

Big Lift Participation and School Entry Indicators

Findings for the 2016–2017 Kindergarten Class

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Key findings

- During the 2015–2016 school year and following summer, Big Lift programs—including high-quality preschool and a summer learning program—served approximately one third of the entering 2016–2017 kindergarten class in four Big Lift participating districts.
- More than 80 percent of children entering kindergarten in the 2016–2017 school year had some prior early learning experience, Big Lift or otherwise, in the year before starting school. Although higher-income children were more likely to have this experience, the gap in preschool access between lower- and higher-income children was less than 10 percentage points.
- Big Lift served a larger percentage of children from lower-income families than from higher-income ones. Thus, children served by Big Lift were more disadvantaged than their peers in the county.
- In the 2016–2017 school year, 50 percent of kindergartners in Big Lift districts scored in the kindergarten-ready range on a school readiness assessment at the start of the year.
- When comparing demographically similar children, Big Lift preschoolers were more likely to be kindergarten-ready than children who did not go to preschool at all. Big Lift and non-Big Lift preschoolers were equally likely to start school kindergarten-ready.

INTRODUCTION ■

San Mateo County, California, is a largely affluent, highly educated community that is known for being home to the technology industry—Silicon Valley—and prestigious universities. However, based on a statewide assessment of student achievement, approximately 45 percent of third-graders in the county are not reading at a proficient level (California Assessment of Student Performance and Progress, undated). Children who do not read proficiently by third grade, compared with their peers who read proficiently at grade level, are significantly more likely to perform below reading grade level at later ages and to eventually drop out of high school (Hernandez, 2011).

In an effort to improve student achievement, the County of San Mateo, Silicon Valley Community Foundation (SVCF), and the San Mateo County Office of Education (SMCOE) launched The Big Lift™ (referred to hereafter as Big Lift) in 2012 to boost children’s reading proficiency in San Mateo County. Big Lift is a collective impact collaborative led by three lead organizations and more than 300 community organizations committed to developing and implementing four programmatic pillars to improve third-grade reading proficiency, particularly in 11 school districts with third-grade reading levels below the county average.¹ The four pillars of the initiative, which we explain in detail later in the report, are:

1. **High-Quality Preschool:** A comprehensive school readiness strategy focused on high-quality preschool for three- and four-year-olds
2. **Summer Learning:** Inspiring summer learning opportunities that enable children to maintain their academic and developmental gains from high-quality preschool through third grade

3. **Attendance:** A focus on reducing chronic absenteeism from preschool through third grade, based on research showing the importance of attendance in the early years to improving academic outcomes
4. **Family Engagement:** Strengthening family and community engagement through strategies that help parents/caregivers provide rich learning environments in the home in preschool through third grade.

In 2014, SVCF was awarded a Social Innovation Fund (SIF) grant to help implement and evaluate the initiative, and Big Lift leadership selected the RAND Corporation as the independent evaluator. Through a competitive review process, Big Lift selected seven of the 11 targeted school districts to be a part of two cohorts to implement Big Lift programs. In the spring of 2015, grants were awarded to the four districts making up the first cohort (Cohort 1): Cabrillo Unified, La Honda–Pescadero Unified, Jefferson Elementary, and South San Francisco Unified. In spring 2016, three additional school districts (Cohort 2) were awarded grants: Ravenswood City, Redwood City, and San Bruno Park.

RAND is conducting a multiphase evaluation of the initiative, including an implementation study of the pillars and descriptive analysis focused on the outcomes of children who received Big Lift services. This report provides the first set of descriptive analyses of participation in Big Lift pillars and measures of readiness at kindergarten entry in the 2016–2017 school year for the children enrolled in the four Cohort 1 districts.

In the following sections of the introduction, we review the research literature that helped to motivate the Big Lift initiative, in addition to presenting a more detailed description of each Big Lift pillar. We then present the research questions addressed in this report, review the study population, and describe the data sources used to conduct our analyses.

Motivating Research Literature

The primary Big Lift goal is to increase the percentage of students in San Mateo County who achieve reading proficiency in third grade from the present rate—approximately 55 percent—to 80 percent. The research literature on childhood development provides a clear rationale to target third-grade reading.

Literacy development is a central focus of schooling in the early years—preschool through third grade (Early et al., 2010).

However, at the end of third grade, school curriculum typically takes a turn from activities focused on “learning to read” to activities where children are “reading to learn.” Children who are not reading proficiently by third grade might struggle to comprehend curriculum materials in fourth grade and beyond (Fiester, 2010). In addition, children’s third-grade reading ability is a strong predictor of other short- and long-term outcomes. Children with limited reading skills in third grade are more likely to face academic and social difficulties in fifth grade (Miles and Stipek, 2006). Further, students who do achieve reading proficiency by third grade are less likely to drop out of high school (Hernandez, 2011) and more likely to both attend and graduate from college, compared with children who still struggle with reading in the third grade (Lesnik et al., 2010). Thus, raising the number of children who achieve third-grade reading proficiency is one way to set up San Mateo County’s schoolchildren for future academic and life success.

Big Lift’s four pillars reflect research-based best practices and interventions that may promote children’s progress toward third-grade reading proficiency. First, numerous correlational and experimental research studies suggest that high-quality preschool programs can have a positive effect on children’s short-term cognitive outcomes, including early reading skills at kindergarten entry (Phillips et al., 2017). Further, studies show a positive link between children’s kindergarten readiness and later school outcomes, including third-grade literacy skills (Duncan et al., 2007; Claessens, Duncan, and Engle, 2009). Second, promising evidence suggests that summer programs may be one way to support children’s learning and development (Kim and Quinn, 2013; Terzian, Moore, and Hamilton, 2009). Some children, particularly those from low-income households, learn very little or lose ground over the summer (Alexander, Entwisle, and Olson, 2001; Burkam et al., 2004). Enriching summer programs may help keep children on an upward learning trajectory in the summer months (Terzian, Moore, and Hamilton, 2009).

Third, there has been increased attention on the importance of school attendance in children’s early childhood years (Romero and Lee, 2007; Balfanz and Byrnes, 2012). Emerging research on interventions that encourage attendance through text messages, incentives, and letters home suggest such programs have the potential to reduce absenteeism (Rogers et al., 2017), and they may promote learning by ensuring that students are in school. Finally, engaging families in their children’s schooling is an additional strategy to support children’s third-grade reading proficiency. Some research demonstrates that parents’ involvement in their children’s learning—

Big Lift preschool programs represent a range of different center-based early care and education programs, including nonprofit providers, state-funded preschool programs, and Head Start centers.

including attendance at school events and home reading practices—is positively related to young children’s literacy development (Dearing et al., 2006; Rodriguez and Tamis-LeMonda, 2011). Parent engagement programs that foster parents’ abilities to support children’s learning may have the potential to promote children’s early reading skills (Walker, Gooze, and Torres, 2014).

Overview of the Big Lift Pillars

The Big Lift–funded districts initiated services under each pillar, as appropriate. The pillars were designed for families to layer on different services as needed to support children’s reading development. Although we discuss all four pillars in this overview, the descriptive analyses that follow focus only on *High-Quality Preschool* and *Summer Learning* programs, the two pillars for which participation data were available for Cohort 1 children at the time of this report.

High-Quality Preschool

Under the preschool pillar, Big Lift districts use funds to increase the number of center-based preschool slots available for three- and four-year-olds in the community and to increase the quality of preschool overall. “High-quality” is defined by the standards of the San Mateo County Quality Rating and Improvement System (QRIS), part of the California QRIS. To be eligible for Big Lift funds, centers must be at a QRIS Tier Level of 3 or above. Tier 3 represents the middle level of quality on the QRIS matrix, with Tier 1 representing minimal quality (California licensing standards) and Tier 5 representing a rigorous level of quality across the seven elements assessed. All centers that received funding serve children from low-income families, though specific income requirements for enrollment vary by program, as do programmatic fees. As part of the initiative, all Big Lift preschool programs receive targeted coaching for teaching staff,

professional development supports, and technical assistance from SMCOE or from internal staff paid with Big Lift funds. Big Lift preschool programs also have some discretion over how they use grant dollars to continue to improve program quality. Examples of how programs spend their funds include lowering teacher-child ratios by hiring additional teaching staff, hiring specialists to work with children and/or program staff (e.g., family engagement coordinators, early childhood mental health consultants or behavior specialists), providing vision/dental screenings, purchasing equipment, and providing technology and learning materials to enhance the learning environment. In addition, Big Lift preschool centers partner with their local school districts and community-based organizations to align, integrate, and maximize the effectiveness of all four Big Lift pillars.

Big Lift preschool programs represent a range of different center-based early care and education programs, including nonprofit providers, state-funded preschool programs, and Head Start centers. The programs vary in their enrollment, hours (full or half day), months of programming (traditional school year or full calendar year), and curriculum. In the first year of implementation, the 2015–2016 school year, Cohort 1 consisted of 986 preschoolers—627 three-year-olds and 359 four-year-olds. In the 2016–2017 school year, including both Cohorts 1 and 2, 2,051 children were enrolled in Big Lift preschool as of May 2017, of which 1,085 were four-year-olds. As we will describe in more detail, this report focuses only on four-year-old children enrolled in Cohort 1.

Summer Learning

In the summer of 2016, all Cohort 1 districts implemented the Big Lift Inspiring Summers (BLIS) program, a five-week summer program for rising kindergartners and rising first-graders. BLIS is a joint program between Building Educated Leaders for Life (BELL; a national education service provider), the San Mateo County Library, and participating school districts.

Children attend full-day camp from 8 a.m. to 4 p.m., Monday through Friday. The day includes three hours of intensive language and literacy instruction in the morning based on the BELL curriculum (Chaplin and Capizzano, 2006) that is taught by credentialed teachers, and three hours of science, technology, engineering, and math (STEM) learning activities in the afternoon provided by the San Mateo County Library. As part of BLIS participation, all children also receive at least one book to take home. During recruitment, BLIS prioritized families making \$100,000 or less, and those who had enrolled in Big Lift preschool. The program is free of charge. A total of 753 children participated in 2016 BLIS—349 rising kindergartners and 404 rising first-graders. In summer 2017, all seven Cohort 1 and 2 districts implemented BLIS, and programming for rising second-graders was added in Cohort 1 districts. In summer 2017, approximately 1,500 children participated in BLIS at 11 program sites across the county. In this report, we focus only on the rising kindergartners from 2016.

Attendance

In the 2015–2016 school year, 14 school districts in San Mateo County, including Big Lift Cohort 1 districts, participated in a program to deliver six attendance reminders during the school year to parents (of children in grades K–5) via postal mail as part of a Harvard University research study on the effectiveness of this approach to improve attendance rates. Following positive study results (Rogers et al., 2016), Big Lift will be providing this attendance reminder starting in fall 2017 to all preschool through second-grade students in Cohort 1. The messages will focus on the importance of good attendance from an early age. Cohort 2 districts will be added in January 2018. Current plans are to focus the messages on the children with attendance rates in the bottom 50 percent. However, none of the children included in the analyses for this report had the opportunity to participate in the attendance program.

Family Engagement

In all Big Lift preschool programs, Raising a Reader Plus (RAR+) and Ready4K are the primary evidence-based family engagement strategies. The Raising a Reader programs (of which RAR+ is one) are designed to support preschool students' literacy skills by engaging children and their parents in regular book reading practices (Raising a Reader, undated). As part of the RAR+ program administered through Big Lift preschool sites, 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. Following the orientation, parents are offered five interactive education sessions focused on promoting home literacy practices. To ensure ready access to books, families receive a weekly bag of books to take home throughout the school year. Ready4K is an evidence-based text messaging program that sends weekly text messages to preschool families with information and tips to promote home reading practices (York and Loeb, 2014). In the 2015–2016 school year, all preschools in one district and one preschool in a second Cohort 1 district implemented RAR+ (with the other schools utilizing standard RAR). By the 2016–2017 school year, all Big Lift preschools in the Cohort 1 districts were implementing RAR+. This being the case, some of the children and families included in these analyses experienced RAR+ in the year before kindergarten; however, child-level participation data were not available at the time this report was written. Implementation of Ready4K did not begin until the 2016–2017 school year; therefore, none of the children included in the analyses for this report had the opportunity to participate in the program.

Research Questions Addressed in This Report

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children for third-grade reading proficiency. This report is the first in a series of planned reports to present descriptive data and trends on children’s program participation and achievement outcomes in subsequent years. In this initial report, we aim to provide descriptive information about the participation rates, demographic characteristics, and kindergarten readiness scores of children in Cohort 1. These data will serve as baseline information to track trends in the coming years as new cohorts of children are added. In support of these goals, this report answers four sets of research questions, which we present, along with a corresponding rationale for each, below:

1. What are the participation rates in Big Lift services for the 2016–2017 kindergarten class? What are the demographic characteristics of families that participated in Big Lift services, and how do they compare with families that did not enroll in Big Lift preschool or BLIS?

Addressing this set of questions will document who is served by Big Lift programs and describe the characteristics of the families that enrolled in the initiative’s programs. This analysis can identify the extent to which the initiative is reaching its target population and whether differences remain in early learning opportunities across groups of children defined by such characteristics as race-ethnicity or family income.

2. What are the kindergarten readiness outcomes and home reading practices of children (measured at the start of their kindergarten year) in the 2016–2017 kindergarten class? Do these outcomes differ by family income groups?

We analyze how children in the four districts in Big Lift Cohort 1 performed on an assessment of school readiness, and we explore whether children experienced two home reading practices. Documenting kindergarten readiness scores and home reading practices for children at the start of the Big Lift initiative will establish a baseline from which to measure growth, and it will assess patterns of achievement as the children progress through school and the initiative matures.

3. How do the kindergarten readiness skills and home reading practices of children who enrolled in Big Lift preschool compare with children who enrolled in non–Big Lift preschool or did not attend preschool at all?

It is informative to compare the outcomes of children who did and did not receive Big Lift services. For this third research question, we focus exclusively on children’s preschool experiences to examine how Big Lift preschool participants compare with other groups.²

4. How do the kindergarten readiness skills and home reading practices of children who received different combinations of Big Lift services compare with each other?

This fourth question examines only those children who received Big Lift services, in order to address the different combinations of Big Lift services children can receive. Although our methodology does not allow for the estimate of the causal impact of Big Lift services on children’s outcomes for either research questions 3 or 4 (see the discussion that follows for further explanation), comparing children who received different Big Lift and non–Big Lift offerings provides additional insight into school readiness for children with varying early childhood experiences.

Study Population: Kindergarten Class of 2016–2017

In this report, we address the questions stated above for all children who entered kindergarten in the 2016–2017 school year in Big Lift Cohort 1 districts: Cabrillo Unified, La Honda–Pescadero Unified, Jefferson Elementary, and South San Francisco Unified. The analytic sample, referred to as the 2016–2017 kindergarten class, includes 1,496 children, which represents 99.6 percent of children in kindergarten classrooms in the four Cohort 1 districts as of September 2016, excluding children enrolled in special education classrooms. The 0.4 percent of children ($n = 8$) who are not included in our study population did not complete the kindergarten readiness assessment.

We note that for this analysis, Cohort 1 Big Lift preschool students are not included if they were three-year-olds in 2015–2016, and thus still in preschool in 2016–2017, or if they were four-year-olds in 2015–2016 but entered Transitional Kindergarten in 2016–2017 rather than a regular kindergarten classroom.³ These children will be included in future analyses of subsequent entering kindergarten cohorts.

Roadmap for the Results

In the following sections, we first describe the participation rates in Big Lift services and demographic characteristics of children in the Cohort 1 districts. We then turn to a comparison of the kindergarten readiness scores and home reading practices of children who attended Big Lift preschool with those of their peers who did not. Finally, we explore the kindergarten readiness

Data Sources

We rely on data from three sources collected as part of Big Lift's initiatives.

Brigance Early Childhood Screen III

As part of the work of the collective impact collaborative, all four Cohort 1 Big Lift districts agreed to administer a common kindergarten entry assessment, the Brigance Early Childhood Screen III (Brigance and French, 2013), to all entering kindergartners at the start of the 2016–2017 school year. The assessment was administered in the first four to six weeks of school by classroom teachers and other school staff; the assessment period spanned from mid-August to the end of September.

The tool consists of 13 items that measure three domains: (1) Academic/Cognitive Development, (2) Language Development, and (3) Physical Development. Because of Big Lift's interest in overall school readiness, we focus the following analysis on the total score, a weighted average of all three domains. The tool is normed against a national sample of age-appropriate children, and the total score is scaled for research purposes. Although teachers administered the assessment early in the year, variation in when the assessment was completed exists across classrooms, schools, and districts. The variation likely does not influence the results, but it is important to note given that children could have been in different developmental places when the assessment was administered.

Additionally, because the Brigance is administered by classroom teachers, slight variation in assessment procedures could have been used, potentially biasing the results. However, any error introduced by variation in test administration

is likely to be random, as there was no evidence to suggest systematically different testing procedures across groups of children who received different services.

Kindergarten Entry Form

Data on home reading practices and most of the child and family demographic data were drawn from a common kindergarten entry form used by all Cohort 1 districts. Children's parents/caregivers filled out a one-page questionnaire during kindergarten registration.

The form included questions on family characteristics (e.g., family income, parent education level), in addition to questions regarding the number of books present in the home and how often families read to their entering kindergartners. For children who did not attend Big Lift preschool, data on their prior year preschool experiences were also based on the caregiver response on this form. Some of the demographic data used in our analyses were drawn from district-level databases. A limitation of this data source is that a parent report may not accurately capture preschool attendance, reading practices, or family demographic information. Parents may feel pressured to answer a certain way or they may forget or misremember preschool attendance information. However, there is no evidence to suggest such pressure affected the data.

Cocoa Database

Information on Big Lift preschool and Big Lift Inspiring Summers (BLIS) program attendance is stored in SMCOE's Cocoa data system. Enrollment data on Big Lift programs were provided to RAND for the analyses, including a unique child-level identifier.

outcomes and home reading practices only of those children who received different combinations of Big Lift services. We conclude by summarizing our findings and discussing implications for subsequent stages of the initiative and our evaluation efforts.

PARTICIPATION AND CHARACTERISTICS OF CHILDREN ENROLLED IN BIG LIFT SERVICES

In this section, we address the first set of research questions regarding Big Lift participation and the characteristics of children who enrolled in Big Lift programs. We define partici-

pation in Big Lift services as enrollment in Big Lift preschool or BLIS, the two pillars that are the focus of this analysis.

Big Lift served approximately one-third of the 2016–2017 kindergarten class through Big Lift preschool or BLIS in the year before children started school.

During the 2015–2016 school year and the summer of 2016, a little more than one-third of entering kindergartners ($n = 525$, 35 percent) in Cohort 1 districts received at least one Big Lift service (see Table 1). These children fell into three different groups: (1) those who enrolled in Big Lift preschool only, (2) those who enrolled in BLIS only, and (3) those who enrolled in both Big Lift preschool and BLIS. Although children who

Table 1. Big Lift Served 35 Percent of the 2016–2017 Kindergarten Class

Big Lift Program	Number of Students	% of 2016–2017 Kindergarten Class	% Among Children Served by Big Lift
Any Big Lift service	525	35.1	100.0
Big Lift preschool only	199	13.3	37.9
BLIS only	175	11.7	33.3
Big Lift preschool + BLIS	151	10.1	28.8
No Big Lift services	971	64.9	—
Total	1,496	100.0	—

SOURCE: SMCOE Cocoa database.

NOTES: Table presents the number and percentage of children served by Big Lift in Cohort 1 districts. — indicates not applicable.

were served by Big Lift were relatively evenly split across the three groups, the largest percentage of children (38 percent) participated only in Big Lift preschool.

We note that 79 children in the Big Lift preschool-only group attended centers that were full year (i.e., services ran through July or August of 2016). For the purposes of these analyses, we categorized these children as “Big Lift preschool-only.” However, we note that because they received Big Lift services over the summer, their experiences may have been most similar to the 151 children who enrolled in both Big Lift preschool and BLIS. Thus, a total of 230 children, approximately 44 percent of those served, received Big Lift services during the school year and the summer.

High-Quality Preschool and Summer Learning Participation

In Table 2 we present the participation rates for the 2016–2017 entering kindergarten cohort in different preschool experiences. Approximately 23 percent of children in the Big Lift districts enrolled in Big Lift preschool. Another 54 percent of children enrolled in other early education programs (non-Big Lift preschool) and, according to parent reports, nearly 16 percent of children in Big Lift districts did not attend any preschool program before entering kindergarten. In addition, there are 106 children whose preschool experiences are unknown, due to lack of information provided on the kindergarten form.

As shown in Table 3, BLIS served a total of 326 entering kindergartners, approximately 22 percent of all Cohort 1 entering kindergartners in 2016–2017. Most of these children—more than 80 percent—had enrolled in preschool (either Big Lift preschool or another provider) in the year

prior. Fourteen percent of children in BLIS had no prior early learning experience, and the preschool status is unknown for 4 percent of children.

More than 80 percent of children in the 2016–2017 kindergarten class had some early learning experience in the year prior to entering kindergarten.

Combining the participation information presented here, we also examine the percentage of children in the Big Lift Cohort 1 districts who had any early learning experience—any Big Lift service (Big Lift preschool, BLIS, or both) or non-Big Lift preschool—before starting kindergarten. The medium- and dark-blue portions of the pie chart in Figure 1 show that slightly more than 81 percent of all children entered kindergarten having had some early learning experience. As shown by the two portions that make up the 81 percent, this group was split relatively evenly between those who experienced any Big Lift service and those who enrolled in non-Big Lift preschool.

The large majority of these children (95 percent of those with any early learning experience, and 77 percent of the whole sample) had a formal preschool experience (Big Lift or otherwise). The light-blue portion of the pie represents children who did not enroll in any Big Lift services or non-Big Lift preschool (about 12 percent), and children whose early learning experiences were unknown (about 7 percent). In total, nearly 19 percent of children may not have had any formal early learning experiences before starting kindergarten. There were no available data on children’s enrollment in non-BLIS summer programs. Thus, it is possible that some of these children experienced a summer program not reported here, and the 19 percent of children with no/unknown early learning before kindergarten may be an overestimate.

Table 2. Nearly One-Quarter of the 2016–2017 Kindergarten Class Attended Big Lift Preschool in the Year Before Kindergarten

Service	Number of Students	% of 2016–2017 Kindergarten Class	% Among the Comparison Group
Big Lift preschool	350	23.4	—
No Big Lift preschool	1,146	76.6	100.0
Non–Big Lift preschool	805	53.8	70.2
No preschool at all	235	15.7	20.5
Preschool status unknown	106	7.1	9.2
Total	1,496	100.0	—

SOURCES: SMCOE Cocoa database; Cohort 1 kindergarten entry form.

NOTES: Table presents number and percentage of children with different preschool experiences in the year before kindergarten for Cohort 1 districts. — indicates not applicable.

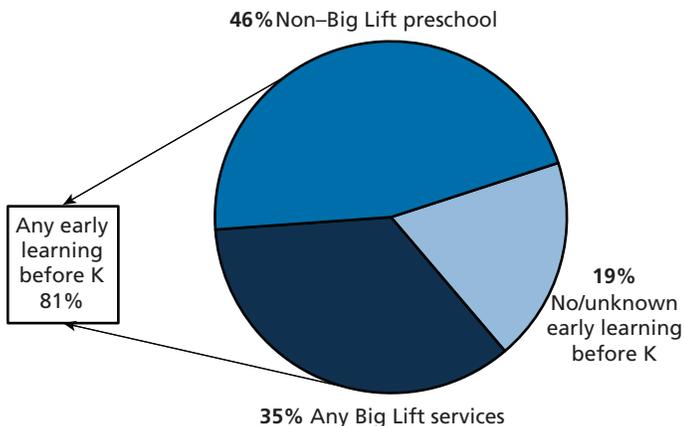
Table 3. BLIS Served Almost 22 Percent of the 2016–2017 Kindergarten Class

Service	Number of Students	% of 2016–2017 Kindergarten Class	% of Those Enrolled in BLIS
BLIS	326	21.8	100.0
Big Lift preschool	151	10.1	46.3
Non–Big Lift preschool	115	7.7	35.3
No preschool	46	3.1	14.1
Non–Big Lift preschool unknown	14	0.9	4.3
No BLIS	1,170	78.2	—
Total	1,496	100.0	—

SOURCES: SMCOE Cocoa database; Cohort 1 kindergarten entry form.

NOTES: Table presents number and percentage of children enrolled in BLIS in Cohort 1 districts. — indicates not applicable.

Figure 1. Majority of Children in 2016–2017 Kindergarten Class Had Formal Early-Learning Experience in the Year Before Kindergarten



SOURCES: SMCOE Cocoa database; Cohort 1 kindergarten entry form.

NOTES: The figure displays the percentage of children from the Cohort 1 districts with different early learning experiences. The sample size is 1,496 children for the full kindergarten class.

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Compared with national and other local statistics, 81 percent of children with some early learning experiences in the year before kindergarten may exceed national and county averages. Based on data from the 2015 Current Population Survey, 60 percent of four-year-olds were enrolled in a full- or part-day preschool program (National Center for Educational Statistics, 2016). While this national figure does not include summer programs (nor does it refer to a full kindergarten class, as Big Lift data do), it is a useful statistic to contextualize the enrollment seen in the Big Lift districts. For further context, data on all of San Mateo county from 2016 suggest that 68 percent of three- and four-year-olds were enrolled in preschool (Children Now, undated). This statistic is not a perfect comparison either, as it includes three-year-olds (who are typically enrolled in preschool at lower rates than four-year-olds) and does not account for summer programs.

CHARACTERISTICS OF CHILDREN WHO PARTICIPATED IN BIG LIFT SERVICES

In Appendix Table A.1, we present the demographic and economic characteristics for both the full 2016–2017 kindergarten class and those within groups of children with different early learning experiences. We highlight relevant patterns here;⁴ for a full explanation of each demographic variable, see the online Technical Appendix.⁵

Overall, the 2016–2017 kindergarten class was racially and ethnically diverse, with the largest shares of children identifying as Hispanic or Asian. Nearly 50 percent of all entering kindergartners spoke a language other than English in the home, and a similar share of children had at least one parent born outside of the United States. About 40 percent of children in the sample had a parent with only a high school degree or less, and 50 percent of children came from families earning \$50,000 or less per year.

Looking across the demographic indicators, children who attended Big Lift preschool were more disadvantaged than their peers who attended non–Big Lift preschool or no preschool at all.

We find notable demographic and economic differences between children who had different early learning experiences. Twenty percent of children in Big Lift preschool had parents who did not complete high school (compared with 5 percent in the non–Big Lift preschool group and 10 percent in the no preschool group), and nearly 85 percent of children who attended Big Lift preschool lived in a household earning \$50,000 or less. Children who attended Big Lift preschool were also more likely to be Hispanic and speak a language other than English at home, compared with children who attended non–Big Lift preschool and those who attended no preschool at all. Similar trends hold when comparing children who did and did not attend BLIS. While the comparisons are less stark than the preschool groups, children who attended BLIS came from less-affluent homes and had parents with relatively lower levels of education. These results are to be expected, given that Big Lift targets lower-income families in the districts.

We also compare children who received various combinations of Big Lift services. When looking at the indicators for parent income and education, children who enrolled in both Big Lift preschool and BLIS were demographically similar to children who enrolled in just Big Lift preschool. Children who received both Big Lift pillars were more likely to be His-

panic and speak a language other than English at home. Children who enrolled in BLIS only look somewhat different than the other two groups—they were less likely to be Hispanic and more likely to be Asian than the other children who received Big Lift services. Children who attended BLIS only also had parents with higher levels of education and higher family income. The variation in these demographic patterns is an indication of the heterogeneity in the BLIS-only group. For example, this group includes children who attended non–Big Lift preschool and those who attended no preschool at all. The demographic and economic indicators in Appendix Table A.1 show that children who attended non–Big Lift preschool tended to come from more-advantaged families. Thus, it is not surprising the BLIS-only group appeared to be different from the other children who received Big Lift preschool services.

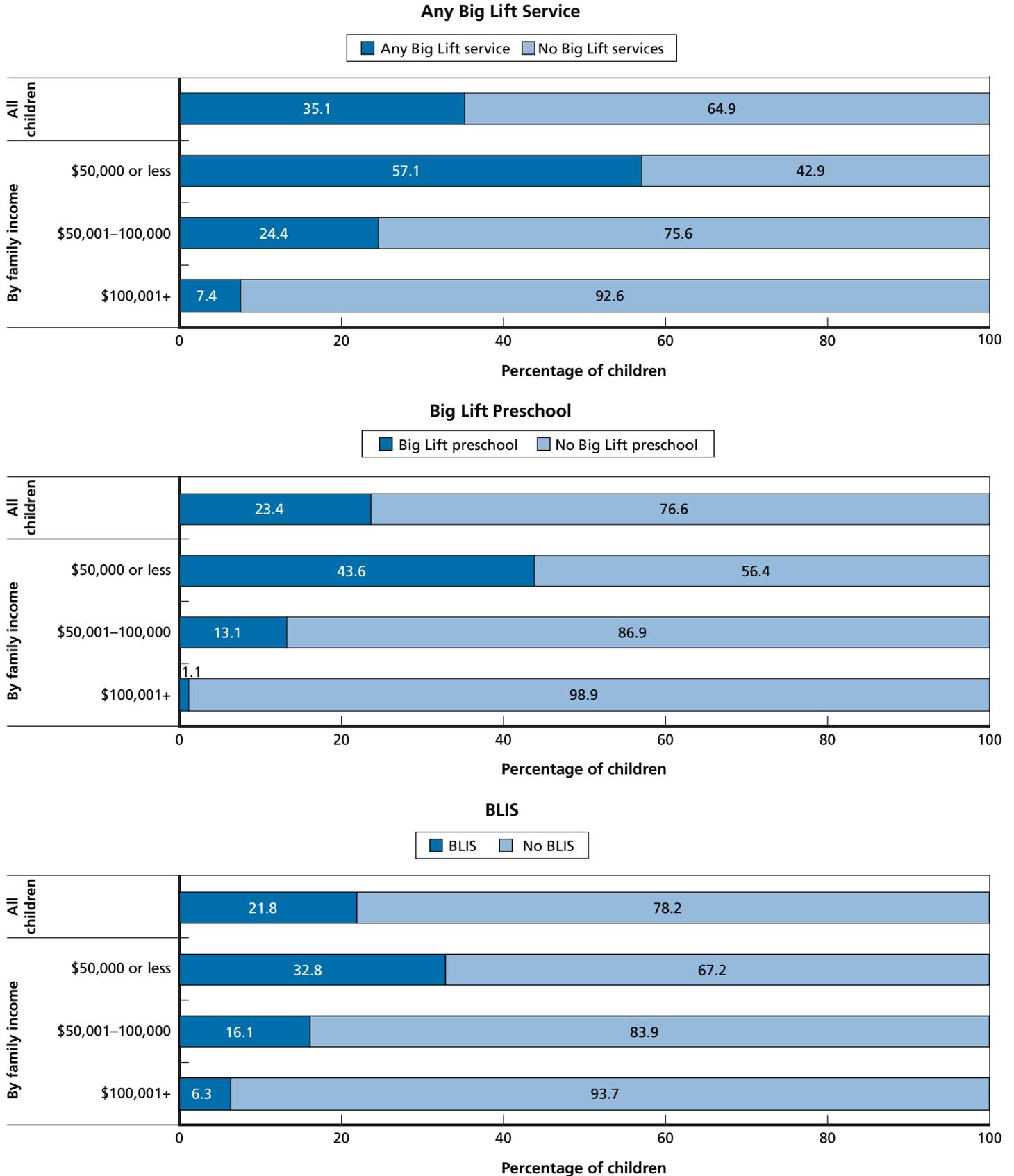
Participation Rates in Big Lift Services and Early Learning by Family Income

Big Lift served a higher percentage of lowest-income children compared with other income groups.

The Big Lift initiative intended to reach lower-income families in the participating districts. During recruitment for Big Lift services, the Cohort 1 districts prioritized families making at or less than the median family income in the county, which was approximately \$101,272 in 2015. In Figure 2, we present the participation rates in Big Lift services for the total population (as reported in Tables 1–3) and by three different family household income categories: (1) \$50,000 or less, (2) \$50,001–\$100,000, and (3) more than \$100,000. The first two income groups approximate families in Big Lift’s target population. The lowest income group represents families living with approximately half of the median income, and who likely face financial strain given the high cost of living in the county. The third group represents the relatively more affluent families in the districts. In Figure 2, we show participation rates first for any Big Lift services, then separately for Big Lift preschool and for BLIS.

The same pattern emerges across all sections of the graph. When looking at participation in any Big Lift service, or looking specifically at enrollment in Big Lift preschool or BLIS, Big Lift consistently served a higher percentage of children from families in the lowest income group. For example, the first chart panel shows that nearly 60 percent of children whose

Figure 2. Big Lift Served a Higher Percentage of Lowest-Income Families Compared with Other Income Groups



SOURCES: SMCOE Cocoa database; Cohort 1 kindergarten entry form.

NOTES: The sample size is 1,496 children for the full kindergarten class. For the income categories, we exclude 358 children for whom we do not know family income, and sample sizes for the three categories are 685, 168, and 285, respectively, from lowest to highest income.

families earned \$50,000 or less received at least one Big Lift service, whereas this was true for only 7 percent of children whose families made \$100,000 or more. These figures suggest that the initiative was successful at reaching families with the highest financial need in the Cohort 1 districts.

We also examined enrollment in any early learning experiences by the three income groups, presented in Figure 3. Similar to national trends (Bassok et al., 2016), the percentage of children in our sample who had some early learning experience (Big Lift preschool, non-Big Lift preschool, or BLIS) was highest among the most-affluent families (91 percent). However, slightly more than 85 percent of children living in households earning less than \$50,000 also had some educational experience before entering kindergarten, and (not shown in the figure) 80 percent had a formal preschool experience (Big Lift or otherwise). It is encouraging that such a high percentage of children from lower-income families enrolled in a preschool or summer program before starting kindergarten, particularly given national research suggesting large socioeconomic gaps in access to early childhood services (Bassok et al., 2016). Although we lack data from previous years for comparison, the Big Lift initiative may have contributed to the relatively high percentage of children who received early childhood services by increasing preschool slots, creating the BLIS program, and prioritizing programs for lower-income families.

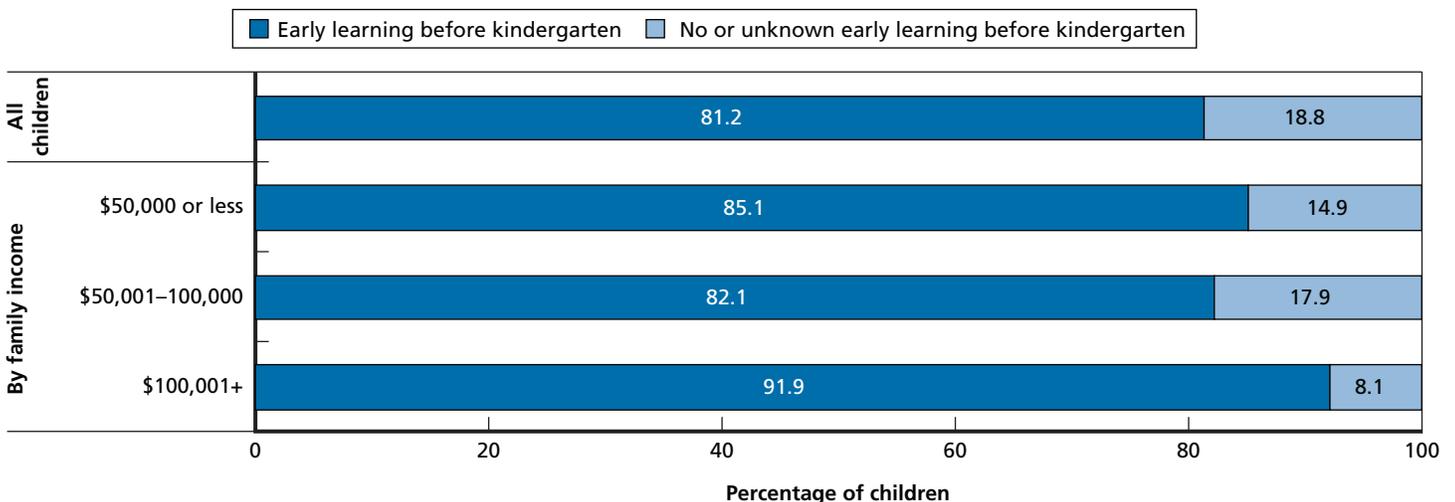
KINDERGARTEN READINESS IN BIG LIFT DISTRICTS

In this section, we address the second set of research questions about kindergarten readiness among children in the Cohort 1 districts. We explored two different measures of kindergarten readiness: children’s scores on the Brigance assessment (a school readiness measure), and parent reports of family home reading practices (see the online Technical Appendix for further details on the outcomes). The Brigance assessment is scaled such that a total score of 100 is equivalent to the national average among other five-year-old children. Scores between 90 and 110 are considered to be in the *average range* for their age group and indicate that a child is performing at age level. Any child scoring 90 or above is thought to be “ready for kindergarten.” We present summary statistics on children’s performance for the full sample, and by the three relevant income groups previously described.

Approximately 50 percent of the 2016–2017 kindergarten class began the school year scoring in the kindergarten-ready range on a school readiness assessment.

The average Brigance total score among children in the 2016–2017 kindergarten class was 90.3,⁶ indicating that, on average, children in Big Lift districts were scoring in the low end of the average range. It is also useful to look at the percentage of children scoring in the kindergarten-ready range

Figure 3. Relatively Small Gaps Across Income Groups in the Percentage of Children Who Had an Early Learning Experience in the Year Before Kindergarten



SOURCES: SMCOE Cocoa database; Cohort 1 kindergarten entry form.

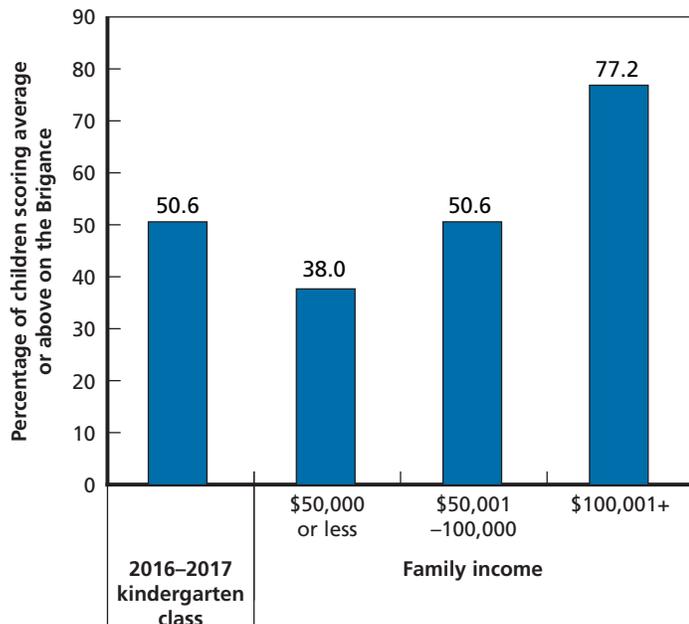
NOTES: The sample size is 1,496 children for the full kindergarten class. For the income categories, we exclude 358 children for whom we do not know family income, and sample sizes for the three categories are 685, 168, and 285, respectively, from lowest to highest income.

of 90 or above. As we show in first bar of Figure 4, slightly more than 50 percent of all children scored in this range on the Brigance. That is, about half of children in the 2016–2017 kindergarten class entered school kindergarten-ready, while half did not.

Higher-income children were more likely to score in the kindergarten-ready range on the school readiness assessment than lower-income children.

The next three bars in Figure 4 show the percentage of children who scored in or above the average range by family income group. This figure suggests a pattern of socioeconomic disparity in children’s kindergarten readiness skills. Income differences in Brigance scores are stark. As income increases, so does the percentage of children scoring in or above the average range. Only 38 percent of children from families earning \$50,000 or less scored 90 or above on the Brigance, approximately half of children from families with incomes between \$50,001 and \$100,000 reached the average range, and more than three-fourths of children from families earning more than \$100,000 started school with average or higher skill levels. Though not pictured, the average scores on the Brigance for

Figure 4. Percentages of Children Scoring Average or Above on the Brigance Increase as Family Income Increases



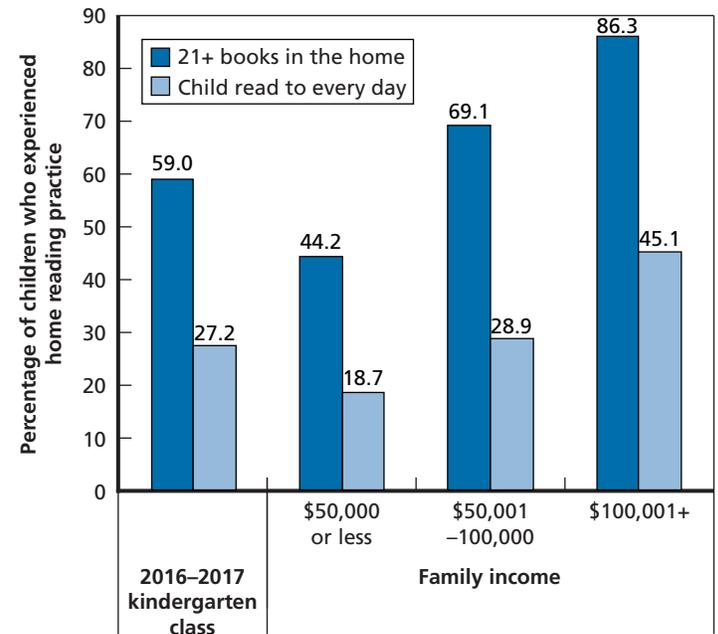
SOURCES: Cohort 1 kindergarten entry form.
 NOTES: The sample size is 1,496 children for the full kindergarten class. For the income categories, we exclude 358 children for whom we do not know family income, and sample sizes for the three categories are 685, 168, and 285, respectively, from lowest to highest income. Average is defined as an overall score of 90 or above.

the income groups follow the same pattern. Children from the lowest-income group scored an average of 85.9; the middle-income group scored 89.5, and the most-affluent children scored an average of 99.6—the only group whose average score fell in the kindergarten-ready range.

Higher-income children are also more likely to have 20 or more books in the home and more likely to be read to daily.

In Figure 5, we present the percentage of entering kindergartners that experienced two types of positive home reading practices. Approximately 60 percent of all children came from homes with 20 or more books, and 27 percent of families reported reading to their child every day. The percentage of children who were read to every day is relatively low, given that the American Academy of Pediatrics recommends daily reading as a family activity for young children before starting kindergarten (High and Klass, 2014). Nationally representative data from 2007 suggested that 55 percent of three- to five-year-olds were read to every day before starting kindergarten, and in 2012, 44 percent of children were read to at least seven times a

Figure 5. Percentages of Children Who Experienced Home Reading Practices Increase as Family Income Increases



SOURCES: Cohort 1 kindergarten entry form.
 NOTES: The sample size for the measure of number of books in the home is 1,270 children for the full sample and 622, 165, and 284 for the three income categories, respectively. The sample size for the reading frequency measure is 1,286 children for the full sample and 636, 166, and 284 for the three income categories, respectively.

week (statistics for daily reading not available in 2012) (Child Trends Data Bank, 2015). Based on these numbers, children in Big Lift districts are less likely to be read to daily compared with other children of similar ages nationwide. Given that reading daily to children may be hard for some families to achieve, we also looked at the percentage of children who were read to five or more days in the week; 56 percent of families in the Cohort 1 districts fell into this category.

Similar to children's Brigance scores, the last three bars in Figure 5 show socioeconomic gaps in families' home reading practices. A higher percentage of children from affluent families had 20 or more books in the home and were read to every day. Notably, the percentage of children read to daily was below 50 percent for all income groups.

DIFFERENCES IN KINDERGARTEN READINESS ACROSS THE PRESCHOOL GROUPS

In this section, we address the third set of research questions by examining the school readiness of children who had different preschool experiences. We present both unadjusted comparisons and adjusted comparisons that control for key child and family demographics. All comparisons are estimated from

logistic regression models (see the online Technical Appendix for additional details on the specified models). We present the unadjusted comparisons in table format and the adjusted comparisons in bar graphs, and we indicate whether the estimated differences between the groups are statistically significant with an asterisk (*). Statistical significance is an indicator of the certainty we can attribute to the results. If a result is statistically significant, we have confidence that the estimated differences were not found by chance or are due only to idiosyncrasies of the particular sample or measurement occasion; rather, we have confidence that the estimated results represent a true difference in the population of interest.

Unadjusted Comparisons Across Preschool Groups

In Table 4, we present the percentages of children who scored at or above average on the Brigance, those who had 20 or more books in the home, and those who were read to daily. We also display the unadjusted percentage point difference between children in the Big Lift preschool and the two comparison groups: (1) children in non-Big Lift preschool and (2) children who did not attend preschool. Slightly more than 38 percent of children who attended Big Lift preschool started kindergarten scoring in the average range. By contrast, approximately

Table 4. Unadjusted Comparisons of Readiness Measures Favor Non-Big Lift Preschool

Group	% of Group	Unadjusted Percentage Point Difference Compared with Big Lift Preschool	Number of Students
Scoring in or above the average range on the Brigance			
Big Lift preschool	38.3	—	350
Non-Big Lift preschool	63.9	25.6*	805
No preschool	31.1	-7.2	235
20 or more books in the home			
Big Lift preschool	45.4	—	291
Non-Big Lift preschool	69.7	24.3*	742
No preschool	42.0	-3.4	231
Child read to every day			
Big Lift preschool	21.5	—	302
Non-Big Lift preschool	32.5	11.0*	744
No preschool	18.5	-3.0	233

SOURCE: Authors' analysis of Big Lift data.

NOTES: Table presents percentages of children achieving each outcome and unadjusted differences between groups. See the online Technical Appendix for full model details and results.

* = difference between groups is statistically significant at $p < 0.05$.

64 percent of children who attended non–Big Lift preschool reached the kindergarten-ready milestone. This 25.6 percentage point difference favoring non–Big Lift preschoolers was statistically significant. The lower percentage of Big Lift preschoolers scoring in the average range is consistent with the previously discussed demographic patterns showing that children who attended Big Lift preschool were more disadvantaged than their peers. The group that did not enroll in preschool had the smallest percentage of children scoring 90 or above on the Brigance—just under one-third. While more Big Lift preschoolers scored in or above the average range than did children who went to no preschool at all (a 7.2 percentage point difference), the difference was not statistically significant.

The same pattern holds for the percentage of children with 20 or more books in the home and those who were read to daily. Children who attended non–Big Lift preschools had the highest percentage of children who experienced these practices, followed by Big Lift preschoolers, and finally by children who attended no preschool at all. In sum, we find, for all three outcomes, large, statistically significant unadjusted differences between Big Lift and non–Big Lift preschoolers that favored non–Big Lift programs, and small, non–statistically significant unadjusted differences between Big Lift preschoolers and children who attended no preschool at all.

A Note on Interpretation

Although the unadjusted differences paint a picture of children’s kindergarten readiness skills, they cannot be interpreted as causal estimates of the effect of preschool experiences on children’s outcomes. Due to issues of selection, we cannot be sure that the observed, unadjusted differences were caused by preschool attendance. Research indicates that many different factors, such as parent employment, family income, and parents’ personal beliefs about child development, affect families’ child care access and preferences (e.g., higher-income families tend to have access to higher-quality child care) (Gould and Cooke, 2015). These same factors may also be related to children’s kindergarten readiness skills. For example, children from higher-income families tend to experience richer home learning environments and start school with more advanced skills (Duncan and Magnuson, 2005). We know from the demographic comparisons already described that, on average, the children who enrolled in Big Lift preschool, non–Big Lift preschool and no preschool were different from each other on a number of characteristics that may be related to preschool enrollment and children’s development. Specifi-

cally, the children who attended Big Lift preschool faced more social risk factors—e.g., parents with fewer years of education, lower family incomes—than children in the comparison groups. The unadjusted differences in children’s kindergarten readiness skills may be caused by these and/or other unmeasured demographic differences between the groups—not necessarily by their preschool experiences. For these reasons, our analyses do not support causal inference.

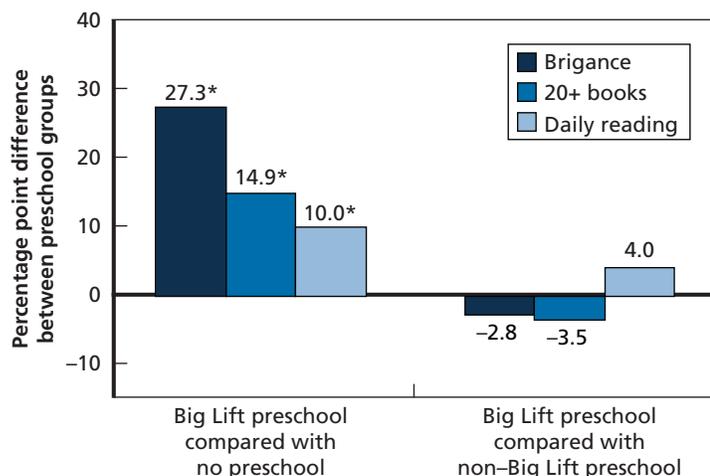
It is still useful, however, to compare across the groups to understand how children with different preschool experiences fared at the start of kindergarten. We are able to provide a more nuanced picture of children’s school readiness by also estimating adjusted differences between the groups. We do so by comparing the various groups while controlling for child and family demographic characteristics (i.e., all those listed in Appendix Table A.1, including child gender, race/ethnicity, family income, parent education, etc.). The controlled, or adjusted, comparisons are akin to comparing children who are similar on all measured demographic characteristics, except for their preschool experiences. The adjusted comparisons give a more accurate picture of how Big Lift children fare relative to their demographically similar peers. However, we still cannot draw causal conclusions because of the possibility that differences in unmeasured characteristics exist that might influence both a child’s preschool enrollment and kindergarten readiness, such as parent beliefs about child rearing. Contrasting the unadjusted comparisons with adjusted comparisons provides an opportunity to explore whether key demographic characteristics might explain the unadjusted group differences in the percentage of children scoring in or above the average range, or who experience home-reading practices.

Adjusted Comparisons Between Preschool Groups

When starting school, Big Lift preschoolers were significantly more likely than demographically similar children who went to no preschool at all to score in the kindergarten-ready range on the Brigance, to have 20 or more books in the home, and to be read to daily.

In Figure 6, we present adjusted comparisons of children’s outcomes among the preschool groups. The heights of the bars indicate the adjusted percentage point differences in the share of children achieving the outcomes of interest between Big Lift preschoolers and the comparison groups. The first set of bars

Figure 6. Adjusted Kindergarten Readiness Outcomes Differ by Children’s Preschool Experiences



SOURCE: Authors’ analysis of Big Lift data.

NOTES: Models control for demographic characteristics presented in Table 4. See the online Technical Appendix for full model details and results.

* Difference between groups is statistically significant at $p < 0.05$. The sample sizes are 1,496, 1,270, and 1,286 for Brigance, number of books in the home, and reading frequency measures, respectively.

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compares Big Lift preschoolers with children who attended no preschool at all; the second set compares Big Lift preschoolers with non-Big Lift preschoolers. It is clear from the first set of bars that when we account for child and family demographics, the differences between Big Lift preschoolers and children who went to no preschool are large and statistically significant on all three outcomes. For example, when we account for demographic controls, there was a statistically significant 27.3-percentage point difference in children scoring kindergarten-ready that favored Big Lift preschools. This group difference is substantially larger than that estimated in the unadjusted comparison presented in Table 4 (7.2 points; nonsignificant). That is, once we accounted for demographic characteristics, Big Lift preschoolers were more likely to start school scoring 90 or above on the Brigance than were children who went to no preschool. The adjusted comparisons also indicate that Big Lift preschoolers were more likely than children who did not go to preschool to have 20 or more books in the home and to experience daily reading. These group differences were relatively large (15 and 10 percentage points respectively) and statistically significant.⁷

Big Lift and non-Big Lift preschoolers were equally likely to start school scoring in the kindergarten-ready range on the Brigance, to have 20 or more books in the

home, and to be read to daily, when comparing demographically similar children.

The pattern is different when comparing Big Lift preschoolers with children to who went to non-Big Lift preschool: All of the bars in the right side of Figure 6 are close to zero. When we account for child and family demographics, the differences between Big Lift preschoolers and non-Big Lift preschoolers on all three outcomes are small and not statistically significant. When we compare demographically similar children, Big Lift preschoolers and children who attended other preschool programs were equally likely to start school kindergarten-ready, to be read to every day, and to come from homes with 20 or more books. The small, not statistically significant adjusted differences are in contrast to the larger, statistically significant unadjusted differences presented in Table 4. The contrast between the unadjusted comparisons in Table 4 and the adjusted comparisons in Figure 6 suggests that child and family demographic characteristics may explain many of the differences in kindergarten readiness between Big Lift and non-Big Lift preschoolers.

Because Big Lift stakeholders have a particular interest in economically disadvantaged families, we also estimated the adjusted comparisons among samples of families with incomes of \$50,000 or less. The patterns we observed were identical to the full sample: All comparisons between Big Lift preschoolers and children who went to no preschool at all suggested that Big Lift preschoolers were more likely to score in or above the average range on the Brigance and to have experienced home-reading practices. All comparisons between Big Lift preschoolers and non-Big Lift preschools suggested these groups were equally likely to score in or above the average range on the Brigance and to have experienced home-reading practices.

In sum, these results indicate that when comparing demographically similar children, Big Lift preschoolers were more likely to be kindergarten-ready than children who did not go to preschool, and Big Lift preschoolers and non-Big Lift preschoolers were equally likely to start school kindergarten-ready. This pattern was true for the whole 2016–2017 kindergarten class and among a subsample of lower-income families.

UNDERSTANDING THE LAYERING OF BIG LIFT SERVICES

In this section, we address the fourth set of research questions regarding the kindergarten readiness outcomes of children who enrolled in different combinations of Big Lift services. Big Lift

was designed to provide families in San Mateo County with a number of different services to layer on in various combinations, as needed. We might hypothesize that children who received more Big Lift services would perform better as they progress through early elementary than children who received fewer services. It is also possible that enrollment in certain Big Lift services is related to children’s kindergarten readiness.

To understand whether there are differences in the kindergarten readiness skills of children who enrolled in various combinations of Big Lift services, we compared the outcomes of children who received (1) Big Lift preschool only, (2) BLIS only, (3) Big Lift preschool and BLIS. For the same selection issues described above, we cannot say that differences in children’s outcomes are due to different Big Lift services. For example, if we observe that children who attended Big Lift preschool and BLIS scored higher than those who attended only Big Lift preschool, we cannot be sure that the BLIS program caused the score increase. However, these comparisons help to document the kindergarten readiness skills of children who received Big Lift services, and provide a starting point to generate informed hypotheses regarding the potential of Big Lift program layering effects.

In Table 5, we present the percentages of children who scored in the kindergarten-ready range, who came from homes with 20 or more books, and who were read to every day for each Big Lift service group. In order to present all pairwise comparisons, in the second column we compare all groups to children who received Big Lift preschool + BLIS, and in the third column we compare the groups to children

who enrolled in BLIS only. The data in the first section of the table suggest that children who attended only BLIS represented the largest percentage scoring in or above the average range on the Brigance (about 49 percent), followed by children who attended Big Lift preschool only (about 41 percent). Children who enrolled in both Big Lift preschool and BLIS had the lowest proportion of children scoring in or above the average range, at 34.4 percent—a statistically significant difference of 14.2 percentage points when compared with children who went only to BLIS. A somewhat similar set of findings emerged when looking at the number of books children had access to. The BLIS-only group had the largest percentage of children with 20 or more books in the home.

These patterns are aligned with the demographic differences described above. Children who attended only BLIS were relatively more advantaged than their peers who attended other Big Lift services; their parents had higher levels of education and higher family income. In addition, children who enrolled only in BLIS were a very heterogeneous group in terms of their preschool experiences. Many BLIS-only children were enrolled in non-Big Lift preschool (about 66 percent of the group), some had no preschool experience at all (about 26 percent) and a minority of the group’s preschool status is unknown (about 8 percent). Further, children who attended both Big Lift preschool and BLIS were the least advantaged of the Big Lift service groups (as measured by parent education and family income). These demographic characteristics may help to explain the higher unadjusted percentage of kindergarten-ready children in the BLIS-only group.

Table 5. The Majority of Unadjusted Comparisons Favor Children Who Attended BLIS Only

Service	% of Group	Unadjusted Percentage Point Difference Compared with Big Lift Preschool + BLIS	Unadjusted Percentage Point Difference Compared with BLIS Only	Number of Students
Scoring in or above average range on the Brigance				
Big Lift preschool + BLIS	34.4	—	-14.2*	151
BLIS only	48.6	14.2*	—	175
Big Lift preschool only	41.2	6.8	-7.4	199
20 or more books in the home				
Big Lift preschool + BLIS	47.3	—	-16.5*	129
BLIS only	63.8	16.5*	—	152
Big Lift preschool only	43.8	-3.5	-20*	162
Child read to every day				
Big Lift preschool + BLIS	23.9	—	3.1	134
BLIS only	20.8	-3.1	—	154
Big Lift preschool only	19.6	-4.3	-1.2	168

SOURCE: Authors’ analysis of Big Lift data.

NOTES: Table presents percentages of children achieving each outcome and unadjusted differences between groups. See the online Technical Appendix for full model details and results. * = difference between groups is statistically significant at $p < 0.05$.

The pattern differs when looking at the book-reading frequency that children experienced. The three Big Lift service groups had very similar percentages of children whose parents reported reading to them daily—all approximately 20 percent; none of the unadjusted differences between groups were statistically significant.

Among demographically similar children who enrolled in Big Lift services, all children, regardless of their combination of Big Lift services—Big Lift preschool, BLIS, or both—were equally likely to start school scoring in the kindergarten-ready range on the Brigance, to have 20 or more books in the home, and to be read to daily.

As with the preschool comparisons, we also estimated adjusted differences between the groups by controlling for key demographic characteristics. We did so for the full 2016–2017 kindergarten class, and among a sample of families with incomes of \$50,000 or less. For all the estimates, across both samples, we found no statistically significant adjusted differences between the groups. When comparing demographically similar peers, all children who enrolled in Big Lift services, regardless of which combination of services they received, were equally likely to start school kindergarten-ready, come from homes with 20 or more books, and have been read to daily. Given the lack of statistically significant estimates, we do not graph the adjusted comparisons here. The lack of statistical significance among the adjusted comparisons suggests that the demographic controls explain much of the advantage the BLIS-only group showed in the unadjusted comparisons.

In sum, the adjusted comparisons of the children who received different combinations of Big Lift services showed no significant differences between the groups. To some extent, this pattern is consistent with Big Lift’s theory of change, in which the cumulative effect of combinations of Big Lift services is expected to be greatest as children progress through the early elementary grades. We might not expect to see differences for children who have just entered kindergarten and only experienced a maximum of one year of services. Although some of the unadjusted comparisons indicated that children who attended only BLIS were more likely than their peers to be kindergarten-ready, these differences became non-significant once we accounted for the control variables. When comparing demographically similar families, all children who received Big Lift services were equally likely to start school kindergarten-ready, regardless of the combination of services they received.

SUMMARY, IMPLICATIONS, AND FUTURE DIRECTIONS

These analyses were designed to provide information for community stakeholders to reflect on the progress of the Big Lift initiative to date. We analyzed data on two of the four pillars in the initiative—High-Quality Preschool and Summer Learning—for children in the Cohort 1 districts. Big Lift served more than one-third of the 2016–2017 kindergarten class in Cohort 1 districts through Big Lift preschool and BLIS. Importantly, 77 percent of children enrolled in a formal preschool setting, and more than 80 percent of children in the districts had some early learning experience prior to starting kindergarten. Big Lift services may have contributed to the relatively high enrollment in early learning by increasing early childhood services and program slots in the districts. When looking across income groups, Big Lift served the highest proportion of children from the lower-income groups, suggesting the programs were successful at reaching families with higher need. The demographic characteristics of children in the sample confirm this conclusion, as well. Children served by Big Lift preschool faced relatively more social risks than their peers; for example, they had parents with relatively lower levels of education.

Our analysis of children’s school readiness outcomes indicated that 50 percent of kindergartners scored at or above the average range on the Brigance at the start of the 2016–2017 school year. Aligned with findings from previous research (Duncan and Magnuson, 2005), we also found strong evidence of socioeconomic disparities in school readiness, as higher-income children were much more likely to be kindergarten-ready than lower-income children. These statistics demonstrate the need and motivation for Big Lift initiatives. We are not able to test the effectiveness of Big Lift services here. However, if the programs do accomplish their intended goals, they will support children’s early literacy development and potentially decrease gaps in kindergarten readiness between lower- and higher-income children.

The comparisons of children’s kindergarten readiness outcomes across different preschool experiences revealed encouraging results. When comparing demographically similar children, we found that Big Lift preschoolers were significantly more likely to start school kindergarten-ready than children who went to no preschool at all. This finding is consistent with existing literature suggesting that preschool enrollment can support the development of young children compared with those experiencing only care at home with a parent or relative (Feller et al., 2016;

Magnuson et al., 2004). We also found that, when controlling for demographic characteristics, Big Lift and non-Big Lift preschoolers were equally likely to start school kindergarten-ready.

Finally, kindergarten entry outcomes were comparable for children receiving different combinations of Big Lift services. After adjusting for demographic characteristics, there were no significant differences among the children served by Big Lift, regardless of which specific programs they attended. This pattern is consistent with the initiative's theory of change, in which the cumulative effect of combinations of Big Lift services is expected to be greatest as children progress through the early elementary grades. Unlike preschool attendance, we do not know the summer program experience of children who did not enroll in BLIS. Future analyses with additional data will provide a more nuanced view of how children perform on academic assessments by participation in various summer learning activities. Additionally, as data become available on the other pillars of Big Lift, analyses can further examine layering of services to more fully understand participation in Big Lift and how it is correlated with academic outcomes. These topics will be addressed in future evaluations.

The 2015–2016 school year was only the first year of implementation for Big Lift preschool and BLIS. As Big Lift programs mature, and as data on more cohorts of children are collected, the analyses presented can serve as an important baseline measure of how children in San Mateo County performed at the start of the initiative. Continuing to track the same participation information and school-readiness indicators over time will allow Big Lift leaders to understand enrollment trends and the characteristics of children receiving services. Along with future analyses, these results will allow Big Lift stakeholders to document trends in program participation and school readiness—and to explore, for example, whether the percentage of children scoring at or above the average range on the Brigance increases in future years or whether disparities between income groups decrease. Future Big Lift evaluation efforts will also attempt to measure program impacts on children's later educational outcomes, including academic performance in kindergarten through third grade. Together, these research efforts will provide the information needed regarding Big Lift programs' reach and effectiveness for community stakeholders to make informed decisions as the initiative moves forward.

APPENDIX

In Appendix Table A.1, we present the demographic and economic characteristics for both the full 2016–2017 kindergarten class and those within groups of children with different early learning experiences.

Table A.1. Demographic Characteristics of the 2016–2017 Kindergarten Class by Early Learning Experiences

Characteristic	High-Quality Preschool				Summer Learning		Big Lift Services		
	2016–2017 Kindergarten Class	Big Lift Preschool	No Big Lift Preschool		BLIS	No BLIS	Big Lift Preschool Only	BLIS Only	Big Lift Preschool + BLIS
			Non–Big Lift Preschool	No Preschool					
Child age (years)	5.5	5.4	5.6	5.5	5.5	5.5	5.4	5.6	5.4
Child gender									
Female	43.1	45.7	44.5	52.3	43.4	42.0	49.2	42.9	41.1
Male	46.7	44.1	45.3	37.5	45.7	50.6	49.8	44.5	57.6
Missing	10.2	10.2	10.2	10.2	10.9	7.4	1	12.6	1.3
Race/ethnicity ^a									
Hispanic	40.1	73.1	30.3	40.0	34.6	59.8	69.3	44.0	78.1
Black/African-American	1.1	1.7	1.1	0.4	1.1	0.9	2.0	0.6	1.3
White/Caucasian	9.2	3.7	13.7	5.5	10.3	5.2	3.5	6.3	4.0
Asian	30.6	18.3	36.8	40.4	33.0	22.1	21.1	28.6	14.6
Other	4.9	1.4	7.2	4.3	5.2	3.7	1.0	5.1	2.0
Missing	14.2	1.7	10.9	9.4	15.8	8.3	3.0	15.4	0.0
Home language									
English	49.6	26.2	59.8	46.4	54.7	31.3	30.7	40.6	20.5
Not English	49.7	72.9	40.0	53.6	44.6	68.1	67.8	58.3	79.5
Missing	0.7	0.9	0.2	0.0	0.7	0.6	1.5	1.1	0.0
Parent country of birth									
United States	22.7	13.4	29.9	21.3	24.7	15.0	15.0	18.3	11.3
Outside United States	54.1	56.9	56.4	64.7	52.1	61.7	53.8	62.3	60.9
Missing	23.2	29.7	13.7	14.0	23.2	23.3	31.2	19.4	27.8
Mother's age at child birth									
Younger than 20 (teen mom)	3.3	7.4	1.9	3.4	3.2	3.7	7.5	0.6	7.3
Older than 20	82.5	89.1	86.5	91.5	81.3	86.5	89.4	84.5	88.8
Missing	14.2	3.4	11.6	5.1	15.5	9.8	3.0	14.9	4.0
Parents in the home									
Two-parent home	69.1	68.6	75.2	77.0	69.3	68.4	67.3	66.9	70.2
Single-parent home	17.5	26.5	14.9	20.5	16.4	21.2	27.7	17.7	25.2
Missing	13.4	4.9	9.9	2.6	14.3	10.4	5.0	15.4	4.6

Table A.1—Continued

Characteristic	2016–2017 Kindergarten Class	High-Quality Preschool			Summer Learning		Big Lift Services		
		Big Lift Preschool	No Big Lift Preschool		BLIS	No BLIS	Big Lift Preschool Only	BLIS Only	Big Lift Preschool + BLIS
			Non–Big Lift Preschool	No Preschool					
Parent education									
Less than high school degree	9.5	20.6	5.3	10.6	7.1	18.1	19.1	14.3	22.5
High school diploma/GED	30.2	51.4	22.6	37.0	27.4	40.5	49.2	28.6	54.3
Associate’s degree	13.5	11.4	14.8	18.3	13.3	14.1	12.6	17.7	9.9
Bachelor’s degree +	34.4	15.4	48.1	29.8	38.5	19.3	17.6	25.1	12.6
Missing	12.4	1.1	9.2	4.3	13.7	8.0	1.5	14.3	0.7
Family income									
Less than \$10,000	6.8	12.6	4.6	8.9	11.0	5.6	11.6	8.6	13.9
\$10,001–25,000	15.0	31.7	8.7	17.4	22.1	13.0	31.7	13.7	31.8
\$25,001–50,000	24.0	41.1	18.4	28.5	35.9	20.7	40.2	30.3	42.4
\$50,001–100,000	11.2	6.3	13.9	13.2	8.3	12.1	7.0	10.9	5.3
\$100,001–150,000	10.4	0.6	16.4	8.5	4.9	12.0	1.0	9.1	0.0
More than \$150,000	8.6	0.3	15.0	2.6	0.6	10.9	0.5	1.1	0.0
Missing	23.9	7.4	23.0	20.9	25.8	17.2	8.0	26.3	6.6
N	1,496	350	805	235	326	1,170	199	175	151

SOURCES: SMCOE Cocoa database; Kindergarten Entry Form.

^aThe race/ethnicity variables are mutually exclusive categories; see the online Technical Appendix for more detail on variable creation.

Notes

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

² Note that we do not conduct analogous comparisons of the outcomes of children who went to BLIS because there was no available information on other community summer programs that children may have attended. For this reason, we were unable to construct a comparison group to contrast children in BLIS with children participating in other summer learning opportunities. Instead, we limit our study of BLIS participation to an analysis of children who received different combinations Big Lift services (see research questions 4).

³ *Transitional Kindergarten* is a state-funded program, administered by California school districts, that provides early childhood education for children who turn five between September 2 and December 2 and thus miss the September 1 statewide kindergarten entry birthdate cutoff (Manship et al., 2015).

⁴ Because our sample includes nearly 100 percent of the 2016–2017 kindergarten class, and thus constitutes a census—a totality, rather than a sample of the population we intend to generalize to—we do not conduct statistical tests to compare demographic differences across groups.

⁵ The technical appendix is located on RAND’s website: https://www.rand.org/pubs/research_reports/RR2131.html

⁶ For reference, the sample range was 63–131, with a standard deviation of 15.5.

⁷ We also compared the non–Big Lift preschool group with children who attended no preschool at all. For all three outcomes, we found statistically significant differences ($p < .05$) favoring children who went to non–Big Lift preschools.

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About This Report

The Big Lift is a collective impact, preschool–third-grade initiative in San Mateo County, California. The initiative is a partnership of the Silicon Valley Community Foundation (SVCF), the San Mateo County Office of Education, and the County of San Mateo. Launched in 2012, the initiative aims to boost children’s reading proficiency in San Mateo County through four different types of activities, called “pillars”: (1) High-Quality Preschool, (2) Summer Learning, (3) School Attendance, and (4) Family Engagement.

RAND is conducting a multiphase evaluation of the initiative, including an implementation study of the pillars and descriptive analysis focused on the outcomes of children who received Big Lift programs. This report provides the first set of descriptive analyses of participation in two of Big Lift’s pillars—high-quality preschool and summer learning—and measures of readiness at kindergarten entry for the children enrolled in the four Cohort 1 districts: South San Francisco Unified, Jefferson Elementary, La Honda–Pescadero Unified, and Cabrillo Unified (the first round of funded school district communities).

This research was commissioned by The Big Lift and Silicon Valley Community Foundation with generous funding from the County of San Mateo and the federal Social Innovation Fund. 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 early learning initiatives.

This research was conducted jointly by the RAND Education and RAND Labor and Population units of the RAND Corporation. Both units have built an international reputation for conducting objective, high-quality, empirical research to support and improve policies and organizations around the world. For more information on RAND Education, visit www.rand.org/education. For more information on RAND Labor and Population, visit www.rand.org/labor.

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