Virginia Department of Education

Evaluation of 21st Century Community Learning Centers

2017-2018

Cindy Muzzi

Brenda McSparrin Gallagher

Pete Shearon

Sylwia Feibelman

Todd Zoblotsky

University of Memphis

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Executive Summary

The 21st Century Community Learning Centers (21st CCLC) grant program provides academic enrichment opportunities outside of the regular school day to help students meet state and local performance standards in core academic subjects. This report summarizes the results of the Center for Research in Educational Policy's evaluation of the 2017-2018 Virginia 21st CCLC programs. The purpose was to determine whether the federally-funded 21st CCLC programs were meeting Virginia's program objectives by: (1) improving student academic achievement in reading; (2) improving student academic achievement in mathematics; and (3) providing opportunities for parental education. While not one of the statewide objectives, an analysis of school-day attendance was also included.

Data were analyzed from five main sources: 1) 21st CCLC and school day attendance data on all student participants with available SOL scores; 2) scores for reading and mathematics from the Standards of Learning (SOL) assessments, Virginia Alternate Assessment Program (VAAP), and Virginia Grade Level Alternative (VGLA) assessment, 3) the online Annual Local Evaluation Survey (ALERT); 4) the Student Perceptual Survey, and 5) the Teacher Annual Performance Report (APR) Survey.

Conclusions

The conclusions of the analyses are summarized below by evaluation question.

1. What is the nature of the Virginia 21st CCLC grant program and level of participation by students?

Both 21st CCLC students and their regular school-day teachers reported positive views of the program. Specifically, students attending 30 hours or more were asked to provide their perceptions of why they attended the 21st CCLC afterschool program, their general impression

of the 21st CCLC program, and to report any benefits they attribute to 21st CCLC program attendance.

When asked why they attended the 21st CCLC afterschool programs, about half of the students indicated "the afterschool program helps me do better in school" (59%), "the activities are fun" (55%), and "I like going to the afterschool program" (54%). A sizable majority of students also indicated that during the afterschool program they "feel safe" during 21st CCLC programs (78%), "the staff encourages them to do their best" (74%), and "they trust the staff" (74%). Moreover, the majority of students felt the 21st CCLC afterschool program has helped them to "prepare for trade school or college" (73%), "prepare for a job or a career" (72%), "get better grades in school" (72%), and "be better at math" (71%).

As for school-day teachers, those who participated in the online Teacher APR Survey (a reflection on how each CCLC student is doing) indicated that 21st CCLC student behavior mostly *Improved* or *Did Not Need to Improve* in six key behavioral areas. Specifically, 21st CCLC student behavior *Improved* in "academic performance" (63%), "motivation to learn" (54%), "turning in his/her homework on time" (53%), and "getting along well with other students" (41%). Largely, school-day teachers indicated an overall improvement for student's in homework completion and class participation (76%) and classroom behavior (69%).

The level of participation was similar to prior years. For the 2017-2018 school year, there were 3,803 paid and volunteer staff members in 136 Virginia 21st CCLC centers. School-day teachers, nonteaching school staff, and center administrators or coordinators comprised the majority of the paid staff, while the volunteer staff included college and high school students, community members, retired teachers, and parents.

There were 9,986 students attending centers regularly (i.e., for a minimum of 30 days) during 2017-2018. Students served were in pre-kindergarten through grade twelve, with the majority in grades three through eight. The majority were African American (44%), White (34%), or Hispanic (14%), and over three-fourths of all students were at an economic disadvantage (78%). A small portion had limited English proficiency (LEP) (11%) and special needs or disabilities (15%). When compared to the state, the 21st CCLC program had a much higher number of students at an economic disadvantage and they served a larger percentage of African Americans (44% ED and 22% AA respectively).

2. To what degree did centers meet Virginia's objectives for the program?

Objective 1: Improve Student Academic Achievement in Reading

For students in grades four through eight, the proficiency level and standardized SOL scaled score analyses showed that there was no statistically significant impact of 21st CCLC participation ("Yes" or "No") on statewide reading assessments for the overall samples (i.e., all students combined). Additionally, the effect size for the proficiency level analysis (Cox Index effect size (CIES) = -0.01) and for the standardized SOL scaled score analysis (g = 0.00), which quantifies the *magnitude* of the difference, would not be considered substantively important (i.e., educationally meaningful) based on What Works Clearinghouse (WWC) guidelines (≥ +/- 0.25) (What Works Clearinghouse, 2017). While there were no statistically significant or substantively important differences in reading proficiency level for the Limited English Proficient (LEP) or Economically Disadvantaged (ED) subgroups based on 21st CCLC participation, **students in 21st CCLC receiving special education services (SPED)** statistically significantly outperformed SPED controls in reading proficiency level outcomes, although the effect was not substantively important. There were no statistically significant or substantively

important differences in reading standardized SOL scaled scores for the ED subgroups based on 21st CCLC participation. While not tested for statistical significance, for students in grade three who did not have prior-year test scores available, 21st CCLC participants in 2017-2018 were outperformed in reading proficiency by (a) non-participants for all students combined and on 13 out of 15 available subgroupings and by (b) Virginia for all students combined and 14 of 15 available subgroupings. In terms of SOL reading scaled scores, third-grade 21st CCLC participants in 2017-2018 were outperformed by (a) non-participants overall and in 12 out of 15 subgroup comparisons and by (b) Virginia for all students combined and 14 of 15 available subgroupings.

Objective 2: Improve Student Academic Achievement in Mathematics

For students in grades four through twelve, the proficiency level and standardized SOL scaled score analyses showed no statistically significant impact of 21st CCLC participation ("Yes" or "No") on statewide mathematics assessments for the overall sample (i.e., all students combined). Additionally, the effect sizes for the proficiency level analysis (Cox Index effect size (CIES) = 0.04) and for the standardized SOL scaled score analysis (g = 0.03) would not be considered substantively important based on What Works Clearinghouse (WWC) guidelines (≥ +/- 0.25). There were no statistically significant or substantively important differences in mathematics proficiency level for the LEP or ED subgroups based on 21st CCLC participation. However, **SPED students in 21st CCLC** statistically significantly outperformed SPED control students in mathematics proficiency level outcomes, although the effect was not substantively important. In addition, **21st CCLC ED students** statistically significantly outperformed ED control students on mathematics standardized SOL scaled scores, while **non-ED control students** statistically significantly outperformed non-ED 21st CCLC students on mathematics

standardized SOL scaled scores, although the effects were not substantively important. Although not tested for statistical significance, for students in grade three who did not have prior-year test scores available, 21st CCLC participants in 2017-2018 were outperformed in proficiency by non-participants on 5 out of 15 subgroupings and Virginia on all students combined, as well as all but three subgroupings. In terms of SOL scaled scores, third-grade 21st CCLC participants in 2017-2018 were outperformed by non-participants overall and in 7 out of 15 subgroup comparisons in mathematics and Virginia on all students combined, as well as all but two subgroupings.

Improve Student School-Day Attendance. For students in grades four through twelve who participated for at least 30 days, the school-day attendance analyses showed a statistically significant positive impact of 21st CCLC participation ("Yes" or "No") on school-day attendance for the overall (i.e., combined) sample. However, the effect size ($g = 0.06$) would not be considered substantively important. In addition, there were statistically significant, but not substantively important positive differences in school-day attendance favoring 21st CCLC participants over control students for the not LEP, SPED, not SPED, and ED subgroups.

Objective 3: Provide Opportunities for Parent Education

As a whole, 4,800 parents and adult family members were served during the 2017-2018 school year, including 537 parents and adult family members participating over the summer. Activities were specifically chosen by grantees to provide "opportunities for parent/child interaction in academic activities" (84%), "parenting skills training" (51%), "health and wellness training" (41%), "career development information/training" (25%), "computer skills instruction" (22%), "General Educational Development (GED) certificate program" (13%), and "Other" subobjectives and activities (12%). Grantees reported meeting their selected subobjectives as follows: "opportunities for parent/child interaction in academic activities" (97%), "parenting

skills training" (97%), "career development information/training" (96%), "health and wellness training" (96%), "Other" subobjectives and activities (92%), "computer skills instruction" (92%), and "General Educational Development (GED) certificate program" (53%).

3. In what ways do attendance at a 21st CCLC, type and time allocated to activities, and hours of operation predict academic achievement?

Statistical analyses of associations between various categories of center-level data and reading and mathematics outcomes of 21st CCLC students in grades four through eight (grades four through twelve for mathematics) with a minimum of 30 days of attendance and two years of assessment data available provide information that may be useful to program leaders and are summarized below.

Center-level results from analysis of reading outcomes. The **total number of staff at the center** had a small, but positive statistically significant impact on both reading proficiency level and standardized SOL reading scaled scores in 2017-2018. The percentage of math related activities and the percentage of paid certified school-day teachers had a very small, positive impact on both reading proficiency level and standardized SOL reading scaled scores. Meanwhile, total hours of activities, the total number of activities, and the percent of activities that were academic, all had very small, non-statistically significant impacts on both reading proficiency level and standardized SOL reading scaled scores in 2017-2018. No center level variables had a substantively impact on either reading proficiency level or standardized SOL reading scores.

Center-level results for mathematics. No center level variables had a statistically significant or substantively important impact on either mathematics proficiency level or standardized SOL mathematics scores in 2017-2018. However, the percent of activities that were

math related, as well as the total number of staff had a very small, positive, but non-statistically significant impact on both mathematics proficiency level and standardized SOL mathematics scores. Meanwhile, the total number of hours of activities, the percent of activities that were English related, the percent of academic activities, and the percent of enrichment activities all had very small, non-statistically significant negative impacts on both mathematic proficiency level and standardized SOL mathematics scaled scores in 2017-2018.

4. What "promising practices" were identified by centers regarding the achievement of required objectives?

Grantees were asked to elaborate upon activities or promising practices that appeared most effective in efforts to meet their subobjectives in each of six areas, as well as their "other" objectives, and to make recommendations for improvements to the program. Major themes appearing in grantees' responses included: (a) Providing academic support in core areas, especially in math and reading/English; (b) employing qualified core subject teachers in the afterschool programs and ensuring effective communication and coordination between afterschool and day school staff; (c) providing a broad variety of student enrichment activities; (d) providing parent education to enhance parents' ability to assist their children, as well as their employability and their life skills; (e) relationship-building with families of students through consistent communication and engagement; (f) instructional methods, activities, and techniques for effective character education to improve school climate and student academic, social, and emotional skills; and (g) maintaining strong relationships and communication between program staff and community partners.

Introduction

This report presents the evaluation by the Center for Research in Educational Policy (CREP) of the 2017-2018 Virginia 21st Century Learning Centers' (21st CCLC). The mixed-methods evaluation utilized perceptual data from study participants as well as program and school-day attendance data, and proficiency level and scaled scores from reading and math statewide assessments.

CREP is a State of Tennessee Center of Excellence, located at The University of Memphis, whose mission is to implement a research agenda associated with educational policies and practices in preK-16 schools and to provide a knowledge base for use by educational practitioners and policymakers. Since 1989, the Center has served as a mechanism for mobilizing community and university resources to address educational problems and to meet the University's commitment to primary, secondary, and higher education institutions. Functioning as part of the College of Education, the Center seeks to accomplish its mission through a series of investigations conducted by Center faculty, staff, and associates, College and University faculty, and graduate students.

Background and Program Description

The 21st Century Community Learning Centers (CCLC) grant program was established by Congress as Title X, Part I, of the Elementary and Secondary Education Act (ESEA). It was reauthorized by Congress under the Every Student Succeeds Act of 2015 (ESSA). The purposes of the 21st CCLC program are as follows:

- To provide academic enrichment opportunities outside of the regular school day to help students, particularly students who attend high-poverty and low-performing schools, meet state and local performance standards in core academic subjects.

- To offer students a broad array of services, programs, and activities to complement academics such as drug and violence prevention; counseling programs; art, music and recreation programs; technology education; and character education.
- To offer families of students served by community learning centers opportunities for literacy and related educational development.

21st Century Community Learning Centers in Virginia

Every year applicants apply for competitive 21st CCLC grant funds from the Virginia Department of Education (VDOE). For the 2017-2018 evaluation, which includes centers within a three-year grant cycle (Cohorts 14 – 16), there were 118 grantees that operated programs in 136 schools and/or centers. The grantees provided academic and enrichment programs to students before and/or after school, and some offered programs during the summer as well. The program also supported grantee collaboration with parents and community partners.

Evaluation Objectives and Questions

States, as the recipients of 21st CCLC funds, are responsible for providing comprehensive evaluations of their programs. CREP was contracted by the Virginia Department of Education to conduct a statewide evaluation of the 21st CCLC program and to assess the extent to which local grantees met the following defined programmatic objectives.

Objective 1: Improve student academic achievement in reading.

Objective 2: Improve student academic achievement in mathematics.

Objective 3: Provide opportunities for parental education.

To address the 21st CCLC objectives, CREP's evaluation is structured around the following questions:

1. What is the nature of the Virginia 21st CCLC grant program and level of participation by students?
2. To what degree did centers meet Virginia's objectives for the program?
3. In what ways do attendance at a 21st CCLC program, the types of and time allocated to activities, and hours of operation predict academic achievement?
4. What "promising practices" regarding the achievement of required objectives were identified?

Method

Participants

The 2017-2018 population consisted of 21st CCLC grantees in Virginia, school-day teachers at participating schools, student participants in the center programs, and the parents of student participants. The study population, along with others associated with the program, are discussed in detail below in the report section entitled Center and Participant Characteristics.

Instrumentation

Data were analyzed from five main sources: (a) 21st CCLC and school-day attendance data on all student participants with available SOL scores; (b) scores for reading and mathematics from the Standards of Learning (SOL) assessments, Virginia Alternate Assessment Program (VAAP), and Virginia Grade Level Alternative (VGLA) assessment, (c) the online Annual Local Evaluation Survey (ALERT); (d) the Student Perceptual Survey, and (e) the Teacher Annual Performance Report (APR) Survey. These sources are summarized by evaluation question in Table 1 below. It should be noted that 2016-2017 was the last year the VGLA was administered.

Table 1. Summary of Instruments and Data Sources by Evaluation Question

Evaluation Question	Data Sources
What is the nature of the 21st CCLC programs and level of participation by students?	ALERT Student Perceptual Survey Teacher APR Survey
To what degree did centers meet Virginia's objectives for the program?	ALERT Virginia SOL test scores in reading and mathematics 21st CCLC and school day attendance data
In what ways do attendance at a 21st CCLC, type and time allocated to activities, and hours of operation predict academic achievement?	ALERT Virginia SOL test scores in reading and mathematics 21st CCLC and school day attendance data
What "promising practices" regarding the achievement of required objectives were identified by centers?	ALERT

Surveys

The ALERT, Student Perceptual Survey, and Teacher APR Survey were administered through CREP's online Survey Management System (SMS). Online tools and surveys were opened for one to three months (depending on the instrument) and grantees were asked for full participation in order to get a complete picture of the 21st CCLC program throughout Virginia.

ALERT. The ALERT is an extensive online tool a grantee is required to submit for each center after a full year of program implementation. Its purpose is to gather additional data regarding a center's measurable objectives, activities, and outcomes. Each grantee was asked to fill out one ALERT for each site, and to include only data pertaining to students who attended programs for 30 days or more. As part of the self-reporting in ALERT, grantees also were asked to describe the "promising practices" that they had found most helpful in an effort to meet their subobjectives for each of seven specified areas, and to provide recommendations for improvements to the program. It is important to note that grantees determined and self-reported their individual levels of success in meeting objectives based on their own criteria.

Student Perceptual Survey. The Student Perceptual Survey was developed to give students the opportunity to anonymously provide their perceptions of the 21st CCLC program and a means to report benefits they attribute to their program attendance. It is administered in both English and Spanish in order to capture a wider student population.

Teacher APR Survey. The Teacher APR Survey was designed to collect information from the regular school-day teacher about changes in class attendance, academic performance, behavior, and homework completion for each 21st CCLC student.

State Assessment and Attendance Data

VDOE also provides CREP data to analyze how the program impacts student achievement in reading and math, as well as school-day attendance.

Data were examined using Hierarchical Linear Models (HLM) and Hierarchical Generalized Linear Models (HGLM) for students with two years of test data available in grades four through eight for reading, and grades four through twelve for mathematics. Analyses of the impacts of center-level factors (e.g., the number of hours of center activities) on student achievement only included students who participated in 21st CCLC for 30 or more days (i.e., no control students were included). Additional HLM and HGLM models were examined by comparing matched pairs of students in the treatment group who attended 21st CCLC programs for 30 or more days (i.e., students meeting the definition of "regular attendee") and students in a control group who were eligible to attend 21st CCLC programs but had zero days of attendance. A similar matched pairs analysis was performed using HLM to determine the impact of 21st CCLC attendance on school-day attendance.

Two sets of analyses (eight analyses total): Four for proficiency-level, and four for standardized SOL scaled scores were conducted separately by subject area (reading and

mathematics): Proficiency-level: (1) reading and (2) mathematics for 21st CCLC participants vs. controls, (3) reading and (4) mathematics for 21st CCLC participants only (center impacts); SOL Scaled Scores: (5) reading and (6) mathematics for 21st CCLC participants vs. controls, (7) reading and (8) mathematics for 21st CCLC participants only (center impacts). The first set of analyses assessed proficiency-level performance in 2017-2018 based on all available test data (i.e., SOL, VAAP, and VGLA) using HGLM. For these analyses, the proficiency level on the SOL, VAAP, or VGLA test for the 2016-2017 and 2017-2018 school years was treated as either "pass" (based on scoring "Proficient," "Advanced Proficient," or "Advanced/College Path"), or "fail" (based on scoring "Basic" or "Below Basic"). This method permitted the inclusion of all students, regardless of the type of assessment taken to participate in Virginia's statewide testing program (i.e., traditional or alternative), as proficiency level is a common measure across each of the different test types, grade levels, and years. Center-level variables (e.g., total number of center activities) were included in specified analyses to examine the impacts of these variables on student proficiency. By including all students in the analyses, this method offers the most appropriate tool to analyze outcomes for specific student subgroups for the data available.

The first proficiency analyses investigated the relationship of 21st CCLC participation on student achievement. 21st CCLC students who participated for at least 30 days and matched control students (who were eligible but did not participate in 21st CCLC) were included (combined n = 11,396 for reading, combined n = 12,022 for mathematics). Additionally, the effects of 21st CCLC participation on three subgroups, based on special education status (SPED), Limited English Proficiency (LEP) status, and Economically Disadvantaged (ED) status, were examined. The second proficiency analyses investigated the relationship of center-level

characteristics on student achievement for only 21st CCLC students who participated for at least 30 days (n = 5,698 for reading, n = 6,011 for mathematics).

While these analyses were designed to capture broad impacts on student proficiency associated with participation in the 21st CCLC programs, these analyses were not designed to measure incremental differences in student achievement or differences between treatment and control students that may occur within proficiency levels. For example, students who initially scored at the low end of proficiency, but moved to the high end of proficiency, would have demonstrated no measurable change in the proficiency analyses because their overall proficiency level (i.e., Proficient or Not Proficient) had not changed, even though their academic achievement may have increased from one year to the next.

Therefore, the next two sets of analyses focused on the standardized scaled scores of students who took the SOL assessments in both 2016-2017 and 2017-2018, using HLM. These SOL analyses were intended to be more sensitive to these types of changes that occur across the scaled score range, regardless of students' proficiency levels. The standardized SOL scaled score analyses included the same student-level and center-level variables used in the proficiency level analyses, and in terms of student subgroups, looked at the effects of 21st CCLC participation by ED status only (vs. ED, SPED, and LEP), for reasons explained in the following paragraph.

The first set of SOL analyses investigated the relationship between 21st CCLC participation and student achievement for matched 21st CCLC and control students (combined n = 11,166 for reading, combined n = 11,958 for mathematics). Additionally, the effect of 21st CCLC participation by economically disadvantaged status was examined. The second set of SOL analyses investigated the relationship of center-level characteristics on student achievement

for 21st CCLC students who participated for at least 30 days (n = 5,583 for reading, n = 5,979 for mathematics). It is important to note that while the scaled score analyses were potentially more sensitive to changes attributable to program participation, they also had limitations. In particular, because students who participated in alternative assessments were not included (as scaled scores on SOL and alternative tests are not comparable), this type of analysis should not be used to evaluate the impact of participation in the 21st CCLC program on students receiving special education services and students with limited English proficiency, as the SOL assessment outcomes for these two subgroups would not be representative of the total population of SPED and LEP students, and subsequently were not included in the SOL analyses.

Furthermore, as Virginia's tests are not vertically scaled, meaning that scores from different tests, grade levels, and years are not directly comparable in terms of measuring the amount of learning, the test-level[1] outcome data were converted to standardized scores (i.e., z-scores) prior to analysis. As a result, the data were placed onto a single, comparable scale while retaining the shape of the distribution of the original scores. The conversion also allowed different grade levels to be combined so that the effectiveness of centers could be evaluated based on all students served. While this transformation is the best available approach to measure achievement using scaled scores from multiple grades in Virginia at this time, the conversion has limitations as z-scores only provide a measure of achievement relative to Virginia's average, and are not a measure of absolute growth or change from year to year. Thus, the full implications of this conversion applied to Virginia's criterion-referenced tests are not clear.

The attendance analyses investigated the impact of 21st CCLC participation on students' school-day attendance. For each student, the number of days present and the number of days

[1] The test level is the achievement test level independent from grade level. Therefore, students' scores were standardized based on the test level of the test they took, not the grade level in which they were enrolled.

absent had to total the number of days in session, otherwise the record was deleted. The number of days present was divided by the number of days in session to get a percent of days present for each student. This allows all students to be compared using the same scale, regardless of any variation in the number of days each school was in session. Matched 21st CCLC students who participated for at least 30 days and control students (who were eligible but did not participate in 21st CCLC) were included (combined n = 10,242). Additionally, the effects of 21st CCLC participation on three subgroups, based on special education status, limited English proficiency status, and economically disadvantaged status, were examined.

A further consideration is that the achievement and attendance findings can only be used to evaluate the performance of all centers in Virginia as a group, not the performance of any specific center, as the results were aggregated across all centers rather than evaluated center-by-center.

Third-grade Only

As most students in third-grade have no prior-year (i.e., pretest) test data available, it was not feasible to apply inferential statistics to these data because any statistically significant or substantively important differences between 21st CCLC participants (i.e., those with 30 or more days of attendance) and nonparticipants (i.e., eligible students with zero days of attendance) may not be the result of 21st CCLCs. Rather, differences could be the result of differences in prior ability, as it was not possible to either (a) determine if the participant and nonparticipant groups were similar on prior-year achievement, or (b) adjust 2017-2018 outcomes based on prior-year achievement for the third-grade students as SOL data are only available in grades 3 through 8.

Consequently, separate descriptive (noninferential) analyses were conducted for 21st CCLC participants and nonparticipants in grade three in 2017-2018, who had no prior-year test

data available. The analyses used the proficiency levels on the SOL assessments (based on the percentage scoring Proficient or Advanced) and mean (i.e., average) scaled scores on SOL assessments for 2017-2018 only. As a result, it would be more appropriate to use the findings from these analyses to better understand whether the program is serving students with an identified need (i.e., serving students on average who are the lowest achievers) vs. interpreting the findings as an evaluation of the effectiveness of the 21st Century program. In other words, the outcomes should be used to learn more about the population being served rather than evaluating their outcomes. These analyses examined differences in reading and mathematics achievement between the following:

(1) 21st CCLC participant and nonparticipant third-grade students;

(2) 21st CCLC participants and all Virginia third-grade students (where similar data were available).

In addition to the comparisons between (a) all students in the 21st CCLC participant and nonparticipant groups, as well between (b) 21st CCLC participants and Virginia, comparisons between these three groups were also conducted by the following subgroups where common data were available: Gender, race, economic disadvantage status, disability status, and LEP status. The results for the grade-three-only analyses must be viewed as limited, as they are descriptive only; thus, it is possible that differences in achievement between participants and nonparticipants could be due to differences in areas such as prior ability or motivation, or due to chance, and may not be related to participation in the 21st CCLC program itself. Comparison data for Virginia were based upon the 2017-2018 State Report Card data from the Virginia Department of Education's Web site at the following link: Virginia Department of Education School Quality Profiles.

Center and Participant Characteristics

Center and participant characteristics were collected in the Annual Local Evaluation Report Template (ALERT) for both the regular school year and the summer. Almost all grantees (91%) participated in the online tool. However, since a few grantees did not participate, the data presented in the section on teachers', students', and parents' participation does not represent the entire population.

21st CCLC Regular School Year Program

Staff. There were 2,778 paid and volunteer staff members across the centers during 2017-2018 academic year. Of these staff members, more than half (59%) were certified school-day teachers. Non-certified school staff, including but not limited to, paraprofessionals, librarians, trained tutors, cafeteria workers, and bus drivers, made up 31% of the centers' staff. Additionally, approximately 11% of the staff were comprised of college and high school students, AmeriCorps volunteers, and community members who assisted as unpaid volunteers.

Attendance by Grade Level. Approximately 10,000 students attended 21st CCLC programs regularly (i.e., 30 days or more) during the 2017-2018 school year. As shown in Table 2, the majority of students served were in grades three through eight. The grade with the largest number of student participants was grade four (14%), followed closely by grades seven and five. Lower elementary (PreK – 2) and high school (9-12) had the smallest numbers of student participants.

Table 2. 21st CCLC Regular School Year Student Attendance by Grade Level

Grade Level	Frequency	Percentage
Pre-kindergarten	31	0.3
Kindergarten	239	2.4
1st grade	369	3.7
2nd grade	658	6.6
3rd grade	1270	12.7
4th grade	1403	14.1
5th grade	1329	13.3
6th grade	1287	12.9
7th grade	1342	13.5
8th grade	1114	11.2
9th grade	322	3.2
10th grade	275	2.8
11th grade	147	1.5
12th grade	147	1.5
Data not provided	35	0.7
TOTAL	9986	100.0

Demographics. Demographic information for students regularly attending 21st CCLC programs in 2017-2018 was also reported by grantees in the ALERT (See Table 3). Data reflect that 44% of students served by the 21st CCLC program are African American, 34% White, 14% Hispanic or Latino, 4% Two or More Races, 2% Asian, and less than 1% are Native Hawaiian or Pacific Islander or American Indian/Alaska Native. Less than 11% of students had limited English proficiency. Over three-fourths (78%) were eligible for free or reduced-price lunch, and nearly 15% of students had a special need or disability. About half of the 21st CCLC students were female.

Compared to the state. When comparing the 21st CCLC student population to all the students served throughout the Commonwealth of Virginia for the 2017-2018 school year, the 21st CCLC student population was representative of the Commonwealth in some particulars (See

Table 3). The ratio of females to males were comparable, as well as the number of limited English proficiency, special needs or disability, and Hispanic or Latinos served. However, there were differences when comparing the percentages of students eligible for free and reduced-price lunch, and the percentages of Whites and African Americans served. The 21st CCLC program had much higher numbers of students at an economic disadvantage and served a larger percentage of African Americans (Virginia Department of Education, 2017).

Table 3. 21st CCLC and State Regular School Year Student Demographics

Student Demographics	CCLC Frequency	CCLC Percentage	Commonwealth Percentage
Gender			
Female	5562	52.0	48.5
Male	5115	47.8	51.5
Data not provided	21	0.2	N/A
Race			
American Indian or Alaska Native	29	0.3	0.3
Asian	188	1.9	3.6
Black or African American	4441	44.3	22.3
Hispanic or Latino	1435	14.3	15.7
Native Hawaiian or Pacific Islander	48	0.5	0.2
White	3435	34.3	49.0
Two or more races	426	4.2	5.6
Data not provided	25	0.2	N/A
Additional Information			
Limited English proficiency	1154	10.8	12.3
Free or reduced-price lunch	8362	78.2	44.3
Special needs or disability	1578	14.8	13.0
Data not provided	116	1.1	N/A

21st CCLC Summer Program

Staff. For centers that offered summer programs, 1,025 staff participated. Most of the summer staff (94%) were paid, and over half (57%) were certified school-day teachers. Of the 64 volunteer summer staff members, 9 were certified school-day teachers, while the remaining

unpaid summer staff (n = 55) included parents, high school students, paraprofessionals, retired teachers, and school administrators.

Attendance by Grade Level. A total of 3,763 students attended 21st CCLC summer programs regularly (attending at least 75% of sessions) in 2017-2018. As in the regular school year, the majority of students were in grades three through eight. The largest group of participants were in grade six (15%), followed closely by grades four and three. Again, early elementary (PreK – 2) and high school (9-12) had the lowest student attendance numbers (See Table 4).

Table 4. 21st CCLC Summer Student Attendance by Grade Level

Grade Level	Frequency	Percentage
Pre-kindergarten	21	0.6
Kindergarten	136	3.6
1st grade	152	4.0
2nd grade	258	6.9
3rd grade	535	14.2
4th grade	540	14.4
5th grade	494	13.1
6th grade	546	14.5
7th grade	445	11.8
8th grade	366	9.7
9th grade	108	2.9
10th grade	55	1.5
11th grade	56	1.5
12th grade	45	1.2
Data not provided	6	0.2
TOTAL	3763	100.0

Demographics. The demographic information of students regularly attending 21st CCLC summer programs in 2017-2018 was also collected. These demographic data reflect that 55% of students served were African American, 30% White, 9% Hispanic or Latino, 4% Two or More Races, 1% Asian, and less than 1% were Native Hawaiian or Pacific Islander or American

Indian/Alaska Native. Less than 5% of students had limited English proficiency. Three-fourths (75%) were eligible for free or reduced-price lunch, and nearly 10% of students had a special need or disability. As seen in the regular school year, about half were female (See Table 5).

Table 5. 21st CCLC Summer Student Demographics

Student Demographics	CCLC Frequency	CCLC Percentage
Gender		
Female	1902	50.7
Male	1848	49.3
Data not provided	0	0.0
Race		
American Indian or Alaska Native	5	0.1
Asian	38	1.0
Black or African American	2027	54.7
Hispanic or Latino	334	9.0
Native Hawaiian or Pacific Islander	2	0.1
White	1127	30.4
Two or more races	136	3.7
Data not provided	40	1.1
Additional Information		
Limited English proficiency	178	4.7
Free or reduced-price lunch	2803	74.7
Special need or disability	341	9.1
Data not provided	340	9.1

21st CCLC Parents and Adult Family Members

The 21st CCLC programs also served parents and adult family members of 21st CCLC students. Grantees reported a total of 4,263 parents and adult family members who attended 21st CCLC programs during the 2017-2018 school year, and 537 parents and adult family members who attended 21st CCLC summer programs.

21st CCLC Activities

A wide variety of activities were offered in 21st CCLC centers across the state. Types of student activities reported in the ALERT included (a) academic remediation, (b) academic

enrichment, (c) tutoring, (d) homework help, (e) mentoring, (f) assistance for Limited English Proficient students, (g) recreation, (h) social skills instruction for students demonstrating inappropriate behavior (ex. truancy, violation of school rules), (i) career training, (j) expanded library hours, and (k) community service and youth leadership training. Most grantees' overall goal for an activity was to "improve academic achievement in reading/English" or "improve academic achievement in Math", as well "enrich opportunities for students." However, quite a few focused on "providing character education."

While most activities were provided for students, about a fifth were provided for both "students and adult family members." Activities for parents of the students enrolled in the CCLC program included (a) GED classes, (b) family nights at the center where parents worked with their children on projects, (c) volunteer opportunities at the school, (d) training in parenting skills, (e) computer classes, (f) English as a Second Language courses, and (g) community resource referrals.

Results

Grantees were required to address three objectives: 1) Improve student achievement in reading/language arts; 2) Improve student achievement in mathematics; and 3) Provide opportunities for parental education. The extent to which the centers met these objectives are presented below by objective. While not one of the statewide objectives, an analysis of school-day attendance was also included. Following that, aggregate results of the Promising Practices, the Student Perceptual Survey, and the Teacher APR Survey are provided.

Objective 1: Improve Student Academic Achievement in Reading

When looking at all matched 21st CCLC participant and control group students in grades four through eight, after statistically controlling for student demographic variables and prior year

achievement, there was no statistically significant impact of 21st CCLC participation ("Yes" or "No") on 2017-2018 statewide reading assessment proficiency level or standardized SOL scaled-scores. Additionally, the magnitude of the effect size for the proficiency analysis (Cox Index effect size (CIES) = -0.01) and for the standardized SOL scaled score analysis (g = 0.00) were not substantively important (i.e., educationally meaningful) based on What Works Clearinghouse (2017) guidelines (i.e., ≥ +/- 0.25) (What Works Clearinghouse, 2017). The effect size (calculated as either the Cox Index for the proficiency analyses or Hedges' g for the standardized SOL scaled score analyses) is a descriptive statistic that provides a measure of the *magnitude* of the difference between scores (i.e., whether the difference is large enough to be meaningful, separate from whether the difference is statistically significant).

There were no statistically significant or substantively important differences in reading proficiency levels for the limited English proficient or economically disadvantaged subgroups based on 21st CCLC participation. However, **students in 21st CCLC receiving special education (SPED) services** statistically significantly outperformed SPED control students in reading proficiency level outcomes, although the effect was not substantively important (g = 0.14). There was no statistically significant or substantively important difference in reading standardized SOL scaled scores for the economically disadvantaged subgroup based on 21st CCLC participation. When only looking at 21st CCLC participants, the number of days a student participated in 21st CCLC had no statistically significant or substantively important impact on either reading proficiency level or standardized SOL scaled score outcomes.

The following student-level trends in statistically significant achievement outcomes emerged in reading over the past four years (2014-2015 to 2017-2018) (see Table 6 and Table 7).

For both 21st CCLC students only (Analysis of Center Effects) and for the 21st CCLC vs. control students' analyses

- **Non-special education students** outperformed special education students on the proficiency analyses as well as the standardized SOL scaled score analyses.
- **Non-economically disadvantaged students** outperformed economically disadvantaged students on the proficiency analyses as well as the standardized SOL scaled score analyses.

For the 21st CCLC vs. control students' analyses

- Overall, there were no statistically significant impacts of participation in 21st CCLC on either proficiency level or standardized SOL scaled score measures of reading achievement.
- **Females** outperformed males on the proficiency level and standardized SOL scaled score analyses.
- **Non-limited English proficient students** outperformed limited English proficient students on the proficiency level and standardized SOL scaled score analyses.

For the 21st CCLC only analyses

- The number of days of participation in 21st CCLC had a statistically significant positive impact on both proficiency level and standardized SOL scaled score reading achievement in 2016-17 only.
- The impact of prior-year reading achievement was positive for both the proficiency level and standardized SOL scaled score outcomes, with higher achievement in the prior year translating into higher performance in the current year.

Table 6. Four-Year Achievement and Student-Level Demographic Summary of Statistically Significant Outcomes in Reading in Grades 4-8 for 21st CCLC Students

Covariates	Reading							
	2014-2015		2015-2016		2016-2017		2017-2018	
	Proficiency	SOL	Proficiency	SOL	Proficiency	SOL	Proficiency	SOL
	CCLC Only		CCLC Only		CCLC Only		CCLC Only	
Student Demographics								
Number of CCLC participation days					Positive	Positive		
Female		Female higher	Female higher	Female higher	Female higher	Female higher		
White (reference group) compared to Hispanic, African American, and Other race groups	W higher than AA and H	W higher than AA and H	W Higher than AA	W higher than AA	W higher than AA and H	W higher than AA and H	W higher than AA	W higher than AA and H
Special Education Status	Non-SPED higher	Non-SPED higher	Non-SPED higher	Non-SPED higher	Non-SPED higher	Non-SPED higher	Non-SPED higher	Non-SPED higher
Limited English Status	Non-LEP higher	Non-LEP higher	Non-LEP higher				Non-LEP higher	
Disadvantaged Status	Non-ED higher	Non-ED higher	Non-ED higher	Non-ED higher	Non-ED higher	Non-ED higher	Non-ED higher	Non-ED higher
Prior Year Achievement	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive

Table 7. Four-Year Achievement and Student-Level Demographic and Subgroup Summary of Statistically Significant Interaction Outcomes in Reading in Grades 4-8 for 21st CCLC vs Control Students

Covariates	Reading							
	2014-2015		2015-2016		2016-2017		2017-2018	
	Proficiency	SOL	Proficiency	SOL	Proficiency	SOL	Proficiency	SOL
	CCLC vs Control		CCLC vs Control		CCLC vs Control		CCLC vs Control	
Student Demographics								
CCLC Participant								
Time	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive
Female	Female higher	Female higher	Female higher	Female higher	Female higher	Female higher	Female higher	Female higher
White (reference group) compared to Hispanic, African American, and Other race groups	W higher than AA, O higher than W	W higher than AA, H, O higher than W	W higher than AA, O higher than W	W higher than AA and H	W higher than AA and H	W higher than AA and H	W higher than AA and H	W higher than AA and H
Special Education Status	Non-SPED higher	Non-SPED higher	Non-SPED higher	Non-SPED higher	Non-SPED higher	Non-SPED higher	Non-SPED higher	Non-SPED higher
Limited English Status	Non-LEP higher	Non-LEP higher	Non-LEP higher	Non-LEP higher	Non-LEP higher	Non-LEP higher	Non-LEP higher	Non-LEP higher
Disadvantaged Status	Non-ED higher	Non-ED higher	Non-ED higher	Non-ED higher	Non-ED higher	Non-ED higher	Non-ED higher	Non-ED higher
Interactions								
Special Education		**NA**		**NA**		**NA**	CCLC higher	**NA**
							0.14	
Not Special Education		**NA**		**NA**		**NA**		**NA**
Limited English Proficient		**NA**	Control higher	**NA**		**NA**		**NA**
			-0.21					
Not Limited English Proficient		**NA**	CCLC higher	**NA**		**NA**		**NA**
			0.06					
Economically Disadvantaged								
Not Economically Disadvantaged			CCLC higher					
			0.11					

Note. The values below the group represent the effect size.

Results of the descriptive analysis of reading outcomes for students in grade three who did not have prior-year test scores available showed that for proficiency outcomes, 21st CCLC participants in 2017-2018 were outperformed by non-participants in reading proficiency for all students combined and in 13 of 15 available subgroupings, and by Virginia in reading proficiency for all students combined and in 14 of 15 available subgroupings. In terms of SOL scaled scores, third-grade 21st CCLC participants in 2017-2018 were outperformed by non-participants overall and in 12 out of 15 subgroupings, and by Virginia for all students combined and in 14 of 15 subgroup comparisons in reading.

Objective 2: Improve Student Academic Achievement in Mathematics

When examining the combination of all matched control group and 21st CCLC participants in grades four through twelve, participation in 21st CCLC programs ("Yes" or "No") did not have a statistically significant effect on participants' 2017-2018 statewide mathematics assessment proficiency level or standardized SOL scaled-scores, after controlling for student demographic variables and prior achievement. Additionally, the effect sizes for the proficiency level analysis (Cox Index effect size (CIES) = 0.04) and for the standardized SOL scaled score analysis (g = 0.03) were not substantively important based on What Works Clearinghouse (2017) guidelines (i.e., ≥ +/- 0.25). There were no statistically significant or substantively important differences in mathematics proficiency level for the limited English proficient or economically disadvantaged subgroups based on 21st CCLC participation. However, 21st **CCLC students receiving special education services** statistically significantly outperformed control students receiving special education services in mathematics proficiency level outcomes, although the effect was not substantively important (g = 0.11). Meanwhile, on mathematics standardized SOL scaled scores, **economically disadvantaged students in 21st CCLC** statistically significantly

outperformed economically disadvantaged control students, while **non-economically disadvantaged control students** outperformed 21st CCLC non-economically disadvantaged students, but the magnitude of the effects were not substantively important (g = 0.05 and g = -0.08 respectively). When only looking at 21st CCLC participants, the number of days a student participated in 21st CCLC a statistically significant, but not substantively important, impact on mathematic proficiency level and mathematics standardized SOL scaled score outcomes.

The following student-level trends in statistically significant achievement outcomes emerged in mathematics over the past four years (2014-2015 to 2017-2018) (see Table 8 and Table 9):

For both 21st CCLC students only (Analysis of Center Effects) and 21st CCLC vs. control students' analyses

- **Non-special education students** outperformed special education students on the proficiency level analyses as well as the standardized SOL scaled score analyses.
- **Non-economically disadvantaged students** outperformed economically disadvantaged students on the proficiency level analyses as well as the standardized SOL scaled score analyses.

For the 21st CCLC vs. control students' analyses

- There were no statistically significant impacts of participation in 21st CCLC on either proficiency level or standardized SOL scaled score measures of reading achievement over the past four years.
- **Non-limited English proficient students** outperformed limited English proficient students on the proficiency level and standardized SOL scaled score analyses.

For the 21st CCLC only analyses

- The **number of days of participation in 21st CCLC** had a statistically significant positive impact on mathematics proficiency level achievement, as well as standardized SOL scaled scores measures of mathematics achievement for three out of four years.
- The impact of **prior-year mathematics achievement** was positive for both the proficiency level and standardized SOL scaled score outcomes, with higher achievement in the prior year translating into higher performance in the current year.

Table 8. Four-Year Achievement and Student-Level Demographic Summary of Statistically Significant Outcomes in Mathematics in Grades 4-8 for 21st CCLC Students

Covariates	Mathematics							
	2014-2015		2015-2016		2016-2017		2017-2018	
	Proficiency	SOL	Proficiency	SOL	Proficiency	SOL	Proficiency	SOL
	CCLC Only		CCLC Only		CCLC Only		CCLC Only	
Student Demographics								
Number of days of participation in CCLC	Positive	Positive	Positive		Positive	Positive	Positive	Positive
Female	Female higher	Female higher	Female higher	Female higher	Female higher	Female higher		
White (reference group) compared to Hispanic, African American, and Other race groups	W higher than AA	W higher than AA	W higher than AA and H	W higher than AA and H	W higher than AA	W higher than AA	W higher than AA and H	W higher than AA and H
Special Education Status	Non-SPED higher	Non-SPED higher	Non-SPED higher	Non-SPED higher	Non-SPED higher	Non-SPED higher	Non-SPED higher	Non-SPED higher
Limited English Status	Non-LEP higher	Non-LEP higher	Non-LEP higher	Non-LEP higher			Non-LEP higher	
Disadvantaged Status	Non-ED higher	Non-ED higher	Non-ED higher	Non-ED higher	Non-ED higher	Non-ED higher	Non-ED higher	Non-ED higher
Prior Year Achievement	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive

Table 9. Four-Year Achievement and Student-Level Demographic and Subgroup Summary of Statistically Significant Interaction Outcomes in Mathematics in Grades 4-8 for 21st CCLC vs Control Students

Covariates	Mathematics							
	2014-2015		2015-2016		2016-2017		2017-2017	
	Proficiency	SOL	Proficiency	SOL	Proficiency	SOL	Proficiency	SOL
	CCLC vs. Control		CCLC vs. Control		CCLC vs. Control		CCLC vs. Control	
Student Demographics								
CCLC Participant								
Time	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive
Female		Female higher		Female higher	Female higher	Female higher	Female higher	
Minority/White (reference group) compared to Hispanic, African American, and Other race groups	W higher than AA, H, O higher than W	W higher than AA, O higher than W	W higher than AA, H, O Higher than W	W higher than AA and H, O higher than W	W higher than AA, H, and O	W higher than AA and H	W higher than AA and H	W higher than AA and H
Special Education Status	Non-SPED higher	Non-SPED higher	Non-SPED higher	Non-SPED higher	Non-SPED higher	Non-SPED higher	Non-SPED higher	Non-SPED higher
Limited English Status	Non-LEP higher	Non-LEP higher	Non-LEP higher	Non-LEP higher	Non-LEP higher	Non-LEP higher	Non-LEP higher	Non-LEP higher
Disadvantaged Status	Non-ED higher	Non-ED higher	Non-ED higher	Non-ED higher	Non-ED higher	Non-ED higher	Non-ED higher	Non-ED higher
Interactions								
Special Education		NA	CCLC higher	NA		NA	CCLC higher	NA
			0.24				0.11	
Not Special Education		NA		NA		NA		NA
Limited English Proficient		NA	Control higher	NA		NA		NA
			-0.12					
Not Limited English Proficient		NA	CCLC higher	NA		NA		NA
			0.06					
Economically Disadvantaged						CCLC higher		CCLC higher
						.04		0.05
Not Economically Disadvantaged								Control higher
								-0.08

Note. The values below the group represent the effect size.

The results of the grade-three-only analyses of mathematics proficiency level data showed that **third-grade 21st CCLC participants** in 2017-2018 outperformed non-participants on 10 out of 15 subgroupings. However, Virginia third-graders outperformed 21st CCLC third-graders in mathematics proficiency for all students combined and on 12 out of 15 subgroupings. In terms of mathematics SOL scaled scores, while third-grade non-participants did better for all students combined, **21st CCLC participants** outperformed non-participants in 8 out of 15 subgroups. In addition, Virginia third-graders did better for all students combined, as well as in 13 out of 15 subgroups compared to 21st CCLC participants in 2017-2018.

Improve Student School-Day Attendance. When examining the 21st CCLC participant and matched control group in grades four through twelve, after controlling for student demographic variables and prior year school-day attendance, participation in 21st CCLC programs ("Yes" or "No") had a statistically significant positive effect on participants' 2017-2018 school-day attendance, although the effect size ($g = 0.06$) would not be considered substantively important, with CCLC students attending slightly more than one-quarter day more on average. In addition, there were statistically significant, but not substantively important, positive differences in school-day attendance (favoring 21st CCLC participants) for the not limited English proficient ($g = 0.06$), special education ($g = 0.10$), not special education ($g = 0.05$), and the economically disadvantaged ($g = 0.07$) subgroups based on 21st CCLC participation.

Objective 3: Provide Opportunities for Parental Education

Grantees developed and provided a variety of programs and activities based on seven subobjectives: (a) General Education Development (GED) certificate program, (b) computer skills instruction, (c) parenting skills classes, (d) opportunities for parent/child interaction, (e)

career development information/training, (f) health and wellness training, and (g) "Other" subobjectives and activities. The percentage of centers selecting each subobjective is shown below in Table 10. The results for each subobjective are described following the table.

Table 10. Parent Education Subobjectives Selected by Grantees

You selected provide parent education as an objective. Indicate the subobjective(s) you selected for your center's program. (Check all that apply.)	Percentage
Opportunities for parent/child interaction in academic activities	83.9
Parenting skills training	50.9
Health and wellness training	41.1
Career development information/training	25.0
Computer skills instruction	22.3
General Educational Development (GED) certificate program	13.4
Other subobjectives and activities	11.6

Parent/Child Interaction in Academic Activities. Opportunities for parent/child interaction in academic activities was the subobjective selected most commonly (84%) by grantees. Centers that offered this opportunity reported using sign-in sheets, attendance logs, and parent surveys to determine whether they had met this subobjective. These opportunities were offered through schools, centers, and community partners. This subobjective was reported to be met by nearly all (97%) of the centers providing opportunities for parent/child interaction in academic activities.

Parenting Skills Training. Providing parenting skills training was a subobjective selected by over half (51%) of the centers, and a variety of data sources were used to determine whether they had met this subobjective, including participation sign-in sheets, parent surveys and interviews, as well as registration records. Parenting skills training was often reported to be

offered via center programs and family events. Again, nearly all (97%) of the centers providing parenting skills training reported meeting this subobjective.

Health and Wellness Training. Health and wellness training was selected as a subobjective by 41% of reporting centers, and they utilized sign-in sheets, attendance logs, meeting logs, interviews, and parent surveys as sources to determine whether they had met this subobjective. A variety of opportunities was offered at centers, schools, or during family programs. Almost all (96%) of the centers providing health and wellness training reported meeting this subobjective.

Career Development Information/Training. This subobjective was selected by a quarter (25%) of the reporting centers. Career development information/training opportunities were made available to parents and family members at centers, schools, community partners, community colleges, and institutions of higher education. Centers that reported career development opportunities used a variety of data sources to determine whether they had met this subobjective, including attendance records, parent surveys, meeting logs, and sign-in sheets. Nearly all (96%) of the centers providing career development information/training reported meeting this subobjective.

Computer Skills Instruction. Over a fifth (22%) of the reporting centers selected parent computer skills instruction as a subobjective. Centers that provided computer instruction and activities used a variety of measures to determine that they had met this subobjective, including sign-in sheets, participation logs, and completion forms, as well as parent surveys and interviews. Centers reported offering parents and family members free access to online courses covering topics such as computer skills and career readiness, as well as outlining online resources for reviewing their children's important academic information (e.g., grades,

attendance, assignments, and SOL test scores). A very large percentage (92%) of the centers providing computer skills instruction reported meeting this subobjective.

General Education Development. General Education Development (GED) certification was selected as a subobjective by 13% of the reporting centers. Some GED certificate program classes were scheduled at the center, while others were offered by GED certification programs in the community. While several grantees reported GED graduates during the 2017-2018 school year, a few grantees indicated that some parents/family members had inquired about the GED program, completed initial screenings, or were still working towards completion of the GED requirements. Approximately half (53%) of the centers providing GED certification reported meeting this subobjective.

Other Subobjective Activities. A few of the reporting centers (12%) selected other subobjective activities and used attendance reports, interviews, and parent surveys to determine whether they had met this subobjective. Centers reported offering parents and family members English Language Learner classes, as well as sessions on business management and tax preparation. Many of the centers providing other subobjective activities (88%) reported meeting this subobjective.

A summary of the success of parent education subobjectives is provided below in Table 11. Again, it is important to note that grantees determined their own criteria for success in meeting parental education objectives and reported their outcomes accordingly.

Table 11. Success in Meeting Parent Education Subobjectives

Parent Education Subobjective	% of grantees who selected this subobjective	% Yes	% No
Did parents participate in the GED certificate program classes?	13.4	53.3	46.7
Did parents participate in computer skills classes?	22.3	92.0	8.0
Did parents participate in parenting skills training classes?	50.9	96.5	3.5
Did parents and children have opportunities to interact in academic activities?	83.9	96.8	3.2
Did parents participate in career development information/training sessions?	25.0	96.4	0.0
Did parents participate in health and wellness training sessions?	41.1	95.7	4.3
Did parents attend the "Other" subobjective activities?	11.6	92.3	0.0

Note. Item percentages may not total 100% because of missing input from some respondents.

Association Between Center Characteristics and Outcomes

This section of the evaluation report includes the results of statistical analyses of associations between various categories of center-level data and reading and mathematics outcomes of students in grades four through twelve participating in 21st CCLC with two years of assessment data available. These analyses provide information that may be useful to program leaders and are summarized below.

Table 12 shows the trends for center activities over the last 10 years. From 2008-2009 to 2011-2012, there was a decrease each year in the **total number of individual activities** that the centers have offered. For 2015-2016, the **mean number of activities** decreased to the lowest level and decreased each year from 2009-2010 to 2015-2016. For the last three years (2015-2016 to 2017-2018) the total number of individual activities, as well as the mean number of activities has increased each year. In 2017-2018, the **total number of center activities** was at the second highest level, while the mean number of center activities was at the highest level. *It should be noted that the way the data on activities were collected changed in 2015-2016, and the*

number of activities was no longer differentiated between the school year and summer as they had been in previous years. There was also an upward trend in the **total number of providers** from the 2015-2016 to the 2017-2018 year, with 2017-2018 having the second highest number of providers. The **2008-2009 year** had the highest total number of activities (n = 1,265) and the largest number of providers (n = 144). The **2017-2018 year** had the highest mean number of activities (n = 21.0) and the second highest total number of activities (n = 1,241), along with the second highest number of providers (n = 118). The **2011-2012 year** had the lowest total number of activities (n = 737) and the lowest number of providers (n = 63).

Table 12. Center Activities by Year

Year	Total Number of Activities	Mean Number of Activities	Number of Providers
2017-2018	1,241	21.03	118
2016-2017	1,079	9.1	114
2015-2016	914	8.7	101
2014-2015	1,001	9.7	112
2013-2014	1,123	10.1	101
2012-2013	981	10.8	71
2011-2012	737	11.7	63
2010-2011	928	12.5	74
2009-2010	1,155	13.2	87
2008-2009	1,265	8.8	144

Association Between Center Characteristics and Reading Achievement

The **total number of staff at the center** was a statistically significant positive predictor of both proficiency level and standardized reading SOL scaled scores. However, the impact was

negligible. For each additional increase in the number of staff, there was a 1.2 percent increase in the odds of scoring proficient and a 0.002 increase in reading standardized SOL scaled scores.

A separate set of reading analyses for students with (a) one to 29 days of attendance in 21st CCLC, (b) 30 to 59 days of attendance in 21st CCLC, (c) 60 or more days of attendance, and (d) for the combined group of all students with one or more days of attendance in 21st CCLC were also conducted. Results of the correlation analyses revealed that for the group of students who attended 21st CCLC for 1-29 days as well as for the combined group of students who attended 21st CCLC more than one day, there was a statistically significant negative correlation between days attended and 2017-2018 reading standardized SOL scaled scores, with more days of attendance being associated with a decrease in reading standardized SOL scaled scores. However, the magnitude of the relationship (r = - 0.02 and r = - 0.06 respectively) is considered very small, with attendance explaining 0.04 and 0.36 percent of the variation in reading standardized SOL scaled scores respectively. There was no statistically significant correlation between days attended and 2017-2018 reading standardized SOL scaled scores for students who attended 21st CCLC either 30 to 59 days or 60 days or more.

None of the center-level variables included had a consistently statistically significant impact on achievement outcomes in reading over the past four years (2014-2015 to 2017-2018) for the 21st CCLC students only analyses (Analysis of Center Effects) (see Table 13).

Table 13. Four-Year Achievement and Center-Level Outcomes Summary of Statistically Significant Outcomes in Reading for Grades 4-8

	Reading							
	2014-2015		2015-2016		2016-2017		2017-2018	
	Proficiency	SOL	Proficiency	SOL	Proficiency	SOL	Proficiency	SOL
	CCLC Only		CCLC Only		CCLC Only		CCLC Only	
Center Information								
Total number of hours of activities at the center								
Total number of activities at the center[1]								
Percent of activities that were mathematics related[1]				Positive				
				0.002				
Percent of center activities that were English/reading related[1]				Negative	Positive			
				-0.001	1.009			
Percent of certified paid school-day teachers at the center					Positive	Positive		
					1.006	0.001		
Total number of staff				Positive			Positive	Positive
				0.001			1.01	0.002
Percent of center activities that were academic	Positive							
	1.006							
Percent of center activities that were enrichment[1]								

Note. The values for the group represent the coefficient for the analysis.
[1]Variable first measured in 2015-2016

Association Between Center Characteristics and Mathematics Achievement

The number of days attended was shown to be a negligible, but statistically significant positive predictor of mathematics proficiency level and mathematics standardized SOL scaled score outcomes. For each additional day of participation, there was a 0.001 increase in mathematics standardized SOL scaled scores and a 0.4 percent increase in the odds of scoring

proficient. In other words, there would need to be an increase of 1,000 days of participation in 21st CCLC to get a one scaled score point increase in mathematics SOL scores. No center-level variables were statistically significant predictors of mathematics proficiency level or mathematics standardized SOL scaled score outcomes.

A separate set of mathematics analyses for students with (a) one to 29 days of attendance in 21st CCLC, (b) 30 to 59 days of attendance in 21st CCLC, (c) 60 or more days of attendance, and (d) for the combined group of all students with one or more days of attendance in 21st CCLC were also conducted. Results of the correlation analyses revealed that for the combined group of students who attended 21st CCLC for one day or more, there was a statistically significant negative correlation between days attended and 2017-2018 mathematics standardized SOL scaled scores, with more days of attendance being associated with a decrease in the mathematics standardized SOL scaled scores. However, the magnitude of the relationship (r = - 0.03) was considered very small, with attendance explaining 0.09 percent of the variation in mathematics standardized SOL scaled scores. There was no statistically significant correlation between days attended and 2017-2018 mathematics standardized SOL scaled scores for students who attended either 1 to 29 days or 30 to 59 days. There was however, a statistically significant positive correlation between days attended and mathematics standardized SOL scaled scores for students who attended 21st CCLC for 60 days or more (r = 0.05), although again, the correlation was very small, with attendance explaining 0.25 percent of the variation in mathematics standardized SOL scaled scores.

None of the center-level variables included had a consistently statistically significant impact on achievement outcomes in mathematics over the past four years (2014-2015 to 2017-2018) for the 21st CCLC students only analyses (Analysis of Center Effects) (see Table 14).

Table 14. Four-Year Achievement and Center-Level Outcomes Summary in Mathematics for Grades 4-12

	Mathematics							
	2014-2015		2015-2016		2016-2017		2017-2018	
	Proficiency	SOL	Proficiency	SOL	Proficiency	SOL	Proficiency	SOL
	CCLC Only		CCLC Only		CCLC Only		CCLC Only	
Center Information								
Total number of hours of activities at the center				Negative				
				-0.001				
Total number of activities at the center[1]								
Percent of activities that were mathematics related[1]								
Percent of center activities that were English/reading related[1]				Negative	Positive			
				-0.002	1.011			
Percent of certified paid school-day teachers at the center								
Total number of staff				Positive				
				0.002				
Percent of center activities that were academic	Positive	Positive						
	1.009	0.002						
Percent of center activities that were enrichment[1]					Positive			
					1.008			

Note. The values for the group represent the coefficient for the analysis.
[1]Variable first measured in 2015-2016

Promising Practices and Recommendations

Hundreds of promising practices that were most effective in helping the grantees meet their objectives were reported in the ALERT. The most frequently-mentioned practices are discussed below, presented in order of the open-ended questions they address, and organized by themes; then, followed by a discussion of the recommendations' most prominent themes.

1) **What activities or promising practices appeared to be most effective in helping to meet your subobjectives for improving student academic achievement in math?**
2) **What activities or promising practices appeared to be most effective in helping to meet your subobjectives for improving student academic achievement in reading/English?**

Note: The grantees' responses regarding promising practices for improving achievement in math (Q1) and in reading/English (Q2) were to a great extent duplicative. Therefore, these responses are considered below in a single discussion.

In grantees' responses to the questions about promising practices in both math and reading/English (English), the same three broad themes appeared most prominently. In order of frequency, these were (a) direct academic support, (b) program staff and structure, and (c) enrichment activities. In both sets of responses, the largest number of promising practices were those aimed at support for the students' academic needs. Among these practices, the two most commonly mentioned were tutoring and homework help, with respondents frequently mentioning them together.

Overall, homework help and tutoring were seen uniformly as very effective and fundamentally important. As one grantee said in responding to the question on promising math practices, "Tutoring played a monumental role in improving students' academic achievement in math." Another noted that daily teacher availability for these activities "helped students gain positive math achievement through consistency and immediate feedback." A third respondent observed that, in addition to improving in math, students actually requested more tutoring.

Tutoring and homework sessions were conducted either in small groups or one-on-one. Comments regarding promising practices in English described individualized or differentiated

tutoring as most effective. In comments discussing instructional methods, both math and English respondents emphasized the use of project-based learning (PBL) and active/interactive learning methods as effective practices. Math commenters named practices that involved the use of art, music, and movement to help with math memorization skills. In PBL, students were seen as "more receptive" to learning math objectives, and a grantee commenting on promising practices in English saw PBL as the "most effective" strategy because students "truly bought into the premise." This individual also said students "didn't know they were learning, and enjoyed the process of creating." Dividing students by reading levels rather than by grade levels was an additional effective practice employed for English. Tutoring in English often was described as "standards-based", or as being focused on passing the Standards of Learning (SOL) tests. Another respondent to the question on practices in English described using regular feedback from school-day teachers, as well as student assessment scores, in order to tailor instruction to student needs.

In addition to instructor-led academics, substantial contingents of both math and English respondents reported using online or computer-based instructional programs, including interactive and game formats. Both groups reported using DimensionU, iReady, Stride Academy, and Study Island. Both math and English versions of the Sumdog and IXL programs were also used. In addition, math students were reported to use Dreambox, while English participants used Kahoot, Newsela, and Storybird. Also used for English was WriteBrain, a program for writing enrichment in which children author and "publish" their own books.

Other important promising practices related to the make-up of the centers' teaching staff. Both math- and English-related responses emphasized the desirability of having tutors who were qualified and certified school-day core subject teachers, preferably at the students' grade level

and ideally the students' own school-day teacher(s). At least one center employed students' homeroom teachers. In addition to these professional teachers, some commenters on math practices mentioned as a promising practice the use of peer tutors, while respondents describing promising practices in English mentioned volunteer college and university students and Americorps participants as tutors. In English, some centers had tutors specializing in ELL services, and one grantee described having a "literacy specialist" working individually with the students. Both sets of respondents strongly emphasized enhanced communication and coordination between afterschool and day school staff as a promising practice.

Numerous responses regarding both math and English practices described enrichment activities, but discussion of enrichment is reserved for Question 5, which specifically addresses this domain.

3) **What activities or promising practices appeared to be most effective in helping to meet your subobjectives for providing parent education?**

The most prominent theme among promising practices for parent education was workshops and other programs providing educational sessions for parents. This was followed in emphasis by a variety of family events and outreach, communication, and relationship building with families.

Among the educational sessions most prominently mentioned were programs to help parents gain access to or use technology through computer labs and educational websites, as well as computer and internet literacy training; and to provide online resources to assist parents in helping their children at home. Educational websites mentioned included Splash Math, Lexis, Dream Box, Ten Marks, Study Island, IXL, and SOL Practice. Also described as effective were GED preparation classes and college and career information, including workshops on professions

and how to gain admission to them. Literacy and adult English classes, as well as ELL courses, were described as "most promising," along with financial literacy and physical and mental wellness training. Other offerings included Yoga and mindfulness classes.

In addition to onsite events, field trips involving parents were seen as very engaging and effective. The importance of community partners in providing parent education was stressed frequently. These partners included universities or colleges, community colleges, a housing authority and other local governmental entities, and local businesses.

Effective elements of program structure that enhanced parent engagement and attendance included programming that the students planned or led, which allowed students to display projects or learned skills, and that involved interactions among parents or between parents and students. An example named by one grantee was a "student showcase linking school day learning to afterschool."

Incentives such as the provision of meals or snacks and the provision of transportation or childcare were described as important to increase parental engagement and attendance. Other incentives mentioned by grantees included giveaways of books and other donated items such as gift cards. In addition, flexible scheduling and the practice of surveying parents to determine their interests and what they saw as convenient times for activities were said to be promising practices.

Emphasized almost as much as the content and structure of events and sessions were outreach to, and communication and relationship building with, the families of children in the program. Grantees repeatedly stressed the importance of using a variety of communication methods with parents such as: "callbacks and active listening," flyers, newsletters, calendars of events and activities, and invitations with RSVPs sent home with students and by mail and

telephone. It was also emphasized that eliciting parent feedback and suggestions was a promising practice. At least one center was translating all communications into Spanish and using bi-lingual staff for telephone communications. Another grantee described having a Family Resource Coordinator who allowed the program to focus on parents and families with invitations, reminders of events, resources, and who also served as a personal contact to whom parents could communicate their concerns.

4) **What activities or promising practices appeared to be most effective in helping to meet your subobjectives for providing character education?**

Most of the comments submitted by respondents to this question described the instructional methods, activities, and techniques used by grantees in character education (CE). This was followed in frequency by references to the partners who worked with the program in this area.

The overarching theme regarding the practice of character education seemed to be the idea of building CE into as many activities as possible, and successfully using these activities to improve behavior. As one site coordinator described it, "character education is woven throughout the school day." The intent of this was to create positive school climate and "instill critical academic, social, [and] emotional skills and core character traits." Ideally, the lessons derived by the students would be coordinated with disciplinary policy. One respondent said, "We refer to our pillars of character [Pillars of Character are elements of Character Counts, a CE training program] during any discipline incidents." Also related to improved behavior, one grantee listed as promising practices, "Addressing needs as they occur and listening to signals. Being proactive when the signals happen, and being timely about the response."

The subject matter of CE and promising methods used varied greatly among centers. The subject matter of workshops, activities, and training included, among other things: substance abuse prevention; anti-bullying training; violence prevention; and a "buddy system" whereby students learned to use positive affirmations with one another and their teachers. At one center offering the "Game Changers" violence prevention program, volunteer facilitators were described as building "ongoing relationships with students and teachers," and the site coordinator was counseling parents and students together "to problem solve [sic] conflicts and develop action plans for success." The most promising real-world activities included community service work, which was seen as very effective in teaching the students compassion.

A grantee related that, as seen by his/her program, effective CE was a two-step process. First, skills were learned in CE training, sometimes through direct instruction, which included "knowing what it looks like to have strong character, build good relationships, and attaining the soft skills to be successful in daily life." Second, these skills were put into practice "organically" by the students while working in PBL projects. Another grantee said that students were "more receptive" in learning CE when provided with PBL and found it more effective to "integrated character education" than teaching it in a stand-alone lesson.

In addition to learned skills, respondents described rewards and motivators which were seen as improving both program attendance and desired behaviors. They described incentives such as gift cards, "student of the week" awards, and "club cash," which could be redeemed to "purchase" items at a club store. In addition, it was noted that field trips were seen as effective motivators for student attendance.

Family and parent participation also were mentioned as elements of successful CE. One grantee described a holistic approach engaging all the adults in the students' lives: "We strove to

work with all the adults in our students' lives (parents, teachers, staff, and counselors) to ensure the students in our program always felt supported and were given the resources to truly succeed. We always highlighted good behavior through positive reinforcement, student of the week, and positive phone calls home."

The grantees described collaborations on CE with a large number of community partners and vendors as promising practices. These ranged from a county sheriff's office, a military base, and New River Valley Community Services; to programs like Project Discovery and Communities in Schools; and agencies like the Boys & Girls Club and the Boy Scouts. Specifically, mentoring for the students came from a number of sources, including Virginia Tech University students (both mentoring and tutoring); mentors provided by other community partners; peer mentors; and mentor clubs known as the Sisterhood Club and the Brotherhood Club. One grantee said that students were most responsive to activities that "allowed time to interact with partners who share life lessons and offer opportunities for students to share information about and examine themselves to focus on ways to achieve their goals in life."

Experienced and dedicated staff who were invested in the students and could serve as good role models were also described as very important in developing CE. Grantees said that their staff received professional development aimed at training them to model good character. A few also described an interesting communication technique wherein students wrote poetry to help staff "understand past incidents in their lives."

5) **What activities or promising practices appeared to be most effective in helping to meet your subobjectives for providing enrichment opportunities?**

The most heavily emphasized theme found in grantees responses about enrichment was the wide variety of activities and trainings the centers were providing. Giving students a choice

in the selection of activities and the rotation of students through various activities were frequently mentioned practices that enhanced this variety.

The most prominent general category of activity was field trips, which served numerous purposes. The excursions might be to a business, college or university, or to clubs in which students participated. They could be related to books the students had read, intended to enhance SOL learning, or related to specific areas of knowledge (e.g., trips to the Marine Science Museum or the Air & Space Museum). Grantees pointed out that field trips were "most effective" in providing enrichment because they offered hands-on experiences that would not otherwise be available to the students. One respondent put it more directly as applied to his/her constituent students, saying that field trips exposed students "to the world outside their immediate neighborhoods," and also that they correlated to Virginia SOL, broadening horizons and making the dream of college appear attainable. There was a plethora of specific activities and classes named, including such domains as crafts, art, theater, clubs, college and career-focused experiences, gardening, real-world math problems, JAM Kids, MicroSociety, photography, yoga, and dance.

STEM and STEAM subject matter were stressed as topics for enrichment, and PBL was again named as a most effective instructional method.

6) **What activities or promising practices appeared to be most effective in helping to meet your subobjectives for improving community partnerships?**

Responses to this question were overwhelmingly about communication and outreach among program staff and partners. Thus, promising practices included establishing effective communications with partners by all methods. Grantees responded that communications and collaboration should be regular, open, continuous (year-round), two-way, and should include

face-to-face meetings. The respondents stressed that, in addition to keeping partners informed, program coordinators should invite them to events and activities. When communications were open, grantees reported that they found partners to be eager to provide them with ideas, suggestions, and support.

Other promising practices were to "reach out to supervisors and staff" when working with a new partner and to bring in a variety of partners to address the students' individual interests. It was suggested that grantees should ask their communities for expertise and guidance, and that they should seek "fresh ideas" from their students. Examples of partner contributions beyond typical support or enrichment activities were the provision of food for backpack programs by college students and Americorps members, and a sheriff's department which wrote a grant to allow employment of a school resource officer. In a cautionary note, one grantee warned against allowing partner activities to interfere with attendance at a center's remedial activities.

Additionally, the "flexible and responsive" scheduling of partner events and meetings was described as a promising practice, as was a focus on "things that are interesting to both students and partners." Finally, a practice that had proved effective was conducting pre- and post- surveys or debriefing sessions regarding activities, thus maintaining a "continuous improvement mind-set" among partners and staff.

7) **What activities or promising practices appeared to be most effective in helping to meet your "other" subobjectives?**

Very few grantees responded to this open-ended question. One grantee did specify that their other objective was attendance, while the rest described a variety of promising practices. The respondent who specified attendance as their other objective had enhanced program

attendance by announcing some enrichment activities ahead of time to ensure that "they will be at school so they can attend the program that day."

Other promising practices for which the objectives can only be inferred included incorporating two new partners for a program; starting a new 4th and 5th grade science program involving hands-on learning activities that students "really loved" aimed at preparing the students for 5th grade Science SOLs; expanding cooking classes by using a "train the trainer" model that allowed the grantee to hold more sessions; adding a Teen Cuisine curriculum; and getting support from administration with continuous partner and staff communications. Finally, one grantee simply named "projects" and a cooking club.

8) Provide recommendations that might improve the program in the future.

Several hundred recommendations were also submitted by grantees. Most had been mentioned earlier by grantees as "promising practices." Among ideas not emphasized earlier were several under the general theme of "data." These included adding time to the site coordinator's schedule for data analysis; developing a data retrieval system "to enable longitudinal analysis of the grant in year 2;" greater consistency between state and federal reporting requirements; and larger submission windows for both state and federal reporting. It was also suggested that students be given pre-and post-assessments when attending field trips.

Other recommendations were related to grant-writing and coordination, as well as understanding grants. There was a recommendation of professional development for teachers on grant requirements. It was also suggested that there should be a workshop on writing new grants after Year 3 ended; training and information for first-year grant coordinators; and longer grant cycles.

Furthermore, there were a number of recommendations for increased resources. Among these were "increased resources" for math and English tutors and a list of "pre-approved resources" for student activities and enrichment, including money for admission to arts and music events. It was suggested that "parent engagement interventions" should include enhanced GED support, more workshops on college/career themes, and in general more activities to enhance the employability of the parents. One grantee recommended once-a-month "parenting wisely" lessons. Finally, there were a number of recommendations for more student "ownership," including more input from a student leadership committee; more student choice in projects, enrichment, and field trips; more student-led events; and allowing students to set academic goals.

Student Perceptual Survey

The survey was completed by 6,055 students, of whom 49% attended elementary school, 42% attended middle school, 8% attended high school, and 1% did not respond to this question or exited the survey.

Overall, the results indicated that students held a positive perception of their 21st CCLC program. When asked why they attended the 21st CCLC afterschool programs, the most commonly chosen responses were, "The afterschool program helps me do better in school" (59%), "the activities are fun" (55%), and "I like going to the afterschool program" (54%). Still, quite a few went to the afterschool program because their teacher wanted them to go (17%) or there was nothing else to do (20%). The results are summarized in Table 15 from highest to lowest percentage.

Table 15. Why Students Attend 21st CCLC Programs

I go to the afterschool program because (mark all that apply):	Percentage
The afterschool program helps me do better in school.	59.1
The activities are fun.	54.7
I like going to the afterschool program.	53.8
My friends go.	40.3
My parents want me to go.	38.3
There is nothing else to do after school.	20.0
My teacher wants me to go.	16.8

When asked questions about the general impression of the afterschool program, most students indicated that they "feel safe" during 21st CCLC programs (78%), "the staff encourages them to do their best" (74%), they trust that "afterschool program will help them to learn the knowledge and skills that will help in school or college" (74%), and "they trust the staff" (74%). Students' overall perceptions of the 21st CCLC program are presented below in Table 16.

Table 16. 21st CCLC Students' Overall Perceptions of the Program

During the afterschool program:	Yes	Sometimes	No
I feel safe.	77.6	17.2	3.3
I get to choose the activities I want to do.	36.1	39.2	22.5
There are a lot of different activities.	71.7	20.4	5.7
I have time to finish my homework.	67.5	23.5	7.0
I learn how to study for tests.	58.5	24.4	14.9
I get help with my homework.	63.7	23.2	10.9
I get along well with other students.	55.7	36.4	5.8
There are too many rules.	27.5	24.2	45.6
The staff encourage me to do my best.	74.4	17.2	6.0

During the afterschool program:	Yes	Sometimes	No
I trust the staff.	73.7	18.9	5.0
The staff is nice.	64.8	28.5	4.1
The staff listens to me when I have something to say.	62.4	28.6	5.9
I learn skills that help me when I am not at school.	57.1	26.2	13.2
I receive information that will help me find a job or choose a career.	64.0	23.9	10.5
The afterschool program teaches me about professional behavior.	69.1	20.8	8.8
The afterschool program helps me learn the knowledge and skills that I will need to be ready for a job or career.	70.6	20.6	7.6
I receive information that will help me choose a trade school or college.	67.5	20.4	11.3
I receive information or assistance with the trade school or college admissions process.	38.4	19.3	37.3
The afterschool program helps me learn the knowledge and skills that I will need to be ready for trade school or college.	74.3	16.5	7.8

Note. Item percentages may not total 100% due to multiple or missing responses by some students.

Students were also asked if going to the 21st CCLC programs benefited different areas of their life (See Table 17). Most items garnered substantial agreement. The items with the highest agreement among 21st CCLC students included: "prepare for trade school or college" (73%), "prepare for a job or a career" (72%), "get better grades in school" (72%), and "be better at math" (71%). The items with the highest disagreement included: "enjoy school more" (16%), "make new friends" (12%), "be a better reader" (10%), and "attend class regularly" (10%).

Table 17. 21st CCLC Students' Perceptions of Program Benefits

Going to the afterschool program has helped me to:	Agree	Not Sure	Disagree
Be a better reader.	63.5	19.0	10.4
Be better at math.	71.0	14.7	7.8
Make new friends.	63.9	17.1	12.3
Turn in my homework on time.	65.7	18.2	9.5
Attend class regularly.	66.6	16.6	10.1
Behave well in class.	65.8	19.4	8.2
Get better grades in school.	72.0	15.7	5.7
Get along well with other students.	60.4	23.9	8.9
Enjoy school more.	56.9	19.9	16.0
Prepare for a job or a career.	72.4	20.2	5.1
Prepare for trade school or college.	73.0	17.1	7.6

Note. Item percentages may not total 100% due to multiple or missing responses by some students.

Teacher APR Survey. There were 7,465 surveys completed by school-day teachers. Most of the respondents either taught mathematics and/or English to their 21st CCLC students. The majority of students (73%) were reported to be in grades three through eight and most students (89%) attended the programs for 30 days or more (Table 18, Table 19, and Table 20).

Table 18. Subject taught to 2017-2018 21st CCLC Students

Subject taught to 21st CCLC students	Percentage
English	41.8
Mathematics	34.2
Science	12.5
History/Social Science	8.0

Note. Item percentages may not total 100% because of missing input from some respondents.

Table 19. 2017-2018 21st CCLC Students' Grade Level

Student grade level	Frequency	Percentage
Pre-K	22	0.3
Kindergarten	219	2.9

Student grade level	Frequency	Percentage
1st grade	303	4.1
2nd grade	527	7.1
3rd grade	963	12.9
4th grade	979	13.1
5th grade	828	11.1
6th grade	996	13.3
7th grade	922	12.4
8th grade	748	10.0
9th grade	301	4.0
10th grade	267	3.6
11th grade	165	2.2
12th grade	105	1.4

Note. Item percentages may not total 100% because of missing input from some respondents.

Table 20. CCLC Student Attendance

Indicate the number of days the student has participated in the program:	Percentage
Less than 30	7.9
30 - 59	38.1
60 - 89	27.1
90 or more	24.0

Note. Item percentages may not total 100% because of missing input from some respondents.

School-day teachers were also asked how 21st CCLC student behavior had changed in six key behavioral areas (Table 21). Most indicated that 21st CCLC student behavior *Improved* or *Did Not Need to Improve*. Specifically, the 21st CCLC student behavior *Improved* in "academic performance" (63%), "motivation to learn" (54%), "turning in his/her homework on time" (53%), and "getting along well with other students" (41%). Very few reported a *Decline* in student behavior.

Table 21. 21st CCLC Student Behavior Changes

To what extent has your student changed their behavior in terms of:	Improved	Did Not Need to Improve	No Change	Declined
Attending class regularly.	29.9	43.6	23.3	2.7
Getting along well with other students.	40.8	33.1	22.7	3.1
Academic performance.	62.6	13.3	20.0	3.8
Turning in his/her homework on time.	52.5	21.4	22.0	3.7
Behaving well in class.	39.9	31.6	23.8	4.3
Motivation to learn.	53.7	18.8	23.1	3.6

Note. Item percentages may not total 100% because of missing input from some respondents.

Largely, school-day teachers indicated overall improvement for students in academics and classroom behavior. About three-quarters of teachers agreed that students' homework completion and class participation improved, as well as classroom behavior (Table 22).

Table 22. 21st CCLC Student Overall Improvement

Overall Improvement	Yes	No
Overall, did this student's homework completion and class participation improve?	76.5	22.6
Overall, did this student's classroom behavior improve?	69.5	28.9

Note. Item percentages may not total 100% because of missing input from some respondents.

Conclusions

Overall conclusions are presented below by evaluation question.

1. What is the nature of the Virginia 21st CCLC grant program and level of participation by students?

Both 21st CCLC students and their regular school-day teachers reported positive views of the program. Most students are motivated to participate in the afterschool program because it helps them do better in school, the activities are fun, and because they enjoy it. Students also feel good about the staff and the opportunities being provided for them. While not as many reported that they enjoy school more because of the program, most feel they are better readers, better at math, and get better grades in school because they attend the 21st CCLC afterschool program.

Regular school-day teachers reported favorable changes in behaviors in many of their 21st CCLC students. The most commonly reported improvements were academic performance, motivation to learn, and turning in homework on time. Very few reported a decline in their 21st CCLC student's classroom behavior.

The level of students who regularly attended center programs (i.e., in attendance for a minimum of 30 days) was similar to years past, with the majority in grades three through eight and nearly an equal ratio of girls to boys. Most of the students served were African American and economically disadvantaged, which directly ties into one of the main purposes of the 21st CCLC program – "to help students, particularly students who attend high-poverty and low-performing schools." A small portion were identified as having limited English proficiency and/or having special needs or disabilities.

2. To what degree did centers meet Virginia's objectives for the program?

Objective 1: Improve Student Academic Achievement in Reading

Based on the statistical analyses for grades four through eight that included two years of test data, participation in the 21st CCLC program was not a statistically significant or substantively important (i.e., educationally meaningful) predictor of reading achievement outcomes based on either proficiency levels or standardized SOL scaled scores. The number of days of 21st CCLC participation was also not a statistically significant or substantively important predictor of reading outcomes.

Students in 21st CCLC receiving special education services statistically significantly outperformed control students on reading proficiency levels, but the magnitude of the effect was not substantively important.

It should be noted that the predictor variables included in the statistical analyses could not explain all of the variance (i.e., variability) in reading achievement. In other words, additional variables not included in these models (e.g., student motivation, parental involvement) could be accounting for some of the variability in reading achievement.

Results of the descriptive analyses of outcomes for students in grade three who did not have prior-year test scores available showed that overall, third-grade 21st CCLC participants in 2017-2018 were outperformed by non-participants in reading proficiency for all students combined and 13 out of 15 available subgroupings and by Virginia in reading proficiency for all students combined and 14 out of 15 subgroupings. In terms of SOL scaled scores, third-grade 21st CCLC participants in 2017-2018 were outperformed by non-participants overall and in 12 out of 15 subgroup comparisons in reading and by Virginia for all students combined and in 14 out of 15 subgroupings.

Objective 2: Improve Student Academic Achievement in Mathematics

Based on the statistical analyses for grades four through twelve that included two years of test data, participation in the 21st CCLC program was not a statistically significant or educationally meaningful predictor of mathematics achievement outcomes based on either proficiency levels or standardized SOL scaled scores. The number of days of participation was a negligible, but statistically significant positive predictor of mathematics outcomes.

Students in 21st CCLC receiving special education services statistically significantly outperformed control students on mathematics proficiency levels, but the magnitude of the effect was not substantively important. Economically disadvantaged students in 21st CCLC statistically significantly outperformed control students on mathematics standardized SOL scaled scores, while non-economically disadvantaged control students outperformed 21st CCLC students, but the magnitude of the effects were not substantively important.

It should be noted that the predictor variables included in the statistical analyses did not explain all of the variance in mathematics achievement. Therefore, additional variables not included in these models could be accounting for some of the variability in mathematics achievement.

Results of the descriptive analyses of outcomes for students in grade three who did not have prior-year test scores available showed that in terms of mathematics proficiency, third-grade 21st CCLC participants outperformed non-participants on 10 out of 15 subgroupings. However, the Commonwealth outperformed 21st CCLC students for all students combined and on 12 out of 15 subgroupings. In terms of SOL scaled scores, third-grade non-participants did better overall and in 7 out of 15 subgroups in mathematics compared to 21st CCLC participants

while the Commonwealth did better overall and in 13 out of 15 subgroupings compared to 21st CCLC students in 2017-2018.

When interpreting the findings on the impact of 21st CCLC participation on student academic achievement in reading and mathematics, readers should keep in mind that while 21st CCLC participants (i.e., students having 30 days or more of attendance) were compared to controls (i.e., students who were eligible to participate, but had zero days of attendance in the 21st CCLC program), there is no information available on what, if any, services or programs other than 21st CCLC control students may have participated in. That is to say, it is possible that 21st CCLC participants were compared to students who, while not attending a 21st CCLC program, did participate in some other form of enrichment or tutoring, meaning that the comparison was actually between multiple forms of intervention (i.e., 21st CCLC vs. other types of student support) as opposed to 21st CCLC participation vs. nothing.

Another issue to consider in assessing the impact of 21st CCLC participation on academic achievement (or regular school-day attendance) is that students attending the average number of days (n = 35.5 across all grades 3 – 12), if they received one hour of tutoring per day, would have only received 3.6% more hours (or 6 ½ more days) of instruction over the standard school year (of 990 instructional hours or 180 instructional days respectively)[2]. It is unclear what influence that limited amount of additional instruction could have on student outcomes.

Improve Student School-Day Attendance. For students in grades four through twelve, the school-day attendance analyses showed a statistically significant positive impact of 21st CCLC participation ("Yes" or "No") on school-day attendance for the overall sample, although the effect was not substantively important. In addition, students in 21st CCLC had statistically

[2] https://law.lis.virginia.gov/admincode/title8/agency20/chapter131/section150/

significantly higher school-day attendance compared to control students in the subgroups (a) not limited English proficient, (b) special education, (c) not special education, and (d) economically disadvantaged. However, the magnitude of the effects was not substantively important.

Objective 3: Provide Opportunities for Parent Education

Objective 3 directly ties into one of the purposes of the 21st CCLC program – "To offer families of students served by community learning centers opportunities for literacy and related educational development." As a whole, 4,800 parents and adult family members were served during the 2017-2018 school year, including 537 parents and adult family members participating over the summer. Moreover, subobjectives were almost always met (>87%) except for the General Educational Development (GED) certificate program, which was only met by half of those programs that chose it as a subobjective.

3. In what ways do attendance at a 21st CCLC, type of and time allocated to activities, and hours of operation predict academic achievement?

The results suggest that a higher number of center staff had a statistically significant and positive, yet small impact on both reading proficiency level and standardized SOL scaled scores. The number of days attended was a statistically significant positive predictor of both mathematics proficiency level and mathematics standardized SOL scaled score outcomes, although the magnitude of the effect was negligible. No other center-level variables had a statistically significant impact on students' academic achievement.

It should be noted that the predictor variables available and included in the statistical analyses did not explain all of the variance (i.e., variability) in either reading or mathematics achievement outcomes. Consequently, additional variables not included or available in these models could be accounting for some of the variability in achievement.

4. What promising practices regarding the achievement of required objectives were identified by centers?

Among comments submitted by grantees across the six subjects (math and reading/English; parent education; character education; enrichment opportunities; and community partnerships), the most heavily emphasized "promising practices" addressed three broad areas. First and most prominently, there were practices that supported the students. These can be broken into three types: Support for academic performance, enrichment activities, and character education. The second broad group of practices encompassed "parent support," which fell into four types: Helping parents assist their children, enhancing parent employability, enhancing other life skills, and practices intended to support parents' continuing attendance and participation in the program. Finally, there were practices aimed at improving community partnerships.

References

Virginia Department of Education (2018). Fall Membership Reports. Retrieved from https://p1pe.doe.virginia.gov/apex/f?p=180:1:17535483433691:::::

What Works Clearinghouse (2017). *Procedures handbook (Version 4.0)*. Washington, DC: Author. Retrieved from What Works Clearinghouse Procedures Handbook Version 4.0 PDF

Appendix A: Supplemental Program Objectives

In addition to the state mandated 21st CCLC program objectives, some grantees chose supplemental objectives as part of their center activities. This appendix provides information on the percentage of centers choosing each supplemental objective and the success centers reported in meeting these objectives.

Provide Enrichment Opportunities

Providing enrichment opportunities was selected by some 21st CCLC grantees as a supplemental objective. Nearly all (88%) wanted to increase children's depth of understanding of academic subjects by non-traditional instruction through this subobjective. Of those who selected to provide enrichment opportunities, 93% reported meeting this supplemental objective. The percentage of centers selecting subobjectives within this objective are shown in Table A-1. Success of the reporting centers in meeting these subobjectives is presented in Table A-2.

Table A-1. Centers Selecting Subobjectives for Provide Enrichment Opportunities

Provide Enrichment Opportunities Subobjective	Percentage
Increase children's exposure to the fine arts and cultural events.	71.4
Increase children's depth of understanding of academic subjects through non-traditional instruction, such as STEM activities, and problem-based learning.	87.5
Increase children's health awareness and physical education.	77.7
Provide college and career readiness programs.	35.7
Provide community and service learning programs.	42.0
Other	3.6

Table A-2. Success in Meeting Subobjectives for Providing Enrichment Opportunities

Enrichment Opportunities Subobjective	Average Number
How many opportunities were provided for students to participate in fine arts and cultural events?	34.2
How many opportunities were provided for students to participate in non-traditional instructional activities?	54.4
How many opportunities were provided for students to participate in health awareness and physical education activities?	75.8
How many opportunities were provided for students to participate in college and career readiness programs?	33.9
How many "Other" enrichment activities did students have an opportunity to participate in?	41.0

Improve Community Partnerships

Improving community partnerships was also selected by some 21st CCLC grantees as a supplemental objective. About three-fourths (73%) wanted to increase the activities of community partners through this subobjective. Of those who selected improving community partnerships, all reported meeting this supplemental objective. The percentage of centers selecting subobjectives within this objective are shown in Table A-3. Success of the reporting centers in meeting these subobjectives is presented in Table A-4.

Table A-3. Centers Selecting Subobjectives for Improving Community Partnerships

Improving Community Partnerships Subobjective	Percentage
Increase the number of community partners	54.2
Increase the activities of community partners	72.9
Improve communication with community partners	67.8
Improve the sustainability of the program through community partner commitments beyond the grant period	32.2
Other	1.7

Table A-4. Success in Meeting Subobjectives for Improving Community Partnerships

Subobjective	Percent Met	Percent Not Met
Did the number of community partners increase?	87.5	12.5
Did the activities of community partners increase?	95.3	4.7
Did communication with community partners increase?	95.0	5.0
Has the potential sustainability of the program increased through community partner commitments?	94.7	5.3
Did the "Other" subobjective help improve community partnerships?	100.0	0.0
Overall, did your site's 21st CCLC program meet its objective to improve community partnerships?	91.5	8.5

Provide Character Education

Providing character education was another supplemental objective selected by some 21st CCLC grantees. Nearly all (87%) wanted to improve classroom behavior through this subobjective. Of those who selected to provide character education, 93% reported meeting this supplemental objective. The percentage of centers selecting subobjectives within this objective is shown in Table A-5. Success of the reporting centers in meeting these subobjectives is presented in Table A-6.

Table A-5. Centers Selecting Subobjectives for Provide Character Education

Provide Character Education Subobjectives	Percentage
Improve classroom behavior	86.6
Submits completed homework on time	62.7
Improve classroom participation	55.2
Improve class attendance	61.2
Improve motivation to learn	62.7
Improve ability to get along with other students	67.2
Provide programs in character education, such as preventing drug/alcohol use and/or violence, truancy, and youth leadership	44.8
Other	1.5

Table A-6. Success in Meeting Subobjectives for Provide Character Education

Provide Character Education Subobjectives	Percent Met	Percent Not Met
Was classroom behavior improved among students attending 30 days or more?	98.3	1.7
Did submission of completed homework on time improve for students attending 30 days or more?	100.0	0.0
Did classroom participation behavior improve for students attending 30 days or more?	94.6	0.0
Did classroom attendance improve for students attending 30 days or more?	87.8	12.2
Did motivation to learn improve for students attending 30 days or more?	97.6	2.4
Did ability to get along with others improve for students attending 30 days of more?	91.1	6.7
Did the programs in character education, such as preventing drug/alcohol use and/or violence, truancy, and youth leadership have a positive impact on students attending 30 days or more?	90.0	6.7
Did the "Other" subobjective improve for students attending 30 days or more?	100.0	0.0
Overall, did your site's 21st CCLC program meet its objective to provide character education?	92.5	6.0