who did not go to preschool; this difference is equivalent to an effect size of 40 percent of a standard deviation. This finding can also be expressed in terms of the likelihood of being kindergarten-ready: Children who attended Big Lift preschool were 23 percentage points more likely to be kindergarten-ready than children who did not go to preschool. In addition, Big Lift preschoolers scored three points lower on the Brigance than children who went to non–Big Lift preschool, equivalent to 20 percent of a standard deviation. Expressed in terms of the likelihood of being kindergarten-ready—children who attended Big Lift preschool were 9 percentage points less likely to be kindergarten-ready than children who attended non–Big Lift preschool. (See Table TA.6 for full results.)

[16] BLIS attendees scored 1.9 points higher on the Brigance, equivalent to 13 percent of a standard deviation. Expressed in terms of the likelihood of being kindergarten-ready—children who attended BLIS were 7 percentage points more likely to be kindergarten-ready than children who did not attend the summer program.

[17] Children who attended both Big Lift services before kindergarten were 6 percentage points more likely to be kindergarten-ready than children who only went to Big Lift preschool.

[18] Children who attended Big Lift preschool and BLIS were 21 percentage points more likely to be kindergarten-ready than children who attended BLIS and did not attend preschool.

[19] Children who attended non–Big Lift preschool and BLIS were 11 percentage points more likely to be kindergarten-ready than children who attended non–Big Lift preschool and did not go to BLIS.

[20] Knowing the importance of attendance at summer programs (McCombs et al., 2020), we also conducted a sensitivity analysis in which we ran our primary analytic models excluding the BLIS attendees who did not have high attendance (as previously defined). We excluded 201 children, or 19.8 percent of children who attended BLIS who did not have high attendance. The pattern of results of this model was very similar to that of the primary model (see Table TA.8 for full results). The differences in predicted Brigance scores between children who did and did not attend BLIS within each preschool group were slightly larger in this model. The larger mean differences are consistent with findings from past research that suggests that children who have higher summer program attendance benefit more (McCombs et al., 2020). Like in the primary model, in this model, the difference between children who did and did not attend BLIS within the no-preschool group did not achieve statistical significance using a p-value < 0.05 significance level. However, the estimate was larger in magnitude and had a p-value < 0.10. This finding provides additional evidence for the presence of a BLIS advantage for children who did not attend preschool, particularly for children who attended BLIS at least 75 percent of program days.

Although the subgroup of interest for these analyses was children from families with low incomes ($100,000 or less), we also ran the primary models on the very-low-income subgroup (families with annual incomes of $50,000 or less). Here, the pattern and direction of results were similar, although the mean differences comparing children's Brigance scores were smaller and, in some instances, the level of significance decreased from $p < 0.05$ to $p < 0.10$. This might suggest that the BLIS advantage is not as robust for children from families facing the most economic disadvantage.

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About This Report

The Big Lift™ (Big Lift) is a preschool–third-grade collective impact initiative in San Mateo County, California. The initiative is a partnership of the County of San Mateo, the San Mateo County Office of Education, and the Silicon Valley Community Foundation. Launched in 2012, the initiative aims to boost children's reading proficiency by third grade through four coordinated strategies, called "pillars": (1) High-Quality Preschool, (2) Family Engagement, (3) Summer Learning, and (4) Attendance. To date, the initiative involves seven school districts in San Mateo County that began implementing Big Lift services in the 2015–2016 or 2016–2017 school year.

The RAND Corporation is conducting a multiphase evaluation of the initiative, including an implementation study of the four pillars that underlie Big Lift—*The Big Lift Implementation Study: Final Report*—and a series of annual descriptive analyses focused on the outcomes of children who received Big Lift services. This report is the fourth in the series of outcome studies. The first three reports—*Big Lift Participation and School Entry Indicators: Findings for the 2016–2017 Kindergarten Class*, *The Big Lift Descriptive Analyses: Kindergarten Readiness and Elementary School Reading Outcomes for the 2016–2017 and 2017–2018 Kindergarten Classes*, and *The Big Lift Descriptive Analyses: Progress Across Three Kindergarten Classes*—focused on the early education and summer learning experiences of the 2016–2017, 2017–2018, and 2018–2019 kindergarten classes. In this report, the authors provide information on the experiences and third-grade outcomes of the 2016–2017 kindergarten class, the first set of children to reach third grade. The authors also look across all kindergarten classes for which they have data and explore the relationship between participation in Big Lift preschool and summer learning opportunities before kindergarten and children's kindergarten readiness. A separate Technical Appendix, which provides additional information on data sources and analysis, is available online. The report should be of interest to Big Lift stakeholders, including San Mateo County policymakers, educators, parents, and community members. Practitioners, policymakers, advocates, and researchers in other parts of the United States might find the information on this initiative useful for work related to the planning, implementation, or evaluation of other initiatives extending from early childhood through third grade.

RAND Education and Labor

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 commissioned by Big Lift with generous funding from the County of San Mateo.

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

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