

VIRGINIA DEPARTMENT OF EDUCATION

Evaluation of 21<sup>st</sup> Century Community Learning Centers

2012-2013

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June 2014

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# **Evaluation of 21<sup>st</sup> Century Community Learning Centers**

## **2012-2013**

### **Executive Summary**

The federally-funded 21<sup>st</sup> Century Community Learning Centers (21<sup>st</sup> CCLC) grant program provides opportunities outside of the regular school day for academic enrichment 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 21<sup>st</sup> CCLC programs in Virginia during 2012-2013. The main purpose of the evaluation was to determine whether these programs were meeting the following statewide program objectives: 1) improving student academic achievement in reading; 2) improving student academic achievement in mathematics; and 3) providing opportunities for parental education. In addition, an overview of the success of centers in achieving supplemental objectives is provided in Appendix A.

### **Results**

Data were analyzed from three main sources: (1) an online annual local evaluation survey (ALERT); (2) the national Profile and Performance Information Collection System (PPICS) for 21<sup>st</sup> CCLC programs; and (3) scores for reading and mathematics from the Standards of Learning (SOL) assessments, Virginia Alternate Assessment Program (VAAP), Virginia Grade Level Alternative (VGLA) assessment, and Virginia Modified Achievement Standards Test (VMAST). It should be noted that in the Spring of 2013, all schools in Virginia took new rigorous English assessments that were based on the revised English Standards of Learning (SOL) approved by the Board of Education in 2009, which included new content and increased rigor. The key results of the analyses are summarized below by evaluation question.

### **What is the nature of the Virginia 21<sup>st</sup> CCLC programs and level of participation by students?**

Similar to prior years, in 2012-2013, schools operated the majority of centers, and most were open 6-15 hours per week. There were 3,978 paid and volunteer staff members across 144 centers. Most paid employees were school division teachers, youth development workers, or nonteaching staff, while most volunteers were college and high school students, other community members, or parents. Students attending centers during 2012-2013 numbered 25,238 and 41 percent attended regularly (30 days or more). Students served were in pre-kindergarten

through grade 12, with the majority in grades 3-8. The majority of students served were White or African-American. Racial/ethnic groups were represented in centers as follows: White (41.5 percent), African-American (37 percent), Hispanic (12.8 percent), Asian (3 percent), and American Indian (1.8 percent). As of December 9, 2013, racial/ethnic information had not been supplied for 1.7 percent of students served. Over half of all students served by 21<sup>st</sup> CCLC during this period were at an economic disadvantage (56.7 percent). Students identified as having limited English proficiency comprised 9.7 percent of the total program enrollment, and students identified as having special needs or disabilities also represented 9.7 percent of all students served.

In comparison, the total Commonwealth student membership ([http://bi.vita.virginia.gov/doe\\_bi/rdPage.aspx?rdReport=Main&subRptName=Fallmembership](http://bi.vita.virginia.gov/doe_bi/rdPage.aspx?rdReport=Main&subRptName=Fallmembership)) as of September 30, 2012, was as follows: White (52.9 percent), African-American (23.5 percent), Hispanic (12.5 percent), Asian (6.2 percent), Two or More Races (4.5 percent), American Indian/Alaska Native (.3 percent), and Native Hawaiian/Pacific Islander (.1 percent). Approximately 38.1 percent of all students across the Commonwealth were eligible for free or reduced price lunch for the 2012-2013 school year. Across the Commonwealth, students with limited English proficiency constituted 9.6 percent of all students enrolled in 2012-2013, and students with special needs or disabilities comprised 12.4 percent of total enrollment during this period.

### **To what degree did centers meet Virginia’s objectives for the program?**

#### **Objective 1: Improve Student Academic Achievement in Reading.**

For students in grades three through eight, the proficiency and standardized SOL scaled score analyses showed that there was no statistically significant impact of 21<sup>st</sup> CCLC participation (“Yes” or “No”) on statewide reading assessments. Additionally, the effect size for the proficiency analyses (Cox Index effect size (CIES) = -0.09) and for the standardized SOL scaled score analysis, the effect size ( $g = -0.02$ ) would not be considered substantively important based on What Works Clearinghouse (WWC) guidelines ( $\geq \pm 0.25$ ). There were however, statistically significant differences in reading proficiency favoring control students over 21<sup>st</sup> CCLC participants for the subgroups not special education, not limited English proficient, economically disadvantaged, and not economically disadvantaged. Cox Index effect sizes ranged from -0.12 to -0.07 and were not considered substantively important according to WWC

guidelines ( $\geq \pm 0.25$ ). For students in grade three who did not have prior-year test scores available, 21<sup>st</sup> CCLC participants in 2012-2013 were outperformed in reading proficiency by both non-participants and the Commonwealth overall and in 10 of 11 available subgroupings (90.9%). In terms of SOL scaled scores, third-grade 21<sup>st</sup> CCLC participants in 2012-2013 were outperformed by non-participants in nearly all comparisons (14 out of 15, or 93.3%) in reading.

### **Objective 2: Improve Student Academic Achievement in Mathematics.**

For students in grades three through eight, the SOL scaled score analysis showed a statistically significant positive impact of 21<sup>st</sup> CCLC participation (“Yes” or “No”) on statewide mathematics assessments. However, while statistically significant, the effect size for the SOL analysis ( $g = 0.06$ ) would not be considered substantively important based on WWC guidelines ( $\geq \pm 0.25$ ). Meanwhile, the proficiency level analysis did not reveal a statistically significant impact of 21<sup>st</sup> CCLC participation (“Yes” or “No”) on statewide mathematics assessments, and the effect size (CIES = -0.01) was not substantively important. For students who were identified as economically disadvantaged, 21<sup>st</sup> CCLC participants had statistically significantly higher standardized SOL scaled scores, but the effect size ( $g = 0.08$ ) was not substantively important. For students in grade three who did not have prior-year test scores available, 21<sup>st</sup> CCLC participants in 2012-2013 did slightly better in mathematics proficiency than in reading, being outperformed by both non-participants and the Commonwealth overall and in 8 of 11 available subgroupings (72.7%). As with proficiency outcomes, third-grade 21<sup>st</sup> CCLC participants in 2012-2013 did slightly better in mathematics vs. reading in terms of SOL scaled scores, where participants were outperformed by non-participants for all students and in 10 out of 14 available subgroupings (71.4%).

### **Objective 3: Provide Opportunities for Parent Education**

As required by the 21<sup>st</sup> CCLC grant, grantees offered General Education Development (GED) certificate programs, computer instruction, parenting skills classes, parent/child activities, and/or career development activities for parents. Over three-quarters of centers offering opportunities for parent/child interaction in academic activities reported having met their internally established subobjectives. In addition, almost 80 percent of centers offering computer skills instruction and over 70 percent of centers offering parent training reported having met their internally established subobjectives. Finally, more than 60 percent of centers offering career

development activities and more than half of centers offering GED certificate programs reported having met their internally established subobjectives.

### **In what ways do attendance at a 21<sup>st</sup> CCLC, type and time allocated to activities, and hours of operation predict academic achievement?**

This section of the evaluation includes the results of statistical analyses of associations between various categories of center-level data and reading and mathematics outcomes of students in grades three through eight with two years of assessment data available. Only 21<sup>st</sup> CCLC students who had a minimum of 30 days of attendance were included. These analyses provide information that may be useful to program leaders and are summarized below.

#### **Center-level results from analysis of reading outcomes**

The percent of center activities that had an academic focus at 21<sup>st</sup> CCLC centers had a very small, but statistically significant and negative impact on standardized SOL reading scaled scores only, with a decrease in the percent of academic activities being associated with higher standardized SOL scaled scores. The total number of hours that centers were open, the total hours of activities, the number of unique activities, the percent of paid school-day teachers, and the number of days attended did not have a statistically significant impact on either reading proficiency level or standardized SOL reading scores in 2012-2013.

#### **Center-level results for mathematics**

The number of unique activities at 21<sup>st</sup> CCLC centers had a very small, but statistically significant and negative impact on standardized SOL mathematics scaled scores only, with a decrease in the number of unique activities being associated with higher standardized SOL scaled scores. The total number of hours that centers were open, the total hours of activities, the percent of center activities that had an academic focus, the percent of paid school-day teachers, and the number of days attended did not have a statistically significant impact on either mathematics proficiency level or standardized SOL mathematics scores in 2012-2013.

### **What “promising practices” and challenges were identified by centers regarding the achievement of required objectives?**

Grantees were asked to elaborate upon their centers’ objectives that were met and the activities or promising practices that appeared to be most effective in helping them to meet these objectives. For grantees meeting the objective of improving student academic achievement, the most frequently mentioned promising practices involved the nature and types of student activities

that were most effective in supporting grant objective attainment, as well as supporting high-quality after-school staff that maintained strong linkages with the school-day staff and curricula. For grantees meeting the objective of providing parent education, the most frequently mentioned promising practices involved building and sustaining strong relationships with families through services and communication. For grantees meeting the objective of improving student behavior, the most frequently mentioned promising practices involved incorporating incentives, positive reinforcement, or student input to promote desired student behavior. For grantees meeting the objective of providing enrichment activities, the most frequently mentioned promising practices involved the nature and types of student activities that were most effective in supporting grant objective attainment. For grantees meeting the objective of improving community partnerships, the most frequently mentioned promising practices involved cultivating and maintaining strong relationships and partnerships with community members.

Grantees were asked to reflect upon their centers' objectives that were not met or showed mixed results and to identify challenges that might have been associated with the lower results. For grantees struggling to meet the objective of improving student academic achievement, the most frequently mentioned challenges involved school environment and other program operating conditions, as well as students' individual challenges. For grantees struggling to meet the objective of providing parent education, the most frequently mentioned challenges involved parents' individual challenges as well as home and community characteristics. For grantees struggling to meet the objective of improving student behavior, challenges mentioned involved program characteristics, home and community characteristics, school environment and program operating conditions, as well as students' individual challenges. For grantees struggling to meet the objective of providing enrichment opportunities, the most frequently mentioned challenges involved program design, structure, and grant-level characteristics. For grantees struggling to meet the objective of improving community partnerships, the most frequently mentioned challenges involved cultivating strong community connections.

## **Evaluation of 21<sup>st</sup> Century Community Learning Centers 2012-2013**

### **Introduction and Overview**

The 21<sup>st</sup> Century Community Learning Centers (21<sup>st</sup> 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 *No Child Left Behind Act of 2001* (NCLB). The purposes of the 21<sup>st</sup> CCLC program are as follows:

- To provide opportunities outside of the regular school day for academic enrichment, including tutorial services to help students 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.

In 2012-2013, the Virginia Department of Education provided 21<sup>st</sup> CCLC grant funds to 90 grantees that operated a total of 144 centers, typically operating within a three-year grant cycle. The grantees provided academic and enrichment programs to students before and/or after school hours as well as during the summer at some centers. The grant program also supported grantee collaboration with parents and community partners.

### **Evaluation Objectives and Measures**

The Virginia Department of Education contracted with the Center for Research in Educational Policy (CREP) at the University of Memphis to conduct a statewide evaluation of the 21<sup>st</sup> CCLC program to meet federal requirements and to assess the extent to which local grantees met the defined programmatic objectives. The defined objectives were as follows:

Objective 1: Improve student academic achievement in reading;

Objective 2: Improve student academic achievement in mathematics; and

Objective 3: Provide opportunities for parental education.

The evaluation was structured around the following questions:

- What is the nature of the Virginia 21<sup>st</sup> CCLC grant program and level of participation by students?

- To what degree did centers meet Virginia’s objectives for the program?
- In what ways do attendance at a 21<sup>st</sup> CCLC, type and time allocated to activities, and hours of operation predict academic achievement?
- What “promising practices” and challenges regarding the achievement of required objectives were identified by centers?

All grantees with centers in operation within the grant cycle in 2012-2013 were asked to participate in the evaluation. A detailed accounting of the number of students and centers originally available and subsequently included, and the rationale for inclusion or exclusion in the analysis are provided in a Supplemental Technical Report which is available upon request from the Virginia Department of Education.

Three main sources of data were used in the evaluation:

1. Two years (2011-2012 and 2012-2013) of Standards of Learning (SOL), Virginia Alternate Assessment Program (VAAP), Virginia Grade Level Alternative (VGLA), and Virginia Modified Achievement Standards Test (VMASST) proficiency and scaled assessment scores in reading and mathematics for students in grades 3-8. In addition to the assessment scores, data regarding gender; grade; ethnicity; limited English proficiency (LEP) status and proficiency level; disability status and primary disability code; economic disadvantage status; and days of participation in the 21<sup>st</sup> CCLC program were included. It should be noted that students with limited English proficiency at the lowest levels of English proficiency and students with disabilities are permitted to participate in approved alternative assessments. The VAAP, VGLA, and VMASST alternative assessment data were included in the analysis of proficiency-level outcomes, but only the SOL assessment were used in the analysis of scaled score outcomes.
2. The Profile and Performance Information Collection System (PPICS) is a national web-based data collection system that contains (a) descriptive data about grantees and their 21<sup>st</sup> CCLC program and (b) self-reported progress toward meeting performance indicators. Grantees submit information to this system at designated time periods each year.
3. Annual Local Evaluation Report Template (ALERT) is an online survey designed to supplement PPICS for this evaluation. The tool gathers additional data regarding center

activities and outcomes. Each grantee is required to submit the ALERT for each center after a full year of program implementation.

The preliminary findings in this report reflect nearly the full complement of centers reporting for the 2012-2013 program year (99 percent). The specific data sources and percentage of active centers represented are shown in Table 1 for each evaluation question. The ALERT reports contained both quantitative and qualitative data for analysis. The Virginia Department of Education requested that grantees submit the ALERT for their centers by July 19, 2013. Approximately 83.8 percent (98/117) of the centers submitted the online report by the initial deadline. The remainder of centers completed the report by August 27, 2013. For PPICS data, grantees were able to begin submitting information in April 2013, and all but two had completed their submissions by December 2013. PPICS reports were available for 142 of 144 centers (98.6 percent). PPICS data within the Annual Progress Report categories of operation, objectives, activities, student behavior, and partnerships were analyzed for all grantees. Student-level SOL, VAAP, and VGLA assessment data from the 2011-2012 and 2012-2013 academic years were provided to the Center for Research in Educational Policy by the Virginia Department of Education.

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

| Evaluation Question  | Data Sources   | Percentage of Active Centers Represented                         |
|--|--|--|
| What is the nature of the 21 <sup>st</sup> CCLC programs and level of participation by students?   | ALERT<br>PPICS demographic and attendance data                                 | 100% of 117 centers<br>99% of 144 centers                        |
| To what degree did centers meet their objectives?  | PPICS APR data<br>ALERT<br>Virginia SOL test scores in reading and mathematics | 99% of 144 centers<br>100% of 117 centers<br>100% of 107 centers |
| In what ways do attendance at a 21 <sup>st</sup> CCLC, type and time allocated to activities, and hours of operation predict academic achievement? | SSWS data<br>Virginia SOL test scores in reading and mathematics               | 100% of 107 centers  |
| What “promising practices” and challenges regarding the achievement of required objectives were identified by centers?                             | ALERT  | 100% of 117 centers  |

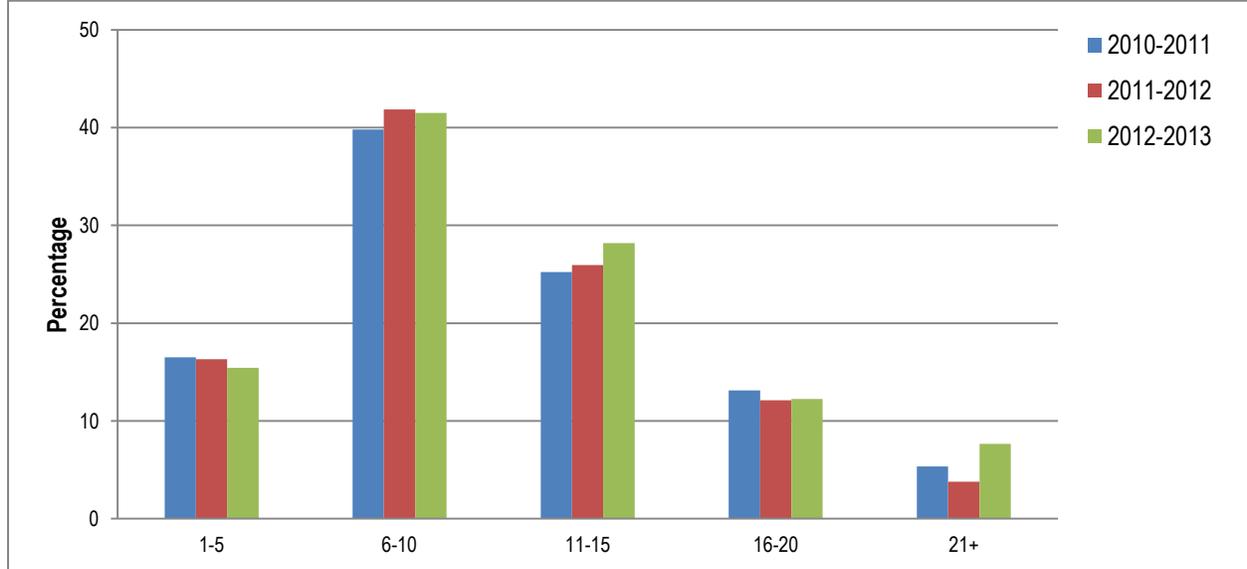
## Center Characteristics

### Operations

Among centers, 88 percent were operated by schools. Others were operated by community centers (5.2 percent); nationally affiliated nonprofit agencies (5.2 percent); faith-based organizations (1 percent); and other agencies (units of city or county government, regional/intermediate education agencies, health-based organizations, libraries, park/recreation districts, bureaus of Indian affairs, or private schools; .5 percent). No centers were operated by charter schools, colleges or universities, or for-profit entities.

Centers also varied in the number of hours of operation per week (see Figure 1). These percentages are similar to those reported for the previous year, with the exception of slight increases from previous years in centers offering 11-15 hours or 21 or more hours of services per week. More than two-thirds of reporting centers (69.7 percent) were open 6-15 hours per week during the 2012-2013 year, with the highest proportion (41.5 percent) offering 6-10 hours of services per week.

**Figure 1. Hours of Operation per Week during the 2010-2011, 2011-2012, and 2012-2013 School Years by Percentage of Centers**



## Staffing Patterns

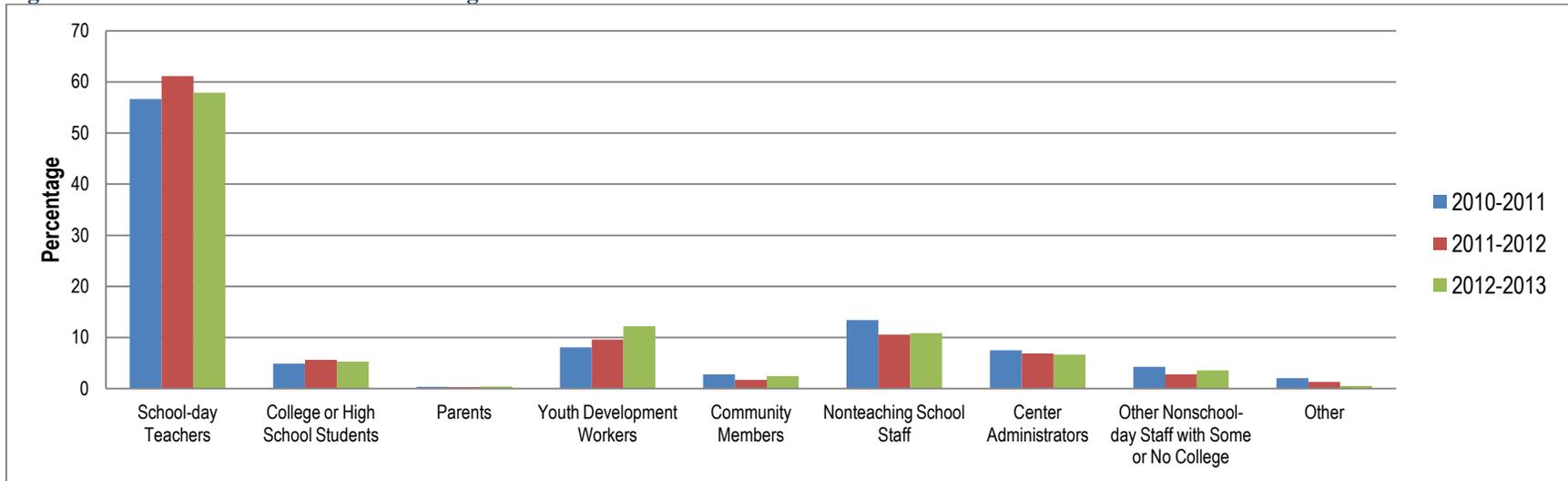
Based on available preliminary<sup>1</sup> PPICS data, there were 3,978 paid and volunteer staff members across the centers during the 2012-2013 school year. Of these staff members, the majority were paid (69 percent). Most paid employees were school division teachers (57.9 percent), youth development workers (12.2 percent), or nonteaching staff (10.9 percent). Few paid employees were parents (.4 percent), college or high school students (5.3 percent), or other community members (2.5 percent). College and high school students were the most prevalent type of unpaid volunteers (55.5 percent), followed by other community members (18 percent), and then parents (8.5 percent).

The staffing patterns across centers are displayed in Figure 2 and Figure 3. Overall, in 2012-2013, the composition of paid staff generally continued the trends seen in prior years, with the greatest increase observed in the proportion of volunteer college or high school students. Meanwhile, proportions of paid school division teachers and volunteer parents returned to levels reported in 2010-2011.

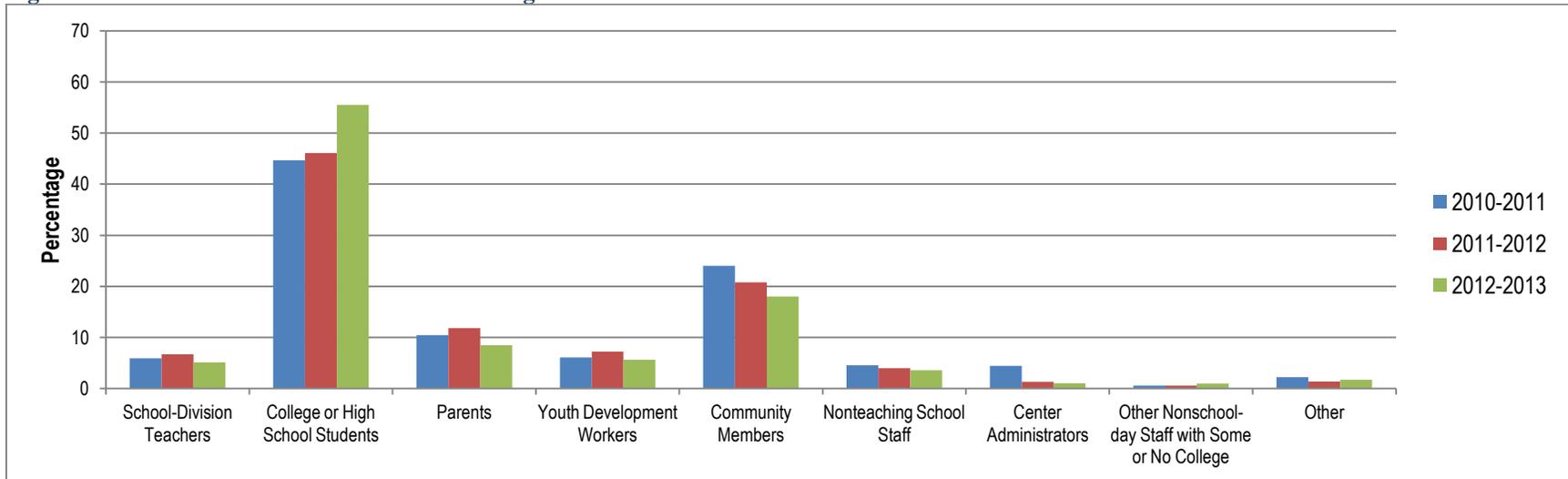
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<sup>1</sup> As of December 9, 2013, grantees representing 144 centers (100 percent) had submitted their staff information in PPICS, with exceptions.

**Figure 2. Paid Staff in 21<sup>st</sup> CCLC across Virginia**



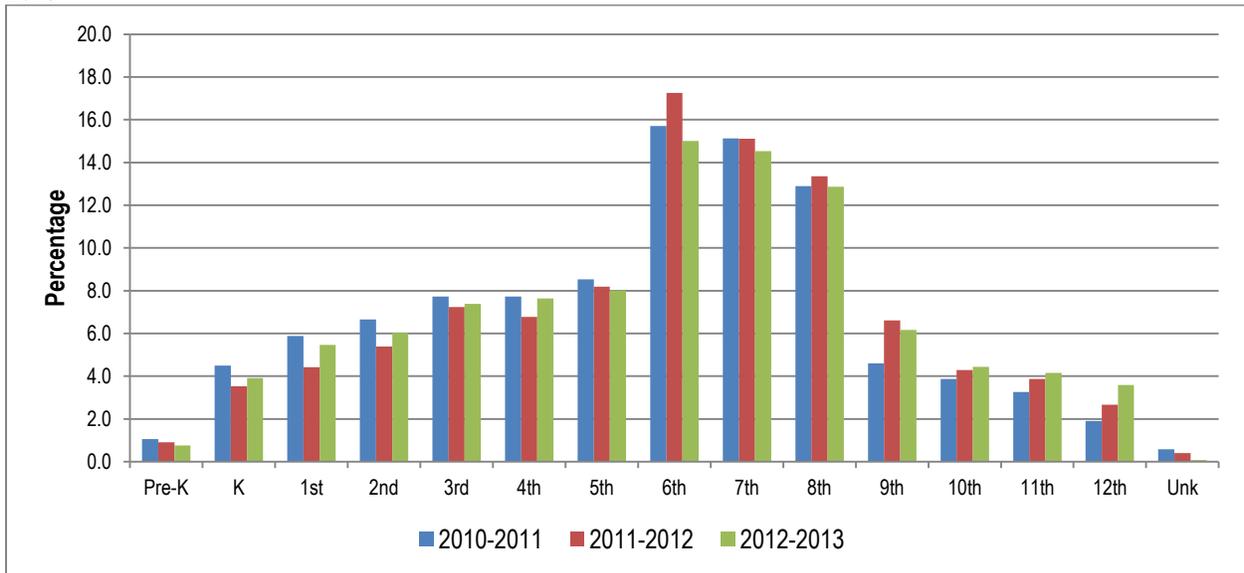
**Figure 3. Volunteer Staff in 21<sup>st</sup> CCLC across Virginia**



## Student Participation and Attendance

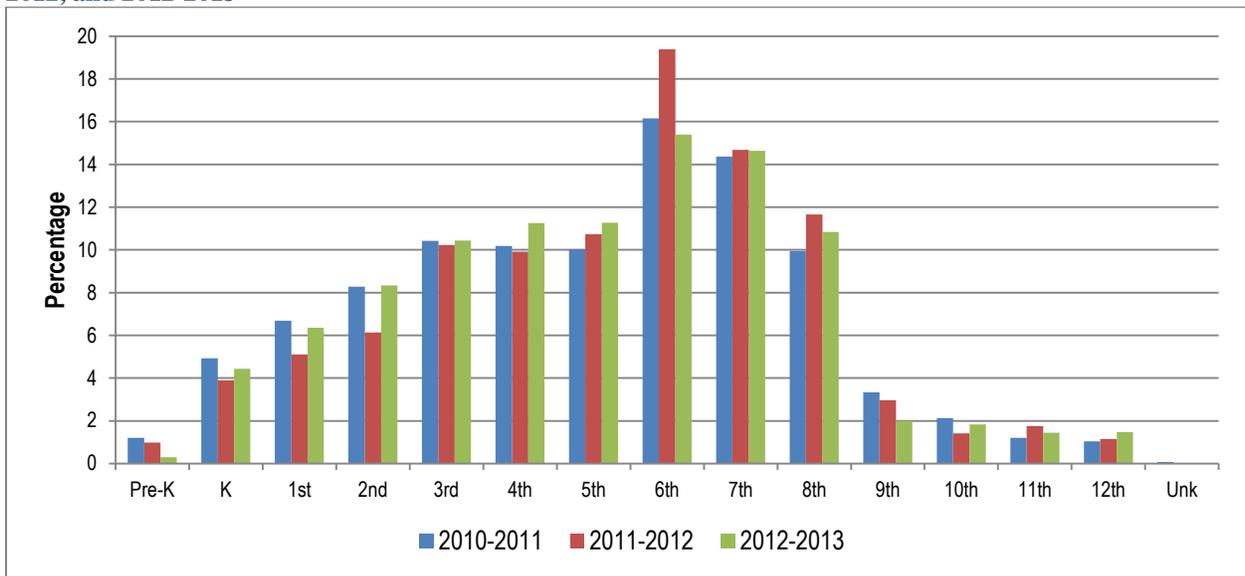
According to available preliminary<sup>2</sup> PPICS data, a total of 25,238 students were served in 2012-2013, with 10,342 students (41 percent) attending regularly (30 days or more). About two-thirds of all students served and about three-quarters of regular attendees were in grades 3-8 (see Figure 4 and Figure 5). In general, percentages of high school students continued to rise, while percentages of elementary and middle school students returned to levels reported in 2010-2011.

**Figure 4. Percent of All Student Attendees in 21<sup>st</sup> CCLC by Grade Level for 2010-2011, 2011-2012, and 2012-2013**



<sup>2</sup> As of December 9, 2013, grantees representing 141 centers (97.9 percent) had submitted student attendance information by grade level in PPICS, with exceptions.

**Figure 5. Percent of Regular Attendees (at least 30 days) in 21<sup>st</sup> CCLC by Grade Level for 2010-2011, 2011-2012, and 2012-2013**



In comparing all student attendees reported in available preliminary<sup>3</sup> PPICS data for 2012-2013 versus those reported in 2011-2012, there was a decrease in the proportion of African-American student attendees (37 percent versus 41.5 percent), and there was an increase in the proportion of Hispanic student attendees in 2011-2012 (12.8 percent versus 10.9 percent). The percentage of White student attendees increased only slightly from the previous year (41.5 percent; versus 40.6 percent reported in 2011-2012).

In addition, according to available preliminary<sup>4</sup> PPICS data, there was a decrease in the percentage of student attendees identified as being at an economic disadvantage comprised 56.7 percent (versus 58.4 percent reported in 2011-2012), and there was an increase in the percentage of students identified as having limited English proficiency (9.7 percent of the total group; versus 7.7 percent reported in 2011-2012). The percentage of student attendees identified as having special needs or disabilities in 2012-2013 was comparable to the previous year (9.7 percent; versus 9.4 percent reported in 2011-2012). Also similar to prior-year reports, approximately equal numbers of boys and girls participated in the programs (50 percent boys, 49.9 percent girls; .1 missing information) with approximately equal regularity of attendance.

<sup>3</sup> As of December 9, 2013, grantees representing 142 centers (98.6 percent) had submitted student attendance information by ethnicity in PPICS, with exceptions.

<sup>4</sup> As of December 9, 2013, information on student attendance was available in PPICS, with exceptions, by type of special services received for 142 centers (98.6 percent) and by gender for 142 centers (98.6 percent).

In comparison, the total Commonwealth student membership ([http://bi.vita.virginia.gov/doe\\_bi/rdPage.aspx?rdReport=Main&subRptName=Fallmembership](http://bi.vita.virginia.gov/doe_bi/rdPage.aspx?rdReport=Main&subRptName=Fallmembership)) as of September 30, 2012 was as follows: White (52.9 percent), African-American (23.5 percent), Hispanic (12.5 percent), Asian (6.2 percent), Two or More Races (4.5 percent), American Indian/Alaska Native (.3 percent), and Native Hawaiian/Pacific Islander (.1 percent). Approximately 38.1 percent of all students across the Commonwealth were eligible for free or reduced price lunch for the 2012-2013 school year. Across the Commonwealth, students with limited English proficiency constituted 9.6 percent of all students enrolled in 2012-2013, and students with special needs or disabilities comprised 12.4 percent of total enrollment during this period.

### **Methods**

The results for Objectives 1 and 2 were examined using Hierarchical Linear Models (HLM) and Hierarchical Generalized Linear Models (HGLM) for students in grades three through eight with two years of test data available. Analyses of the impacts of center-level factors (e.g., the number of hours centers were open) on student achievement only included students who participated in 21<sup>st</sup> 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 21<sup>st</sup> CCLC programs for 30 or more days and students in a control group who were eligible to attend 21<sup>st</sup> CCLC programs, but had zero days of attendance.

Four sets of analyses (eight analyses total), two for proficiency-level, and two for standardized SOL scaled scores were conducted separately by subject area (reading and mathematics). The first two sets of analyses assessed proficiency-level performance in 2012-2013 based on all available test data (i.e., SOL, VAAP, VGLA, and VMAST) using HGLM. For these analyses, the proficiency level on the SOL, VAAP, VGLA, or VMAST test for the 2011-2012 and 2012-2013 school years was treated as either “pass” or proficient (based on scoring “Proficient” or “Advanced Proficient”), 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, as proficiency level is a common measure across all of the different test types, grade levels, and years. Center-level variables (e.g., total hours open) 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.

The first proficiency analyses investigated the relationship of 21<sup>st</sup> CCLC participation on student achievement. Matched 21<sup>st</sup> CCLC students who participated for at least 30 days and control students (who were eligible, but did not participate in 21<sup>st</sup> CCLC) were included ( $n = 9,540$  reading,  $n = 9,568$  mathematics). Additionally, the effects of 21<sup>st</sup> CCLC participation by three subgroups (based on special education status, limited English proficiency status, and economically disadvantaged status) were examined. The second proficiency analyses investigated the relationship of center-level characteristics on student achievement. Only 21<sup>st</sup> CCLC students who participated for at least 30 days were included in these analyses ( $n = 4,770$  reading,  $n = 4,784$  mathematics).

While the proficiency analyses were designed to capture broad impacts on student proficiency associated with participation in the 21<sup>st</sup> CCLC programs, these analyses are 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 2011-2012 and 2012-2013, using HLM. These 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 21<sup>st</sup> CCLC participation by economically disadvantaged status only.

The first set of SOL analyses investigated the relationship between 21<sup>st</sup> CCLC participation and student achievement for matched 21<sup>st</sup> CCLC and control students ( $n = 8,952$  reading,  $n = 9,112$  mathematics). Additionally, the effect of 21<sup>st</sup> 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 21<sup>st</sup> CCLC students

who participated for at least 30 days ( $n = 4,476$  reading,  $n = 4,556$  mathematics). It is important to note that while the scaled score analyses are potentially more sensitive to changes attributable to program participation, they also have limitations. In particular, because students who participate in alternative assessments are not included, this type of analysis should not be used to evaluate the impact of participation in the 21<sup>st</sup> CCLC program on students with disabilities and students with limited English proficiency, as the SOL assessment outcomes for these two subgroups would not be representative of the total population of students with disabilities and students with limited English proficiency.

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<sup>5</sup> test 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 measuring 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 the Commonwealth 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.

In addition, the findings can only be used to evaluate the performance of all centers in the Commonwealth as a group, and not the performance of any specific center, as for both the proficiency-level analyses and the analyses of standardized SOL assessment scores, the results were aggregated across all centers rather than evaluated center-by-center. Details regarding the samples included, a complete listing of the variables used in the student matching process, and a description of the treatment-control student matching process, data sources, methodology, and scaled score standardization for the statistical analyses can be found in the Supplemental Technical Report, which is available upon request from the Virginia Department of Education.

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<sup>5</sup> 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.

### **Third-grade Only**

As most students in third-grade have no prior-year test data available, it was not feasible to apply inferential statistics to these data because any statistically significant differences between 21<sup>st</sup> 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 21<sup>st</sup> CCLCs. Rather, differences could be the result of differences in prior ability, as it was not possible to either (1) determine if the participant and nonparticipant groups were similar on prior-year achievement, or (2) adjust 2012-2013 outcomes based on prior-year achievement for the third-grade students.

Consequently, separate descriptive (noninferential) analyses were conducted for 21<sup>st</sup> CCLC participants and nonparticipants in grade three in 2012-2013 who had no prior-year test data available. The analyses used the proficiency levels on the SOL, VAAP, VGLA, and VMAST assessments (based on the percentage scoring Proficient or Advanced) and mean (i.e., average) scaled scores on SOL assessment tests. For these analyses, it would be more appropriate to use the findings 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 21<sup>st</sup> 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) 21<sup>st</sup> CCLC participant and nonparticipant third-grade students;
- (2) 21<sup>st</sup> CCLC participants and all Commonwealth third-grade students (where similar data were available).

In addition to the comparisons between all students in the 21<sup>st</sup> CCLC participant and nonparticipant groups, as well between 21<sup>st</sup> CCLC participants and the Commonwealth, 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 21<sup>st</sup> CCLC program itself. Comparison

data for the Commonwealth were based upon the 2011-2012 and 2012-2013 State Report Card data from the Virginia Department of Education's Web site at the following link:

<https://p1pe.doe.virginia.gov/reportcard/>.

## Results

The results of the evaluation reflect the extent to which the centers met required programmatic objectives. Grantees were required to address the following three objectives: (1) improve student achievement in reading; (2) improve student achievement in mathematics; and (3) provide opportunities for parental education. Each center could also implement additional objectives as long as they were aligned with the purposes of the federal 21<sup>st</sup> CCLC program. Although the progress toward meeting the supplemental objectives was not the primary focus of the evaluation, results are provided in Appendix A for informational purposes. It is important to note that grantees determined and self-reported their individual levels of success in meeting objectives not related to student achievement, but based on their own criteria.

### **Objective 1: Improve Student Academic Achievement in Reading**

When examining all matched 21<sup>st</sup> CCLC participants and control group students in grades three through eight, after statistically controlling for student demographic variables, participation in 21<sup>st</sup> CCLC programs (i.e. "Yes" or "No") had no statistically significant effect on either participants' reading proficiency levels or standardized SOL reading scaled scores. In addition, the effect sizes for both analyses (Cox Index effect size (CIES) = -0.09 and  $g = -0.02$  respectively) were not substantively important based on What Works Clearinghouse (2014) guidelines (i.e.,  $\geq \pm 0.25$ ). The effect size (calculated as either the Cox Index for the proficiency analyses or Hedges's  $g$  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)<sup>6</sup>. There were however, statistically significant differences in reading proficiency favoring control students over 21<sup>st</sup> CCLC participants for the following subgroups: not special education, not limited English proficient, economically disadvantaged, and not economically disadvantaged. None of the effect sizes however, were substantively important, ranging from -0.12 to -0.07.

The following trends in statistically significant achievement outcomes emerged in reading over the past two years (2011- 2012 to 2012- 2013) (see Table 2 and Table 3):

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<sup>6</sup> A full discussion of the calculation of the effect sizes can be found in the Supplemental Technical Report.

*For both 21<sup>st</sup> CCLC students only (Analysis of Center Effects) and for the 21<sup>st</sup> CCLC vs. control students analyses*

- Non-minority students outperformed minority students on the proficiency analyses as well as the standardized SOL scaled score analyses, with substantively important effects for the 21<sup>st</sup> CCLC vs. control student analyses, based on WWC guidelines,.
- Non-special education students outperformed special education students on the proficiency analyses as well as the standardized SOL scaled score analyses, with large, substantively important effects for the 21<sup>st</sup> CCLC vs. control student analyses.
- Non-economically disadvantaged students outperformed economically disadvantaged students on the proficiency analyses as well as the standardized SOL scaled score analyses, with substantively important effects for the 21<sup>st</sup> CCLC vs. control student analyses.

*For the 21<sup>st</sup> CCLC vs. control students analyses*

- Time was positive for standardized SOL scaled score analyses, indicating an increase in standardized SOL scaled score performance.
- Females outperformed males on the proficiency and standardized SOL scaled score analyses, but the magnitude of effects was not substantively important.
- Non-limited English proficient students outperformed limited English proficient students on the standardized SOL scaled score analyses.
- Overall, there were no statistically significant impacts of participation in 21<sup>st</sup> CCLC on either proficiency or SOL achievement.

**Table 2: Two-Year Achievement and Student-Level Outcomes Demographic Summary in Reading for Grades 3-8**

| Covariates   | Reading                    |                     |                            |                        | Reading                           |                     |                                   |                  |
|--|----------------------------|---------------------|----------------------------|------------------------|-----------------------------------|---------------------|-----------------------------------|------------------|
|  | 2011-2012                  |                     | 2012-2013                  |                        | 2011-2012                         |                     | 2012-2013                         |                  |
|  | Proficiency                | SOL                 | Proficiency                | SOL                    | Proficiency                       | SOL                 | Proficiency                       | SOL              |
|  | 21 <sup>st</sup> CCLC Only |                     | 21 <sup>st</sup> CCLC Only |                        | 21 <sup>st</sup> CCLC vs. Control |                     | 21 <sup>st</sup> CCLC vs. Control |                  |
| <b>Student Demographics</b>  |                            |                     |                            |                        |                                   |                     |                                   |                  |
| Number of days of participation in 21 <sup>st</sup> CCLC                                       |                            |                     |                            |                        | NA                                | NA                  | NA                                | NA               |
| 21 <sup>st</sup> CCLC Participant  | NA                         | NA                  | NA                         | NA                     |                                   |                     |                                   |                  |
| Time   | NA                         | NA                  | NA                         | NA                     | Positive                          | Positive            | Negative                          | Positive         |
| Female   |                            |                     |                            |                        | Female higher                     | Female higher       | Female higher                     | Female higher    |
|  |                            |                     |                            |                        | 0.10                              | 0.08                | 0.12                              | 0.10             |
| Minority/White (reference group) compared to Hispanic, African-American, and Other race groups | Non-Minority higher        | Non-Minority higher | W higher than H and AA     | W higher than H and AA | Non-Minority higher               | Non-Minority higher | W higher than AA                  | W higher than AA |
|  |                            |                     |                            |                        | -0.40                             | -0.36               | -0.36                             | -0.34            |
| 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  |
|  |                            |                     |                            |                        | -0.79                             | -0.83               | -0.87                             | -0.87            |
| Limited English Status   |                            |                     | Non-LEP higher             |                        |                                   | Non-LEP higher      | Non-LEP higher                    | Non-LEP higher   |
|  |                            |                     |                            |                        |                                   | -0.10               | -0.39                             | -0.38            |
| 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    |
|  |                            |                     |                            |                        | -0.47                             | -0.38               | -0.46                             | -0.35            |
| Prior Year Z-score   | Positive                   | Positive            | Positive                   | Negative               | NA                                | NA                  | NA                                | NA               |

**Table 3: Two-Year Achievement and Student-Level Interaction Outcomes Summary in Reading for Grades 3-8**

| Covariates                     | Reading                    |     |                            |     | Reading                           |     |                                   |     |
|--------------------------------|----------------------------|-----|----------------------------|-----|-----------------------------------|-----|-----------------------------------|-----|
|                                | 2011-2012                  |     | 2012-2013                  |     | 2011-2012                         |     | 2012-2013                         |     |
|                                | Proficiency                | SOL | Proficiency                | SOL | Proficiency                       | SOL | Proficiency                       | SOL |
|                                | 21 <sup>st</sup> CCLC Only |     | 21 <sup>st</sup> CCLC Only |     | 21 <sup>st</sup> CCLC vs. Control |     | 21 <sup>st</sup> CCLC vs. Control |     |
| <b>Interactions</b>            |                            |     |                            |     |                                   |     |                                   |     |
| Special Education              | NA                         | NA  | NA                         | NA  |                                   | NA  |                                   | NA  |
| Not Special Education          | NA                         | NA  | NA                         | NA  |                                   | NA  | Control higher<br>-0.12           | NA  |
| Limited English Proficient     | NA                         | NA  | NA                         | NA  |                                   | NA  |                                   | NA  |
| Not Limited English Proficient | NA                         | NA  | NA                         | NA  |                                   | NA  | Control higher<br>-0.09           | NA  |
| Economically Disadvantaged     | NA                         | NA  | NA                         | NA  |                                   |     | Control higher<br>-0.07           |     |
| Not Economically Disadvantaged | NA                         | NA  | NA                         | NA  |                                   |     | Control higher<br>-0.12           |     |

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, 21<sup>st</sup> CCLC participants in 2012-2013 were outperformed by non-participants in reading proficiency for all students combined and 13 out of 14 available subgroupings (92.3%) (i.e., all subgroupings with the exception of American Indian or Alaska Native, where the percentages were equal). Third-grade 21<sup>st</sup> CCLC participants in 2012-2013 were outperformed by the Commonwealth in reading proficiency for all students combined and all 11 available subgroupings (100%). In terms of SOL scaled scores, third-grade 21<sup>st</sup> CCLC participants in 2012-2013 were outperformed by non-participants in nearly all comparisons (14 out of 15, or 93.3%) in reading (i.e., all subgroupings with the exception of students With Disabilities). The “Virginia 21<sup>st</sup> CCLC 2012-2013 Third-grade Descriptive Analysis” section of the Supplemental Technical Report provides details on the participant, nonparticipant, and overall Virginia samples, and also details differences in reading proficiency and mean SOL assessment scaled scores in both 2011-2012 and 2012-2013 for these two different sets of third-grade students. As noted in that section, it is not appropriate to look at changes (either positive or negative) across years in either proficiency or scaled scores between the two third-grade cohorts, as those changes can be misleading since there is essentially no overlap between these two groups.

## **Objective 2: Improve Student Academic Achievement in Mathematics**

When looking at the combination of all matched control group and 21<sup>st</sup> CCLC participants in grades three through eight, participation in 21<sup>st</sup> CCLC programs (“Yes” or “No”) had a statistically significant positive effect on participants’ mathematics standardized SOL scaled scores, but no statistically significant effect on their mathematics proficiency levels, after controlling for student demographic variables. Specifically, 21<sup>st</sup> CCLC students had an average standardized mathematics SOL scaled score that was .060 standardized scaled score points higher in 2012-2013, with an effect size ( $g = 0.06$ ) that was not substantively important.

For the proficiency analysis, none of the impacts of participation by subgroup (based on disability (“Yes” or “No”), limited English proficiency (“Yes” or “No”), and economically disadvantaged status (“Yes” or “No”)) were statistically significant, and all had effect sizes that were not substantively important, ranging from CIES = -0.06 to 0.06. For the standardized SOL mathematics scaled score analysis, 21<sup>st</sup> CCLC students who were economically disadvantaged statistically significantly outperformed control students who were economically disadvantaged.

The magnitude of the effect was small; however, with 21<sup>st</sup> CCLC participants on average scoring 0.075 standardized scaled score points higher, with an effect size ( $g = 0.08$ ) that was not substantively important. The number of days a student participated in 21<sup>st</sup> CCLC had no statistically significant impact on either proficiency or SOL outcomes.

The following trends in statistically significant achievement outcomes emerged in mathematics over the past two years (2011- 2012 to 2012- 2013) (see Table 4 and Table 5):

*For both 21<sup>st</sup> CCLC students only (Analysis of Center Effects) and 21<sup>st</sup> CCLC vs. control students analyses*

- Non-minority students outperformed minority students on the proficiency analyses as well as the standardized SOL scaled score analyses, with substantively important effects for the 21<sup>st</sup> CCLC vs. control student analyses.
- Non-special education students outperformed special education students on the proficiency analyses as well as the standardized SOL scaled score analyses, with large, substantively important effects for the 21<sup>st</sup> CCLC vs. control student analyses.
- Non-economically disadvantaged students outperformed economically disadvantaged students on the proficiency analyses as well as the standardized SOL scaled score analyses, with substantively important effects for the 21<sup>st</sup> CCLC vs. control student analyses.

*For the 21<sup>st</sup> CCLC vs. control students analyses*

- Time was positive for standardized SOL scaled score analyses, indicating an increase in standardized SOL scaled score performance.
- Although 21<sup>st</sup> CCLC students had higher proficiency outcomes for each subgroup analysis in 2011-2012, that pattern was not repeated in 2012-2013, where only one subgroup analysis (Economically Disadvantaged) favored 21<sup>st</sup> CCLC students.

**Table 4: Two-Year Achievement and Student-Level Demographic Outcomes Summary in Mathematics for Grades 3-8**

| Covariates   | Mathematics                |                     |                            |                        | Mathematics                       |                     |                                   |                         |
|--|----------------------------|---------------------|----------------------------|------------------------|-----------------------------------|---------------------|-----------------------------------|-------------------------|
|  | 2011-2012                  |                     | 2012-2013                  |                        | 2011-2012                         |                     | 2012-2013                         |                         |
|  | Proficiency                | SOL                 | Proficiency                | SOL                    | Proficiency                       | SOL                 | Proficiency                       | SOL                     |
|  | 21 <sup>st</sup> CCLC Only |                     | 21 <sup>st</sup> CCLC Only |                        | 21 <sup>st</sup> CCLC vs. Control |                     | 21 <sup>st</sup> CCLC vs. Control |                         |
| <b>Student Demographics</b>  |                            |                     |                            |                        |                                   |                     |                                   |                         |
| Number of days of participation in 21 <sup>st</sup> CCLC                                       |                            |                     |                            |                        | NA                                | NA                  | NA                                | NA                      |
| 21 <sup>st</sup> CCLC Participant  | NA                         | NA                  | NA                         | NA                     | Control higher                    |                     |                                   | CCLC higher             |
|  |                            |                     |                            |                        | -0.17                             |                     |                                   | 0.06                    |
| Time   | NA                         | NA                  | NA                         | NA                     | Negative                          | Positive            | Positive                          | Positive                |
| Female   | Males higher               |                     |                            |                        |                                   |                     | Males higher                      |                         |
|  |                            |                     |                            |                        |                                   |                     | -0.12                             |                         |
| Minority/White (reference group) compared to Hispanic, African-American, and Other race groups | Non-Minority higher        | Non-Minority higher | W higher than H and AA     | W higher than H and AA | Non-Minority higher               | Non-Minority higher | W higher than AA                  | W > than AA, O > than W |
|  |                            |                     |                            |                        | -0.35                             | -0.30               | -0.35                             | -0.28, 0.13             |
| 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         |
|  |                            |                     |                            |                        | -0.75                             | -0.75               | -0.72                             | -0.73                   |
| Limited English Status   |                            |                     |                            |                        | LEP higher                        |                     | Non-LEP higher                    | Non-LEP higher          |
|  |                            |                     |                            |                        | 0.12                              |                     | -0.15                             | -0.18                   |
| 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           |
|  |                            |                     |                            |                        | -0.34                             | -0.34               | -0.40                             | -0.34                   |
| Prior Year Z-score   | Positive                   | Positive            | Positive                   | Positive               | NA                                | NA                  | NA                                | NA                      |

**Table 5: Two-Year Achievement and Student-Level Interaction Outcomes Summary in Mathematics for Grades 3-8**

| Covariates                     | Mathematics                |     |                            |     | Mathematics                       |                         |                                   |                     |
|--------------------------------|----------------------------|-----|----------------------------|-----|-----------------------------------|-------------------------|-----------------------------------|---------------------|
|                                | 2011-2012                  |     | 2012-2013                  |     | 2011-2012                         |                         | 2012-2013                         |                     |
|                                | Proficiency                | SOL | Proficiency                | SOL | Proficiency                       | SOL                     | Proficiency                       | SOL                 |
|                                | 21 <sup>st</sup> CCLC Only |     | 21 <sup>st</sup> CCLC Only |     | 21 <sup>st</sup> CCLC vs. Control |                         | 21 <sup>st</sup> CCLC vs. Control |                     |
| <b>Interactions</b>            |                            |     |                            |     |                                   |                         |                                   |                     |
| Special Education              | NA                         | NA  | NA                         | NA  | CCLC higher<br>0.15               | NA                      |                                   | NA                  |
| Not Special Education          | NA                         | NA  | NA                         | NA  | CCLC higher<br>0.63               | NA                      |                                   | NA                  |
| Limited English Proficient     | NA                         | NA  | NA                         | NA  | CCLC higher<br>0.66               | NA                      |                                   | NA                  |
| Not Limited English Proficient | NA                         | NA  | NA                         | NA  | CCLC higher<br>0.54               | NA                      |                                   | NA                  |
| Economically Disadvantaged     | NA                         | NA  | NA                         | NA  | CCLC higher<br>0.48               |                         |                                   | CCLC higher<br>0.08 |
| Not Economically Disadvantaged | NA                         | NA  | NA                         | NA  | CCLC higher<br>0.92               | Control higher<br>-0.10 |                                   |                     |

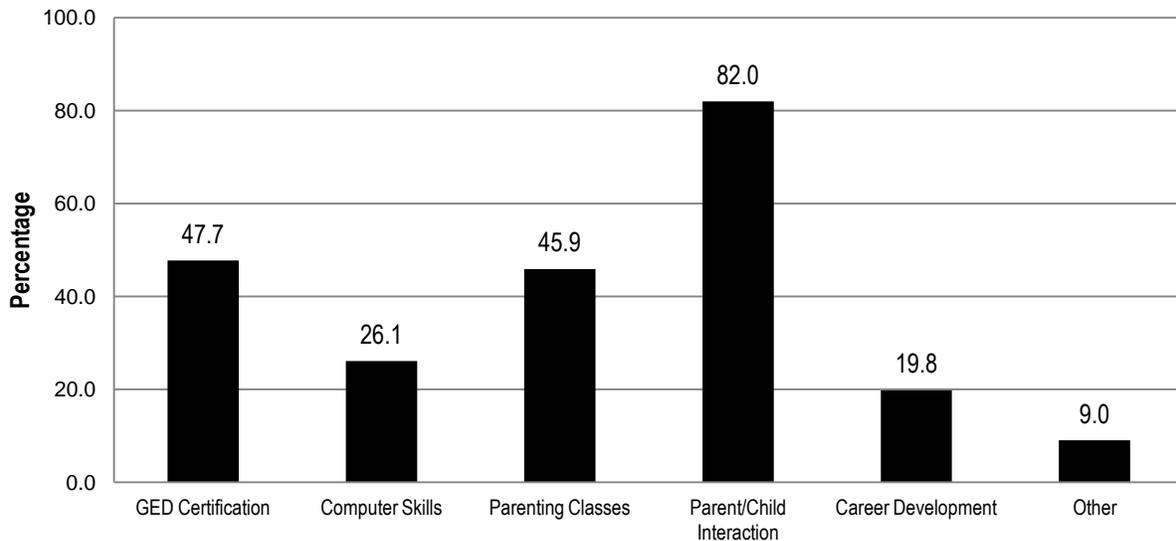
The results of the grade-three-only analyses of proficiency level data showed that third-grade 21<sup>st</sup> CCLC participants in 2012-2013 performed slightly better in mathematics proficiency vs. reading, being outperformed by non-participants for all students combined and on 11 out of 14 available subgroupings (78.6%) (i.e., all subgroupings except Asian, With Disabilities, and Limited English Proficiency). In comparison to the Commonwealth, participants performed slightly better in mathematics proficiency vs. reading, being outperformed by the Commonwealth on 10 out of 11 subgroupings (90.9%) (i.e., all subgroupings except Asian). In terms of SOL scaled scores, third-grade 21<sup>st</sup> CCLC participants in 2012-2013 did better in mathematics vs. reading, as participants were outperformed by non-participants for all students combined and in 10 out of 14 available subgroupings (71.4%) (i.e., all subgroupings except American Indian or Alaskan Native, Asian, With Disabilities, and Limited English Proficiency).

For the details on the participant, nonparticipant, and overall Virginia samples and for the details of differences in mathematics proficiency and mean SOL scaled scores in both 2011-2012 and 2012-2013 for these two different sets of third-grade students, readers are referred to the “Virginia 21<sup>st</sup> CCLC Third-grade Descriptive Analysis” section of the Supplemental Technical Report. As noted in that section, it is not appropriate to look at changes (either positive or negative) across years in either proficiency or scaled scores between the two third-grade cohorts, as those changes can be misleading since there is essentially no overlap between these two groups.

### **Objective 3: Provide Opportunities for Parental Education**

Center administrators stated that they provided a variety of activities to meet this objective. Eighty percent of centers in 2012-2013 reported implementing activities that invited parent/child interaction (80.7 percent), similar to levels reported in 2011-2012 (80 percent). These and other selected parent activities are shown in Figure 6. The most common activities cited by the centers during 2012-2013 are discussed below. It is important to note that grantees determined their own criteria for success in meeting parental education objectives and reported their outcomes accordingly.

**Figure 6. Percent of 21<sup>st</sup> CCLC Selecting Parent Education Subobjectives for 2012-2013**

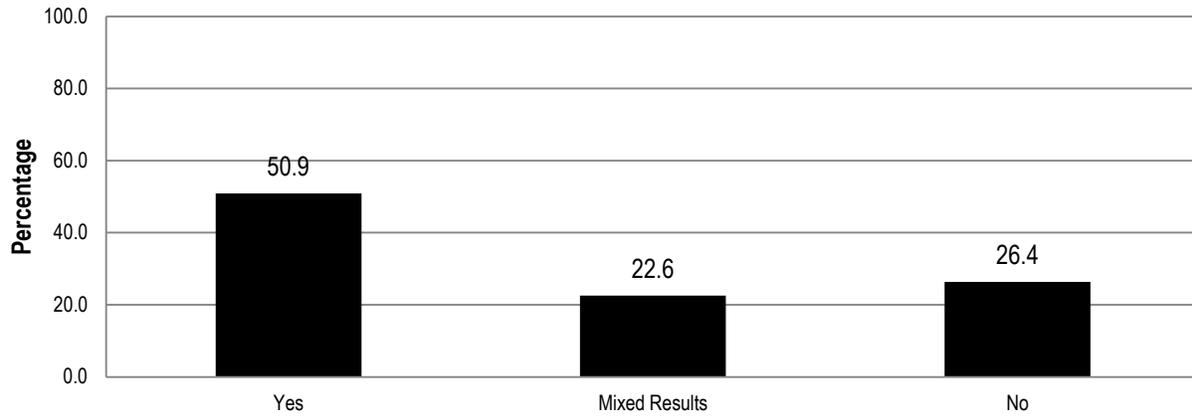


### **General Education Development**

Of those centers providing a General Education Development (GED) certificate program, 60.4 percent reported scheduling the GED certificate program classes at the center and 60.4 percent reported referring parents to GED certification programs in the community. To determine whether centers had met the GED subobjective by providing a GED certificate program (whether in-house or outside the center), 67.9 percent of centers used an attendance report and two-thirds of centers used the number of certificate recipients (66 percent). Figure 7 shows the percentage of centers that reported meeting the GED subobjective. The percentages are based on the number of centers that chose to include the subobjective of “providing a GED certificate program.”

A little over half (50.9 percent) of the centers providing a GED certificate program reported meeting this subobjective. While many grantees indicated high parent success in attaining their GED certificates, some grantees indicated that attendance was a challenge throughout the year, while others indicated low interest in the program.

**Figure 7. Percent of 21<sup>st</sup> CCLC Reporting Meeting the Objective for Parent Participation in GED Certificate Program Classes for 2012-2013**

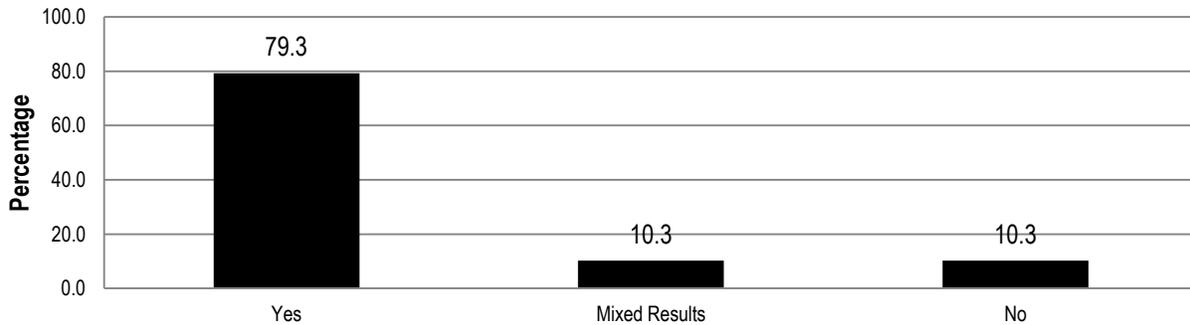


\* Grantees reporting “Mixed Results” indicated in open-ended remarks that while parents were provided information about GED program offerings at their centers or in the county, some parents had difficulty maintaining regular attendance or attendance reports were not provided to the school.

## Computer Instruction for Parents

Computer skills classes were reported to be offered by 82.8 percent of centers that provided computer usage activities. Half of centers reported developing projects integrating computer use for parents and children to complete together (51.7 percent). Other centers (3.4 percent) were invited to learn about and engage with computer-based learning programs that their children were using in school and after school. Centers that provided computer usage activities reported using a variety of measures to determine whether they had met this subobjective, including attendance reports (93.1 percent), records of the numbers of sessions offered (82.8 percent), and pre/post skills assessments (13.8 percent). Figure 8 shows the percentage of centers that reported meeting the computer skills subobjective based on the number of centers that chose parent participation in computer skills classes as an objective.

**Figure 8. Percent of 21<sup>st</sup> CCLC Reporting Meeting the Objective for Parent Participation in Computer Skills Classes for 2012-2013**



\* Grantees reporting “Mixed Results” did not indicate their reasoning behind this designation in open-ended remarks.

## Parenting Skills

Parenting skills classes were provided by 70.6 percent of centers that completed ALERT. The use of community speakers was reported by 66.7 percent of the centers. Topics addressed included how to support students' behavioral and academic needs, preparing for the state assessments, summer learning opportunities, health and nutrition, bullying prevention, and online safety. Other centers (23.5 percent) offered informational sessions about the new SOLs, parent lending libraries, and developmental playgroups for parents/caregivers and their toddlers. Centers that offered parenting skills classes reported using a variety of data sources to determine whether they had met this subobjective, including attendance reports (84.3 percent), records of the number of sessions offered (80.4 percent), and evaluation forms completed by parents (41.2 percent). Figure 9 shows the percentage of centers that reported meeting the parenting skills subobjective based on the number of centers that chose parent participation in parent training classes as an objective.

**Figure 9. Percent of 21<sup>st</sup> CCLC Reporting Meeting the Objective for Parent Participation in Parent Training Classes for 2012-2013**

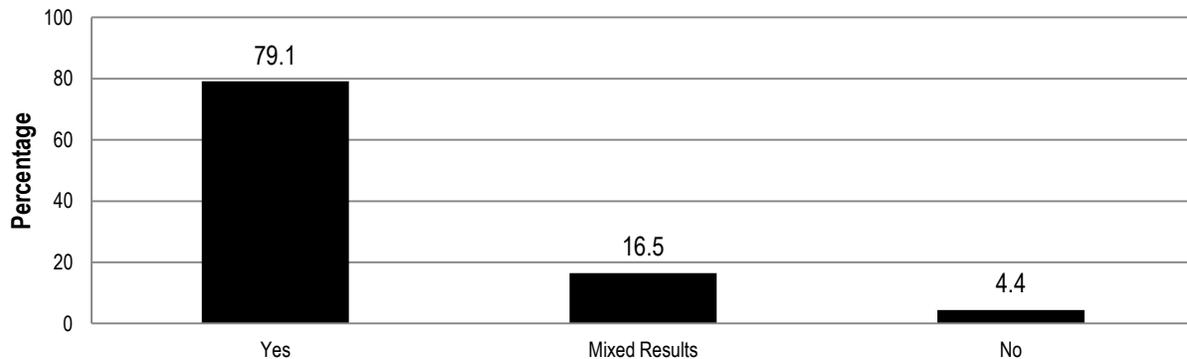


\* Grantees reporting "Mixed Results" indicated in open-ended remarks that, while a variety of parent training opportunities were provided to parents, attendance was generally low for these programs.

## Parent/Child Activities

Opportunities for parent/child interaction in academic activities were offered in 80.7 percent of reporting centers. Most of these centers offered family nights with parent/child activities (95.6 percent), and many held open houses for parents to learn about their children's work (75.8 percent). Some offered parent training in homework help (41.8 percent) or take-home projects for parent/child completion (25.3 percent). Other activities reported included SOL nights, family literacy nights, a mobile literacy vehicle, family recreation events, home visits, open house, and in-school volunteering opportunities. Centers that offered opportunities for parent/child interaction in academic activities reported using a variety of data sources to determine whether they had met this subobjective, including attendance reports (91.2 percent), the number of sessions offered (90.1 percent of centers), and evaluation forms completed by parents (38.5 percent). Figure 10 shows the percentage of centers that reported meeting the parent/child interaction in academic activities subobjective based on the number of centers that chose parent/child interaction in academic activities as an objective.

**Figure 10. Percent of 21<sup>st</sup> CCLC Reporting Meeting the Objective for Parent/Child Interaction in Academic Activities for 2012-2013**

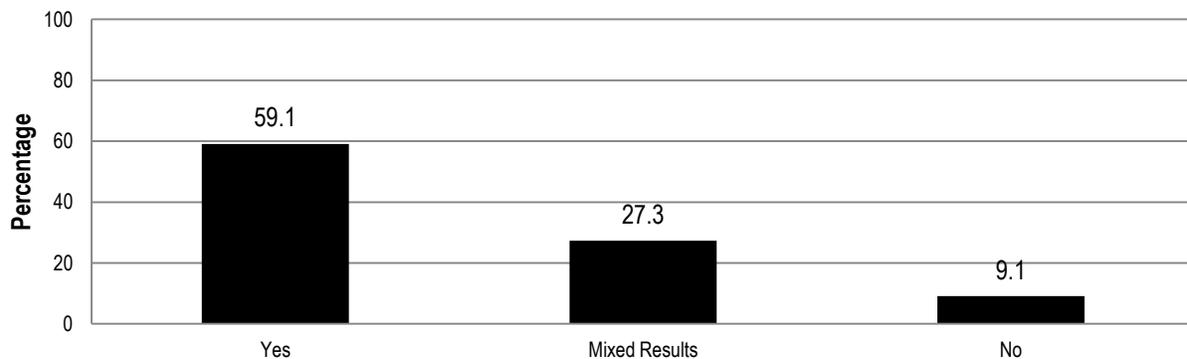


\* Grantees reporting "Mixed Results" indicated in open-ended remarks that, while a variety of interactive educational opportunities were provided to families, parents attendance was generally low for these events, due to difficulties with transportation, schedule conflicts, or personal perceptions of student assistance programs.

## Career Development for Parents

Parent career development was selected as a subobjective by 19.8 percent of the reporting centers. The centers that addressed this area most frequently offered career exploration classes (63.6 percent), job application assistance sessions (31.8 percent), and vocational classes (27.3 percent). Other activities reported (36.4 percent of centers) included parent lending libraries, college visits, English and civics classes, and community education classes on how to find and apply for jobs, participate in training or retraining, and obtain financial aid for college. Centers that reported career development as a subobjective used a variety of data sources to determine whether they had met this subobjective, including records of the number of sessions offered (72.7 percent), attendance reports (63.6 percent), evaluation forms completed by parents (22.7 percent), and other sources (9.1 percent), including sign-out sheets and monthly progress reports. Figure 11 shows the percentage of centers that reported meeting the career development subobjective based on the number of centers that chose parent participation in career development activities as a subobjective.

**Figure 11. Percent of 21<sup>st</sup> CCLC Reporting Meeting the Objective for Parent Participation in Career Development Activities for 2012-2013**



\* Grantees reporting "Mixed Results" indicated in open-ended remarks that, while a variety of career development opportunities were offered to parents, parental participation was generally low for these activities.

Table 6 shows the comparative success that centers reported having in meeting parent education subobjectives. It is important to note that grantees determined their own criteria for success in meeting parental education objectives and reported their outcomes accordingly.

**Table 6. Percentage of Centers Meeting Parent Education Subobjectives in 2012-2013**

| Subobjective                        | Selected (percent)* | Met (percent) | Mixed Results (percent) | Did Not Meet (percent) |
|-------------------------------------|---------------------|---------------|-------------------------|------------------------|
| General Education Development       | 47.7                | 50.9          | 22.6                    | 26.4                   |
| Computer Skills Instruction         | 26.1                | 79.3          | 10.3                    | 10.3                   |
| Parent Training                     | 45.9                | 72.5          | 17.6                    | 5.9                    |
| Parent/Child Interaction Activities | 82.0                | 79.1          | 16.5                    | 4.4                    |
| Career Development                  | 19.8                | 59.1          | 27.3                    | 9.1                    |

\* Percentages total more than 100 percent because grantees selected more than one subobjective for parent education.

### Associations between Center Characteristics and Outcomes

This section of the evaluation includes the results of statistical analyses of associations between various categories of center-level data and reading and mathematics outcomes of students in Grades 3-8 with two years of assessment data available. These analyses provide information that may be useful to program leaders and are summarized below.

Prior to 2012-13, there had been a decrease each year in the total number of individual activities that the centers have offered. In 2012-13, the number of individual activities increased to the fourth highest level since 2007-2008, but the mean number of activities decreased to the lowest level since 2008-2009. There has been a downward trend in the mean (i.e., average) number of activities, and until the 2012-13 year, a downward trend in the total number of providers. The 2007-2008 year had the highest total number of activities, the highest mean number of activities, and the second largest number of providers. The 2008-2009 year had the largest number of providers and the second highest total number of activities, but the smallest mean number of activities. The 2011-2012 year had the lowest total number of activities, and the lowest number of providers. The “Results for Grades 3-8” section of the separate Supplemental Technical Report provides more detailed, statistically oriented findings on the center-level outcomes.

### **The association between center characteristics and reading achievement**

The number of days of participation in 21<sup>st</sup> CCLC was not shown to be a statistically significant predictor of either reading proficiency level or standardized reading SOL scaled score outcomes. In the full model, only one of the center-level variables, percent of activities that had an academic focus, was a statistically significant predictor, with a small but negative impact for standardized reading SOL scaled scores only. For each percentage increase in academic activities, there could be an expected decrease of .002 standardized SOL scaled score points in reading.

In a separate set of analyses for students with one to 29 days of attendance in 21<sup>st</sup> CCLC, there was a statistically significant negative correlation between days attended and 2012-2013 reading z-scores, with more days of attendance being associated with a decrease in the standardized reading SOL scaled score, although the magnitude of the relationship ( $r = -0.05$ ) was extremely small. There was no statistically significant relationship between days of attendance and 2012-2013 z-scores in reading for students with 30 to 59 days of attendance ( $r = -0.01$ ), or for students with 60 or more days of attendance ( $r = 0.03$ ).

The following trends in statistically significant achievement outcomes emerged in reading over the past two years (2011-2012 to 2012-2013) for the 21<sup>st</sup> CCLC students only analyses (Analysis of Center Effects) (see Table 7):

- The impact of prior-year achievement was positive for both the proficiency and standardized SOL scaled score outcomes, with higher achievement in the prior year translating into higher performance in the current year.
- There were no statistically significant impacts of the number of days of participation in 21<sup>st</sup> CCLC on either proficiency or SOL achievement.

**Table 7: Two-Year Achievement and Center Level Outcomes Summary in Reading for Grades 3-8**

| Covariates   | Reading                    |                  |                            |                   | Reading                           |     |                                   |     |
|--|----------------------------|------------------|----------------------------|-------------------|-----------------------------------|-----|-----------------------------------|-----|
|  | 2011-2012                  |                  | 2012-2013                  |                   | 2011-2012                         |     | 2012-2013                         |     |
|  | Proficiency                | SOL              | Proficiency                | SOL               | Proficiency                       | SOL | Proficiency                       | SOL |
|  | 21 <sup>st</sup> CCLC Only |                  | 21 <sup>st</sup> CCLC Only |                   | 21 <sup>st</sup> CCLC vs. Control |     | 21 <sup>st</sup> CCLC vs. Control |     |
| <b>Center Information</b>                                  |                            |                  |                            |                   |                                   |     |                                   |     |
| Number of hours center was open                            |                            |                  |                            |                   | NA                                | NA  | NA                                | NA  |
| Number of unique activities at the center                  |                            |                  |                            |                   | NA                                | NA  | NA                                | NA  |
| Total number of hours of activities at the center          |                            |                  |                            |                   | NA                                | NA  | NA                                | NA  |
| Percent of center activities that were academic            |                            |                  |                            | Negative<br>0.002 | NA                                | NA  | NA                                | NA  |
| Number (percent) of paid school-day teachers at the center | Positive<br>0.01           | Positive<br>0.01 |                            |                   | NA                                | NA  | NA                                | NA  |

### **The association between center characteristics and mathematics achievement**

The number of days attended was not shown to be a statistically significant predictor of mathematics proficiency level or standardized mathematics SOL scaled score outcomes. Only one center-level variable, number of unique activities at the center, was a statistically significant predictor of standardized mathematics SOL scaled score outcomes, but not mathematics proficiency outcomes in 2012-2013. However, the impact was negative and very small. For each additional unique activity, there was a .006 decrease in standardized mathematics SOL scaled scores.

In addition, for students with one to 29 days of attendance in 21<sup>st</sup> CCLC, there was a statistically significant negative correlation between days attended and 2012-2013 mathematics z-scores, with more days of attendance being associated with a decrease in the standardized mathematics SOL scaled score, although the magnitude of the relationship ( $r = -0.04$ ) was again extremely small. There was no statistically significant relationship between days of attendance and 2012-2013 z-scores in mathematics for students with 30 to 59 days of attendance ( $r = -0.01$ ), but for students with 60 or more days of attendance there was a statistically significant positive correlation, with the more days of attendance being associated with an increase in the standardized mathematics SOL scaled score. Again, the magnitude of the relationship was very small ( $r = 0.07$ ). The “Results for Grades 3-8” section of the separate Supplemental Technical Report provides more detailed, statistically-oriented findings on the center-level outcomes.

The following trends in statistically significant achievement outcomes emerged in mathematics over the past two years (2011-2012 to 2012-2013) for the 21<sup>st</sup> CCLC students only analyses (Analysis of Center Effects) (see Table 8):

- The impact of prior-year achievement was positive for both the proficiency and standardized SOL scaled score outcomes, with higher achievement in the prior year translating into higher performance in the current year.
- There were no statistically significant impacts of the number of days of participation in 21<sup>st</sup> CCLC on either proficiency or SOL achievement.

**Table 8: Two-Year Achievement and Center Level Outcomes Summary in Mathematics for Grades 3-8**

| Covariates   | Mathematics                |          |                            |          | Mathematics                       |     |                                   |     |
|--|----------------------------|----------|----------------------------|----------|-----------------------------------|-----|-----------------------------------|-----|
|  | 2011-2012                  |          | 2012-2013                  |          | 2011-2012                         |     | 2012-2013                         |     |
|  | Proficiency                | SOL      | Proficiency                | SOL      | Proficiency                       | SOL | Proficiency                       | SOL |
|  | 21 <sup>st</sup> CCLC Only |          | 21 <sup>st</sup> CCLC Only |          | 21 <sup>st</sup> CCLC vs. Control |     | 21 <sup>st</sup> CCLC vs. Control |     |
| <b>Center Information</b>                                  |                            |          |                            |          |                                   |     |                                   |     |
| Number of hours center was open                            | Positive                   | Positive |                            |          | NA                                | NA  | NA                                | NA  |
|  | 0.01                       | 0.01     |                            |          |                                   |     |                                   |     |
| Number of unique activities at the center                  |                            |          |                            | Negative | NA                                | NA  | NA                                | NA  |
|  |                            |          |                            | -0.006   |                                   |     |                                   |     |
| Total number of hours of activities at the center          |                            |          |                            |          | NA                                | NA  | NA                                | NA  |
|  |                            |          |                            |          |                                   |     |                                   |     |
| Percent of center activities that were academic            | Negative                   | Negative |                            |          | NA                                | NA  | NA                                | NA  |
|  | -0.01                      | -0.01    |                            |          |                                   |     |                                   |     |
| Number (percent) of paid school-day teachers at the center | Positive                   |          |                            |          | NA                                | NA  | NA                                | NA  |
|  | 0.01                       |          |                            |          |                                   |     |                                   |     |

## **Extended Learning Time (ELT) Analysis**

CREP conducted a descriptive analysis of the one pilot school, Jefferson-Houston Elementary, which implemented the optional 21<sup>st</sup> CCLC flexibility waiver for Extended Learning Time (ELT) in 2012-2013. For the analysis, Jefferson-Houston Elementary was compared to all other subgrantees not implementing the flexibility waiver to examine performance differences (if any) between the two groups. Two analyses were conducted, one based on proficiency levels, and the other on SOL achievement. In the first analysis, the proficiency level on the SOL, VAAP, VGLA, or VMAST tests in reading and mathematics for the 2012-2013 school year was coded as “pass” (or proficient) when the proficiency level was “Proficient” or “Advanced Proficient,” and as “fail” otherwise (i.e., where the proficiency level was either “Basic” or “Below Basic”). The prior year (2011-2012 school year) proficiency levels on the same tests for the same students (where available) were grouped into “pass” and “fail” in a similar manner. In the second analysis, the outcome variable was the mean (i.e., average) standardized scaled score (z-score) on the SOL test in reading and mathematics for the 2012-2013 and 2011-2012 school years for the same group of students. The comparison between the 2011-2012 and 2012-2013 years gives a non-statistical way of comparing ELT student achievement before and after the students attended the ELT program.

In terms of proficiency outcomes, the non-ELT centers had a higher percentage of students score Proficient or Advanced in both reading and mathematics in both years. The difference in proficiency was larger in mathematics in 2011-2012 (27.7 percentage points), and was larger in reading in 2012-2013 (20.0 percentage points). In mathematics, however, Jefferson-Houston Elementary was able to nearly close the difference in proficiency to only two percentage points (55.6% ELT vs. 57.6% non-ELT), in addition to more than doubling the percentage scoring Proficient or Advanced in mathematics (from 24.1% in 2011-2012 to 55.6% in 2012-2013).

A similar pattern appeared when looking at mean standardized scaled scores (z-score) on the SOL test in reading, where non-ELT centers outperformed Jefferson-Houston Elementary in both years, with a larger difference in 2011-2012 vs. 2012-2013. Both groups, however, were below the Commonwealth average (i.e., both groups had negative z-score means). The same was true in mathematics, where non-ELT centers outperformed Jefferson-Houston Elementary on

both the 2011-2012 and 2012-2013 mean. It should be noted, however, that Jefferson-Houston Elementary did have the better median standardized scaled score in 2012-2013 (-0.25 ELT vs. -0.30 non-ELT). The median is the score that divides the group in half, with half of students scoring above the median, and half scoring below. As with reading, both groups were below the Commonwealth average both years.

In interpreting these outcomes, it is important to note several caveats. First, the analyses are descriptive. As a result, any differences between the ELT and non-ELT centers could be due to chance vs. any effects, or lack of effects, of the ELT program. Second, there were extremely large differences in the sample sizes between the two groups. For the proficiency analyses, there were approximately 55 ELT students in both years compared to over 10,000 non-ELT students. For SOL, there were about 50 ELT students in both years compared to nearly 10,000 non-ELT students. Such huge discrepancies make it difficult to realistically weigh differences in performance between the two groups. Finally, the demographic composition of the two groups may also not be comparable, with the percentages of special education and African-American students in particular, being much larger in the ELT group.

### **Promising Practices and Challenges**

As part of the self-reporting information provided in ALERT, grantees were asked to provide comments regarding activities they felt were most effective in helping them to meet program objectives, factors that could have been associated with lower results for objectives not met or showing mixed results, and recommendations they might have for improving the program in their centers in the future. From these comments, several themes emerged, indicating promising practices and challenges faced by the centers. These themes are summarized below by category.

#### **Promising Practices**

Grantees were asked to elaborate upon their centers' objectives that were met and the activities or promising practices that appeared to be most effective in helping them to meet these objectives. Major themes appearing in grantees' responses included the following: the nature and types of student activities that were most effective in supporting grant objective attainment; building and sustaining strong relationships with families through services and communication; cultivating and maintaining strong relationships and partnerships with community members; incorporating incentives, positive reinforcement, or student input to promote desired student

behavior; and supporting high-quality after-school staff that maintains strong linkages with the school-day staff and curricula. In Table 9, the major themes appearing in grantees’ discussions of their most promising practices in 2012-2013 are summarized by objective. Each theme is described in further detail below.

**Table 9. Summary of Promising Practices by Objective: 2012-2013**

| Theme   | Objective                            |                          |                          |                                  |                                |
|---|--------------------------------------|--------------------------|--------------------------|----------------------------------|--------------------------------|
|   | Improve Student Academic Achievement | Provide Parent Education | Improve Student Behavior | Provide Enrichment Opportunities | Improve Community Partnerships |
| The nature of student activities that were most effective in supporting grant objective attainment                | X                                    | *                        | +                        | X                                |                                |
| The types of student activities that were most effective in supporting grant objective attainment                 | X                                    |                          | +                        | X                                |                                |
| Building and sustaining strong relationships with families through services and communication                     | *                                    | X                        | *                        | *                                | *                              |
| Cultivating and maintaining strong relationships and partnerships with community members                          | *                                    |                          | *                        | *                                | X                              |
| Incorporating incentives, positive reinforcement, or student input to promote desired student behavior            | +                                    |                          | X                        | *                                | *                              |
| Supporting high-quality after-school staff that maintains strong linkages with the school-day staff and curricula | X                                    | *                        | +                        | +                                |                                |

<sup>X</sup> Denotes the majority of themes across the entire dataset of comments entered for the objective.

<sup>+</sup> Denotes a small proportion of themes across the entire dataset of comments entered for the objective.

<sup>\*</sup> Denotes a minimal proportion of themes across the entire dataset of comments entered for the objective.

### **The nature of student activities that were most effective in supporting grant objective attainment**

According to grantees operating centers in 2012-2013, student activities that were most effective in supporting grant objective attainment provided opportunities to engage in alternative ways of thinking, including high-yield learning activities with skills embedded in fun activities.

Such activities involved nontraditional instructional methods, including hands-on participation, project-based objectives, or real-life application of content area skills. These types of activities were most effective in supporting subobjectives related to providing enrichment opportunities, improving student academic achievement, and improving student behavior.

Other aspects of student activities that supported grantees' subobjectives related to providing enrichment opportunities and improving student behavior included providing students with opportunities to engage in new experiences or to self-express and create, offering activities on a rotational or otherwise flexible and convenient schedule that allowed for greater student choice, and offering activities of high interest to students. In order to ascertain which programs were of the highest interest to students, grantees reported that they formally or informally polled students, reviewed program attendance data, or involved students directly in program design.

Additional structural components that were particularly supportive in improving student academic achievement and improving student behavior afforded greater individualized attention and tailored instruction to students. A few grantees specifically stated that they employed an individualized or whole-child approach to the design of their grant programs. Some grantees used small groups or student grouping, while others kept small class sizes, and still others arranged for one-on-one time with center staff.

### **The types of student activities that were most effective in supporting grant objective attainment**

According to grantees operating centers in 2012-2013, certain types of student activities were more effective than were others in supporting grant objective attainment, particularly with respect to providing enrichment opportunities, improving student academic achievement, and improving student behavior. The types of student activities that were most effective in supporting subobjectives related to providing enrichment opportunities included field trips to cultural events and activities, opportunities to engage in visual or performing arts activities, academic enrichment activities, and physical or recreational activities. The types of student activities that were most effective in supporting subobjectives related to improving student academic achievement provided academic support, academic enrichment, or utilized technology. Grantees reported that their academic support programs primarily focused on tutoring and homework completion and help, though some grantees stated that they also offered support in the areas of credit recovery, test prep, and study skills. Finally, the types of student activities that

were most effective in supporting subobjectives related to improving student behavior included character development, anger management, and mentoring, as well as student collaboration, team-building, and other opportunities to promote positive peer relationships and develop leadership and social skills.

### **Building and sustaining strong relationships with families through services and communication**

According to grantees operating centers in 2012-2013, subobjectives for providing parent education were met by providing activities aligned with parents' needs and interests, by building and sustaining relationships with parents through communication and connection with school resources, and by meeting families' needs and challenges in participating in center offerings. In 2012-2013, the most popular activities for parents included family night events and others that were student-family interactive or that showcased student achievements. Grantees indicated that parents also appreciated opportunities to develop language and other skills needed on jobs or to access community programs and resources. Grantees also responded to families' needs and challenges in participating in several ways, including more convenient and flexible scheduling of activities, food, direct services through mobile community outreach, and child care.

### **Supporting high-quality after-school staff that maintains strong linkages with the school-day staff and curricula**

According to grantees operating centers in 2012-2013, supporting high-quality after-school staff and maintaining strong linkages with the school-day staff and curricula promoted grant objective attainment, particularly in the areas of improving student academic achievement, providing enrichment activities, and improving student behavior. For improving student academic achievement, grantees indicated the importance of employing creative, highly-qualified instructors and the benefits of recruiting school-day teachers for the after-school program. In addition, several grantees indicated that they formulated individual student plans based on regular reviews of student report cards and other measures of student academic progress, and a number of grantees indicated that they maintained regular communication with each child's school-day teachers. For providing enrichment opportunities, grantees indicated the importance of maintaining staff that were creative, highly-qualified, caring, and committed. Grantees also described the benefits of supporting after-school staff with training, resources, and opportunities to collaborate. Finally, for improving student behavior, grantees indicated the

importance of communicating with school-day teachers and of maintaining a caring and committed after-school staff team. Grantees also described the benefits of using the same behavior model and otherwise collaborating with the feeder school regarding student behavior, as well as of providing after-school staff with training and resources for engaging with students dealing with challenging personal or social conditions.

### **Cultivating and maintaining strong relationships and partnerships with community members**

According to grantees operating centers in 2012-2013, subobjectives for improving community partnerships were supported by engaging in regular communication and meetings with partners, by encouraging regular partner involvement in program planning and operations, and by looking into and reaching out to available community resources.

### **Incorporating incentives, positive reinforcement, or student input to promote desired student behavior**

According to grantees operating centers in 2012-2013, incorporating incentives, positive reinforcement, or student input to promote desired student behavior promoted grant objective attainment. Awards, incentives, and field trips were most commonly cited for both improving student behavior and improving student achievement. For improving student behavior, a number of grantees indicated success with utilizing public recognition and other positive reinforcement. In addition, grantees indicated the effectiveness of implementing a participation policy that required homework completion, school attendance, or demonstration of some other positive academic behaviors in order to engage in enrichment activities. Similarly, grantees indicated that upholding clear and high expectations and emphasizing student accountability were effective practices for improving academic achievement.

### **Challenges**

Grantees were asked to reflect upon their centers' objectives that were not met or showed mixed results and to identify challenges that might have been associated with the lower results. Major themes appearing in grantees' responses included the following: program design, structure, and grant-level characteristics; home and community characteristics and challenges; students' individual challenges; school environment and program operating conditions; and cultivating strong community connections. In Table 10, the major themes appearing in grantees'

discussions of the challenges that they experienced in 2012-2013 are summarized by objective. Each theme is described in further detail below.

**Table 10. Summary of Challenges by Objective: 2012-2013**

| Theme  | Objective                            |                          |                          |                                  |                                |
|--|--------------------------------------|--------------------------|--------------------------|----------------------------------|--------------------------------|
|  | Improve Student Academic Achievement | Provide Parent Education | Improve Student Behavior | Provide Enrichment Opportunities | Improve Community Partnerships |
| Program design, structure, and grant-level characteristics | +                                    | +                        | +                        | X                                | *                              |
| School environment and program operating conditions        | X                                    | *                        | +                        |                                  |                                |
| Home and community characteristics and challenges          | +                                    | X                        | +                        |                                  | *                              |
| Parents' individual challenges                             |                                      | X                        |                          |                                  |                                |
| Students' individual challenges                            | X                                    |                          | +                        |                                  |                                |
| Cultivating strong community connections                   |                                      | *                        |                          |                                  | X                              |
| Supporting quality after-school staff                      | *                                    | *                        | +                        |                                  | *                              |

<sup>X</sup> Denotes the majority of themes across the entire dataset of comments entered for the objective.

<sup>+</sup> Denotes a small proportion of themes across the entire dataset of comments entered for the objective.

<sup>\*</sup> Denotes a minimal proportion of themes across the entire dataset of comments entered for the objective.

### **Program design, structure, and grant-level characteristics**

For grantees operating centers in 2012-2013, challenges related to program limitations due to funding and increases in student enrollment, as well as program alignment with school-day instruction and with student and family needs and interests touched efforts in all of the major grant objective areas. Sixteen grantees indicated that a contributing factor to their difficulties in meeting subobjectives related to student achievement may have been the alignment of the after-school program with school-day instruction or with student needs or interests. Fourteen grantees indicated that the alignment of the after-school program with family needs and interests may have similarly contributed to difficulties in meeting subobjectives related to providing parent education. Six grantees experiencing challenges related to improving student behavior and all five grantees experiencing challenges related to providing enrichment opportunities described limitations in program development related to available funding or the early developmental stage of the program.

### **School environment and program operating conditions**

Some grantees operating centers in 2012-2013 indicated that changes in the educational environment at the program, school, or state level bore impacts on their progress toward goals related to academic achievement and student behavior. At 31 centers, students experienced frustration with adjusting to recent changes in the state standards and testing format for reading and mathematics, to which program directors worked to realign their academic services. At other centers, grantees faced certain challenging operating conditions at the school level, including changes in school status, climate, and organization. These changes affected four grantees' progress toward student achievement goals and five grantees' progress toward student behavior goals. Finally, a few grantees struggled initially with these objectives as increases in program or school enrollment led to increases in class sizes.

### **Home and community characteristics and challenges**

Grantees operating centers in 2012-2013 indicated that certain challenges that students and families experienced in their homes and communities inhibited progress in the areas of parent education, student academic achievement, and student behavior. The greatest challenges for providing parent education included cultural, demographic, or socio-economic characteristics within the communities served (13 grantees) and community infrastructural characteristics, such as traveling distance and lack of public transportation (8 grantees). The greatest challenge for improving student academic achievement was the level of parental involvement or support for education at home (6 grantees). Similar challenges affected four grantees' progress toward student behavior goals.

### **Students' individual challenges**

Grantees operating centers in 2012-2013 indicated that growth in student achievement was difficult because of the nature of the academic and personal challenges faced by students in their programs. Students struggled with reading comprehension, vocabulary, and writing skills and needed to build the prerequisite study habits and organizational skills for academic success. At a few centers, regular program attendance was also a challenge for students.

### **Parents' individual challenges**

Grantees operating centers in 2012-2013 indicated that progress toward parent education goals was challenging due to the nature of individual personal challenges faced by the parents they worked to serve.

## **Cultivating strong community connections**

A few grantees operating centers in 2012-2013 indicated that complications with partner follow-through on commitments for services or resources hindered progress toward their community partnership goals.

## **Conclusions**

### **What is the nature of the Virginia 21<sup>st</sup> CCLC grant program and level of participation by students?**

Similar to prior years, in 2012-2013, schools operated the majority of centers, and most were open 6-15 hours per week. There were 3,978 paid and volunteer staff members across 144 centers. Most paid employees were school division teachers, youth development workers, or nonteaching staff, while most volunteers were college and high school students, other community members, or parents. Students attending centers during 2012-2013 numbered 25,238 and 41 percent attended regularly (30 days or more). Students served were in pre-kindergarten through grade 12, with the majority in grades 3-8. The majority of students served were White or African-American. Racial/ethnic groups were represented in centers as follows: White (41.5 percent), African-American (37 percent), Hispanic (12.8 percent), Asian (3 percent), and American Indian (1.8 percent). As of December 9, 2013, racial/ethnic information had not been supplied for 1.7 percent of students served. Over half of all students served by 21<sup>st</sup> CCLC during this period were at an economic disadvantage (56.7 percent). Students identified as having limited English proficiency comprised 9.7 percent of the total program enrollment, and students identified as having special needs or disabilities also represented 9.7 percent of all students served.

### **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 three through eight that included two years of test data, participation in the 21<sup>st</sup> CCLC program was not a statistically significant predictor of reading achievement outcomes based on either proficiency levels or standardized SOL scaled scores. The number of days participated was also not a statistically significant predictor of reading outcomes. For the following subgroups, control students had statistically significantly higher odds of scoring proficient compared to 21<sup>st</sup> CCLC participants: not special education, not limited English proficient, economically disadvantaged, and not economically disadvantaged.

While statistically significant, however, the magnitudes of the differences were not substantively important.

It should be noted that in the Spring of 2013, all schools in Virginia took new rigorous English assessments that were based on the revised English Standards of Learning (SOL) approved by the Board of Education in 2010, which included new content and the increased rigor of the 2010 standards, and which could have affected the reading achievement outcomes.

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 21<sup>st</sup> CCLC participants in 2012-2013 were outperformed in reading proficiency by both non-participants and the Commonwealth overall and in 10 of 11 available subgroupings (90.9%). In terms of SOL scaled scores, third-grade 21<sup>st</sup> CCLC participants in 2012-2013 were outperformed by non-participants in nearly all comparisons (14 out of 15, or 93.3%) in reading.

### **Objective 2: Improve Student Academic Achievement in Mathematics**

Based on the statistical analyses for grades three through eight that included two years of test data, participation in the 21<sup>st</sup> CCLC programs was a small, but statistically significant positive predictor of standardized SOL mathematics scaled score achievement, but was not a statistically significant predictor of mathematics proficiency level outcomes. The number of days of participation was not a statistically significant predictor of mathematics outcomes. In addition, there were no statistically significant effects of participation in 21<sup>st</sup> CCLC on mathematics proficiency for any of the three subgroups analyzed (based on disability, limited English proficiency, or economically disadvantaged status). However, 21<sup>st</sup> CCLC students who were economically disadvantaged had statistically significantly higher standardized SOL mathematics scaled scores compared to controls. The magnitude of the difference, however, was small and not substantively important.

However, it should be noted that the predictor variables included in the statistical analyses did not explain all of the variance in mathematics achievement. 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 21<sup>st</sup> CCLC participants in 2012-2013 did slightly better than in reading, being outperformed by both non-participants and the Commonwealth overall and in 8 of 11 available subgroupings (72.7%). With SOL scaled scores, third-grade 21<sup>st</sup> CCLC participants in 2012-2013 again did better in mathematics as opposed to reading, as participants were outperformed by non-participants for all students and in 10 out of 14 available subgroupings (71.4%).

### **Objective 3: Provide Opportunities for Parent Education**

As required by the 21<sup>st</sup> CCLC grant, grantees offered General Education Development (GED) certificate programs, computer instruction, parenting skills classes, parent/child activities, and/or career development activities for parents. Over three-quarters of centers offering opportunities for parent/child interaction in academic activities reported having met their internally established subobjectives. In addition, almost 80 percent of centers offering computer skills instruction and over 70 percent of centers offering parent training reported having met their internally established subobjectives. Finally, more than 60 percent of centers offering career development activities and more than half of centers offering GED certificate programs reported having met their internally established subobjectives.

### **In what ways do attendance at a 21<sup>st</sup> CCLC, type and time allocated to activities, and hours of operation predict academic achievement?**

The results suggest that more center activities with an academic focus had a very small, yet statistically significant and negative impact on standardized SOL reading scaled scores. Also, an increase in the number of unique activities at a center had a very small, but statistically significant and negative impact on standardized SOL mathematics scaled scores. No other center-level variables had a significant impact on students' academic achievement.

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

## **What “promising practices” and challenges regarding the achievement of required objectives were identified by centers?**

Grantees were asked to elaborate upon their centers’ objectives that were met and the activities or promising practices that appeared to be most effective in helping them to meet these objectives. For grantees meeting the objective of improving student academic achievement, the most frequently mentioned promising practices involved the nature and types of student activities that were most effective in supporting grant objective attainment, as well as supporting high-quality after-school staff that maintained strong linkages with the school-day staff and curricula. For grantees meeting the objective of providing parent education, the most frequently mentioned promising practices involved building and sustaining strong relationships with families through services and communication. For grantees meeting the objective of improving student behavior, the most frequently mentioned promising practices involved incorporating incentives, positive reinforcement, or student input to promote desired student behavior. For grantees meeting the objective of providing enrichment activities, the most frequently mentioned promising practices involved the nature and types of student activities that were most effective in supporting grant objective attainment. For grantees meeting the objective of improving community partnerships, the most frequently mentioned promising practices involved cultivating and maintaining strong relationships and partnerships with community members.

Grantees were asked to reflect upon their centers’ objectives that were not met or showed mixed results and to identify challenges that might have been associated with the lower results. For grantees struggling to meet the objective of improving student academic achievement, the most frequently mentioned challenges involved school environment and other program operating conditions, as well as students’ individual challenges. For grantees struggling to meet the objective of providing parent education, the most frequently mentioned challenges involved parents’ individual challenges as well as home and community characteristics. For grantees struggling to meet the objective of improving student behavior, challenges mentioned involved program characteristics, home and community characteristics, school environment and program operating conditions, as well as students’ individual challenges. For grantees struggling to meet the objective of providing enrichment opportunities, the most frequently mentioned challenges involved program design, structure, and grant-level characteristics. For grantees struggling to

meet the objective of improving community partnerships, the most frequently mentioned challenges involved cultivating strong community connections.

## References

What Works Clearinghouse (2014). Procedures and standards handbook (Version 3.0). Washington, DC: Author. Retrieved from [ies.ed.gov/ncee/wwc/pdf/reference\\_resources/wwc\\_procedures\\_v3\\_0\\_standards\\_handbook.pdf](http://ies.ed.gov/ncee/wwc/pdf/reference_resources/wwc_procedures_v3_0_standards_handbook.pdf)

## Appendix A: Supplemental Program Objectives

In addition to the state mandated 21<sup>st</sup> 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.

### Objective: Improvement of Student Behavior

The objective for improving student behavior was selected by 64.2 percent of centers that completed the ALERT. The percentage of centers selecting various subobjectives for this objective is shown in Table A-1. Success of the reporting centers in meeting these subobjectives is shown in Table A-2. Please note that grantees determined and self-reported their individual levels of success in meeting student behavior objectives based on their own criteria.

**Table A-1. Percentage of Centers Selecting Subobjectives for Improving Student Behavior in 2012-2013**

| Subobjective                                     | Percentage of Centers Selecting |
|--|---------------------------------|
| Improve classroom behavior                       | 89.5                            |
| Complete homework satisfactorily                 | 80.3                            |
| Improve classroom participation                  | 76.3                            |
| Improve class attendance                         | 73.7                            |
| Improve motivation to learn                      | 71.1                            |
| Improve ability to get along with other students | 63.2                            |
| Other  | 5.3                             |

**Table A-2. Percentages of Success by Reporting Centers in Meeting Subobjectives for Improving Student Behavior in 2012-2013**

| Subobjective                                     | Met (percent) | Mixed Results (percent) | Did Not Meet (percent) |
|--|---------------|-------------------------|------------------------|
| Improve classroom behavior                       | 64.7          | 35.3                    | 0.0                    |
| Complete homework satisfactorily                 | 75.4          | 24.6                    | 0.0                    |
| Improve classroom participation                  | 72.4          | 27.6                    | 0.0                    |
| Improve class attendance                         | 60.7          | 37.5                    | 1.8                    |
| Improve motivation to learn                      | 64.8          | 33.3                    | 1.9                    |
| Improve ability to get along with other students | 64.6          | 31.3                    | 2.1                    |

**Objective: Provide Enrichment Opportunities**

The objective for providing enrichment opportunities was selected by 93.5 percent of centers that completed the ALERT. The percentage of centers selecting various subobjectives for this objective is shown in Table A-3. Success of the reporting centers in meeting these subobjectives is shown in Table A-4. Please note that grantees determined and self-reported their individual levels of success in meeting enrichment opportunity objectives, based on their own criteria.

**Table A-3. Percentage of Centers Selecting Subobjectives for Providing Enrichment Opportunities in 2012-2013**

| Subobjective  | Percentage of Centers Selecting |
|---|---------------------------------|
| Increase children's exposure to the fine arts and cultural events                                   | 79.6                            |
| Increase children's depth of understanding of academic subjects through non-traditional instruction | 78.7                            |
| Increase children's health awareness and physical education   | 78.7                            |
| Provide programs in preventing drug/alcohol use and/or violence                                     | 44.4                            |
| Other   | 1.9                             |

**Table A-4. Percentages of Success by Reporting Centers in Meeting Subobjectives for Providing Enrichment Opportunities in 2012-2013**

| Subobjective   | Met (percent) | Mixed Results (percent) | Did Not Meet (percent) |
|--|---------------|-------------------------|------------------------|
| Increase children's exposure to the fine arts and cultural events                                  | 96.5          | 3.5                     | 0.0                    |
| Increase children's depth of understanding of academic subjects through nontraditional instruction | 90.6          | 7.1                     | 1.2                    |
| Increase children's health awareness and physical education  | 92.9          | 7.1                     | 0.0                    |
| Provide programs in preventing drug/alcohol use and/or violence                                    | 93.8          | 6.3                     | 0.0                    |

**Objective: Improve Community Partnerships**

The objective for improving community partnerships was selected by 48 percent of centers that completed the ALERT. The percentage of centers selecting various subobjectives for this objective is shown in Table A-5. Success of the reporting centers in meeting these subobjectives is shown in Table A-6. Please note that grantees determined and self-reported their individual levels of success in meeting community partnership objectives, based on their own criteria.

**Table A-5. Percentage of Centers Selecting Subobjectives for Improving Community Partnerships in 2012-2013**

| Subobjective  | Percentage of Centers Selecting |
|---|---------------------------------|
| Increase the number of partners   | 60.7                            |
| Increase the activities of partners   | 64.3                            |
| Improve communication with partners   | 73.2                            |
| Improve the sustainability of the program through partner commitments beyond the grant period | 66.1                            |
| Other   | 0.0                             |

**Table A-6. Percentages of Success by Reporting Centers in Meeting Subobjectives for Improving Community Partnerships in 2012-2013**

| Subobjective  | Met (percent) | Mixed Results (percent) | Did Not Meet (percent) |
|---|---------------|-------------------------|------------------------|
| Increase the number of partners   | 82.4          | 8.8                     | 5.9                    |
| Increase the activities of partners   | 72.2          | 22.2                    | 5.6                    |
| Improve communication with partners   | 82.9          | 14.6                    | 0.0                    |
| Improve the sustainability of the program through partner commitments beyond the grant period | 59.5          | 37.8                    | 2.7                    |