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Evaluation of the Summer Unleash Potential (Summer UP) Pilot Program

Elementary Level

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Highlights: Evaluation of the Summer Unleash Potential (Summer UP) Pilot Program in MCPS: Elementary Level

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Purpose of Study

The Summer UP program, piloted in 2018, provided expanded learning opportunities for 289 students in MCPS focus schools[1]. The program aimed to increase students' literacy and math skills, increase students' interest in school, and improve students' social-emotional skills. The purpose of the evaluation was: (1) to provide formative information, collected through stakeholder surveys and interviews, to facilitate future program planning; and (2) to assess the changes in the academic achievement of students enrolled in the program by comparing their reading and math performance with that of a matched sample of non-enrolled students. In addition, program attendance data was examined in the outcome analyses, as research shows that student with high attendance benefitted more from summer programming than students who attended fewer days.

Selected Recommendations

- With recommended revisions, continue to provide the opportunity for a structured summer learning enrichment program for students in MCPS focus schools, offering a program that combines academic instruction with enrichment.
- Consider expanding the program to five weeks. Research suggests that the intensity and duration of instruction can impact student outcomes and recommends three hours a day, five days per week, for five to six weeks to observe an impact (Augustine, 2016).
- Engage with MCPS curriculum experts to ensure the Summer UP instructional program aligns with the district's curriculum, fits within the instructional time of the summer program and differentiates activities (Schwartz, 2018).
- Coordinate a meeting prior to the start of Summer UP for site coordinators and administrators to share effective practices and information related to budget, staffing, payroll, transportation, and supply procurement.
- Ensure school staff and enrichment providers collaborate prior to the start of the program and meet regularly for the duration of the program.

What the Study Found

- Evidence from stakeholder surveys and site coordinator interviews indicated that Summer UP was implemented as envisioned by MCPS leadership, while a few areas were identified as needing additional support. Survey findings from teachers, parents and enrichment staff indicated that most respondents in all stakeholder groups had positive feedback regarding curriculum and program operations.
- Evidence from the implementation evaluation indicated stakeholders perceive strong positive benefits of the Summer UP program on student's academic skills, motivation and engagement, and social emotional learning. Furthermore, parent and student feedback indicated the Summer UP program provided numerous unique learning opportunities that may not have been otherwise available.
- Summer UP maintained relatively high levels of attendance. Three fourths of students enrolled in Summer UP had high attendance as defined by attending 15 days or more.
- The Summer UP program did not demonstrate statistically significant findings for any of the grades or subgroups analyzed in reading or math. One subgroup—Grade 3 FARMS Black or African American students—showed a practically significant positive effect of the Summer UP program for reading (d=.23) and for math (d =.20). Practically significant effects were negative for Grade 3 overall, and Grades 3 and 5 FARMS Hispanic/Latino students in reading, and Grade 4 FARMS Black or African American students in mathematics.

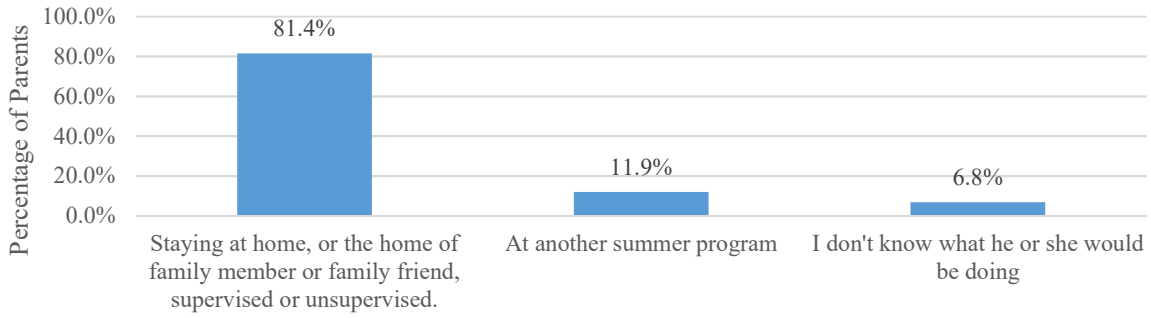

Figure. Parent reports of what their child would be doing if not attending Summer UP

[1] A focus school is defined as a school that does *not meet* the level of poverty for Title I designation, but has a high percentage of students identified as FARMS.

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Executive Summary

The Office of Curriculum and Instructional Programs in Montgomery County Public Schools (MCPS) asked the Office of Shared Accountability to conduct an evaluation of the Summer Unleash Potential (Summer UP) program in MCPS, offered during the summer of 2018 for Grades 3 through 5 students. The Summer UP program provided expanded learning opportunities for students in MCPS focus schools.[1] The aim was to create an engaging program that integrated academic and enrichment activities while seeking to increase students' literacy and math skills, increase students' interest in school, and improve students' social-emotional skills. The purpose of this evaluation was to provide information to facilitate future program planning as well as to assess perceived benefits of the program and any changes in the academic achievement of students enrolled in the program.

Summary of Methodology

A multimethod design was used to conduct this evaluation of the 2018 Summer UP Program. To assess implementation, multiple measures were used to gather information including surveys, interviews, and program documents. Surveys regarding the experiences of students, teachers, site coordinators, and parents in the program were administered to each of the Summer UP sites. The survey response rate was 81% for students (n=289), 83% for staff (n=18) and 22% for parents (n=62). All site coordinators were interviewed (n=6). A descriptive analysis of attendance rates provided further information regarding program implementation.

To assess outcomes, advanced statistical analysis were conducted to compare the mathematics and reading performance of Summer UP attendees and non-attendees while controlling for students' characteristics, including their initial abilities. The attendees were 231 students in Grades 3, 4, or 5 who attended 15 days (out of 20 days) or more of the Summer UP program. The matched comparison group was made up of 231 students from the same focus schools that enrolled the Summer UP students but did not attend. These students were selected using an advanced statistical matching method. In both groups, about one third of the students were Black or African American, and over half were Hispanic/Latino. Over 60% of the attendees received English for Speakers of Other Languages services, more than 85% of the attendees received Free and Reduced-price Meals System (FARMS) services and just over 16% of those attending received special education services.

Summary of Implementation Evaluation Findings

Question 1: How was the Summer UP program implemented in MCPS?

Evidence from stakeholder surveys and site coordinator interviews indicate that Summer UP was implemented as envisioned by MCPS leadership, while a few areas were identified as needing additional support. Notable findings are described below.

Student selection and enrollment. The program was successful in recruiting and enrolling at-risk students. Eighty-eight percent of students were receiving FARMS services. The average end-of-year math and reading scores for students enrolled in Summer UP program prevented them from

[1] A focus school is defined as a school that does *not meet* the level of poverty for Title I designation, but has a high percentage of students identified as FARMS.

attaining the 2017-2018 Evidence of Learning measures. One hundred percent of site coordinators reported that the short timeline for program planning made student recruitment challenging as families had other plans and other end of year school duties created substantial pressure on staff to complete all the necessary planning and paperwork.

Design of the program, instructional and enrichment activities. Summer UP academic staff developed an instructional program that aligned with the English Language Arts and the Math Common Core State Standards and integrated a wide range of enrichment activities. Over 90% of staff responding to the survey and all site coordinators indicated that a wide variety of instructional techniques were used during the academic portion of the day like small group guided instruction, differentiated instruction, collaborative activities and writing activities. Enrichment activities focused on science, technology, engineering, and math; art; and sports were delivered by HoopED, LLC, which collaborated with MCPS staff to integrate the activities throughout the day. MCPS staff and HoopED, LLC collaborated prior to the start of the program and during the program at most sites. One day per week was allotted for field trips related to the weekly theme.

Staffing and Transportation. All site coordinators reported having no difficulty hiring highly qualified MCPS teachers for the program who were used to teaching students with varying levels of need. However due to the condensed timeline for planning the program, 100% of coordinators reported difficulty in securing buses for field trips.

Question 1a: ***What were the perceptions of site based coordinators, academic teachers, enrichment staff, and parents/guardians with regard to the curriculum and program operations?***

Survey findings from teachers, parents and enrichment staff indicated that most respondents in all stakeholder groups had positive feedback regarding curriculum and program operations.

Program Preparation and Planning. Over 90% of teachers and enrichment staff responding to the survey items reported strong positive agreement across almost all items related to preparation and planning; although, only 73% of teachers agreed they had the instructional resources needed to do their job well. Site coordinators unanimously agreed that more time to plan the program would be beneficial for program operations particularly as it relates to budget details.

Program Communication and Collaboration. A majority of teachers (80%), parents (98%) and all enrichment staff agreed that communication regarding Summer UP was timely and consistent. Teachers indicated the highest level of agreement with items asking about the role, activities and availability of the Summer UP site leaders, but they reported lower levels of agreement with items related to the collaboration with HoopED, LLC, like having the opportunity to plan prior to the start of the program (21%).

Challenges to Implementation. Some significant challenges noted by the site coordinators interviewed were largely due to the short time line staff had to develop the program, including recruiting students, understanding budget processes and details related to the program, arranging field trip transportation and finding time to collaborate with the enrichment provider prior to the start of the program. Teachers echoed the issue around collaborating with HoopED, LLC prior to the

beginning of the program and also had lower positive agreement about collaboration during the program (21%).

Taken together, the evidence indicates that the Summer UP program was implemented as MCPS leadership envisioned; as an integrated full-day program of academic and enrichment learning opportunities delivered using a wide range of instructional strategies. Overall satisfaction with the Summer UP curriculum and operations was high across all groups. More than 80% of staff and parents expressed satisfaction with program preparation, planning, communication and collaboration. Some program challenges related to recruitment and transportation were noted due to the short time line for development of the program along with time for collaboration between the enrichment provider HoopED, LLC and academic teachers prior to the start of the program.

Evaluation Question 2: What were the perceptions of staff, parents, students and providers with regard to program benefits?

Evidence from stakeholder surveys and interviews with coordinators indicated respondents had positive feedback regarding the perceived benefits of the Summer UP program,

Academic Benefits. One hundred percent of responding teachers agreed with statements that students showed academic progress, improved academic skills and that the program had a positive impact academically. Three-fourths or more of the student respondents had strong positive agreement on survey items about learning new skills in the Summer UP program (87%) and covering new topics in language arts (79%) and math (81%).

Motivation and engagement. Stakeholders reported strong positive agreement with items that address student motivation and engagement during the Summer UP academic activities. All responding parents indicated positive agreement with the statements that their child liked the activities in the program and that their child enjoyed attending the summer program. Over 90% of student respondents were very positive on items assessing engagement, including: enjoying the projects in science class; enjoying hands-on activities; and that the teachers always used different ways to explain things. One hundred percent of teachers report strong positive agreement with items around motivation and engagement, like students enjoyed the learning the activities, and the enrichment activities motivated students to attend the summer program.

Social Emotional Learning. Responses from surveys and interviews indicated that the students might reap social-emotional benefits from Summer UP. All responding teachers (100%) indicated positive agreement with statements about social emotional learning, such as students felt comfortable in the program and the program facilitated positive behavior among students. Over three quarters of responding students indicated positive agreement on survey items related to social emotional learning like having friends, feeling like they belonged and having one adult they could talk to at the program. Nearly all parents indicated positive agreement with statements about social emotional learning like their child enjoyed attending (100%), liked the activities (100%) were comfortable attending (100%) and improved their child's confidence (98%).

Opportunity for new experiences. Eighty percent of responding students indicated that they participated in new activities in the summer program that they did not participate in during the school

year. Furthermore, one hundred percent of parents report that their children developed new interests and almost all parents (98%) report their child gained more confidence while attending the program. An apparent overall benefit of the Summer UP program is that it provided a structured summer program for students who might not otherwise have it. Over eighty percent (81.4%) of parent respondents indicated their child would be staying at home if they were not attending the Summer UP program. In survey responses, one hundred percent of parents agreed that the full day program was convenient for them.

Evidence from the implementation evaluation indicates stakeholders perceive strong positive benefits of the Summer UP program on student's academic skills, motivation and engagement, and social emotional learning. Furthermore, parent and student feedback indicates the Summer UP program provided participants with numerous unique learning opportunities they may not have not experienced before, and they may not have access to unless provided by MCPS.

Question 3: What were the attendance rates for students who participated in Summer UP?

The program maintained relatively high levels of attendance from enrolled students. Three fourths of students enrolled in Summer UP had high attendance as defined by attending 15 days or more. Students typically attended 84.0% of the program days, which was similar across grades and subgroups. Over the duration of the four-week program, there was a slight decline in attendance from 87.9% in week 1 to 80.3% percent in week 4.

Outcome Evaluation Highlights

Question 4: What was the impact of the Summer UP program on student reading achievement skills? Did the impact of the program vary by MCPS focus group?

The Summer UP program did not demonstrate statistically significant findings for any of the grades or subgroups analyzed in reading. Effect sizes for reading were small but some were large enough to be of practical significance to educators. Only one subgroup—Grade 3 FARMS Black or African American students—showed a positive effect (d=.23) of the Summer UP program. Effects for all Grade 3 students, and Grades 3 and 5 FARMS Hispanic/Latino students were negative, indicating the Summer UP students in these grades performed more poorly than non-participants.

Question 5: What was the impact of the Summer UP program on student math achievement skills? Did the impact of the program vary by MCPS focus groups?[2]

The Summer UP program did not demonstrate statistically significant findings for any of the grades or subgroups analyzed in math. Practically significant effects of the Summer UP program on math performance indicated one Grade 3 subgroup—FARMS Black or African American group—performed better on MAP-M compared to their non-participant peers(d =.20), but among Grade 4

[2] MCPS focus groups are defined as 1) non-FARMS All Other Students (not African American nor Hispanic), 2) non-FARMS Black or African American, 3) non-FARMS Hispanic/Latino, 4) FARMS All Other Students, 5) FARMS Black or African American, and 6) FARMS Hispanic/Latino.

FARMS Black or African American students the Summer UP students performed more poorly on the fall MAP-M compared to non-participants (*d* = -.33).

Conclusion

The results of this evaluation suggest that the Summer UP program provided a structured and engaging summer experience with many of the quality characteristics identified in the literature (e.g., Schwartz, et al., 2018). Examination of academic outcomes revealed very few effects in positive or negative directions; small sample sizes and varied programs made analysis of academic outcomes challenging. However, feedback from stakeholders offers evidence that the design of Summer UP provided opportunities for a wide range of learning experiences that also can build and support motivation, engagement and socio-emotional skills for students.

Recommendations

1. With recommended revisions, continue to provide the opportunity for a structured summer learning enrichment program for students in Grades 3–5 at MCPS focus schools. Parents indicated Summer UP provided their children with an opportunity they would not otherwise have when asked what their child would be doing if not attending the program.

2. Continue to provide a program that provides academic instruction and enrichment opportunities using interactive and hands-on activities, including the provision of weekly field trips. Students, staff and parents all reported high engagement in the types of academic, enrichment and field activities the program provided.

3. Consider expanding the program to five weeks. Research suggests that the intensity and duration of instruction can impact student outcomes and recommends three hours a day, five days per week, for five to six weeks to observe an impact (Augustine, 2016).

4. Engage with MCPS curriculum experts to ensure the Summer UP instructional program aligns with the district's curriculum, fits within the instructional time of the summer program and differentiates activities (Schwartz, 2018).

5. Begin program planning earlier so school staff have a longer lead-time to recruit students, hire staff, and plan the program.

6. Coordinate a meeting for site coordinators and administrators prior to Summer UP implementation to share effective practices from the prior year, as well as provide detailed information related to staffing, payroll, transportation, supply procurement and contracting with the enrichment provider.

7. Ensure school staff and the enrichment provider have time to collaborate prior to the start of the program for lesson planning, to align policies and procedures, to clarify details related to

budget and supply lists, and establish regular meetings between school staff and the enrichment for the duration of the program.

8. Continue to track attendance and engage in outreach to students whose attendance decreases over the course of the program.

9. Consider the use of pre- and post-program measures to measure academic and/or socio-emotional benefits of Summer UP. In this way, evaluation outcomes might align more closely with program content. This will increase the likelihood of finding measureable differences in outcomes and identifying the specific benefits of the program.

Evaluation of the Summer Unleash Potential (Summer UP) Pilot Program in MCPS: Elementary Level

The Office of Curriculum and Instructional Programs in Montgomery County Public Schools (MCPS) asked the Office of Shared Accountability (OSA) to conduct an evaluation of the Summer Unleash Potential (UP) program in MCPS, offered during the summer of 2018. The Summer UP program provided expanded learning opportunities for students in MCPS focus schools.[3] The program aimed to increase students' literacy and math skills, increase students' interest in school, and improve students' social-emotional skills. The purpose of this evaluation was to provide information to facilitate future program planning as well as to assess the changes in the academic achievement of students enrolled in the program. This report provides a formative and outcome evaluation for the Summer UP program implemented at the elementary level in Grades 3 through 5. A separate report details findings for the middle school level in Grades 6 through 8.

Background

MCPS is focused on expanding opportunities to learn so outcomes are not predictable by race, ethnicity, gender, socioeconomic status, language proficiency or disability. To prepare all students to thrive in their future, MCPS has strategically worked to expand opportunities and access to programs that will promote student success.

One important way MCPS has expanded access for underserved students is to provide Extended Learning Opportunities (ELO) aimed at reducing learning loss students may experience over the summer. Programs like ELO-SAIL (Summer Adventures in Learning), ELO-STEP (Summer Title I Enrichment Program) and Building Educated Leaders for Life (BELL) have provided academic instruction combined with a mix of enrichment opportunities to mitigate summer learning loss for elementary students. Following this model of programming, MCPS launched a pilot program called Summer Unleash Potential (Summer UP), in the summer of 2018. The goal of Summer UP was to prevent summer learning loss in literacy and math, increase student engagement and enhance students' social-emotional skills by providing high quality instructional and enrichment activities. The program was designed to serve students attending elementary and middle schools with high proportions of economically disadvantaged students.

Planning and implementation of the 2018 Summer UP pilot was conducted by MCPS in collaboration with selected Montgomery County organizations that provided instructional enrichment activities at the sites. Almost 600 rising third Grade 3–8 students attended the pilot program located at three elementary and three middle school sites.

[3] A focus school is defined as a school that does *not meet* the level of poverty for Title I designation, but has a high percentage of students identified as FARMS.

Program Description

Program Structure and Content. The elementary Summer UP program operated 6.5 hours per day, five days a week, for four weeks during July 9 through August 3, 2018. This scheduling aligns with recommendations from previous research on the effectiveness of summer programming (Augustine, et al., 2016). Students received academic instruction in reading and mathematics followed by enrichment activities in various areas like Science, Technology, Engineering, and Math (STEM), art, and sports. For the enrichment component at the elementary level, MCPS contracted with HoopED, LLC who collaborated with academic teachers to plan six rotations of enrichment experiences aligned with the academic instruction. Academic and enrichment teachers delivered a wide variety of hands on and project based learning opportunities. A weekly theme provided a cohesive thread through the math and English/language arts curriculum that extended into the enrichment classes and aligned with field trips. Students participated in two or three field trips over the course of the program. Typically, one day of the week was dedicated to the field trip. Field trip destinations varied by school, although there was overlap across sites. Places visited included but were not limited to the Smithsonian Air and Space Museum, the National Building Museum, Baltimore Aquarium, and the Maryland State Legislature. An example of a site schedule is included in Attachment A.

Criteria for Selection. The elementary Summer UP program was offered to rising Grades 3–5 students in MCPS focus schools[1] who showed academic need; most students received Free and Reduced-price Meal System (FARMS) services and many were identified as students receiving English for Speakers of Other Languages (ESOL) services. All of the schools selected students who were not attaining one or more measures based on the MCPS Evidence of Learning Framework. This framework uses multiple sources of evidence of student learning and examines them at multiple points in time to monitor student progress. A little over 300 eligible students were identified for eligibility in the program and their parents/guardians were sent a description of the summer program with an application.

Participating Schools, Students, and Staff. The elementary summer program was located at three MCPS elementary school sites which were strategically chosen from among the 43 MCPS focus schools in 3 separate clusters of the district. Each elementary school site also recruited students from another nearby focus school. The Summer UP sites were as follows:

1. Pine Crest Elementary School (students also from Highland View Elementary School, Montgomery Knolls Elementary School).
2. Oakland Terrace Elementary School (students also from Rock View Elementary School).
3. Stedwick Elementary School (students also from Fox Chapel Elementary School).

Staff at each site consisted of a site coordinator, certified academic teachers, and enrichment teachers. Site coordinators and academic teachers were hired by school administration. The community provider, HoopED, LLC, contracted by MCPS to deliver the enrichment portion of the curriculum, hired the enrichment teachers.

Review of Select Literature

The summer break typically is associated with a loss of learning that accrued over the academic year (Skibbe, Grimm, Bowles, & Morrison, 2012), thus many summer education models focus on maintaining students' skill levels. Research consistently shows that the detrimental effect of summer break is more pronounced for economically disadvantaged students than middle class students (Cooper et al.,1996). Over the past decade, the number of summer programs increased nationwide as an emerging body of research provided evidence that all types of summer programs could ameliorate summer learning losses and even lead to achievement gains (McCombs, et al., 2011).

A recent analysis from a multi-year study by the RAND Corporation (Augustine, et al., 2016) found that students benefitted from summer programming in math and language arts achievement. Using a randomized control trial, the study examined the impact of district-led summer programs in five school districts over two years for students in Grade 3. Results from this type of study is considered "strong" under the definitions of levels of evidence provided by the *Every Student Succeeds Act* of *2015* (ESSA) and What Works Clearinghouse standards (U.S. Department of Education, 2014). The study demonstrated the benefits in mathematics achievement for the fall and the persistence of those effects into the spring. There was no clear evidence that two summers of programming adds to the achievement benefits.

The RAND authors also used a correlational analysis to examine the impact of attendance on reading, math, and social emotional outcomes. Results from correlational studies are considered "promising" under ESSA. Using this technique, Augustine et al. demonstrated a positive impact in math and reading achievement for high-attending students. High-attending students were defined as attending at least 20 days of the program and attending the program for two consecutive summers. Specifically, the study demonstrated promising evidence that:

- High attendance in one summer led to mathematics benefits that persisted into the following spring.
- High attendance in the second summer led to mathematics and language arts benefits that persisted.
- High attenders in the second summer benefited in terms of social-emotional outcomes.

Locally, a consistent body of research on MCPS summer programs also indicated some positive academic gains for certain groups of students who attended a summer program. These studies suggest greater positive impacts in the fall than at the end of the school year (Cooper-Martin, Wolanin, Jang, Modaressi, and Zhao, 2016), positive findings in math and reading for students impacted by poverty (Cooper-Martin and Zhao, 2016) and reinforcement of the academic achievement of Black or African American and Hispanic/Latino students impacted by poverty (Zhao, Modaressi and Jang, 2016).

Cooper-Martin (2018) examined the impact of the MCPS BELL summer program on math and reading achievement. The BELL summer program structure closely parallels that of the Summer UP program in that a mix of academic and enrichment instruction was provided for an entire day. The study found evidence for a positive impact of the BELL program on math skills in Grades 4 and 5 for all students, Black or African American, Hispanic/Latino, and FARMS recipients.

Cooper-Martin also found significantly enhanced reading performance for Black or African American students in Grade 4 and special education recipients in Grades 4 and 5.

Most MPCS and external evaluations of summer programs have been conducted at the elementary school level. The most rigorous of these studies suggest that summer programs could help summer learning losses and even lead to achievement gains though not always in both math and reading (RAND, 2016). This study will focus on the impact of a district-led summer program on reading and math achievement at the elementary school level.

Most of the research on summer programs do not include programs that implement a specific set of activities targeted to improve specific social-emotional skills like self-regulation or communication. Rather, the programs provide broader opportunities for "leadership" or "character development." These evaluations find no significant differences on such social emotional outcomes and mixed effects on negative behavioral outcomes such as school discipline and suspension. Evaluations of academic programs do not demonstrate consistent non-cognitive results either. (McCombs, 2014) However, a meta-analysis of out of school time programs found that when the programs explicitly targeted specific skills students demonstrated positive outcomes such as increases in positive social behaviors, self-perception, and academic achievement. (Durlak, Weissberg, and Pachan, 2010). As such, researchers strongly suggest that social emotional experiences beyond academic learning need to be measured when evaluating extended learning opportunities (McCombs, 2014). This study will focus on evaluating the social-emotional experiences of students in the Summer UP program through qualitative methods.

Evaluation Scope and Questions

This evaluation was conducted using formative and outcome approaches. The formative evaluation provides information regarding the perspectives and experiences of stakeholders that can be used for program improvement. The outcome evaluation compares the academic performance (reading and math) of students enrolled in the 2018 Summer UP program to a matched sample of students. In addition, attendance data was examined in the outcome analyses, as research shows that student with high attendance benefitted more from summer programming (Augustine et al., 2016) than students who attended fewer days.

The following questions guided the evaluation:

1. How was the Summer UP program implemented in MCPS?
    a. What were the perceptions of site based coordinators, afternoon enrichment staff, and academic teachers with regard to the curriculum and program operations?
2. What were the perceptions of staff, parents, students and providers with regard to program benefits?
3. What were the attendance rates for students who participated in Summer UP?
4. What was the impact of the Summer UP program on student reading achievement skills? Did the impact of the program vary by MCPS focus groups?

5. What was the impact of the Summer UP program on student math achievement skills? Did the impact of the program vary by MCPS focus groups?[4]

Methodology

Evaluation Design

Table 1 provides a summary of the evaluation questions, methodology and data sources.

Table 1
Summer UP Evaluation Questions, Methodology, and Data Sources

	Evaluation Question	Methodology	Data Source
1	How was the Summer UP program implemented in MCPS?	In-depth interviews and document analysis	School administration, site coordinators, program documents
1a	What were the perceptions of site based coordinators, academic teachers, enrichment staff, and parents/guardians with regard to the *curriculum and program operations*?	In-depth interviews and surveys	Site based coordinators, academic teachers, enrichment staff, and parents/guardians
2	What were the perceptions of academic teachers, enrichment staff, parents/guardians, and students with regard to *program benefits*?	Surveys	Academic teachers, enrichment staff, parents, and students
3	What were the attendance rates for students who participated in Summer UP?	Descriptive data analysis by school level and MCPS student focus groups.	School site attendance records
4	What was the impact of the Summer UP program on student **reading** skills? Did the impact of the program vary by the MCPS focus groups?	Data Analysis - ANCOVA	MCPS-AP-PR Spring 2017-2018 NWEA MAP-R – Spring 2017-2018 and Fall 2018-2019
5	What was the impact of the Summer UP program on student **math** skills? Did the impact of the program vary by the student focus groups?	Data Analysis - ANCOVA	MAP-P Spring 2017-2018 NWEA MAP-M – Spring 2017-2018 and Fall 2018-2019

[4] MCPS focus groups are defined as 1) non-FARMS All Other Students (not African American nor Hispanic), 2) non-FARMS Black or African American, 3) non-FARMS Hispanic/Latino, 4) FARMS All Other Students, 5) FARMS Black or African American, and 6) FARMS Hispanic/Latino.

Evaluation Questions 1–3 used a nonexperimental design. Interviews, program document review and stakeholder surveys provided information on program implementation, processes and stakeholder experiences. A descriptive analysis of program attendance records was used to answer Evaluation Question 3.

Evaluation Questions 4 and 5 used a quasi-experimental design (Shadish, Cook & Campbell, 2002) as shown in Figure 1. Results from this type of study are considered "promising" under ESSA. Reading and mathematics performance of two groups—students attending the program and students in a matched comparison group—were compared. This design maximizes the internal validity of the study by controlling for confounding in two ways: control by study design and control by statistical techniques.

To control by study design, a propensity score matching procedure was used to create comparison groups from the nonparticipating student population based on students' background characteristics (e.g., race, gender, and receipt of FARMS, ESOL, or special education services). Matching was done through IBM SPSS software. Advanced statistical analyses was conducted to further improve the internal validity of the findings by controlling for the students' prior achievement and demographic characteristics.

Figure 1.
Design of the Summer UP program evaluation of outcomes

	Pre-program	BELL			Post-program
Summer UP student group	O_1	=>	X	=>	O_2
Comparison group (Non-Summer UP)	O_1	=>	C	=>	O_2

O_1 – Spring 2018 local assessment results for Grades 2, 3, and 4 in mathematics and reading
X – Five weeks of summer program treatment from July 9, 2018 through August 3, 2018.
C – Non-Summer Program (no summer program treatment)
O_2 – Fall 2018 local assessment results for Grades 3, 4, and 5 in mathematics and reading

Data Sources and Sample: Evaluation of Implementation

Summer UP implementation information was gathered from program documents, site coordinator interviews, and teacher, parent and student surveys.

Program documents and records. Documents and records were reviewed, including program descriptions, records of attendance for students, classroom schedules and teacher resources.

Interviews with program administrators. Interviews were conducted with MCPS site coordinators who were overseeing the summer program. For two interviews, school administrators also provided information on the program. Topics included staffing at site; coordination and communication between academic and enrichment staff; support from MCPS; implementation challenges; coordination with other programs on site.

Student surveys. An online survey was administered to all students attending Summer UP during the last week of the program. Links to the student survey were sent to Summer UP staff with a request to have students complete the survey during the Summer UP program before the final day.

Students were provided the option of taking the survey in English or Spanish. A total of 234 students responded to the survey for a response rate of 81% (Table 2).

Parent surveys. An online survey was administered to parents during the last week of the program. E-mail correspondence was sent to parents explaining the evaluation study and requesting they participate in the survey using the link included in the e-mail. Families were provided the option of taking the survey in English or Spanish. One site administered paper versions of the online survey on the last day when families were attending the show case event. A total of 62 parents responded to the survey for a response rate of 22% (Table 2).

Teacher surveys. An online survey was administered to Summer UP academic teachers during the last week of the program. Emails were sent to staff explaining the evaluation study and requesting they participate in the survey using the link included in the email. The message explained that all responses were anonymous and the findings would only be reported in the aggregate. A total of 15 out of the 18 teachers responded to the survey for an 83% response rate (Table 2).

***Enrichment staff survey*.** An online survey was administered to Summer UP enrichment staff during the last week of the program. OSA provided a link to the director of HoopED, LLC to send to staff. It is unknown how many enrichment staff received the survey. E-mail correspondence was sent to staff explaining the evaluation study and requesting they participate in the survey using the link included in the email. Responses were received from three enrichment staff at the Summer UP sites.

A 5-point Likert scale was used to measure the degree to which stakeholders agreed with statements on the survey. Survey response rates were reported as follows for the elementary Summer UP program.

Table 2
Survey Response Rates

Stakeholder	N	*n*	Response rate (%)
Elementary			
Students	289	234	81.0
Parents	289	62	21.5
Academic Teachers	18	15	83.3

Data Sources and Measures: Outcome Evaluation

***Program attendance*.** Student attendance at the summer program was recorded daily by staff at each summer program site. Student-level attendance data was provided by the program to provide descriptive analysis about attendance and limit the outcome analysis to high attenders.

***MCPS student data*.** MCPS student records were used for demographic data (race, gender, and receipt of ESOL, FARMS, or special education services) for students in the summer program and students in the matched comparison group.

Local assessments. Measures of Academic Progress (MAP) are integrated collections of computerized assessments (Northwest Education Association, 2008 and 2011). These tests include multiple-choice items and a variety of other item types and are designed to provide educators with instructional information about what students are ready to learn. Scores on MAP tests are reported on the Rasch Unit (RIT) scale. The equal-interval property of the RIT scale scores makes them especially appropriate for various statistical purposes, including measuring change over time. MCPS administers the MAP in Grades 3–8 in fall, winter, and spring of each school year.

*Reading***.** For the rising Grade 3 students, the fall 2018 (following the summer program) Rasch Unit (RIT scores) from MAP-R was used as the outcome (or post-program) measure. The spring 2018 Assessment Program in Primary Reading (MCPS AP-PR) reading level was used as the pre-program measure since Grade 2 students do not take MAP-R. In advanced analyses, the pre-program measure can be any measure prior to the program that is highly correlated with the post-program measure. For the rising Grade 4–5 students, fall 2018 MAP-R was used as the outcome (or post-program) measure and spring 2018 MAP-R was used as the pre-program measure.

*Mathematics***.** For the rising Grade 3 students, RIT scores for mathematics from the fall 2018 MAP-M was used as the outcome or post-program measure. RIT scores for mathematics from the spring 2018 MAP-P was used as the pre-program measure. For the rising Grade 4–5 students, the fall 2018 MAP-M was used as the outcome (or post-program) measure and the spring 2018 MAP-M served as the pre-program measure.

Sample

Summer UP attendees**.** A total of 307 students enrolled in the 2018 Summer UP program during the registration period. Eighteen students attended the program for zero days bringing the total to 289 students attending the Summer UP program one day or more. Of the students who attended one day or more, 58 students attended fewer than 15 days. The number of students attending the Summer UP program for 15 or more days (out of 20 days) was 231 or approximately 80% of the 289 students. Demographic characteristics for students attending for any length of time are included in Appendix B, Table B-1.

***Analytical Sample*.** Two groups of students make up the samples used for the outcome analysis: 231 students who attended Summer UP for 15 or more days; and a matched comparison group of 231 students from the six Summer UP schools who did not attend the Summer UP program. The attendees were limited to students with high attendance (≥ 15 days), thus ensuring that students who received low dosages of the program were not included. Research shows the impact of high attendance during extended learning opportunities provides near term academic benefits, particularly in mathematics (Augustine, 2016; Cooper-Martin 2016). It is suggested that 15 to 20 days has the most impact on student outcomes. Summer UP was a shorter program than other

MCPS summer programs and after reviewing the distribution of attendance, 15 days was chosen as the threshold.

The comparison group is comprised of students matched to the Summer UP attendees using propensity scores. The comparison group was selected from a pool of 1,816 students attending the six Summer UP schools who did not attend the Summer UP program. Propensity scores were computed for each grade (3, 4, and 5) using gender, race and receipt of FARMS, ESOL or special education services.

Table 3 presents the demographic characteristics of the two groups comprising the analytic sample: the Summer UP attendees, and the comparison group. In both groups, Hispanic/Latino students comprised the majority of the population, although the Summer UP group had a higher percentage (64%) compared to the comparison group (55%). This was followed by Black or African American students, which comprised about 28–29% of the population for each group. More than 8 out of 10 students (87% in Summer UP and 84% in the comparison group) received FARMS services, which is not surprising since the Summer UP program targeted MCPS focus schools. More students received ESOL services in the Summer UP group versus the comparison group (65% vs. 55%). Conversely, fewer students in the Summer UP group received special education services versus the comparison group (17% vs. 25%). Finally, there was a higher percentage of FARMS Hispanic/Latino students in the Summer UP group (60%) than in the comparison group (47%).

Table 3
Characteristics of the 2018 Summer UP Participants and Comparison Group

	Summer UP Participants[a]		Comparison Group	
	N	%	N	%
Total	231	100	231	100
Grade level as of Fall 2018				
Grade 3	76	32.9	76	32.9
Grade 4	83	35.9	83	35.9
Grade 5	72	31.2	72	31.2
Gender				
Female	110	47.6	101	43.7
Male	121	52.4	130	56.3
Race/ethnicity				
Asian	13	5.6	21	9.1
Black or African American	65	28.1	67	29.0
Hispanic/Latino	148	64.1	126	54.5
White	--	--	10	--
Two or More Races	--	--	--	--
Receipt of services during the school year 2017–2018				
ESOL	151	65.4	128	55.4
FARMS	201	87.0	193	83.5
Special education	38	16.5	58	25.1
Focus groups				
Non-FARMS All Other Student Groups	6	2.6	15	6.5
Non-FARMS Black or African American	15	6.5	≤ 5	≤ 1.0
Non-FARMS Hispanic/Latino	9	3.9	18	7.8
FARMS All Other Student Groups	12	5.2	23	10.0
FARMS Black or African American	50	21.6	62	26.8
FARMS Hispanic/Latino	139	60.2	108	46.8

Note. Results are not reported (--) for groups with fewer than 10 students. There were no students in the Native American or Pacific Islander categories.
[a]Limited to students who attended Summer UP for 15 or more days.

Analytical Procedures

To address the first and second evaluation question, data collected during site visits, surveys and interviews were analyzed. To address the third evaluation question, data from attendance records were analyzed for attendance rates. To address the fourth and fifth evaluation questions, both statistical significance tests and effect sizes were used (where appropriate). Effect sizes were calculated to judge whether the observed differences among student groups (summer program vs. comparison) were large enough to be of practical significance to educators (American Psychological Association, 2010).

Analysis of Covariance (ANCOVA) was used to test for significant differences between the two groups' mean RIT scores on MAP-M and MAP-R. Researchers (Campbell UP & Stanley, 1963; Judd et al., 1991) advise that in order to observe the true effects of treatment in nonequivalent control group design, analysis of covariance (ANCOVA) should be conducted. In this study, fall 2018 MAP scale scores were compared for the two groups of students (Summer UP participants and comparison group) while controlling for pre-program performance (Spring 2018 scores) as well as for differences in demographic characteristics (gender, racial/ethnic group, receipt of ESOL, receipt of FARMS, receipt of special education services) using propensity scores. Analyses were conducted separately for each grade level.

Effect sizes[5] were calculated using Cohen's *d* to judge whether the observed differences between student groups (Summer UP vs. comparison) were large enough to be of practical significance to educators (American Psychological Association, 2010). Many studies compare the overall program effect size to Cohen's (1988) definitions of a small effect within the behavioral sciences, $d = .20$; a medium effect, $d = .50$; and a large effect, $d = .80$ (Cohen, 1988). However, a study examining evaluations of 346 education programs for at-risk children reported that the average effect size, adjusted for methodological characteristics, was $d = .12$ (Borman, Hewes, Overman, & Brown, 2002). According to Lipsey et al. (2012), the mean effect size of interventions that focus on curriculum or broad instructional programs is 0.13 and the median effect size is 0.08. As such, in this study, an effect size of 0.15 was considered an appropriate level for the threshold for a small practically significant effect, $d = .50$ the threshold for a medium effect, and $d = .80$ the threshold for a large effect.

When subgroups were large enough to yield reliable statistics, student data was also examined by the five recently defined focus groups: 1) non-FARMS Black or African American, 2) non-FARMS Hispanic/Latino, 3) FARMS All Other Students (not African American nor Hispanic) 4) FARMS Black or African American, and 5) FARMS Hispanic/Latino and the monitoring group, Non-FARMS All Other Students.

Strengths and Limitations

Strengths. The outcome findings presented in this report are based on a sound evaluation design and appropriate analyses. The author employed two control techniques for improving the internal validity of the findings and for estimating a less biased effect of the Summer UP program.

- *Control by study design.* The key component of the quasi-experimental design is the use of appropriate comparison groups when evaluating a program's outcomes. In this evaluation, comparison groups in each grade were selected from a pool of students who attended school at the Summer UP sites but did not attend the Summer UP program. Propensity scores were computed for matching students with similar characteristics (i.e., grade level, gender, race/ethnicity, receipt of FARMS, ESOL, or special education services).

[5] Effect size calculated from ANCOVA: $ES = \frac{\overline{X}_{RCC} - \overline{X}_{no\,RCC}}{s_{pooled}}$ for the RIT scale scores

- *Control by statistical techniques.* Since students were not randomly assigned to the treatment or comparison group, the possibility remains that pre-existing differences may influence the outcome, which can impact the validity of the findings. To control for other factors that may influence the association between the independent and dependent variables, ANCOVA procedures were used in this study to control for differences in demographic characteristics and pre-program achievement.

Further, analyses included both statistical and practical significance tests when interpreting results. Additionally, Summer UP participants were limited to students with high attendance (15 or more days), thus ensuring that students who received low dosages of the program were not included.

The formative portion of this evaluation collected data from multiple stakeholders; this triangulation approach increased the rigor, thoroughness and credibility of the findings. The generalization of the survey results depends mostly upon the sampling techniques and the response rates. In this study, the census administration of the surveys guarded against the sampling error by including all the major Summer UP stakeholders (teachers, students, parents) in the sampling frame so that everyone had a chance to participate. The response rates in this study were high for students (81.0%) and teachers (83.3%).

Limitations. As mentioned previously, this study relied on a quasi-experimental design, comparing the outcomes of students who participated in the program to a comparison group of students who did not participate. Nonetheless, only a classical experiment with a random assignment of students to the program or a control group safeguards against each of the sources that may threaten internal validity, such as selection bias, maturation, history, or attrition. (Babbie, 1992; Judd, Smith, & Kidder, 1991; Hedrick et al., 1993). Therefore, causality may not be inferred from this study due to the lack of an experimental design. Further, although the comparison group in this study did not attend Summer UP nor did they attend the MCPS BELL program, it is not known whether these students received a similar type of academic or enrichment program during the summer, or whether they differed from attendees in other ways (e.g., motivation, academic need).

This evaluation measured the effectiveness of Summer UP by using students' scores in MAP-M and MAP-R from spring and fall 2018. However, the gap in time between the end of the summer program and the post-program test administration during the school year could have allowed other factors, different from the program, to influence students' performance. In the case of fall 2018 assessments, the window to administer MAP-R or MAP-M was almost two months (from September 11 to November 2, 2018). Participants who took these tests at the end of the assessment period rather than at the beginning were more likely to be exposed to other factors, such as more instruction days, not necessarily attributed to the program. Additionally, the effectiveness of this program was mainly assessed by the academic performance of students in reading and mathematics. Other program effects (e.g., having better critical skills, critical thinking, engagement, etc.) were not addressed by this study.

Another limitation is that statistical analysis could not be performed on several specific demographic groups due to the small number of students in those groups.

Further, a possible limitation is the use of specific surveys from Summer UP academic and enrichment staff of the Summer UP program. Surveys included responses based on their own work, so the possibility of self-report must be considered.

Finally, the response rate for the parent survey 22% meaning that the majority of parents who received the survey did not respond and the majority of parent responses came from one Summer UP site. Therefore, the survey responses may not be representative of all parents with students in the Summer UP program.

Results

Results for implementation (evaluation questions 1 through 4) are presented below followed by the results of the outcome analysis (evaluation questions 4 and 5).

Findings for Evaluation Question 1: How was the Summer UP program implemented in MCPS?

The following section describes the responses from site coordinator interviews and surveys of academic teachers regarding how the Summer Up program was implemented during the summer of 2018. Information from program documents also provided data for this evaluation question.

Site-Based Coordinators' reports of Summer UP program implementation

The information from site coordinators is organized into the following areas: student selection criteria; enrollment and attendance processes; staffing; transportation; the curriculum and instructional program. All of the site coordinators were MCPS K–2 teachers from the schools where the Summer UP program was located. This was their first year coordinating a summer program for each of them.

Student Selection Criteria. In their interviews, all three of the coordinators and administrators noted that students were selected for Summer UP based on the student's FARMS status, and performance on the MCPS Evidence of Learning (EOL) Measures. All coordinators specifically mentioned MAP-R and MAP-M scores were used to help determine which students participated in the program. One site mentioned reviewing the data and selecting students who attained the EOL classroom measure but were not reading on grade level or did not attain the MAP-R district requirement. Another site reported selecting students for whom teachers were implementing an MCPS Documentation of Intervention form.

Enrollment and attendance processes. When asked to describe the enrollment procedures, all of the site coordinators reported sending letters home in English and Spanish, inviting students to the program and attaching an application with directions. To boost enrollment, one coordinator reported that classroom teachers discussed the program with their students to generate student enthusiasm in an effort to increase program applications.

All coordinators reported keeping track of families that responded to the application letter and conducting follow-up vis-à-vis numerous personal telephone calls and/or *myMCPS* Connect[6] phone calls to boost enrollment. Two sites mentioned how other school staff assisted in the enrollment process: the parent community coordinator and/or the pupil personnel worker conducted follow up communication an assisted with the application process. One site coordinator

[6] *myMCPS* Connect is a community outreach system that allows MCPS staff to record, schedule, send, and track personalized voice messages to all members of the school community or to groups within the community.

reported that once a student enrolled, the school followed up with a welcome brochure providing details on where to report and transportation details.

During the interviews, each site coordinator reported that the recruitment of students was impacted because families were not invited until late in the school year. One coordinator stated, "Some families had other plans, like vacation or other summer programs and said they wish they would have known earlier." In addition, two coordinators mentioned how the short timeline for development of the program, combined with end of year school activities, created substantial pressure on school staff.

When asked how attendance was tracked and monitored, each site coordinator reported that teachers tracked daily attendance. Two sites used electronic formats like Google sheets. The other site used paper where teachers recorded attendance, and sent it to the site coordinator who entered data into an electronic format. School staff undertook outreach efforts like follow up telephone calls to increase attendance when students were absent, particularly during the first week of the program.

Staffing at the site. Site coordinators reported little difficulty in finding academic teachers for the program. School staff that taught at the Summer UP sites and partner sites during the school year were offered employment first. One site reported initially opening the job to Grades 3–5 teachers to align with the grades the Summer UP program was targeting, and later opened the job to lower grade teachers when they could not fill the spots. All coordinators report the teachers were highly qualified and were used to working with ESOL and special education students in the classroom. Due to MCPS professional development requirements for teachers during the summer, substitutes were required. Summer UP staff would use a list of school staff from the Summer UP schools to contact substitutes when needed.

Coordinators reported some difficulty staffing other positions in the school due to lack of clarity around whether positions would be funded and what positions beyond teachers were required. One coordinator reported the program started the first day without a cafeteria manager for serving meals; another coordinator reported that the school did not find out they were getting a health technician until the Friday prior the program's start. The coordinator said, "I spent a lot of time to find out about student allergies, medical and Epipen issues to add to the rosters."

Transportation. All coordinators reported difficulty with transportation due to the condensed timeframe for program planning and that there was difficulty in securing buses for field trips because the buses were outsourced for other summer activities in the district. For one site, this affected the selection of field trips as some cultural opportunities were not an option due to transportation availability. Two coordinators reported that the MCPS Department of Transportation was very helpful working to solve these problems.

Summer UP curriculum, and instructional program. All site coordinators reported that academic teachers collaborated to develop the curriculum. The academic content was based on the MCPS curriculum and the Common Core State Standards (CCSS). Instructional standards were selected by grade level; teachers at each level met to plan lessons and had the flexibility to adjust lessons

to meet individual classroom and student needs. Weekly themes were developed and varied across sites. For example, one site selected an "Explorer" theme and integrated that theme throughout each block rotation. In the science enrichment rotation, students created solar ovens and made S'mores, in the art rotation they used chalk art to discuss and draw the solar system, in the academic rotation they wrote about what they learned related to the solar system. For the field trip, they visited the Smithsonian National Air and Space Museum.

A main goal of the Summer UP program was to integrate academic and enrichment activities, including weekly field trips. All coordinators reported that the students appeared very engaged and motivated by the enrichment activities. One comment was:

- *"We wanted to connect background knowledge that they bring and from the enrichment activities at Summer UP and write about it."*

The coordinators also highlighted how the enrichment rotations provided background knowledge for academic activities, for example:

- *"Even in Sports block they were learning about the different sports they played, coming back to class to research some more and [then] write about what they learned."*

Each coordinator interviewed mentioned the collaboration with the enrichment provider, HoopED, LLC. Two coordinators report collaborating with HoopED, LLC prior to the start of the program to integrate activities to plan activities and processes. All coordinators discussed how MCPS and HoopED, LLC staff worked together to integrate the weekly themes throughout the academic and enrichment activities. To support the connection between the academic and enrichment activities, academic teachers rotated with students to the enrichment block except for the sports block, which was used for teacher planning time.

When asked about the academic curriculum and instruction, two coordinators reported the use of project based learning as an instructional method to engage students in academic learning, while another site reported the use of projects but not Project-based Learning (PBL) in particular. One site mentioned numerous times a heavy emphasis on writing, and each site mentioned writing as a component of the program. Additionally, each site mentioned using the experience of the enrichment activities and field trips as part of writing instruction and practice in the academic class.

When asked, *"How is student progress monitored and assessed?"* all coordinators reported that teachers provided feedback to students in a one on one format or during small group instruction. Two coordinators also mentioned the use of PBL activities and writing samples as methods for monitoring student progress.

Academic Teacher Surveys of Summer UP program implementation

As reported by academic teachers, Tables 4 and 5 summarize the instructional and assessment methods used during Summer UP. Staff were asked the frequency with which they used various instructional and assessment methods during the academic instructional time.

Instructional Methods. Teachers responding to the survey reported using a variety of instructional methods more than three times per week (Table 4). Almost all responding teachers reported using class discussion more than three times per week (93%). Eighty percent of teachers reported using small group guided instruction, differentiated instruction, collaborative activities and writing activities more than three times per week.

The next most frequently used techniques were direct instruction, independent practice and real world applications with over 80% of responding teachers report using this instructional method rotation two to three times per week or three or more times per week. Techniques like hands on activities, enrichment activities or station rotation were used only slightly less frequently with 80% of teachers reporting they use them two to three times per week or three or more times per week.

The instructional method used least often was the demonstration method with 57% of responding teachers indicating they only used this method once a week or not at all. Teacher responses were almost evenly divided around the use of PBL. A little over half (53%) of the teachers report using PBL frequently, two to three times per week or three times or more per week; while just under half (47%) of the teachers report using PBL once a week or not at all.

Table 4
Frequency of Instructional Methods Used as Reported by Elementary Summer UP Teachers (N=15)

Instructional Methods	More than three times a week		Two to three times a week		Once a week		Not at all	
	n	%	*n*	%	*n*	%	*n*	%
Class discussion	14	93.3	1	6.7	0	0.0	0	0.0
Small group guided instruction (2 or more students)	12	80.0	3	20.0	0	0.0	0	0.0
Differentiated instruction	12	80.0	3	20.0	0	0.0	0	0.0
Collaborative activities (e.g., group projects)	12	80.0	2	13.3	0	0.0	1	6.7
Writing activities	12	80.0	3	20.0	0	0.0	0	0.0
Direct instruction - Teacher presenting to the whole class	11	73.3	3	20.0	1	6.7	0	0.0
Independent practice (e.g., worksheets, computer program, etc.)	11	73.3	3	20.0	1	6.7	0	0.0
Station rotation	10	66.7	2	13.3	2	13.3	1	6.7
Individualized instruction (one on one)	8	53.3	4	26.7	2	13.3	1	6.7
Hands on activities (e.g., experiments, art projects)	7	46.7	5	33.3	1	6.7	2	13.3
Enrichment activities (e.g., games, puzzles, art, problem solving journal)	7	46.7	5	33.3	1	6.7	2	13.3
Technology used by students (e.g., computers, online tutorials, scientific calculators, cameras, etc.)	6	40.0	4	26.7	2	13.3	3	20.0
Demonstrations (e.g., experiments)	5	35.7	1	7.1	2	14.3	6	42.9
Real world applications (calculating the area of a room, writing a letter or article)	5	33.3	8	53.3	2	13.3	0	0.0
Project Based Learning	4	26.7	4	26.7	3	20.0	4	26.7

*Assessment Methods***.** Academic teachers were asked the frequency in which they used various types of assessment activities used to inform instruction during Summer UP. Student journals were the most commonly reported assessment method with 100% of responding teachers reporting that they used student journals more than three times per week or two to three times per week, this was followed by using one on one feedback (93%) (Table 5). The next most common assessment methods teachers reported using two to three times per week or three or more times

per week were checks for understanding (67%) and group projects (60%). Most responding teachers reported very little use of pre and post testing, formative assessment and summative assessment with 80% indicating they used that method once a week or not at all.

Table 5
Frequency of Assessment Methods Used as Reported By Elementary Summer UP Teachers

Assessment Methods	More than three times a week		Two to three times a week		Once a week		Not at all	
	n	%	*n*	%	*n*	%	*n*	%
Student journals	13	86.7	2	13.3	0	0.0	0	0.0
One on one feedback (e.g., verbal or written feedback, error analysis)	10	66.7	4	26.7	0	0.0	1	6.7
Checks for understanding (e.g., exit card)	9	60.0	1	6.7	3	20.0	2	13.3
Group Projects	6	40.0	3	20.0	3	20.0	3	20.0
Individual Projects	5	35.7	2	14.3	3	21.4	4	28.6
Student Presentations or Demonstrations	4	26.7	1	6.7	7	46.7	3	20.0
Summative assessments (e.g., test, final project or essay)	3	20.0	0	0.0	2	13.3	10	66.7
Formative assessments (e.g., quizzes, digital tools)	1	6.7	2	13.3	1	6.7	11	73.3
Pre and Post Testing	0	0.0	3	20.0	5	33.3	7	46.7
Extended response problems	0	0.0	6	40.0	2	13.3	7	46.7

The number of respondents in some rows may not add up to 15 due to non-responses.

Summary of Findings for Evaluation Question 1

To address Evaluation Question 1, the survey responses of academic teachers and interviews of coordinators were analyzed, and their responses are summarized below and organized by key topics.

Student selection and enrollment. All site coordinators reported that a combination of factors were used when selecting students for the Summer UP program. The main criteria were the student was receiving FARMS and the student's MAP-R and MAP-M scores from the 2017–2018 school year precluded them from attaining the Evidence of Learning measure.

Design of the program. A major design goal of the Summer UP program was to provide engaging and interactive instructional activities when addressing the English language arts and Math CCSS during the academic portion of the program. Rather than a prescribed curriculum, coordinators report that academic staff developed weekly themes where instructional activities

were integrated with enrichment. All coordinators discussed the importance of the enrichment activities to build background knowledge for the academic rotations. Enrichment activities were coordinated with HoopED, LLC prior the program.

Instructional and assessment techniques. Responding teachers indicated a variety of instructional techniques was used during the academic portion of the day. The most frequently reported techniques were class discussion small group guided instruction, differentiated instruction, collaborative activities and writing activities. To monitor and assess student progress during the program, a majority of responding teachers reported using assessment methods typically found in the elementary classroom. Student journals, one on one feedback, checks for understanding and group projects were the most commonly reported assessment methods.

Findings for Evaluation Question 1a: What were the perceptions of site based coordinators, academic teachers, enrichment staff, and parents/guardians with regard to the curriculum and program operations?

The following section describes the survey responses of academic teachers, parents and enrichment staff about the Summer UP curriculum and related program operations. Additional information from the site-based coordinator interviews is provided after the survey responses.

Academic teacher perceptions of Summer UP program curriculum and operations

Curriculum Preparation and Planning. All responding teachers agreed they had a sufficient amount of time to set up their classroom (100%). More than 90% of the teachers who responded to the survey indicated positive agreement on almost all survey items related to curriculum preparation and planning (Table 6). They agreed that they were provided a sufficient amount of time for lesson planning (93%); content they taught fit the learning needs of their students (93%); they had an adequate amount of supplies (93%) and they felt prepared to teach the curriculum for their class (93%). The only item with fewer than 90% of teachers responding positively was, “I had the instructional resources I needed to do my job well” (73%).

Table 6
Elementary Teachers' Satisfaction with Summer UP Preparation and Planning

Please indicate your overall level of agreement…	N	Strongly Agree or Agree *n*	Strongly Agree or Agree %
Curriculum Preparation and Planning			
I was provided a sufficient amount of time to set up my classroom.	15	15	100.0
I was provided a sufficient amount of time for lesson planning.	15	14	93.3
I found that the content I taught fit the learning needs of my students.	15	14	93.3
An adequate amount of supplies (e.g. paper, markers, pens, etc.) were available.	15	14	93.3
I felt prepared to teach the curriculum for my class.	15	14	93.3
I had the instructional resources (e.g. leveled reading materials, manipulatives, etc.) I needed to do my job well.	15	11	73.3

Responses were based on a 4-point Likert scale: Strongly Agree, Agree, Disagree, Strongly Disagree.

Program Communication and Collaboration. On survey items related to communication and collaboration, the percentage of responding teachers indicating positive agreement ranged from 36%—87% (Table 7). Teachers indicated the highest level of agreement with items related to the role and availability of the Summer UP site leaders and program procedures. Teachers indicated strong positive agreement with statements like: my site leaders clearly communicated the expectations around my job role and responsibilities (87%); site leaders were available when I needed assistance (86%); I received information on procedures for the summer programs (87%); and I received regular communication during the summer program from my site leaders (80%).

There was a wide range of agreement across survey items related to communication and collaboration with HoopED, LLC staff with positive responses ranging from 21% to 67% from responding teachers. Over two thirds of academic teachers who responded to the survey strongly agreed or agreed that they collaborated with HoopED, LLC staff about managing student behavior during the program (67%). Half of the responding teachers reported that they collaborated with HoopED, LLC staff to integrate enrichment activities with learning tasks during the program (50%). The lowest levels of agreement were related to items about meeting with HoopED, LLC staff. Only 21% agreed they had an opportunity for collaborative planning with HoopED, LLC staff prior to the start of the program, and only 36% agreed that they regularly met with HoopED, LLC staff to discuss how the program was going.

Table 7
Elementary Teachers' Satisfaction
with Summer UP Communication and Collaboration

Please indicate your overall level of agreement…	*N*	Strongly Agree or Agree *n*	Strongly Agree or Agree %
Communication and Collaboration			
My site leaders clearly communicated the expectations around my job role and responsibilities.	15	13	86.7
I received information on procedures for the summer program (e.g., transportation, fire drills, substitutes, schedules, discipline, etc.)	15	13	86.7
Site leaders were available when I needed assistance.	14	12	85.7
I received regular communication during the summer program from my site leaders.	15	12	80.0
I knew what type of activities were happening in the classes students rotated through each day.	15	10	66.7
I collaborated with HoopED staff about managing student behavior.	15	10	66.7
I collaborated with HoopED staff to integrate enrichment activities with learning tasks.	14	7	50.0
I regularly met with HoopED staff to discuss how the program was going.	14	5	35.7
I had an opportunity for collaborative planning with HoopED staff prior to the start of the program.	14	3	21.4

Parent perceptions of Summer UP program operations

Parents responding to the survey indicated overwhelmingly positive agreement to all survey questions related to program operations (Table 8). All parents responding to the survey indicated positive agreement to the statement that a full day of the summer program was convenient for them (100%). For items related to program operations, the percentage of parents indicating positive agreement was over 95% on all items (Table 7), such as: information was communicated in a timely manner (98%), transportation was adequate (98%) and information was easy to understand (97%).

Table 8
Parents Level of Agreement with Aspects of the Summer UP Program Operations

		Strongly Agree or Agree	
Please indicate your level of agreement …	*N*	*n*	%
The fact that the summer program was a full day was convenient for me.	60	60	100.0
Information about the program was communicated in a timely manner.	61	60	98.4
Transportation for the program was adequate.	53	52	98.1
Information about the summer program was communicated to me in a way that I could easily understand.	62	60	96.8

Enrichment staff perceptions of Summer UP curriculum and operations. Elementary enrichment staff had the opportunity to respond to survey questions about program operations. Responding enrichment staff indicated strong positive agreement across all questions that asked about logistics, collaboration and curriculum. Since surveys were received from only three enrichment staff members, their responses are summarized below.

- All respondents agreed that:
  - The summer program clearly communicated expectations around the job role and responsibilities.
  - They received regular communication during the summer program from program and/or site leaders.
  - They collaborated with morning staff about activities implemented in the afternoon.
  - They collaborated with morning staff about managing student behavior.
  - Site leaders were available when they had questions are needed help.
  - Technology was available for use in the program.
  - Transportation was adequate when needed for activities.
- Less than unanimous agreement was indicated around the idea that enrichment activities in the afternoon motivated students to attend the summer program in the morning and that they collaborated with the school to design the program.

Site-based coordinators perceptions of Summer UP Operations

All site coordinators expressed how the condensed time period in which they had to create and implement the Summer UP program impacted the program operation. When asked, "*What improvements do you think are needed in the summer program?"* coordinators unanimously agreed that a longer timeline to plan the program would be beneficial. All of them mentioned the need for more time during the spring to recruit students; plan the curriculum with academic and

enrichment staff; purchase the correct supplies and materials; secure transportation and receive and understand budget information. One coordinator stated, "Having all the details in the beginning—budget, transportation," and another said, "Having a checklist, knowing what we need and communication from Central Office."

In the same discussion, about planning issues, coordinators also described how school staff, enrichment staff and central services staff collaborated to solve issues. Site coordinators reported that central services staff was helpful in providing information and answering questions, as it became available. One site coordinator mentioned that the directions to complete the budget were helpful. All of them recommended having a Summer UP site coordinators' meeting prior the start of the program.

Summary of Findings for Evaluation Question 1A

To address Evaluation Question 1A, the perceptions of academic teachers, enrichment staff, and parents were gathered through surveys, and site coordinators provided their perceptions through interviews. A summary of findings is presented below, organized by key topics.

Program Preparation and Planning. Teachers responding to the survey items reported strong positive agreement across almost all items related to preparation and planning. One item, "I had the instructional resources I need to do my job" received a lower percentage of agreement, (73%). Site coordinators unanimously agreed that more time to plan the program would be beneficial for program operations particularly as it relates to transportation and budget details. Responding enrichment staff indicated strong positive agreement across all questions that asked about operations.

Program Communication and Collaboration. A majority of teachers (80%), parents (98%) and all enrichment staff agreed that communication regarding Summer UP was timely and consistent. Teachers indicated the highest level of agreement with items asking about the role, activities and availability of the Summer UP site leaders, but they reported lower levels of agreement with items related to the communication and collaboration with enrichment staff.

Findings for Evaluation Question 2: What were the perceptions of academic teachers, enrichment staff, parents/guardians, and students with regard to program benefits?

Academic teachers, enrichment staff, parents, and students reported their perceptions of the Summer UP program benefits through their responses to surveys administered during the final week of the program.

Academic Teacher perceptions of Summer UP Program benefits.

Teachers responding to the survey overwhelmingly reported positive agreement on all survey items related to the benefits of the Summer UP Program. Table 9 shows the percentage of teacher

agreement with survey items addressing the student engagement and motivation during the program as well as overall benefits of the program.

On almost all survey items addressing teachers' perceptions of student engagement and motivation in the program,, respondents indicated 100 percent positive agreement; all teachers agreed that: students completed work assigned; students enjoyed learning activities implemented in the classroom; my class was successful in helping students engage in work that will help them for school in the fall; and enrichment activities offered during rotations motivated students to attend the program (Table 9). One item had lower agreement — overall, the program was the right mix of enrichment activities and academic learning (79%).

The next set of survey items in Table 9 related to the overall benefits of the program, both academic and social emotional learning. All teachers (100%) agreed with statements that students showed progress in the summer class, that they improved their academic skills, and that the program had a positive impact academically. Similarly, for questions related to social-emotional learning, 100% of teachers agreed that students felt comfortable in the program and that the program facilitated positive behavior among students. Only two items related to program benefits received slightly less agreement than the other items and these were related to building student's background knowledge and teacher learning: students' background knowledge for academic activities was strengthened by the HoopED, LLC activities delivered during rotations (93%); and working with Summer UP has helped me develop my professional skills (80%).

Table 9
Elementary Teachers' Perceptions of Program Activities and Benefits

		Strongly Agree or Agree	
Please indicate your overall level of agreement…	N	*n*	%
Student Engagement and Motivation			
In my class, students completed the work I assigned.	14	14	100.0
In my class, students enjoyed the learning activities I implemented in the classroom.	14	14	100.0
I felt my class was successful in helping students engage in work that will help them for school in the fall.	13	13	100.0
The enrichment activities offered during the rotations motivated students to attend the summer program.	14	14	100.0
Overall, the program was the right mix of enrichment activities and academic learning.	14	11	78.6
Program Benefits			
Overall, students showed progress in the summer class I taught.	14	14	100.0
Overall, students improved their academic skills in the summer class I taught.	14	14	100.0
Overall, the program had a positive impact on my students academically.	14	14	100.0
Overall, students seemed comfortable in the summer program.	14	14	100.0
Overall, the program facilitated positive behavior among students.	13	13	100.0
Student's background knowledge for academic activities was strengthened by the HoopED activities delivered during rotations.	14	13	92.9
Working with Summer UP has helped me develop my professional skills.	15	12	80.0

Enrichment Staff perceptions of Summer UP Program benefits

Elementary enrichment staff had the opportunity to respond to survey questions about program benefits. Responding enrichment staff indicated strong positive agreement across all questions that asked about providing opportunities to students, improving social emotional skills and developing math or literacy skills. Since surveys were received from only three enrichment staff members, their responses are summarized below.

- All respondents agreed that the summer program:
    - Improves students' social relationships and self-confidence.
    - Provides experiences the students would not otherwise have.

- Increases students' interest in other areas besides academics (e.g., arts, STEM, leadership, cooking, and athletics).
- Allows students to integrate academic skills into other areas.
- Allows students to develop skills/talents outside of academic areas.
- Improved student literacy skills.
- Overall, the full-day summer program was the right mix of enrichment activities and learning.

Parent perceptions of Summer UP program benefits

Parents responding to the survey were overwhelmingly positive in their agreement with statements regarding the benefits of the Summer UP program (Table 10). All responding parents indicated positive agreement with the statements around motivation and engagement like, Summer UP helped their child develop new interests (100%); their child liked the activities in the program (100%); and their child enjoyed attending the summer program (100%).

Nearly all parents agreed with statements about social emotional learning, such as: their child felt comfortable going to the program (100%); the program helped their child's confidence (98%), their child felt safe at the program (98%), their child had friends in the program (98%).

Table 10
Parent Perceptions of Program Activities and Benefits

		Strongly Agree or Agree	
Please indicate your level of agreement …	*N*	*n*	%
Program Benefits			
My child enjoyed attending the summer program.	62	62	100.0
My child liked the activities in the summer program.	62	62	100.0
My child was comfortable going the summer program.	62	62	100.0
The program helped my child develop new interests.	57	57	100.0
My child felt safe in the summer program.	62	61	98.4
My child had friends in the summer program.	61	60	98.4
The non-academic activities increased my child's interest in attending the summer program.	61	60	98.4
The program helped my child to be more confident.	60	59	98.3

Parents were asked what their child would be doing if they were not attending this program. Figure 2 shows that over 80 percent (81.4%) of parent respondents indicated their child would be staying at home if they were not attending the Summer UP program. Only 12 percent of parent respondents indicated their student would attend another summer program if not attending Summer UP.

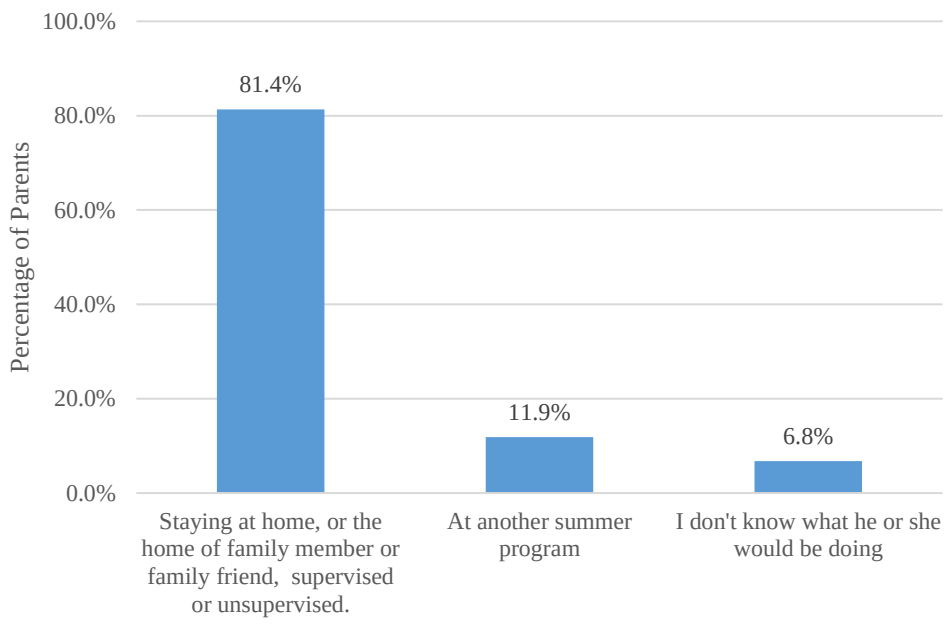

Figure 2. Parent reports of what their child would be doing if not attending Summer UP

Parent responses to open-ended questions.

In response to two open-ended survey questions about their favorite parts of the Summer UP program and what they might change about the program, parents provided further information about their experiences in the program.

Fifty-one parents provided a response to the survey question asking what they would change about Summer UP. Parents most frequently noted they would not change anything (58.8%). About 18% of the responding parents suggested providing after care and extending the number of days of the program (Table 11).

Table 11
Parent Reports of What They Would Change About the Summer UP Program
by Parents Responding to an Open-End Survey Question (*N=51*)

Suggested change	***n***	***%***
Nothing /Everything is perfect	30	58.8
Provide After Care Program or extend the number of days	9	17.6
Increase field trips	3	5.9
Increased academic time reading or math	2	3.9
Other positive comments	5	9.8
Miscellaneous	5	9.8

Note. Respondents may respond with more than one item.

Parents named their favorite aspect of the Summer UP program in response to a second open-ended question. Parents responding to the question most frequently noted that the program was entertaining and fun for their child (46%). About one fourth of the responding parents reported field trips as their favorite aspects of the program, followed by the curriculum/learning (20%) provided at Summer UP (Table 12).

Table 12
Favorite Aspects of Summer UP
Reported by Parents Responding to Open-End Survey Questions (*N*=54)

Favorite Part	***n***	**%**
Fun/entertaining	25	46.3
Field Trips	14	25.9
Curriculum/ Learning	11	20.4
Convenience/Time	7	13.0
Transportation	3	5.6
Miscellaneous	1	1.9

Note. Respondents may respond with more than one item.

Student perceptions of Summer UP benefits. Survey responses from elementary students were generally very positive toward the Summer UP program (Table 13). On all survey items, more than three-quarters of the students indicated positive agreement with statements about program instruction and activities as well as social emotional learning. For items related to program instruction and activities, the highest level of agreement were that they liked the projects completed in science class (96%); that they enjoyed hands-on activities (94%); that their teachers always used different ways to explain things (93%), and that they always liked the games played in sports class (90%). Other survey items related to instruction and activities—including learning new skills and covering new topics in language arts and math—had positive responses ranging from 79% to 87% of student respondents. Grade 5 students reported slightly less agreement than other students on items related to content and skills**:** that they covered new topics in math (78%); they learned new

skills (75%); they liked the activities completed in art class (76%) and the program covered new topics in language arts (74%). However, 80% of Grade 5 students agreed they participated in new activities that they did not participate in during the school year.

On survey items related to social and emotional learning, the statement with the highest percentage of students indicating positive agreement was "I have friends in the summer program" (88%) (Table 13). Similarly, almost 87% of responding students indicated that they always felt they had at least one adult they were comfortable talking with in the program and they participated in activities with other students. On the other survey items related to social and emotional learning, more than 80% of the students responded positively around motivation to attend the program and feelings of belongingness (Table 13). Although a high percentage of Grade 5 students indicated they had friends in the program (92%), slightly lower percentages of Grade 5 students (75%) compared with Grade 3 and 4 students agreed (84% and 82%) that they felt like they belonged in the program (75%). Similarly, a slightly lower percentage of Grade 5 students (72%) compared with Grades 3 and 4 agreed (80% and 81%) that they would tell their friends to attend the program next year.

Table 13
Number and Percent of Responding Grades 3, 4, and 5 Students Indicating Level of Agreement with Aspects of the Summer UP Program

Please indicate your level of agreement…	Strongly Agree or Agree											
	All Respondents			Grade 3			Grade 4			Grade 5		
	N	*n*	%	N	*n*	%	N	*n*	%	N	*n*	%
Program Instruction and Activities												
I like the projects we completed in science class.	230	221	96.1	84	80	95.2	86	84	97.7	60	57	95.0
I enjoyed hands on activities (for example, experiments, art, and sports).	234	219	93.6	85	78	91.8	87	81	93.1	62	60	96.8
My teachers used a lot of different ways to explain things.	229	214	93.4	83	79	95.2	85	77	90.6	61	58	95.1
I liked the games we played in sports class.	233	209	89.7	85	77	90.6	86	77	89.5	62	55	88.7
I learned new skills in the summer program.	231	200	86.6	85	76	89.4	85	78	91.8	61	46	75.4
I liked the activities I completed in art class.	234	193	82.5	85	71	83.5	87	75	86.2	62	47	75.8
We covered new topics in math.	232	187	80.6	85	69	81.2	86	70	81.4	61	48	78.7
I participated in new activities in the summer program that I did not participate in during the school year.	233	187	80.3	85	67	78.8	87	71	81.6	61	49	80.3
We covered new topics in language arts.	231	183	79.2	84	64	76.2	86	74	86.0	61	45	73.8
Social Emotional Learning												
I have friends in the summer program.	231	203	87.9	85	74	87.1	85	73	85.9	61	56	91.8
I participated in activities with other students.	229	200	87.3	83	68	81.9	86	79	91.9	60	53	88.3
I had at least one adult I was comfortable talking to at this program.	232	201	86.6	85	77	90.6	87	74	85.1	60	50	83.3
I was excited to come to the summer program every day.	234	196	83.8	85	74	87.1	87	72	82.8	62	50	80.6
I felt like I belonged in the summer program.	229	185	80.8	85	71	83.5	85	70	82.4	59	44	74.6
I would tell my friends to participate in this program next year.	232	181	78.0	85	68	80.0	87	70	80.5	60	43	71.7

Student responses to open-ended survey questions. In response to two open-ended survey questions about their favorite parts of the Summer UP program and their favorite field trip, students provided further information about their experiences in the program. Table 14 shows the parts of the program that students named as their favorites.

Table 14
Favorite Parts of Summer UP Program Reported by Elementary Students Responding to an Open End Survey Question (N = 221)

Program activity	*n*	*%*
Sports	101	45.7
Science	99	44.8
Field trips	69	31.2
Art	57	25.8
Math	22	10.0
Step Class	19	8.6
Everything	19	8.6
Teacher	17	7.7
Making/seeing friends	17	7.7
That's a fact	6	2.7
Lunch	6	2.7
Learning new things	5	2.3
Miscellaneous[a]	<5	<5

Note: Respondents could provide multiple responses; 50% of students responded with more than one activity.
[a]Miscellaneous items included recess, acting, Happy Birthday game, costume making, reading, last day celebration.

The largest percent of student respondents named sports (46%) and science (45%) as their favorite part of the Summer UP program. Other favorite program components were field trips (31%) and art (26%).

Many students gave positive feedback when asked about their favorite experiences in the Summer UP program. Some representative examples of students' comments are shown here:

- *Everything, I loved everything about this summer program. I have so much fun here at summer up.*
- *…it was so, so interesting to read articles and make costumes.*
- *I like that we had fun but I did learn a new skill in math.*
- *My favorite part was when we made slime and the water wheel in science. And MAKING FRIENDS YAY. I really liked this program—I wish I did this in 3rd and 4th grade too.*
- *…I love the program and I like to do the art and I like science… [it] was the best thing I've done in the summer in a long, long, long time …*

Students named their favorite field trip in response to a second open-end question (Table 15). The National Aquarium was named the favorite by 35% of students followed by National Building Museum (18%) and International Spy Museum (15%) trips. Some field trip destinations varied across the three Summer UP sites and some destinations were visited by more students than other students.

Table 15
Favorite Summer UP Field Trips Reported by
by Elementary Student Respondents (*N* = 216)

Field Trip	Named as a favorite field trip (*n*)	Percent of respondents %
National Aquarium	75	34.7
National Building Museum	38	17.6
International Spy Museum	33	15.3
Smithsonian's National Zoo	15	6.9
Museum[b]	14	6.5
National Air and Space Museum	13	6.0
Maryland State House	11	5.1
Miscellaneous[a]	17	7.9

[a] Miscellaneous answers ranged from "I liked them all" or "The first one" to specific exhibits that could not be assigned a category.
[b] Museum not specified in student answer.

Summary of Findings for Evaluation Question 2

To address Evaluation Question 2, the perceptions of academic teachers, enrichment staff, parents and students were gathered through surveys about the benefits of the Summer UP program. Their responses are summarized here, organized by key topics.

Academic Benefits. All responding teachers (100%) agreed with statements that students showed academic progress, improved academic skills and that the program had a positive impact academically. Three-fourths or more of the student respondents had positive responses to survey items related to academic instruction and activities—including learning new skills and covering new topics in language arts and math.

Motivation and Engagement. Academic teachers reported one hundred percent positive agreement with items that addressed student engagement and motivation during the Summer UP academic activities like student enjoyment of activities, work completion and that the enrichment activities motivated students to attend. Students were very positive in their response to the projects completed in science class; that they enjoyed hands-on activities; that their teachers always used different ways to explain things; and that they always liked the games played in sports class. All responding parents indicated strong positive agreement with the statements that their child liked that activities in the program, and that their child enjoyed attending the summer program.

Opportunity for new experiences. Eighty percent of responding students indicated that they participated in new activities in the summer program that they did not participate in during the school year. Furthermore, one hundred percent of parents report that their children developed new interests and almost all parents (98%) report their child gained more confidence while attending the program.

Social Emotional Learning. All responding teachers (100%) indicated positive agreement with statements about social emotional learning, such as students felt comfortable in the program and the program facilitated positive behavior among students. Similarly, over three-quarters of responding students indicated positive agreement on survey items related to social emotional learning like feeling they belonged and having one adult they were comfortable talking to. Nearly all parents indicated positive agreement with statements about social emotional learning, like Summer UP improved their child's confidence, their child had friends in the program, and the activities increased their child's interest in the program.

An apparent major overall benefit of the Summer UP program is that it provides a structured summer program for students who might not otherwise have it. Over eighty percent (81.4%) of parent respondents indicated their child would be staying at home if they were not attending the Summer UP program.

Findings for Evaluation Question 3: What were the attendance rates for students who participated in Summer UP?

To answer this question, a descriptive analysis of attendance records is provided. Each Summer UP site electronically tracked student attendance on a daily basis. At the completion of the program, each site sent their records to the evaluation team.

Overall Attendance.

Initially, 307 students enrolled in Summer UP program for 2018. Figure 3 displays the attendance results for Summer UP, showing the proportion of students in three groups: those who did not show up at all, those with relatively low attendance (attended from one to 14 days), and those with relatively high attendance (15 or more days). High attendance was classified as 15 or more days based on previous research and analyses of Summer UP data to define an attendance threshold. Of the 307 students initially enrolled, 75.2% were high attenders (15 or more days) while 18.9% were low attenders (1-14 days) and 5.9% never attended.

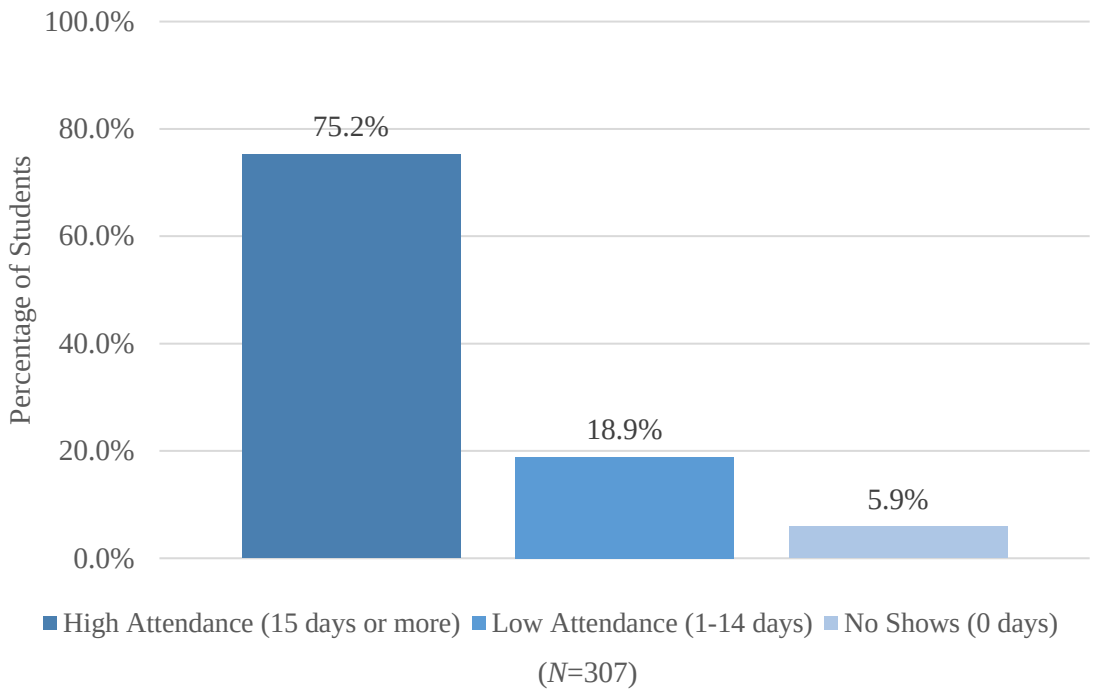

Figure 3. Percentage of students attending Summer UP by number of days attended

Attendance Rates by Demographic Characteristics and School

Table 16 displays the attendance rates for students who attended at least one day of the program by demographic characteristics and Summer UP site. Students who attended at least one day of the program (n=289) attended on average about 84 percent of the program days. Attendance rates varied only slightly across grades; Grade 4 had the highest attendance rate 85% of program days, Grade 5 attending 84% of program days and Grade 3 attending about 83% of program days.

Attendance rates for males and females were nearly equal at 83.8% and 83.7% respectively. Across all MCPS focus groups, the rate of attendance was over 80%. Rates ranged from 82.2% for FARMS All Other students to 89.1% for non-FARMS Black or African American students.

Table 16
Attendance Rates by Demographic Characteristics and Program Site for Students Attending at Least One Day of Summer UP Program 2018[a]

	n	Attendance Rate for Students (% days attended)	Attendance Rate Range (% days attended)
Total	**289**	**84.0**	**10.0 - 100.0**
By Grade			
Grade 3	95	82.9	10.0 - 100.0
Grade 4	100	84.8	25.0 - 100.0
Grade 5	94	83.5	15.0 - 100.0
By School			
Pine Crest ES	106	84.0	10.0 - 100.0
Oakland Terrace ES	88	81.7	15.0 - 100.0
Stedwick ES	95	85.4	25.0 - 100.0
By MCPS Focus Group			
Non-FARMS All Other Students (monitoring group)	8	84.4	35.0 - 100.0
Non-FARMS Black or African American	17	89.1	40.0 - 100.0
Non-FARMS Hispanic/Latino	10	87.0	50.0 - 100.0
FARMS All Other Students	16	82.2	45.0 - 100.0
FARMS Black or African American	68	82.4	15.0 - 100.0
FARMS Hispanic/Latino	170	83.7	10.0 - 100.0
Gender			
Female	135	83.7	15.0 - 100.0
Male	154	83.8	10.0 - 100.0

[a]Includes students who attended at least one day.

Attendance Rates by Week

To get a sense of attendance rates over the duration of the program, Figure 4 displays the percentage of program days attended during each week of the program. Rates are based on attendance of all students who attended at least one day. From week 1 to week 4, the student attendance rate declined from 87.9% to 80.3% with the largest decrease occurring in week 3.

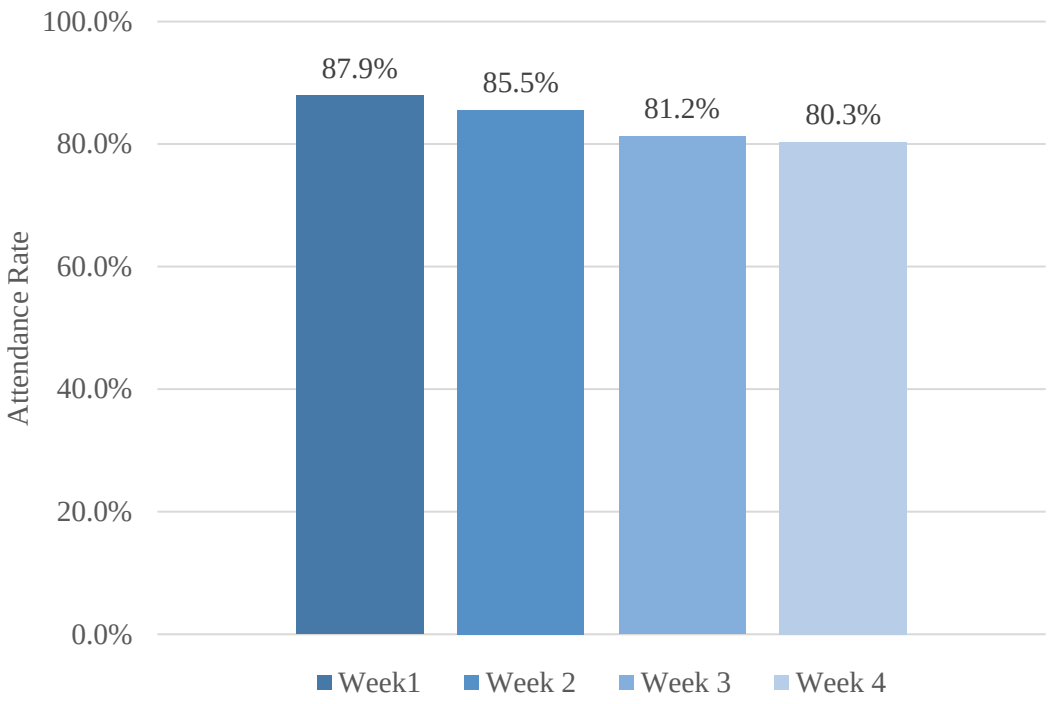

Figure 4. Summer UP Elementary Attendance Rates by Week, Summer 2018

Summary of Findings for Evaluation Question 3

Most students who were enrolled in Summer UP (75%) had high attendance as defined by attending 15 days or more. Fewer students (19%), attended between 1 and 14 days, and only 6% of students did not attend any days. Students attending at least one day of the Summer UP program in 2018 typically attended 84.0% of the program days. Examining attendance across grade levels, Grade 4 students show the highest attendance rate (84.8%) which is only marginally higher than Grade 3 (82.9%) and Grade 5 (83.5%). Disaggregation by subgroups reveals similar rates, if not equal rates, by gender and MCPS focus groups. Female and males had equivalent attendance rates. Attendance rates by focus groups ranged from 89.1% for non-FARMS Black/African American to 82.2% for FARMS All Other Students. Over the duration of the four-week program, there was a decline in attendance rate from 87.9% in week 1 to 80.3% percent in week 4.

Findings for Question 4: What was the impact of the Summer UP program on student reading skills? Did the impact of the program vary by the MCPS focus groups?

Study results for reading performance are reported for each grade separately. First, mean MAP-R scale scores, without adjustment for differences in the demographic characteristics of the groups or for previous reading performance are shown for Summer UP attendees and non-attendees. These unadjusted mean MAP-R scale scores are reported for all students in the grade level, and for subgroups based on gender, race/ethnicity, service (ESOL, FARMS, special education) groups, and MCPS focus groups.

Second, program impact was determined by using advanced statistical analyses to compare the fall 2018 MAP-R scores of Summer UP attendees with that of non-attendees. Statistical analyses were conducted for all students by grade and for MCPS focus groups by grade when the number of students in each group was large enough. In each grade, only two MCPS focus groups had enough students for statistical analysis: FARMS Black or African American and FARMS Hispanic/Latino. MAP-R scale scores, adjusted for demographic characteristics of the groups and prior performance, are shown for all students in the grade and for subgroups tested. Effect sizes were calculated to show if the program impact was practically significant in an educational setting (i.e., $d \geq .15$).

Grade 3 Students

As shown in Table 17, an initial examination of the unadjusted means of the two groups shows that the fall mean MAP-R scores for Summer UP attendees was lower than those for non-attendees for all Grade 3 students (176.7 vs 181.6) and most other subgroups. For the special education subgroup, the unadjusted mean was slightly higher for Summer UP participants (168.6) than non-participants (166.3), and for the FARMS Black or African American student subgroup the unadjusted mean was higher for Summer UP participants (185.7) than non-participants (180.0).

Table 17
Grade 3 Students: Unadjusted Mean MAP-R Scale Scores for
Summer UP Attendees and Comparison Students, Fall 2018

	Summer UP Participants			Comparison Group		
	RIT score MAP-R			RIT score MAP-R		
	n	Unadjusted Mean	Std. Deviation	*n*	Unadjusted Mean	Std. Deviation
All Grade 3 students	76	176.7	14.9	76	181.6	17.5
Gender						
Female	36	174.6	14.2	29	185.3	18.4
Male	40	178.8	15.5	47	179.6	16.8
Race/ethnicity						
Asian	--	--	--	--	--	--
Black or African American	19	183.1	14.6	26	182.3	20.6
White	--	--	--	--	--	--
Hispanic/Latino	51	174.2	13.9	39	179.6	15.4
Receipt of Services during the school year 2017-2018						
ESOL	44	173.4	15.0	38	175.9	16.1
FARMS	63	176.7	13.8	63	180.4	17.7
Special ED	12	168.6	14.1	26	166.3	15.5
Focus Groups						
Non-FARMS All Other Students (monitoring group)	--	--	--	--	--	--
Non-FARMS Black or African American	--	--	--	--	--	--
Non-FARMS Hispanic/Latino	--	--	--	--	--	--
FARMS All Other Students	--	--	--	--	--	--
FARMS Black or African American	12	185.7	9.9	21	180.0	20.6
FARMS Hispanic/Latino	48	174.6	13.8	35	179.6	15.9

Note. Results are not reported (--) for groups with fewer than 10 students.

The MAP-R scale scores, adjusted for demographic characteristics of the groups and prior performance, are shown in Table 18 for Summer UP and comparison groups. Advanced statistical analysis of fall reading performance for all Grade 3 Summer UP participants and non-participants revealed no statistically significant difference in the performance of the two groups. However, the analysis yielded a small but practically significant negative effect (d=-0.16), indicating a difference in favor of the comparison group that was large enough to be meaningful to educators.

Analysis by focus groups also revealed no statistically significant (p >.05) differences between Summer UP attendees and non-attendees as measured by fall 2018 MAP-R scores. However, both

focus group comparisons yielded effect sizes large enough to be of practical significance to educators. For the FARMS Black/African American group, the adjusted mean difference (3.65) revealed a small positive effect (*d* =.23) in favor of the Summer UP participants. For the FARMS Hispanic/Latino group, the adjusted mean difference (- 4.06) represented a small but practically significant negative effect (*d* = - .29) in favor of the non-participants.

Table 18
Grade 3 Student Subgroups: Comparison of Adjusted Mean MAP-R Scale Scores for Summer UP Attendees and Comparison Students

	MAP-R RIT Scores in Fall 2018				Summer UP Program Effect		
	Summer UP Participants		Non-participants		Summer UP vs. Non-Summer UP		
	N	Adjusted mean	*N*	Adjusted Mean	Adjusted Mean Difference	St. Error	Effect Size *(d)*
All Grade 3 Students	73	177.77	65	180.39	-2.62	1.90	**-0.16**
FARMS Black or African American	10	185.74	19	182.09	3.65	4.51	**0.23**
FARMS Hispanic/Latino	48	175.78	29	179.84	-4.06	2.57	**-0.29**

Note. **p* < .05, ***p* < .01
Results are not reported for groups with fewer than 10 students.
Bold indicates a practical significant difference (effect size *d* ≥ .15)

Grade 4 Students

An initial examination of the unadjusted means of the two groups, presented in Table 19, shows that the mean MAP-R scale scores for Summer UP attendees was lower than non-attendees for all Grade 4 students as well as within most of the subgroups. The one exception is the special education subgroup where the unadjusted mean was higher for Summer UP participants (174.5) than non-participants (169.8).

Table 19
Grade 4 Students: Unadjusted Mean MAP-R Scale Scores for
Summer UP Attendees and Comparison Students, Fall 2018

	Summer UP Participants			Comparison Group		
	RIT score MAP-R			RIT score MAP-R		
	n	Unadjusted Mean	Std. Deviation	*n*	Unadjusted Mean	Std. Deviation
All Grade 4 Students	83	185.0	15.1	83	190.6	16.1
Gender						
Female	41	185.7	15.2	40	191.4	15.6
Male	42	184.4	15.1	43	189.9	16.9
Race/Ethnicity						
Asian						
Black or African American	16	190.6	11.7	20	195.5	12.8
White	--	--	--	--	--	--
Hispanic/Latino	62	183.0	15.7	57	188.2	16.1
2 or More Races	--	--	--	--	--	--
Receipt of services during the school year 2017-2018						
ESOL	63	181.7	14.2	58	185.6	14.1
FARMS	80	184.8	15.2	77	191.6	15.6
Special ED	13	174.5	9.9	19	169.8	9.9
Focus Groups						
Non-FARMS All Other Students	--	--	--	--	--	--
Non-FARMS Black or African American	--	--	--	--	--	--
Non-FARMS Hispanic/Latino	--	--	--	--	--	--
FARMS All Other Students	--	--	--	--	--	--
FARMS Black or African American	14	190.4	11.6	20	195.5	12.8
FARMS Hispanic/Latino	61	183.0	15.8	52	189.1	15.6

Note. Results are not reported (--) for groups with fewer than 10 students.

Advanced statistical analysis of reading performance for all Grade 4 Summer UP participants and non-participants revealed no statistically significant difference in the performance of the two groups (Table 20). The analysis also revealed that there was no practical significance in the difference in performance between attendees and non-attendees for all Grade 4 students.

Within the focus groups— FARMS Black or African American, and FARMS Hispanic/Latino— the performance of the Summer UP attendees and non-attendees did not differ significantly ($p > .05$), nor were they practically significant ($d < .15$) (Table 20).

Table 20
Grade 4 Student Subgroups: Comparison of Adjusted Mean MAP-R Scale Scores for Summer UP Attendees and Comparison Students

	Means of MAP-R RIT Scores in Fall 2018				Summer UP Program Effect		
	Summer UP Participants		Nonparticipants		Summer UP vs. Comparison		
	N	Adjusted mean	*N*	Adjusted Mean	Adjusted Mean Difference	Std. Error	Effect Size *(d)*
All Grade 4 Students	82	188.00	75	187.53	0.47	1.28	0.03
FARMS Black or African American	14	193.37	17	192.99	0.38	2.80	0.03
FARMS Hispanic/Latino	60	185.45	49	186.21	-0.76	1.52	-0.05

Note. $*p < .05$, $**p < .01$
Results are not reported for groups with fewer than 10 students.
Bold indicates a practical significant difference (effect size $d \geq .15$)

Grade 5 Students

An initial examination of the unadjusted means of reading achievement for the two groups, presented in Table 21, shows that the mean MAP-R scale scores for Summer UP attendees (193.3) was lower than non-attendees (205.9) for all grade 5 students, as well as within all of the subgroups.

Table 21
Grade 5 Students: Unadjusted Mean MAP-R Scale Scores for
Summer UP Attendees and Comparison Students Fall 2018

	Summer UP Participants			Comparison Group		
	RIT score MAP-R			RIT score MAP-R		
	n	Unadjusted Mean	Std. Deviation	*n*	Unadjusted Mean	Std. Deviation
All Grade 5 Students	72	193.3	15.1	72	205.9	15.4
Gender						
Female	33	192.2	11.4	32	211.3	14.5
Male	39	194.2	17.3	40	201.5	14.9
Race/Ethnicity						
Asian	7	195.0	21.2	14	208.9	14.7
Black or African American	30	195.0	12.1	21	207.3	16.8
White	--	--	--	--	--	--
Hispanic/Latino	35	191.2	15.8	30	203.9	13.3
Two or More Races	--	--	--	--	--	--
Receipt of services during the school year 2017-2018						
ESOL	44	189.8	15.2	32	197.0	11.8
FARMS	58	193.1	15.4	53	204.3	15.6
Special ED	13	183.9	13.6	13	192.8	14.7
Focus Groups						
Non-FARMS All Other Students	--	--	--	--	--	--
Non-FARMS Black or African American	--	--	--	--	--	--
Non-FARMS Hispanic/Latino	--	--	--	--	--	--
FARMS All Other Students	--	--	--	--	--	--
FARMS Black or African American	24	194.0	13.3	21	207.3	16.8
FARMS Hispanic/Latino	30	190.7	16.7	21	202.8	14.8

Note. Results are not reported (--) for groups with fewer than 10 students.

The MAP-R scale scores, adjusted for demographic characteristics of the groups and prior achievement, are shown in Table 22 for Summer UP and comparison groups. Advanced statistical

analysis of reading performance for all Grade 5 Summer UP participants and non-participants was neither statistically (p > .05) nor practically significant (*d* < .15).

The analyses by focus group yielded no statistically significant (*p* > .05) differences between Summer UP attendees and non-attendees for either the FARMS Black or African American group or the Hispanic/Latino group. The mean difference among the FARMS Hispanic/Latino group, however, yielded a small but practically significant negative effect (*d*= -0.25), indicating a difference in favor of the comparison group that was large enough to be of significance to educators.

Table 22
Grade 5 Student Subgroups: Comparison of Adjusted Mean MAP-R Scale Scores for Summer UP Attendees and Comparison Students

	Means of MAP-R RIT Scores in Fall 2018				Summer UP Program Effect		
	Summer UP Participants		Nonparticipants		Summer UP vs. Comparison		
	N	Adjusted mean	*N*	Adjusted Mean	Adjusted Mean Difference	Std. Error	Effect Size *(d)*
All Grade 5 Students	66	199.03	67	200.40	-1.37	1.39	-0.08
FARMS Black or African American	23	200.38	20	199.31	1.07	2.93	0.07
FARMS Hispanic/Latino	26	194.79	21	198.88	-4.09	2.10	**-0.25**

Note. **p* < .05, ***p* < .01
Results are not reported for groups with fewer than 10 students.
Bold indicates a practical significant difference (effect size *d* ≥ .15)

Summary of Findings for Evaluation Question 4: Reading

Figure 5 summarizes the results of comparisons for reading performance between Summer UP attendees and students in the comparison group. Results of statistical tests as well as effect sizes are shown.

Among groups where demographics and prior achievement were controlled, there were no statistically significant differences found in the reading performance of Summer UP participants compared with that of non-participants (Figure 5). Effect sizes for reading were small but some were large enough to be of practical significance to educators. Only one subgroup—Grade 3 FARMS Black or African American students—showed a practically significant positive effect (*d* =.23) of the Summer UP program. Effects for all Grade 3 students, and Grades 3 and 5 FARMS Hispanic/Latino students were negative indicating the Summer UP students in these grades scored lower than non-participants.

READING: Statistical Significance and Effect Sizes for Summer UP Participants vs. Comparison Students

Group	Measure	Grade 3	Grade 4	Grade 5
All Students	MAP-R (all grades)	***d* = - 0.16**	*d* = 0.03	*d* = -0.08
FARMS Black or African American	MAP-R (all grades)	***d* = 0.23**	*d* = 0.03	*d* = 0.07
FARMS Hispanic/Latino	MAP-R (all grades)	***d* = - 0.29**	*d* = -0.05	***d* = - 0.25**

Figure 5. Statistical and practical significance of comparisons in reading
* $p < .05$, ** $p < .01$,
Notes. Only groups with 15 or more students in each analytic group are reported. Effect size $d >= .15$ was considered a finding of practical significance, and is indicated in bold.

Findings for Question 5: What was the impact of the Summer UP program on student math skills? Did the impact of the program vary by the MCPS focus groups?

Study results for math performance are reported for each grade separately. First, mean MAP-M scale scores, without adjustment for differences in the demographic characteristics of the groups or for previous mathematics performance are shown for Summer UP attendees and non-attendees. These unadjusted mean MAP-M scale scores are reported for all students in the grade level, and for subgroups based on gender, race/ethnicity, service (ESOL, FARMS, special education) groups, and MCPS focus groups.

Second, program impact was determined by using advanced statistical analyses to compare the fall 2018 MAP-M scores of Summer UP attendees with that of non-attendees. Statistical analyses were conducted for all students by grade, and for MCPS focus groups students by grade when the number of students in each group was large enough. Only two MCPS focus groups had enough students for statistical analysis: FARMS Black or African American and FARMS Hispanic/Latino. MAP-M scale scores, adjusted for demographic characteristics of the groups and prior performance, are shown for all students in the grade and for subgroups tested. Effect sizes were calculated to show if the program impact was practically significant in an educational setting ($d \geq .15$).

Grade 3 Students

An examination of the unadjusted means of the two groups, presented in Table 23, shows that the mean MAP-M scale scores for Summer UP attendees was lower than the mean MAP-M scale scores for non-attendees (180.8 vs 184.4). Similar results were observed across all subgroups with the unadjusted mean scale scores for the Summer UP attendees lower than the mean scale scores for non-attendees. The exceptions were the special education subgroup where the unadjusted mean was slightly higher for Summer UP participants (173.1) than non-participants (172.1) and FARMS Black or African American where the unadjusted means were the same for Summer UP participants and non-participants (183.9)

Table 23
Grade 3 Students: Unadjusted Mean MAP-M Scale Scores for
Summer UP Attendees and Comparison Students, Fall 2018

	Summer UP Participants			Comparison Group		
	RIT score MAP-M			RIT score MAP-M		
	n	Unadjusted Mean	Std. Deviation	*n*	Unadjusted Mean	Std. Deviation
All Grade 3 students	76	180.8	11.8	76	184.4	17.0
Gender						
Female	36	179.3	10.4	29	186.0	18.3
Male	40	182.1	13.0	47	183.6	16.4
Race/Ethnicity						
Asian	--	--	--	--	--	--
Black or African American	19	183.6	13.4	26	184.6	19.3
White	--	--	--	--	--	--
Hispanic/Latino	51	179.8	11.0	39	183.8	15.5
Two or More Races	--	--	--	--	--	--
Receipt of Services during the school year 2017-2018						
ESOL	44	178.5	12.8	38	179.2	16.3
FARMS	63	180.8	11.6	63	183.8	17.7
Special ED	12	173.1	10.7	26	172.1	17.9
Focus Groups						
Non-FARMS All Other Students	--	--	--	--	--	--
Non-FARMS Black or African American	--	--	--	--	--	--
Non-FARMS Hispanic/Latino	--	--	--	--	--	--
FARMS All Other Students	--	--	--	--	--	--
FARMS Black or African American	12	183.9	13.0	21	183.9	20.6
FARMS Hispanic/Latino	48	180.1	11.2	35	183.8	16.0

Note: Results not reported (--) for groups with fewer than 10 students.

Advanced statistical analyses of Grade 3 mathematics performance, controlling for differences in demographic characteristics and prior mathematics performance, were conducted for all students and for the following subgroups of students: FARMS Black or African American and FARMS Hispanic/Latino. The MAP-M scale scores, adjusted for demographic characteristics of the groups and prior performance, are shown in Table 24 for the Summer UP and comparison groups.

Advanced statistical analysis of mathematics performance for all Grade 3 Summer UP participants and non-participants revealed no statistically significant difference in the performance of the two

groups (Table 24). In addition, there was no practical significance in the difference in the performance of attendees and non-attendees for all Grade 3 students.

The analysis by focus groups did not find any statistically significant ($p > .05$) differences in performance between Summer UP attendees and non-attendees in the two focus groups as measured by fall 2018 MAP-M scores. However, one of the focus group comparisons yielded an effect size large enough to be of practical significance to educators. For the FARMS Black or African American group, the adjusted mean difference (3.16) revealed a small positive effect (d =.20) in favor of the Summer UP participants.

Table 24
Grade 3 Student Subgroups: Comparison of Adjusted Mean MAP-M Scale Scores for Summer UP Attendees and Comparison Students

	Means of MAP-M RIT Scores in Fall 2018				Summer UP Program Effect		
	Summer UP Participants		Nonparticipants		Summer UP vs. Comparison		
	N	Adjusted mean	*N*	Adjusted Mean	Adjusted Mean Difference	St. Error	Effect Size *(d)*
All Grade 3 Students	72	182.78	64	182.95	-0.17	1.17	-0.01
FARMS Black or African American	19	187.66	10	184.50	3.16	2.14	**0.20**
FARMS Hispanic/Latino	46	181.48	31	181.90	-0.419	1.67	-0.03

Note. **p* < .05, ***p* < .01
Results not reported for groups with fewer than 10 students.
Bold indicates a practical significant difference (effect size $d \geq .15$)

Grade 4 Students

An examination of the unadjusted means of the two groups, presented in Table 25, shows that the mean MAP-M scale scores for Summer UP attendees was lower than the mean MAP-M scale scores for non-attendees among Grade 4 students (192.4 vs. 195.0). Similar results are observed across all subgroups, with the adjusted mean scale scores for the Summer UP attendees lower than the mean scale scores for non-attendees. The one exception is the special education subgroup with Summer UP participants achieving a mean scale score higher than non-participants (mean difference= 6.59)

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Table 25
Grade 4 Students: Unadjusted Mean MAP-M Scale Scores for
Summer UP Attendees and Comparison Students, Fall 2018

	Summer UP Participants			Comparison Group		
	RIT score MAP-M			RIT score MAP-M		
	n	Mean	Std. Deviation	*n*	Unadjusted Mean	Std. Deviation
All Grade 4 Students	83	192.4	11.8	83	195.0	12.9
Gender						
Female	41	189.4	11.9	40	193.4	13.3
Male	42	195.4	11.0	43	196.6	12.4
Race/Ethnicity						
Asian	--	--	--	--	--	--
Black or African American	16	193.1	6.9	20	197.6	7.6
White	--	--	--	--	--	--
Hispanic/Latino	62	191.6	11.8	57	193.6	12.8
Two or More Races	--	--	--	--	--	--
Receipt of services during the school year 2017-2018						
ESOL	63	190.6	10.9	58	192.3	13.0
FARMS	80	192.3	12.0	77	195.8	12.6
Special ED	13	185.5	10.6	19	178.9	14.8
Focus Groups						
Non-FARMS All Other Students	--	--	--	--	--	--
Non-FARMS Black or African American	--	--	--	--	--	--
Non-FARMS Hispanic/Latino	--	--	--	--	--	--
FARMS All Other Students	--	--	--	--	--	--
FARMS Black or African American	14	192.5	7.2	20	197.6	7.6
FARMS Hispanic/Latino	61	191.7	11.9	52	194.6	12.4

Note: Results not reported (--) for groups with fewer than 10 students.

The MAP-M scale scores, adjusted for demographic characteristics of the groups and prior achievement, are shown in Table 26 for Summer UP and comparison groups. For all Grade 4 students, no statistically or practically significant difference was observed in the mathematics performance of Summer UP attendees and the comparison group.

Among focus groups, (FARMS Black or African American and FARMS Hispanic/Latino) comparisons of mathematics performance for Summer UP attendees and non-attendees revealed no statistically significant differences. However, the adjusted mean difference among FARMS

Black/African American students (-2.52) yielded a small but practically significant negative effect (d = - .33), indicating a difference in favor of the comparison group that was large enough to be of significance to educators.

Table 26
Grade 4 Student Subgroups: Comparison of Adjusted Mean MAP-M Scale Scores for Summer UP Attendees and Comparison Students

	Means of MAP-M RIT Scores in Fall 2018				Summer UP Program Effect		
	Summer UP Participants		Nonparticipants		Summer UP vs. Comparison		
	N	Adjusted mean	*N*	Adjusted Mean	Adjusted Mean Difference	St. Error	Effect Size *(d)*
All Grade 4 Students	83	193.79	77	193.52	0.27	0.94	0.02
FARMS Black or African American	14	193.94	17	196.46	-2.52	2.12	**-0.33**
FARMS Hispanic/Latino	61	193.16	51	192.85	0.31	1.05	0.03

Note. *p < .05, **p < .01
Results are not reported for groups with fewer than 10 students.
Bold indicates a practical significant difference (effect size $d \geq .15$)

Grade 5 Students

An initial examination of the unadjusted means of the two groups, reported in Table 27, shows that the mean MAP-M scale scores for Summer UP attendees (199.9) was lower than that of non-attendees (211.0) for all Grade 5 students Similarly, across all subgroups, the mean MAP-M scale scores for Summer UP attendees were lower than those of non-attendees.

Table 27
Grade 5 Students: Unadjusted Mean MAP-M Scale Scores for
Summer UP Attendees and Comparison Students, Fall 2018

	Summer UP Participants			Comparison Group		
	RIT score MAP-M			RIT score MAP-M		
	n	Unadjusted Mean	Std. Deviation	*n*	Unadjusted Mean	Std. Deviation
All Grade 5 Students	72	199.9	13.1	72	211.0	15.3
Gender						
Female	33	197.5	11.7	32	212.2	14.5
Male	39	201.9	14.1	40	210.0	16.0
Race/Ethnicity						
Asian	7	201.4	17.2	14	222.1	17.9
Black or African American	30	201.9	11.4	21	210.7	14.9
White	--	--	--	--	--	--
Hispanic/Latino	35	197.6	13.7	30	207.1	11.1
Two or More Races	--	--	--	--	--	--
Receipt of services during the school year 2017-2018						
ESOL	44	196.8	12.6	32	203.7	9.7
FARMS	58	199.9	13.6	53	209.7	13.0
Special ED	13	195.1	10.7	13	200.9	12.5
Focus Groups						
Non-FARMS All Other Students	--	--	--	--	--	--
Non-FARMS Black or African American	--	--	--	--	--	--
Non-FARMS Hispanic/Latino	--	--	--	--	--	--
FARMS All Other Students	--	--	--	--	--	--
FARMS Black or African American	24	200.8	12.5	21	210.7	14.9
FARMS Hispanic/Latino	30	197.9	13.9	21	207.2	10.8

Note: Results not reported (--) for groups with fewer than 10 students.

The MAP-M scale scores, adjusted for demographic characteristics of the groups and prior achievement, are shown in Table 28 for Summer UP and comparison groups. Advanced statistical analysis of math performance for all Grade 5 Summer UP participants and non-participants revealed no statistically or practically significant difference in the performance the two groups.

Within the focus groups — FARMS Black or African American, and FARMS Hispanic/Latino— the performance of the Summer UP attendees and non-attendees did not differ significantly ($p > .05$), nor were the differences in performance practically significant (Table 28).

Table 28
Grade 5 Student Subgroups: Comparison of Adjusted Mean MAP-M Scale Scores for Summer UP Attendees and Comparison Students

	Means of MAP-M RIT Scores in Fall 2018				Summer UP Program Effect		
	Summer UP Participants		Nonparticipants		Summer UP vs. Comparison		
	N	Adjusted mean	*N*	Adjusted Mean	Adjusted Mean Difference	St. Error	Effect Size *(d)*
All Grade 5 Students	68	205.47	65	205.58	-0.11	1.062	-0.01
FARMS Black or African American	23	205.47	19	206.01	-0.54	2.10	-0.04
FARMS Hispanic/Latino	28	201.57	20	202.35	-0.78	1.85	-0.05

Note. $*p < .05$, $**p < .01$
Results are not reported for groups with fewer than 10 students.
Bold indicates a practical significant difference (effect size $d \geq .15$)

Summary of Findings for Evaluation Question 5: Mathematics

Figure 6 summarizes the results of comparisons for math performance between Summer UP attendees and students in the comparison group. Results of statistical tests as well as effect sizes are shown.

The Summer UP program did not demonstrate statistically significant findings for any of the grades or subgroups analyzed in math (Figure 6). Practically significant effects of the Summer UP program on math performance indicated one Grade 3 subgroup—FARMS Black or African American group—performed better on MAP-M compared to their non-participant peers (d=.20), but among Grade 4 FARMS Black or African American students the Summer UP students scored lower on the fall MAP-M compared to non-participants (d = -.33).

MATH: Statistical Significance and Effect Sizes for Summer UP Participants vs. Comparison Students

Group	Measure	Grade 3	Grade 4	Grade 5
All Students	MAP-P (Grade 3 only) & MAP-M (all grades)	*d* = -0.01	*d* = 0.02	*d* = -0.01
FARMS Black or African American	MAP-P (Grade 3 only) & MAP-M (all grades)	***d* = 0.20**	***d* = - 0.33**	*d* = -0.04
FARMS Hispanic/Latino	MAP-P (Grade 3 only) & MAP-M (all grades)	*d* = -0.03	*d* = 0.03	*d* = -0.05

Figure 6. Statistical and practical significance of comparisons in math
* $p < .05$, ** $p < .01$, *** $p < .001$
Notes. Only groups with 15 or more students in each analytic group (BELL attendee or comparison) are reported. Effect size $d >= .15$ was considered a finding of practical significance, and is indicated in bold.

Conclusion and Discussion

Research has provided evidence that summer programs have some effect in improving the academic achievement for certain groups of students (McCombs, 2014; Cooper-Martin, 2015, Augustine, et. al., 2016) and show promise for improving socio-emotional outcomes (Augustine, 2016). This evaluation examined the implementation and outcomes of the Summer UP program offered during the summer of 2018 as an MCPS strategy to expand opportunities and prevent summer learning loss for students impacted by poverty. Implementation of the Summer UP program was evaluated by examining survey and interview responses from all stakeholder groups — academic teachers, enrichment staff, parents, and students—so that implementation could be considered through the experiences of stakeholders with different roles. In addition, program outcomes were examined using academic math and reading achievement data from fall 2018.

Implementation Findings

Multiple sources, including stakeholder surveys, interviews, and review of program records, provided evidence that the features of the Summer UP program as envisioned by MCPS leadership were implemented during the Summer of 2018. The program offered four weeks of integrated academic and enrichment programming with free transportation and meals for 6.5 hours per day; the program was successful in recruiting and enrolling at-risk students; the program maintained relatively high levels of attendance from enrolled students; and the program provided a wide range of engaging activities.

Responses from program staff showed positive perceptions of program communication, logistics and collaboration, although a few significant challenges were noted due to the short time line to develop the program. Academic and enrichment staff had strong positive perceptions about

program communication, the role of the site coordinators, preparing for the program, and the overall curriculum. Some significant challenges noted by the site coordinators and administrators interviewed were largely due to the short time line staff had to develop the program, including: recruiting students, understanding budget processes and details related to the program, arranging field trip transportation and finding time to collaborate with the enrichment provider.

Previous research suggests that a key benefit of an extended learning opportunity like the Summer UP program is that it helps to close the opportunity gap between students from high-income and low-income families by providing experiences to students that they may otherwise not have access to (McCombs, 2014). The findings from the parent survey found that students attended the Summer UP program when they would have otherwise been at home during the four weeks of the program; over 85% of parents indicated that their student would be at home or did not know what the student would be doing if they were not attending the Summer UP program. Furthermore, once students enrolled they tended to remain in the program and do so with high attendance rates of 80% or greater.

The research also strongly suggests that experiences beyond academic learning need to be measured when evaluating the program (McCombs, 2014). In the current evaluation of the Summer UP program, eighty percent of responding students indicated that they participated in new activities in the summer program that they did not participate in during the school year. Furthermore, 100% of parents report that their children developed new interests and almost all parents (98%) report their child gained more confidence while attending the program.

Responses across surveys and interviews indicated that the students might reap social-emotional benefits from Summer UP. Students reported that they: felt a sense of belonging, were safe, had friends in the program, and had at least one adult in the program they could talk to. Teachers reported that Summer UP facilitated positive behavior among students. Student, parent and teacher survey responses also suggested that the Summer Up activities boosted student motivation in attending the program. Over 80% of students reported they were excited to come to the program each day. Parents reported the non-academic activities increased their child's interest in attending the program (98%) and teachers reported that the non-enrichment activities motivated students to attend the summer program (100%).

Outcome Findings

A comparative analysis of academic outcomes revealed no significant differences in the performance of Summer UP attendees and non-attendees. The results of advanced statistical analysis indicated that for Grades 3–5 students, the reading and math performance of the Summer UP students was not statistically significantly better than that of a comparison group of students. The same holds true across the focus groups examined – FARMS Black or African American and FARMS Hispanic/Latino.

A few of the comparisons yielded effects that were large enough to be considered practically significant in an educational setting although analyses did not show statistically significant differences. Small and practically significant positive effects were found for Grade 3 FARMS Black or African American students in both reading (d=.23) and mathematics (d=.20).

Further, although not statistically significant, practically significant negative effects were found for comparisons of the performance of attendees and non-attendees for the following groups; Grade 4 FARMS Black or African American students in math (*d* =-.33), Grade 3 FARMS Hispanic/Latino attendees in reading (*d*= -.29) and Grade 5 FARMS Hispanic/Latino in reading (*d* = -.25). However, these effects should be interpreted with caution due lack of statistical significance and the possibility of sampling error.

It might be that a combination of experiences over a course of years contributes more to academic attainment and youth development than does one individual program (McCombs, 2017); thus, the academic effects of Summer UP might be hard to discern given that this was the first year of program implementation.

The results of this evaluation suggest that Summer UP provided a structured and engaging summer experience with many of the quality characteristics identified in the literature (e.g., Augustine, et al., 2016). Although the academic outcomes did not show an immediate impact on fall achievement, the design of Summer UP provided opportunities for learning experiences that also can build and support socio-emotional skills for students.

Recommendations

Based on the findings of this evaluation, the following recommendations are suggested:

1. With recommended revisions, continue to provide the opportunity for a structured summer learning enrichment program for students in Grades 3–5 at MCPS focus schools. Parents indicated Summer UP provided their children with an opportunity they would not otherwise have when asked what their child would be doing if not attending the program.

2. Continue to provide a program that provides academic instruction and enrichment opportunities using interactive and hands-on activities, including the provision of weekly field trips. Students, staff and parents all reported high engagement in the types of academic, enrichment and field activities the program provided.

3. Consider expanding the program to five weeks. Research suggests that the intensity and duration of instruction can impact student outcomes and recommends three hours a day, five days per week, for five to six weeks to observe an impact (Augustine, 2016).

4. Engage with MCPS curriculum experts to ensure the Summer UP instructional program aligns with the district's curriculum fits within the instructional time of the summer program and differentiates activities (Schwartz, 2018).

5. Begin program planning earlier so school staff have a longer lead-time to recruit students, hire staff, and plan the program.

6. Coordinate a meeting for site coordinators and administrators prior to Summer UP implementation to share effective practices from the prior year, as well as provide detailed information related to staffing, payroll, transportation, supply procurement and contracting with the enrichment provider.

7. Ensure school staff and the enrichment provider have time to collaborate prior to the start of the program for lesson planning, to align policies and procedures, to clarify details related to budget and supply lists, and establish regular meetings between school staff and the enrichment for the duration of the program.

8. Continue to track attendance and engage in outreach to students whose attendance decreases over the course of the program.

9. Consider the use of pre and post program measures to measure academic and/or socio-emotional benefits of Summer UP. In this way, evaluation outcomes might align more closely with program content. This will increase the likelihood of finding measureable differences in outcomes and identifying the specific benefits of the program.

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References

American Psychological Association. (2010). *Publication of the American Psychological Association, Sixth Edition.* Washington D.C.: American Psychological Association.

Augustine, C., McCombs, J., Pane, J., Schwartz, H., Schweig, J., McEachin, A. & Evans, K. (2016). *Learning from summer: effects of voluntary summer learning programs on low-income urban youth*. Santa Monica, Calif: RAND Corporation. Retrieved from https://www.wallacefoundation.org/knowledge-center/Documents/Learning-from-Summer-Effects-of-Voluntary-Summer-Learning-Programs.pdf

Campbell UP, D. T., & Stanley, J. C. (1966). *Experimental and Quasi-experimental Designs for Research.* Chicago: Rand McNally.

Cooper-Martin, E., Wolanin, N., Jang, S., Modarresi, S. & Zhao, H. (2016). *Impact of the Extended Learning Opportunities Summer Adventures in Learning (ELO SAIL) program on student academic performance: Part 1, results from fall 2012 to fall 2015.* Rockville, MD: Montgomery County Public Schools.

Cooper-Martin, E, & Zhao, H. (2016). *Impact of the Extended Learning Opportunities Summer Adventures in Learning (ELO SAIL) Program on Student Academic Performance: Part 2, Summer 2015.* Rockville, MD: Montgomery County Public Schools.

Cooper-Martin, E., (2018). *Evaluation of the Building Educated Leaders for Life (BELL), March 2018.* Rockville, MD: Montgomery County Public Schools.

Cooper, H., Nye, B., Charlton, K., Lindsay, J., & Greathouse, S. (1996). The effects of summer vacation on achievement test scores: A narrative and meta-analytic review. *Review of Educational Research*, 66(3), 227-268.

Durlak, J., Weissberg, R., & Pachan, M. (2010). A Meta-Analysis of After-School Programs That Seek to Promote Personal and Social Skills in Children and Adolescents. American Journal of Community Psychology, 45(3-4), 294-309.

McCombs J., Pane J., Augustine C., Schwartz, H., Martorell, P., and Zakaras, L. (2014) *Ready for Fall? Near-Term Effects of Voluntary Summer Learning Programs on Low-Income Students' Learning Opportunities and Outcomes*, Santa Monica, Calif: RAND Corporation. https://www.rand.org/pubs/research_reports/RR815.html.

Every Student Succeeds Act 20 U.S.C. § 8101 (21) (A) (2015).

Schwartz, H., McCombs, J., Augustine, C., & Leschitz, J. (2018). *Getting to work on summer learning: Recommended practices for success (2nd ed.)* Santa Monica, Calif: RAND Corporation. Retrieved from https://www.rand.org/pubs/research_reports/RR366-1.html.

Shadish, W. R., Cook, T. D., & Campbell, D. T. (2002). *Experimental and quasi-experimental designs for generalized causal inference.* Boston: Houghton Mifflin.

Somers, M., Welbeck, R., Grossman, J., & Gooden, S. (2015). *An Analysis of the Effects of An Academic Summer Program for Middle School Students.* (MDRC). Retrieved from https://www.mdrc.org/publication/analysis-effects-academic-summer-program-middle-school-students-0.

Skibbe, L. E., Grimm, K. J., Bowles, R. P., & Morrison, F. J. (2012). Literacy growth in the academic year versus summer from preschool through second grade: Differential effects of schooling across four skills. Scientific Studies of Reading, 16, 141-165. doi: 10.1080/10888438.2010.543446

APPENDIX A
Example of Summer UP Daily Schedules for Elementary Level

Monday/ Wednesday		3rd Grade A	3rd Grade B	4th Grade A	4th Grade B	5th Grade A	5th Grade B
Breakfast	8:30-9:00	Breakfast	Breakfast	Breakfast	Breakfast	Breakfast	Breakfast
PD 1	9:00-10:30	Language Arts/Math	Language Arts/Math	Sports	Special	Art	Science
PD 2	10:35-12:05	Art	Special	Language Arts/Math	Language Arts/Math	Science	Sports
Lunch	12:05-12:35	Lunch	Lunch	Lunch	Lunch	Lunch	Lunch
Recess	12:35-1:15	Recess	Recess	Recess	Recess	Recess	Recess
PD 4	1:20-2:50	Sports	Science	Special	Art	Language Arts/Math	Language Arts/Math
Dismissal	2:50-3:00	Dismissal	Dismissal	Dismissal	Dismissal	Dismissal	Dismissal

Tuesday/Thursday		3rd Grade A	3rd Grade B	4th Grade A	4th Grade B	5th Grade A	5th Grade B
Breakfast	8:30-9:00	Breakfast	Breakfast	Breakfast	Breakfast	Breakfast	Breakfast
PD 1	9:00-10:30	Language Arts/Math	Language Arts/Math	Science	Sports	Special	Art
PD 2	10:30-12:05	Science	Art	Language Arts/Math	Language Arts/Math	Sports	Special
Lunch	12:05-12:30	Lunch	Lunch	Lunch	Lunch	Lunch	Lunch
Recess	12:30-1:05	Recess	Recess	Recess	Recess	Recess	Recess
PD 4	1:10-2:50	Special	Sports	Art	Science	Language Arts/Math	Language Arts/Math
Dismissal	2:50-3:00	Dismissal	Dismissal	Dismissal	Dismissal	Dismissal	Dismissal

APPENDIX B

Table B-1
Characteristics of 2018 Summer UP Participants
Students Attending One or More Days

	All Participants	
	N	%
Total	289	100
Grade level as of Fall 2018		
Grade 3	95	32.9
Grade 4	103	35.6
Grade 5	91	31.5
Gender		
Female	135	46.7
Male	154	53.3
Race/ethnicity		
American Indian	≤ 5	≤ 1.0
Asian	14	4.8
Black or African American	85	29.4
Hispanic/Latino	180	62.3
White	≤ 5	≤ 1.0
Two or More Races	≤ 5	≤ 1.0
Receipt of services during the school year 2017–2018		
ESOL	182	63.0
FARMS	254	87.9
Special education	47	16.3
Focus groups		
All Other Students: Non-FARMS (monitoring)	8	2.8
Black or African American: Non-FARMS	17	5.9
Hispanic/Latino: Non-FARMS	10	3.5
All Other Students: FARMS	16	5.5
Black or African American: FARMS	68	23.5
Hispanic/Latino: FARMS	170	58.8

Note. There were no Native Hawaiian or other Pacific Islander students.