

VIRGINIA DEPARTMENT OF EDUCATION
Evaluation of 21st Century Community
Learning Centers
2009-2010

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September 2011

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Evaluation of 21st Century Community Learning Centers 2009-2010

Executive Summary

The 21st Century Community Learning Centers (21st 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 the 2009-2010 Virginia 21st CCLC programs. The purpose was to determine whether the federally-funded 21st CCLC programs were meeting Virginia's program objectives by: (1) improving student academic achievement in reading; (2) improving student academic achievement in mathematics; and (3) providing opportunities for parental education. 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) the online Annual Local Evaluation Report Template (ALERT) survey; (2) the Profile and Performance Information Collection System (PPICS); and (3) scores for reading and mathematics from the Standards of Learning (SOL) assessments, Virginia Alternate Assessment Program (VAAP), and Virginia Grade Level Alternative (VGLA) assessment.

For Objectives 1 and 2, the assessment data were analyzed separately by subject (reading or mathematics) using two different inferential (i.e., statistical) methods for students in grades three through eight who had two years of assessment data available (2008-2009 and 2009-2010). In both cases, students who participated in 21st CCLC for 30 or more days were matched based on several demographic variables to similar students in the control group who were eligible for, but did not participate in, the program.

Two sets of analyses were conducted to address Objectives 1 and 2. One set of analyses evaluated proficiency levels (coded as either "pass" or "fail") on the SOL, VGLA, or VAAP test in reading and mathematics. In an effort to evaluate the more subtle or incremental improvements in student outcomes not captured by the first set of categorical analyses, which only looked at broad changes in student proficiency, a second set of analyses was carried out for students' standardized scaled scores (z-scores) on the traditional statewide assessments (i.e., SOL).

Using proficiency levels on the SOL, VAAP, and VGLA assessments (based on the percentage scoring Proficient or Advanced) and mean (i.e., average) scaled scores on SOL assessments only, separate descriptive (noninferential) analyses were conducted for 21st CCLC participants (i.e., those with 30 or

more days of attendance) and nonparticipants (i.e., eligible students with zero days of attendance) in grade three in 2009-2010 who had no prior-year test data available. These analyses also examined differences in reading and mathematics achievement between 21st CCLC participants and all Virginia third-grade students in the 2008-2009 and 2009-2010 school years. Comparisons between 21st CCLC participants and nonparticipants were also conducted by the following subgroups where common data were available: gender; race; economically disadvantaged status; students with disabilities status; and limited English proficiency (LEP) status. Results from the grade-three-only analyses must be considered as informational, and not as evaluative because it was not possible to incorporate data necessary to control for these students' prior-year achievement, which is known to be a significant predictor of future year achievement.

The key results of the analyses are summarized below by evaluation question.

What is the nature of the Virginia 21st CCLC programs and level of participation by students?

Schools operated the majority of centers, and most were open 6-20 hours per week. There were 4,024 paid and volunteer staff members across 129 centers. Most paid employees were school division teachers or nonteaching staff, while most volunteers were college and high school students, community members, and parents. Students attending centers during 2009-2010 numbered 24,460. Of those, 45.1 percent attended regularly (30 days or more). Students served were in Pre-Kindergarten through grade 12, with the majority in grades two through eight. Programs disproportionately served black students, relative to the Virginia student population as a whole. Racial/ethnic groups were represented in centers as follows: white (47 percent), black (39.8 percent), and Hispanic (7.1 percent). In comparison, Virginia's total student membership as of September 30, 2009, was as follows: white (56 percent), black (25.4 percent), Hispanic (9.4 percent), Asian/Pacific Islander (5.8 percent), American Indian (0.3 percent), and Unspecified (2.9 percent). Approximately 37 percent of all students across Virginia were eligible for free or reduced-price lunch for the 2009-2010 school year (http://www.doe.virginia.gov/support/nutrition/statistics/free_reduced_eligibility/2009-2010/divisions/2009-2010.pdf). Slightly over half of all students served by 21st CCLC during this period were economically disadvantaged. Students with limited English proficiency (LEP) comprised less than six percent of the total program enrollment, and students with disabilities represented less than eight percent of all students served. Across the state, students with limited English proficiency constituted approximately seven percent of all students enrolled in 2009-2010, and students with disabilities comprised about 13 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 who attended a 21st CCLC program for at least 30 days, the categorical and scaled score analyses showed two statistically significant impacts of 21st CCLC participation on statewide reading assessments. First, 21st CCLC students with limited English proficiency were more likely to achieve a passing score in 2009-2010 compared to control students with limited English proficiency. Second, standardized scaled scores of students who participated in 21st CCLC in 2009-2010 were lower than those of the control students. In addition, students who attended programs more often had statistically significantly better proficiency outcomes and standardized SOL scaled scores. However, while statistically significant, the impact of attendance on achievement was very small. For students in grade three who did not have prior-year test scores available, the percentage of 21st CCLC participants scoring Proficient or Advanced, overall, was lower than nonparticipants in 2009-2010. In addition, 21st CCLC participants overall had a lower mean SOL scaled score than nonparticipants.

Objective 2: Improve Student Academic Achievement in Mathematics.

For students in grades three through eight who attended a 21st CCLC program for at least 30 days, the categorical and scaled score analyses showed no statistically significant impact of 21st CCLC participation on statewide mathematics assessments. The impact of the number of days attended was statistically significant for mathematics proficiency only, and the effect was very small. For students in grade three who did not have prior-year test scores available, the overall percentage of 21st CCLC participants scoring Proficient or Advanced was lower than nonparticipants in 2009-2010. CCLC participants also had a lower mean SOL scaled score than nonparticipants.

Objective 3: Provide Opportunities for Parent Education.

As required by the 21st CCLC grant, centers offered General Education Development (GED) certificate programs, computer instruction, parenting skills classes, parent/child activities, and/or career development activities for parents. The majority of centers offering parent/child interaction activities reported meeting their internally established subobjectives. In addition, over half of centers offering computer skills instruction and parent training reported meeting their internally established subobjectives. Centers offering career development activities reported mixed results.

In what ways do attendance at a 21st 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. These analyses provide information that may be useful to program leaders and are summarized below.

For each of the past three analysis years there has been a decrease in the total number of unique activities that the centers have offered. Mean number of unique activities have fluctuated over the past three years due to the variation in number of providers each year. The 2007-2008 year had the highest total number of unique 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 unique activities, while the 2009-2010 year had both the lowest total number of unique activities as well as the smallest number of providers.

Center-level results from analysis of reading outcomes.

The total number of hours that centers were open had a negative but very small impact on students' reading outcomes, with a higher number of hours being associated with statistically significantly lower odds of scoring proficient and lower standardized SOL reading scores in 2009-2010. The number of paid school-day teachers had a positive but very small impact on students' reading outcomes; a higher number of teachers was associated with statistically significantly higher standardized SOL scaled scores in 2009-2010. The total hours of activities at centers was not a statistically significant predictor of either reading proficiency or standardized scaled scores. Finally, the total number of activities had a positive but very small impact on students' reading outcomes, with a higher number of activities being associated with statistically significantly higher standardized SOL reading scores in 2009-2010. This finding contradicts the results from both 2008-2009, during which a negative yet statistically nonsignificant effect was found for the total number of activities and the results from 2007-2008, during which a small but statistically significant negative effect was found, with a higher number of activities being associated with slightly lower reading achievement.

Center-level results for mathematics.

As in reading, the total number of hours centers were open was associated with statistically significantly lower odds of achieving mathematics proficiency and lower standardized SOL mathematics scores in 2009-2010. Neither the total number of paid school-day teachers nor the total hours of activities was statistically significant in predicting mathematics outcomes in 2009-2010. An increase in the total number of activities was associated with a very small yet statistically significant increase in the odds of achieving proficiency and also with a statistically significant decline in standardized SOL mathematics scores in 2009-2010. This finding contradicts the results from 2008-2009, where a positive yet statistically nonsignificant effect on standardized SOL mathematics scores was found for the total number of activities and 2007-2008, where a statistically significant negative effect for the total number of

activities was found for mathematics proficiency, and a negative, but statistically nonsignificant effect was found on standardized SOL mathematics scores.

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. Major themes appearing in grantees’ responses included the following: enrichment activities that enhance student engagement; tutoring and homework help provided by high-quality staff; collaboration and communication with regular classroom teachers, school administrators, and other school staff; use of high-quality, research-based curricula with nontraditional instructional elements; individualized and structured opportunities for extended learning; use of needs assessment and progress monitoring data to inform program planning; commitment to increasing parent education and engagement in student learning; and transportation, convenient location, flexible scheduling, meals, and other parent and student incentives.

Grantees were also asked to reflect upon their centers’ objectives that were not met or showed mixed results, identifying challenges that could have been associated with the lower results. Major themes appearing in grantees’ responses included the following: low or inconsistent parent attendance due to personal conflicts; low or inconsistent student attendance; difficulty developing rapport and effective partnerships with parents, community partners, and students; difficulty maintaining alignment and continuity with school day activities; issues with planning and project management; difficulty maintaining alignment and continuity with home activities; and inconsistent use of progress monitoring tools and data.

Conclusions

Based on the statistical analyses for grades three through eight that included two years of test data, participation in the 21st CCLC program was statistically significant in predicting achievement outcomes in reading only, with a positive outcome in proficiency for LEP students and a negative outcome for standardized SOL assessment scores across all participants. In addition, the number of days of participation in a 21st CCLC program had a statistically significant and positive influence on reading and mathematics proficiency as well as on reading standardized scaled scores in 2009-2010. Therefore, it appears that attending more days in the program did lead to a small increase in achievement as measured by statewide assessments.

The results also suggest that the more hours centers were open had a small yet statistically significant negative impact on both reading and mathematics standardized scaled scores and proficiency. In addition, the outcomes imply that a larger number of paid school-day teachers had a relatively small but statistically significant and positive impact on standardized SOL assessment cores in reading. Finally, a higher total number of activities offered at centers was associated with statistically significantly higher standardized SOL reading scores and mathematics proficiency but with statistically significantly lower mathematics standardized SOL assessment scores.

Results of the descriptive analyses of outcomes for students in grade three who did not have prior-year test scores available showed that for proficiency outcomes, the percentage of 21st CCLC participants scoring Proficient or Advanced, overall, was lower than nonparticipants in 2009-2010, in both reading and mathematics. In terms of SOL scaled score outcomes in 2009-2010, 21st CCLC participants overall had a lower mean score than nonparticipants in both reading and mathematics.

Evaluation of 21st Century Community Learning Centers 2009-2010

Introduction and Overview

The 21st Century Community Learning Centers (21st CCLC) grant program was established by Congress as Title X, Part I, of the *Elementary and Secondary Education Act of 1965* (ESEA). It was reauthorized by Congress under Title IV of the *No Child Left Behind Act of 2001*. The purposes of the 21st 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 2009-2010, the Virginia Department of Education provided 21st CCLC grant funds to 99 grantees that operated a total of 129 centers. 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 (VDOE) contracted with the Center for Research in Educational Policy (CREP) at The University of Memphis to conduct a statewide evaluation of the 21st 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 21st 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 21st CCLC, type and time allocated to activities, and hours of operation predict academic achievement?
- What “promising practices” and challenges were identified by centers regarding the achievement of required objectives?

All grantees and their respective centers in operation in 2009-2010 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. The report is available upon request from the Virginia Department of Education.

Three main sources of data were used in the evaluation:

1. Two years (2008-2009 and 2009-2010) of Standards of Learning (SOL), Virginia Alternate Assessment Program (VAAP), and Virginia Grade Level Alternative (VGLA) proficiency and scaled assessment scores in reading and mathematics for students in grades three through eight. 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, economically disadvantaged status, and days of participation in the 21st CCLC program were also 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 and VGLA alternative assessment data were included in the analysis of proficiency-level outcomes, but only the SOL assessment was 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 descriptive data about grantees and their 21st CCLC program, and self-reported progress toward meeting performance indicators. Grantees submit information to this system at designated time periods each year.

- The 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.

PPICS reports were available for 223 organizations, including 172 total centers, 129 of which met the requirements for also completing the ALERT. 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 2008-2009 and 2009-2010 academic years were provided to CREP by the Virginia Department of Education. The specific data sources are shown in Table 1 for each evaluation question.

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 st CCLC programs and level of participation by students?	ALERT PPICS demographic and attendance data	100%
To what degree did centers meet their objectives?	PPICS APR data ALERT Virginia SOL test scores in reading and mathematics	100%
In what ways do attendance at a 21 st CCLC, type and time allocated to activities, and hours of operation predict academic achievement?	PPICS data Virginia SOL test scores in reading and mathematics	100%
What “promising practices” and challenges were identified by centers regarding the achievement of required objectives?	ALERT	100%

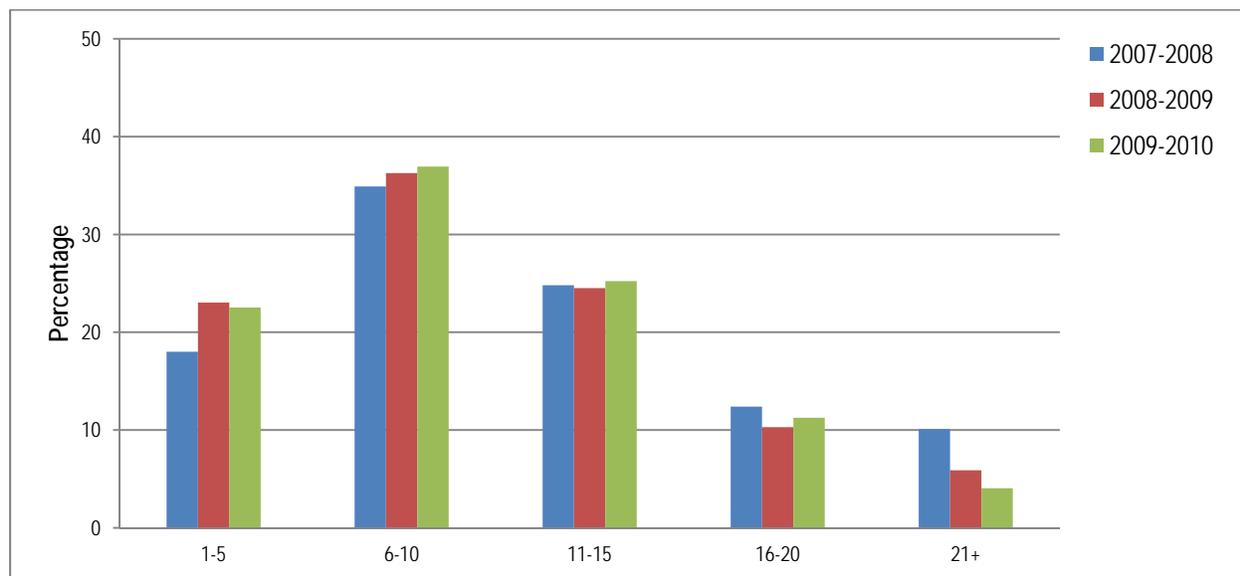
Center Characteristics

Operations

Of the 129 centers, 84.7 percent were operated by schools. Others were operated by community centers (7.2 percent); nationally affiliated nonprofit agencies (2.7 percent); and other agencies (e.g., units of city or county government, health-based organizations, and nonprofit organizations) (3.6 percent). The percentage of centers operated by faith-based organizations dropped two percent, while that of centers operated by community centers increased by 1.8 percent from the prior year. Other percentages are similar to those reported in PPICS by the grantees for the 2007-2008 and 2008-2009 school years. Centers varied in their structure, most notably in the number of hours of operation per week (see Figure 1). These percentages are also similar to those reported for the previous year.

The majority of centers (73.4 percent) were open 6-20 hours per week during the 2009-2010 year, with the highest proportion offering 6-10 hours of services per week (36.9 percent).

Figure 1. Hours of Operation per Week during the 2007-2008, 2008-2009, and 2009-2010 School Years by Percent of Centers



Staffing Patterns

The staffing patterns across centers are displayed in Figure 2 and Figure 3. Based on available PPICS data, there were 4,024 paid and volunteer staff members across the centers in 2009-2010. Of these staff members, the majority were paid (70.2 percent). Most paid employees were school division teachers (54.1 percent) or nonteaching staff (13.3 percent). Few paid employees were parents (.5 percent), college or

high school students (6.6 percent), or community members (2.2 percent). College and high school students were the most prevalent type of unpaid volunteers (45.1 percent), followed by community members (23.4 percent), and then parents (13.2 percent).

Overall, in 2009-2010, the composition of paid staff generally continued the trends seen in prior years, with a few exceptions. School division teachers comprised more than half of all paid staff in 2009-2010, whereas they comprised less than half of all paid staff in 2008-2009. The proportions of paid college or high school students, center administrators, and nondivision personnel had increased slightly in 2008-2009, but in 2009-2010, the percentages reported for these groups were similar to those reported in 2007-2008. The volunteer staff proportions also increased overall, with the greatest increase from prior years seen in college or high school students (45.1 percent, versus 25.8 percent in 2008-2009) and the greatest decrease observed in school-day teachers (4.8 percent, versus 12.3 percent in 2008-2009).

Figure 2. Paid Staff in 21st CCLC across Virginia

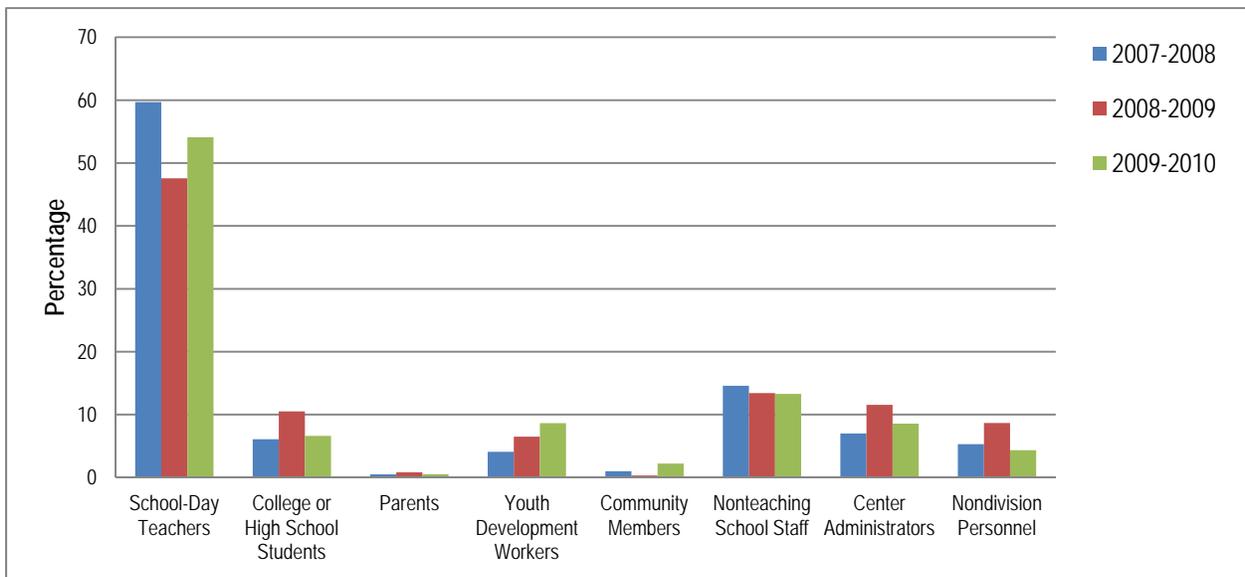
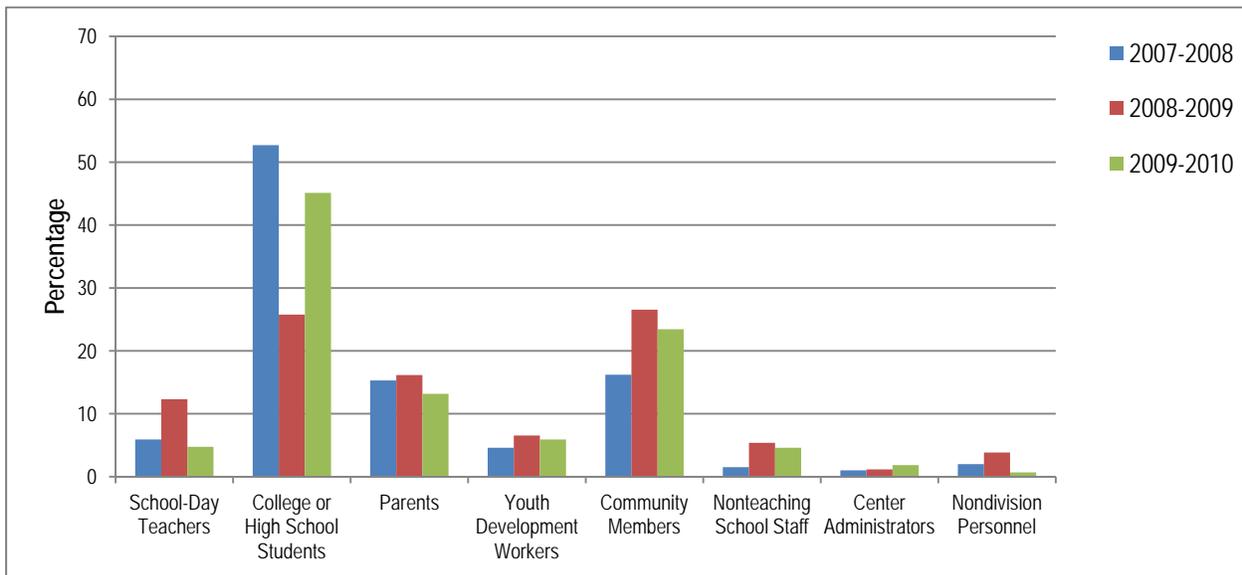


Figure 3. Volunteer Staff in 21st CCLC across Virginia



Student Participation and Attendance

According to available PPICS data, a total of 24,460 students were served in 2009-2010, with 11,032 students (45.1 percent) attending regularly (30 days or more). About two-thirds of participating students were in grades three through eight (see Figure 4 and Figure 5). In general, percentages of both middle school students served and regular attendees rose from prior years, while those of elementary school students declined. Percentages of high school students served and regular attendees also rose from the prior year.

PPICS data indicate that of all student attendees in 2009-2010, 47 percent were white and 39.8 percent were black. These percentages are comparable to those reported in 2008-2009. There were slightly fewer Hispanic attendees in 2009-2010 when compared to 2008-2009 (7.1 percent versus 9.7 percent). By comparison, as of September 30, 2009, a total of 56 percent of students across Virginia were white, while 25.4 percent were black, and 9.4 percent were Hispanic (http://www.doe.virginia.gov/statistics_reports/enrollment/fall_membership/index.shtml). Students identified as being economically disadvantaged in 2009-2010 increased when compared to the previous year (55.9 percent; versus 48.5 percent of the total group). Students with limited English proficiency (LEP) comprised 5.4 percent of the total group (a slight increase from 7.9 percent reported in 2008-2009), and students with disabilities comprised 8.8 percent (a slight decrease from 7.6 percent reported in 2008-2009). Also similar to prior-year reports, approximately equal numbers of boys and girls participated in the programs (48.5 percent boys; 49.8 percent girls), with approximately equal regularity of attendance.

Figure 4. Percent of All Student Attendees in 21st CCLC by Grade Level for 2007-2008, 2008-2009, and 2009-2010

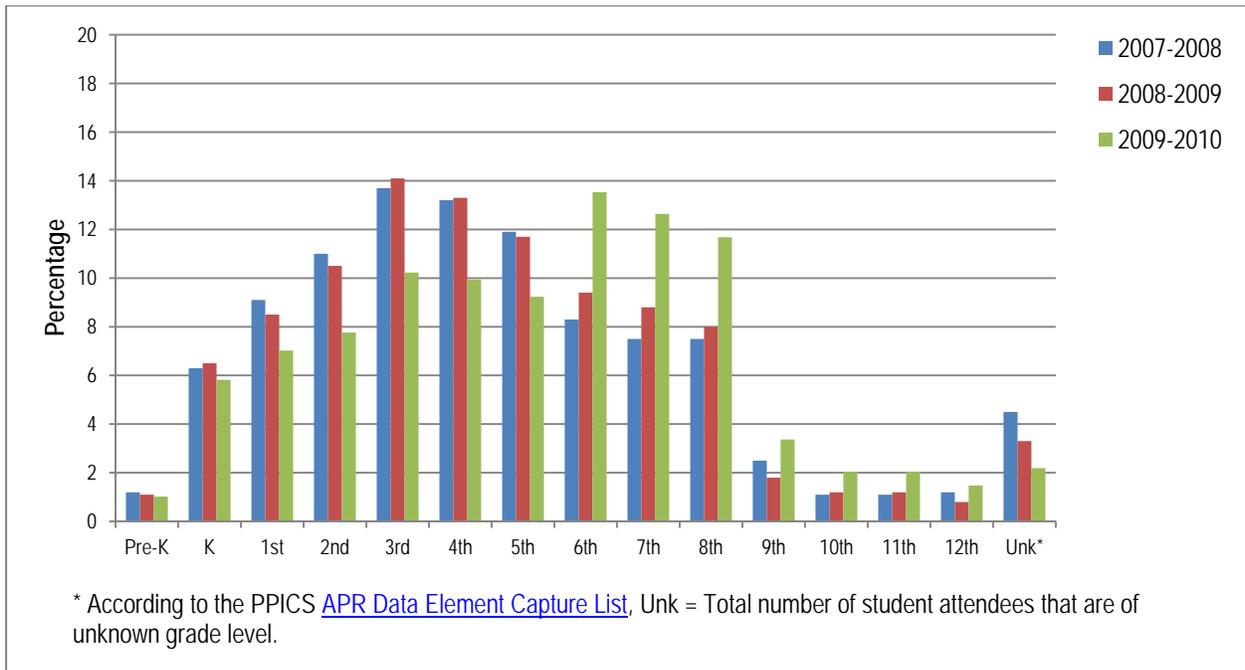
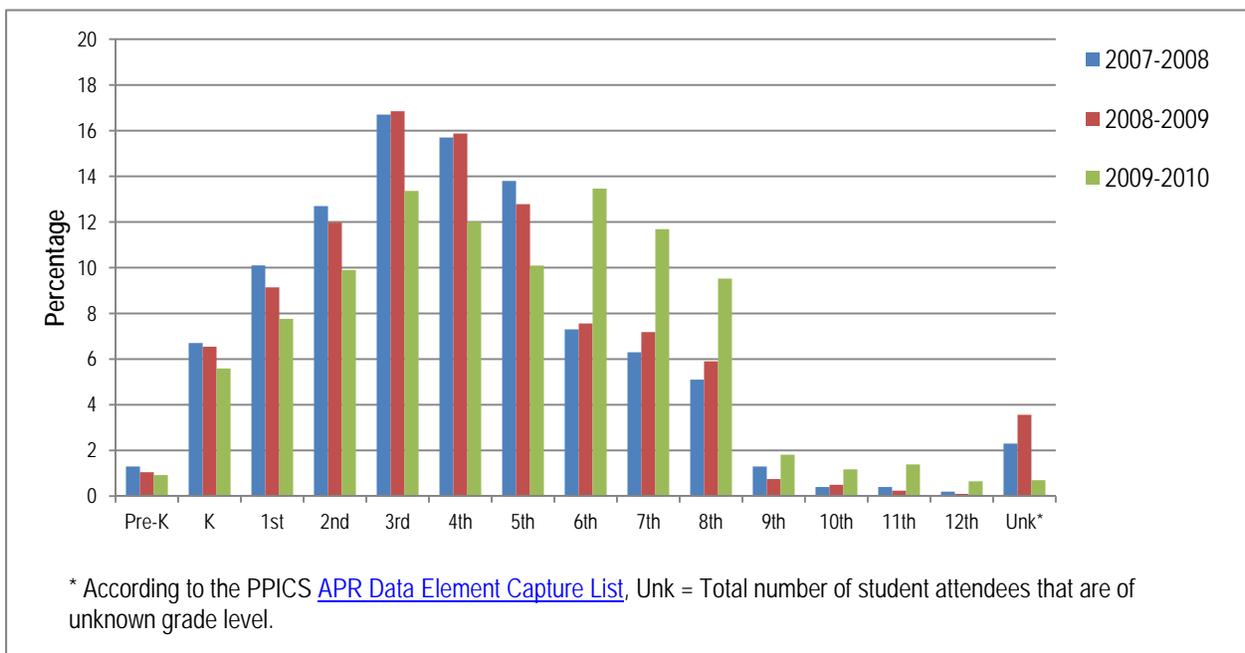


Figure 5. Percent of Regular Attendees (at least 30 days) in 21st CCLC by Grade Level for 2007-2008, 2008-2009, and 2009-2010



Methods

The results from Objectives 1 and 2 were examined using various statistical regression models for students in grades three through eight with two years of test data available by comparing matched pairs of students in a treatment group who attended 21st CCLC programs for 30 or more days and students in a control group who were eligible to attend 21st CCLC programs but had zero days of attendance.

Two analyses were conducted for each subject area (reading and mathematics). The first analysis assessed proficiency-level performance in 2008-2009 and 2009-2010 based on all available test data (i.e., SOL, VAAP, and VGLA), and the second focused on the standardized scaled scores of students who took the SOL assessments in both 2008-2009 and 2009-2010. The proficiency level on the SOL, VAAP, or VGLA test for the 2008-2009 and 2009-2010 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 they used 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. By including all students in the analyses, this first method offers the most appropriate tool to analyze outcomes for specific student subgroups (e.g., students with limited English proficiency). The effects of 21st CCLC participation by three subgroups—students with disabilities, students with limited English proficiency, and economically disadvantaged students—were included in the analyses of proficiency outcomes. Center-level variables (e.g., total hours open) were also included to examine the impacts of these variables on student proficiency.

While the categorical analyses were designed to capture broad changes in student proficiency associated with participation in the 21st CCLC programs, these analyses are not designed to measure incremental improvements in student achievement 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 categorical 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 second set of analyses based on the standardized SOL scaled score was intended to be more sensitive to these types of changes that occur across the scaled score range, regardless of students’ proficiency levels. The standardized scaled score analyses also included the same center-level variables used in the categorical analysis and looked at the effects of 21st CCLC participation by economically disadvantaged status. 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 21st 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, 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; therefore, the grade-level test data were converted to z-scores prior to analysis. Thereby, the data were transformed into a single, comparable scale while retaining the shape of the distribution of the original scores. The conversion further allowed different grade levels to be combined, so that the effectiveness of centers based on all students served could be evaluated. This transformation is the best available approach to measuring achievement using scaled scores from multiple grades in Virginia at this time; however, the conversion has limitations, as z-scores only provide a measure of achievement relative to the state 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 be used to evaluate the performance of all centers in the state as a group, and not the performance of any specific center. This is because, as with the proficiency-level analyses, in the analyses of standardized SOL assessment scores, the results across all centers were aggregated rather than computed center-by-center. Details regarding the samples used, a complete listing of the variables used in the matching process, and a description of the treatment-control student matching process, data sources, methodology, and scaled score standardization for the statistical analyses are found in the Supplemental Technical Report. The report is available upon request from the Virginia Department of Education.

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 may not be the results of 21st CCLCs. Rather, differences could be the result of differences in prior ability because it was not possible to either determine if the participant and nonparticipant groups were similar on prior-year achievement or adjust 2009-2010 outcomes based on prior-year achievement for the third-grade students. Consequently, separate descriptive (noninferential) analyses were conducted for 21st CCLC participants (i.e., those with 30 or more days of attendance) and nonparticipants (i.e., eligible students with zero days of attendance) in grade three in 2009-2010 who had no prior-year test data available. The analyses used the proficiency levels on the SOL, VAAP, and VGLA 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 21st CCLC program. In other words, the outcomes should be used to learn more about the population being served rather than evaluating their outcomes. These analyses examined differences in reading and mathematics achievement between the following:

- (1) 21st CCLC participant and nonparticipant control group third-grade students;
- (2) 21st CCLC third-grade participants and all third-grade students in the state (where similar data were available); and
- (3) the 2008-2009 and 2009-2010 school years.

In addition to the comparison between all students in the 21st CCLC participant and nonparticipant groups, comparisons between 21st CCLC participants and nonparticipants were also conducted by the following subgroups where common data were available: gender, race, economically disadvantaged status, disability status, and LEP status. Comparison data for Virginia were based upon the 2008-2009 and 2009-2010 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 21st 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 set their own criteria for determining their individual levels of success in meeting objectives not related to student achievement.

Objective 1: Improve Student Academic Achievement in Reading.

When looking at all participants as a group, students who participated in 21st CCLC had lower 2009-2010 standardized reading scaled scores overall compared to control students. In addition, the number of days attended was shown to be statistically significant and positive in the analysis of both proficiency outcomes and standardized SOL scaled scores. However, while statistically significant, the impact of the number of days attended was small from a statistical perspective. Specifically, each additional day of

attendance increased the odds of proficiency by 0.4 percent. Furthermore, a student would have to attend approximately 14 days in the 21st CCLC program to increase his or her SOL assessment score by one scaled score point. When looking at specific subgroups of students, 21st CCLC students with limited English proficiency were more likely to achieve a passing score in 2009-2010 compared to control students with limited English proficiency.

Participation in 21st CCLC programs had a statistically significant and negative effect overall on participants' standardized SOL scores and a statistically significant and positive effect for reading proficiency for students designated as limited English proficient. The "Results for Grades 3–8" section of the Supplemental Technical Report provide a detailed discussion of the outcomes related to participation in the 21st CCLC program and disability (i.e., special education), LEP, and economically disadvantaged status and for other general outcomes not directly related to program participation (e.g., prior achievement and ethnicity).

An additional analysis of reading proficiency outcomes was performed using the reading standardized SOL scaled scores student sample. For the revised proficiency outcomes, 21st CCLC students with disabilities were more likely to achieve a passing reading score in 2009-2010 compared to control students with disabilities, while control students without disabilities were more likely to achieve a passing reading score in 2009-2010 compared to 21st CCLC students without disabilities. The only statistically significant outcome associated with participation in 21st CCLC was the number of hours the center was open, which had a slight positive effect on proficiency outcomes, which was opposite of what was found on the scaled score outcomes.

The following trends emerged in the achievement outcomes in reading over the past two years (Table 2):

- The impact of prior-year achievement was positive for both proficiency and SOL scaled score outcomes in both 2008-2009 and 2009-2010, with higher achievement in the prior year translating into higher performance in the current year.
- Females outperformed males both years on SOL scaled scores.
- Nondisabled students outperformed students with disabilities both years on SOL scaled scores.
- Students designated as not being economically disadvantaged outperformed economically disadvantaged students, for both proficiency and SOL scaled score outcomes in both 2008-2009 and 2009-2010.
- Nonblack students outperformed black students both years on proficiency and SOL scaled score outcomes.

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, the percentage of 21st CCLC participants scoring Proficient or Advanced in reading in 2009-2010 was lower than nonparticipants overall, but was higher than nonparticipants for the following three subgroups: American Indian/Alaska Native students, black students, and students with disabilities. In addition, the percentage of 21st CCLC participants scoring Proficient or Advanced in reading was lower than all third-grade students overall in 2009-2010 but was higher for American Indian/Alaska Native students. In terms of SOL scaled score outcomes, the mean reading SOL scaled score for 21st CCLC participants in 2009-2010 was lower than that of nonparticipants overall and for all subgroups with the exception of black students and students with disabilities. The “Virginia 21st CCLC Third-grade Descriptive Analysis” section of the Supplemental Technical Report provides details on the participant, nonparticipant, and Virginia samples, and also details changes in reading proficiency and mean SOL assessment scores between 2008-2009 and 2009-2010 for these two different sets of third-grade students.

Table 2: Achievement and Demographic Outcomes Summary in Reading for Grades 3-8

Predictor	Reading 2008-2009		Reading 2009-2010	
	Proficiency	SOL	Proficiency	SOL
Prior Achievement	Positive	Positive	Positive	Positive
Group				Negative
Gender		Female: Higher	Female: Higher	Female: Higher
SWD		Non SWD: Higher	Non SWD: Higher	Non SWD: Higher
LEP				
Economically Disadvantaged	Non ED: Higher	Non ED: Higher	Non ED: Higher	Non ED: Higher
Grade	MC	MC		Positive
Black	Black: Lower	Black: Lower	Black: Lower	Black: Lower
White	MC		MC	MC
Hispanic		MC		
Group x SWD Interaction		NA		NA
Group x LEP Interaction		NA	LEP: 21 st CCLC higher than controls	NA
Group x Economically Disadvantaged Interaction				

Note: Only outcomes listed in the Proficiency and SOL columns were statistically significant.
 MC: Could not be included due to technical issues with the data (Multicollinearity)
 NA: Interactions not tested for SOL

Objective 2: Improve Student Academic Achievement in Mathematics.

For all students in grades three through eight who attended a 21st CCLC program for at least 30 days, the categorical and scaled score analyses showed no statistically significant impact of 21st CCLC participation on statewide mathematics assessments. In addition, the impact of the number of days attended was statistically significant for mathematics proficiency for all participants, but was very small, with a 0.6 percent increase in the odds of scoring proficient in 2009-2010 for each additional day of participation in 21st CCLC. None of the subgroup analyses (i.e., students with disabilities, limited English proficiency, or economically disadvantaged status) comparing 21st CCLC participants to controls were statistically significant. Therefore, participation in 21st CCLC did not have a statistically significant impact on mathematics achievement for participants.

An additional analysis of mathematics proficiency outcomes was performed using the mathematics standardized SOL scaled scores student sample. For the additional proficiency analyses, the number of hours the center was open had a statistically significant and positive impact on mathematics achievement. Although the number of center activities was statistically significant for both the additional proficiency and the original standardized SOL scaled scores analyses, it had a negative impact on mathematics achievement for the standardized SOL scaled scores analysis and a positive impact on mathematics achievement for the additional proficiency analysis. Furthermore, the number of days of participation in 21st CCLC had a statistically significant positive impact on mathematics achievement for the additional analyses, with a 0.6 percent increase in the odds of scoring proficient in 2009-2010 for each additional day of participation in 21st CCLC.

The following trends emerged in the achievement outcomes in mathematics over the past two years (Table 3):

- The impact of prior-year achievement was positive for both proficiency and SOL scaled score outcomes in both 2008-2009 and 2009-2010, with higher achievement in the prior year translating into higher performance in the current year.
- As with reading, nondisabled students outperformed students with disabilities both years on SOL scaled scores.
- As with reading, students identified as not being economically disadvantaged outperformed economically disadvantaged students for both proficiency and SOL scaled score outcomes in both 2008-2009 and 2009-2010.
- As with reading, nonblack students outperformed black students both years for both proficiency and SOL scaled score outcomes.

The results of the grade-three-only analyses of categorical data showed that the percentage of 21st CCLC participants scoring Proficient or Advanced in mathematics in 2009-2010 was lower than nonparticipants overall and was also lower than nonparticipants for all available subgroups, except black students, white students, and students without disabilities. The percentage of 21st CCLC participants scoring Proficient or Advanced in mathematics was lower than all third-grade students in the state in 2009-2010 but was higher for two subgroups, American Indian/Alaska Native students and students with disabilities. For SOL scaled score outcomes, the mean mathematics SOL scaled score in 2009-2010 for 21st CCLC participants was lower than that of nonparticipants overall and for all but the following available subgroups: American Indian/Alaska Native students, black students, economically disadvantaged students, and students with disabilities. For the details on the participant, nonparticipant,

and Virginia samples and for the details of changes in mathematics proficiency and mean SOL scores between 2008-2009 and 2009-2010 for these two different sets of third-grade students, refer to the “Virginia 21st CCLC Third-grade Descriptive Analysis” section of the Supplemental Technical Report.

Table 3: Achievement and Demographic Outcomes Summary in Mathematics for Grades 3-8

Predictor	Math 2008-2009		Math 2009-2010	
	Proficiency	SOL	Proficiency	SOL
Prior Achievement	Positive	Positive	Positive	Positive
Group				
Gender				
SWD		Without SWD: Higher	Without SWD: Higher	Without SWD: Higher
LEP	Non LEP: Higher	Non LEP: Higher		
Economically Disadvantaged	Non ED: Higher	Non ED: Higher	Non ED: Higher	Non ED: Higher
Grade	MC	MC		Positive
Black	Black: Lower	Black: Lower	Black: Lower	Black: Lower
White	MC	MC	MC	MC
Hispanic		MC		Hispanic: Lower
Group x SWD Interaction		NA		NA
Group x LEP Interaction		NA		NA
Group x Economically Disadvantaged Interaction				

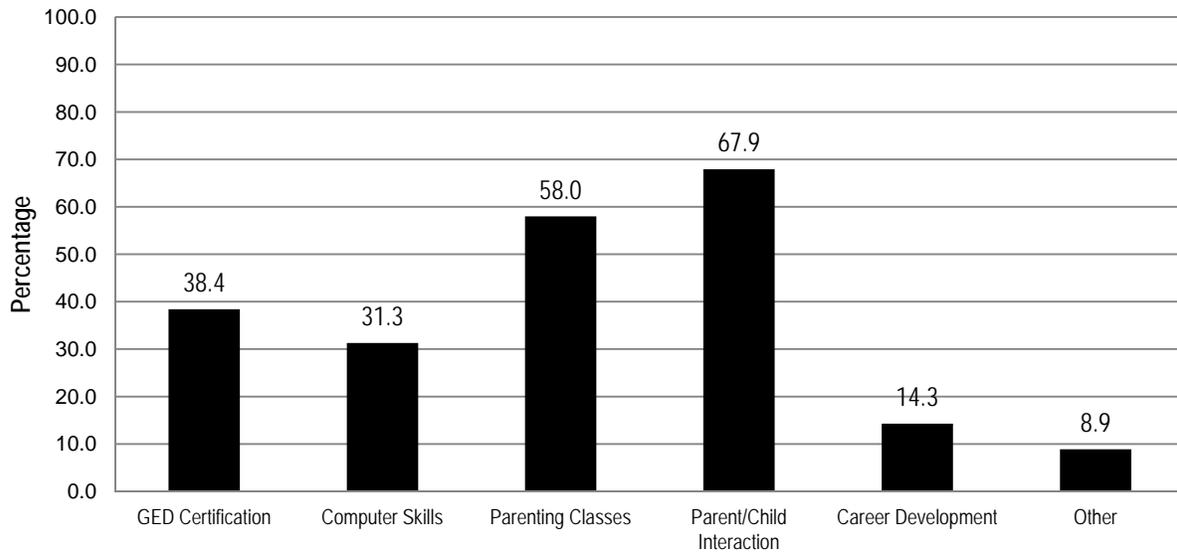
Note: Only outcomes listed in the Proficiency and SOL columns were statistically significant.
 MC: Could not be included due to technical issues with the data (Multicollinearity)
 NA: Interactions not tested for SOL

Objective 3: Provide Opportunities for Parental Education.

Center administrators stated that they provided a variety of activities to meet this objective. About two-thirds of centers in 2009-2010 reported implementing activities that invited parent/child interaction (67.9 percent), which represents a decline from 83.5 percent during 2008-2009. Parenting classes were reported as being conducted in over half (58 percent) of the centers, a slight increase from 47.7 percent of centers the prior year. These and other selected parent activities are shown in Figure 6. The majority of

centers (86.7 percent) reported offering at least one of these parent activities. The most common activities cited by the centers during 2009-2010 are reported 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 21st CCLC Selecting Parent Education Subobjectives for 2009-2010

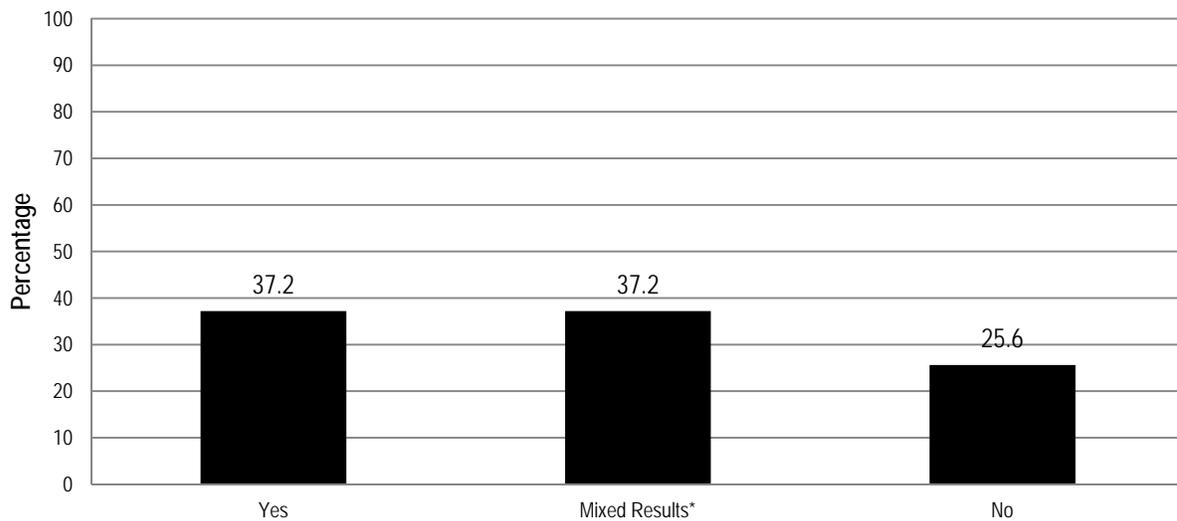


General Education Development

Of those providing a General Education Development (GED) certificate program, 39.5 percent reported scheduling the GED certificate program classes at the center and 81.4 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), 62.8 percent of centers used the number of certificate recipients, and a similar proportion used an attendance report (55.8 percent). Figure 7 shows the percentage of centers that reported meeting the GED subobjective (i.e., the percentages are based on the number of centers that chose providing a GED certificate program as an objective).

A little over one-third (37.2 percent) of the centers providing a GED certificate program reported meeting this subobjective. A number of grantees indicated that GED program attendance was inconsistent and that several parents participated in the program but did not complete it. Many grantees reported that about half of the parents who signed up actually completed all requirements of the GED program and received a certificate.

Figure 7. Percent of 21st CCLC Reporting Meeting the Objective for Parent Participation in GED Certificate Program Classes for 2009-2010

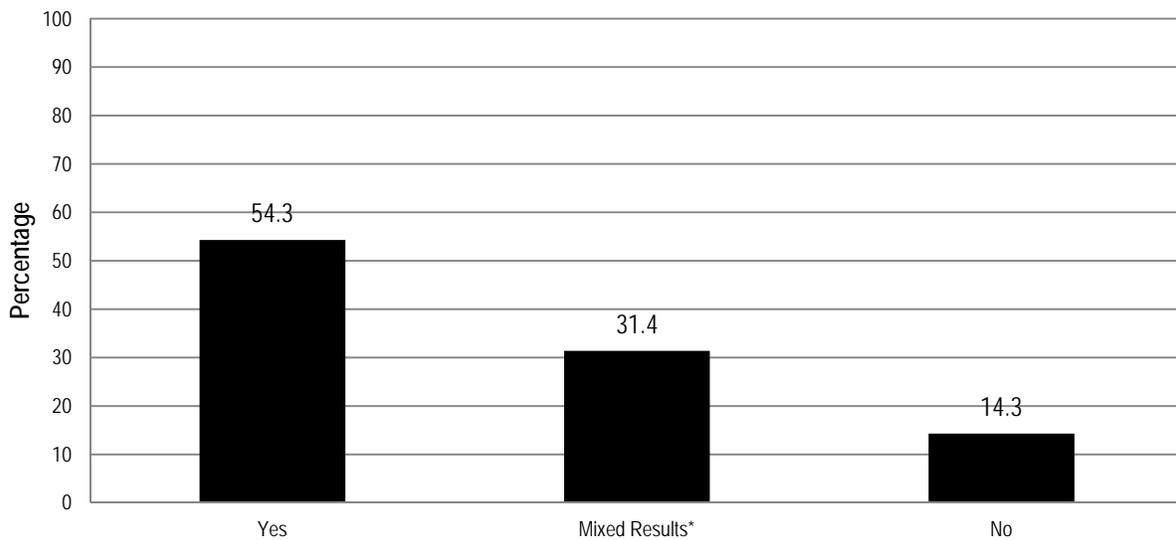


* Centers reporting "Mixed Results" indicated in open-ended remarks that participation data was currently unavailable from the GED certificate program provider or that some parents participated in the program, while others did not complete it.

Computer Instruction for Parents

Computer skills classes were reported to be offered by 88.6 percent of centers that provided computer usage activities. Some centers developed projects integrating computer use for parents and children to complete together. Others incorporated computer skills training in Career Development Academy classes and in enrichment classes such as photography. Centers that provided computer usage activities reported using a variety of measures to determine whether they had met this subobjective, including attendance reports (77.1 percent), records of the numbers of sessions offered (74.3 percent), and pre/post skills assessments (5.7 percent). Many grantees indicated both high interest and high attendance in these classes on computer skills instruction; however, some grantees indicated that, while an initial interest survey about computer skills classes produced positive responses, when the classes were scheduled, actual attendance was low. 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 21st CCLC Reporting Meeting the Objective for Parent Participation in Computer Skills Classes for 2009-2010

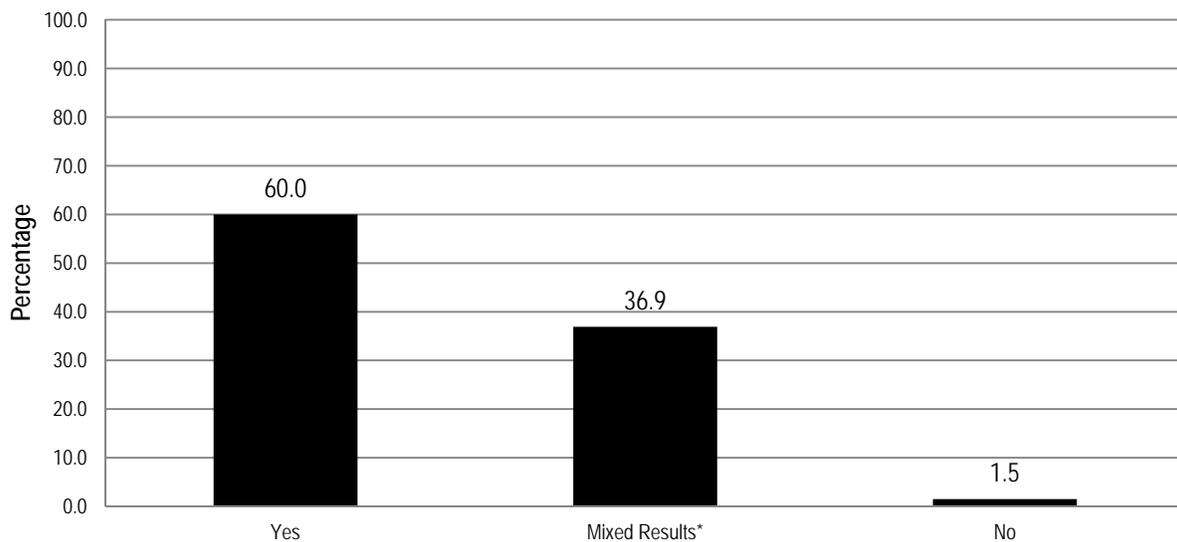


* Centers reporting "Mixed Results" indicated in open-ended remarks that computer skills classes were offered but that parent participation in these course offerings was low to moderate.

Parenting Skills

Parenting skills classes were provided by 76.9 percent of centers that completed ALERT. The use of community speakers was reported by 46.2 percent of the centers. Topics offered included school expectations, basic subject matter content, SOL testing, how to help students succeed in school, how to advocate for one's children, and how to connect with school and community resources. Health, nutrition, and drug awareness classes were also offered at some centers. Centers that offered parenting skills classes reported using a variety of data sources to determine whether they had met this subobjective, including records of the number of sessions offered (78.5 percent), attendance reports (72.3 percent), and evaluation forms completed by parents (16.9 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 21st CCLC Reporting Meeting the Objective for Parent Participation in Parent Training Classes for 2009-2010

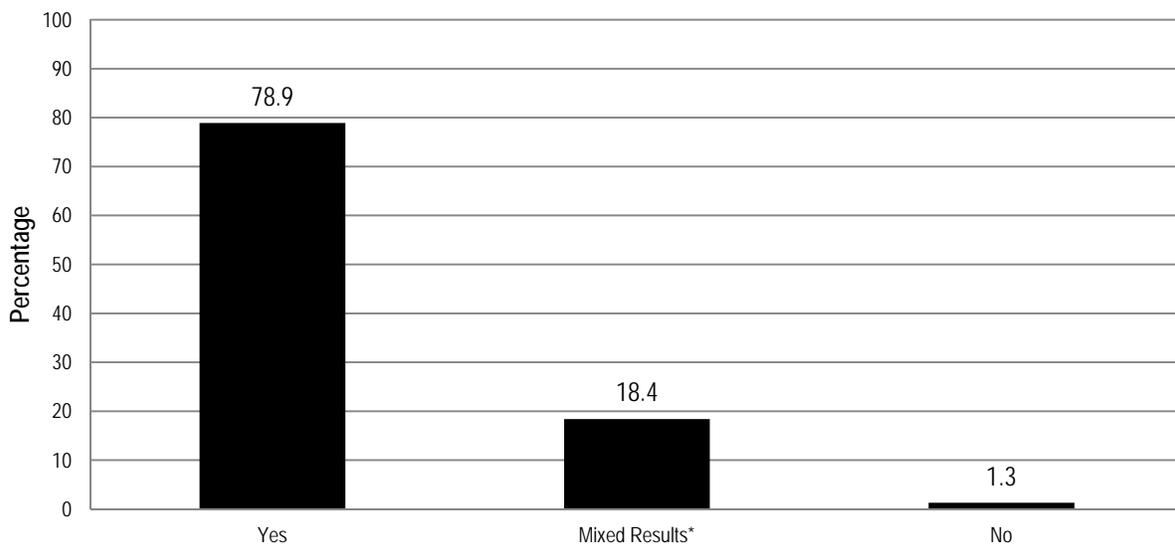


* Centers reporting "Mixed Results" indicated in open-ended remarks that parent training classes were offered but that parent participation in these offerings was inconsistent or was low to moderate.

Parent/Child Activities

Opportunities for parent/child interaction in academic activities were offered in 72.5 percent of reporting centers. Most of these centers offered family nights with parent/child activities (90.8 percent), and many held open houses for parents to learn about their children's work (71.1 percent). Some offered parent training in homework help (31.6 percent) or take-home projects for parent/child completion (25 percent). Other activities reported included programs supporting literacy development, developmental playgroups for toddlers, continual walk-in service and assistance, and providing staff members who would accompany parents and students to parent-teacher conferences. 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 the number of sessions offered (78.9 percent of centers), attendance reports (78.9 percent), and evaluation forms completed by parents (25 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 21st CCLC Reporting Meeting the Objective for Parent/Child Interaction in Academic Activities for 2009-2010

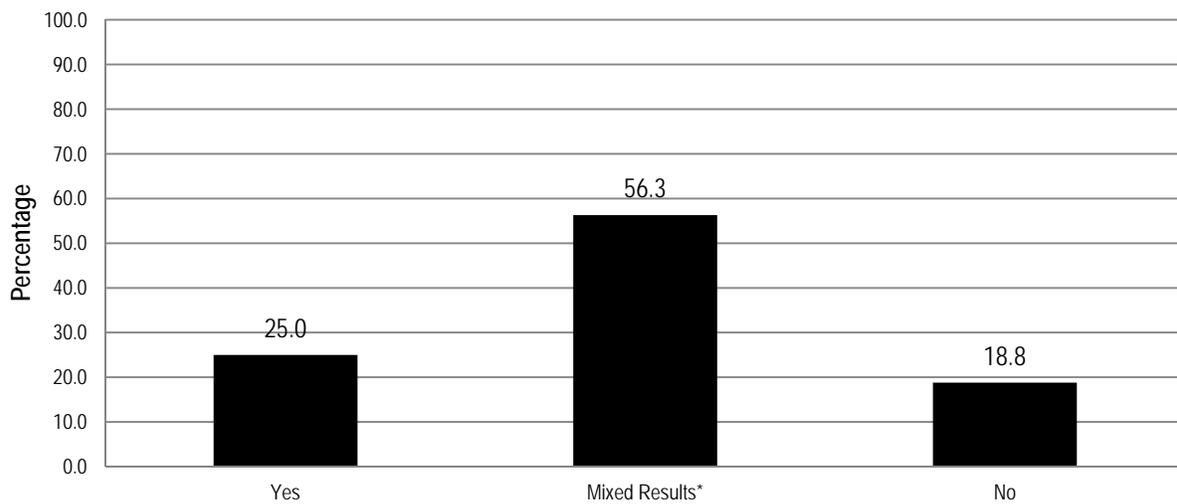


* Centers reporting "Mixed Results" indicated in open-ended remarks that various activities designed to encourage parent-child interaction were offered but that attendance fell short of grant objectives.

Career Development for Parents

Parent career development was selected as a subobjective by 14.3 percent of the reporting centers. The centers that did address this area most frequently offered career exploration classes (56.3 percent), job application assistance sessions (31.3 percent), and job fairs (31.3 percent). 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 (81.3 percent), attendance reports (62.5 percent), evaluation forms completed by parents (12.5 percent), and other sources (6.3 percent), including feedback from students to counselors and data maintained by local community colleges. 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 an objective.

Figure 11. Percent of 21st CCLC Reporting Meeting the Objective for Parent Participation in Career Development Activities for 2009-2010



* Centers reporting "Mixed Results" indicated in open-ended remarks that parents were referred to sessions held at a career center unaffiliated with the grant, that attendance in career development classes held at the center was inconsistent, often being higher for parents who were currently unemployed than for those who were employed, or that parents picked up materials offered but did not attend the classes.

Table 4 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 4. Percentage of Centers Meeting Parent Education Subobjectives in 2009-2010

Subobjective	Offered (percent)*	Met (percent)*	Mixed Results (percent)*	Did Not Meet (percent)*
General Education Development	27.3	37.1	37.1	25.7
Computer Skills Instruction	50.8	54.3	31.4	14.3
Parent Training	59.4	60.0	36.9	1.5
Parent/Child Interaction Activities	12.5	78.9	18.4	1.3
Career Development	7.8	25.0	56.3	18.8
Total	86.7			

*Percentages may not add up to 100 percent because some centers did not respond to this item.

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 three through eight with two years of assessment data available. These analyses provide information that may be useful to program leaders and are summarized below.

The association between center characteristics and reading achievement

The total number of hours that centers were open had a negative but very small impact on students' reading outcomes, with a higher number of hours associated with statistically significantly lower odds of scoring proficient and lower standardized SOL reading scores in 2009-2010. The number of paid school-day teachers had a positive but very small impact on students' reading outcomes, with a higher number of teachers being associated with higher standardized SOL scaled scores in 2009-2010. The total number of hours of activities at centers was not a statistically significant predictor of either reading proficiency or standardized scaled scores. Finally, the total number of activities had a positive but very small impact on students' reading outcomes, with a higher number of activities associated with statistically significantly higher standardized SOL reading scores in 2009-2010. For students with one or more days of attendance, there was a statistically significant negative correlation between days attended and 2009-2010 reading z-scores, although the magnitude of the relationship (-.035) was small. There was no statistically significant relationship between days of attendance and 2009-2010 z-scores in reading for students with 30 or more days of attendance.

For each of the past three analysis years there has been a decrease in the total number of unique activities that the centers have offered. Mean number of unique activities have fluctuated over the past three years due the variation in number of providers each year. The 2007-2008 year had the highest total number of unique 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 unique activities, while the 2009-2010 year had both the lowest total number of unique activities as well as the smallest number of providers. The "Results for Grades 3–8" section of the Supplemental Technical Report provides more detailed, statistically oriented findings on the center-level outcomes.

The following trends emerged in the achievement outcomes in reading over the past two years (Table 5):

- There were mixed results for the impact of an increase in the total hours centers were open on SOL scaled score outcomes, with a positive impact in 2008-2009 and a negative impact in 2009-2010.
- An increase in the number of paid school-day teachers increased SOL scaled score outcomes in both 2008-2009 and 2009-2010.
- An increase in the number of days attended increased SOL scaled score outcomes in both years.

Table 5: Center Level Outcomes Summary in Reading for Grades 3-8

Predictor	Reading 2008-2009		Reading 2009-2010	
	Proficiency	SOL	Proficiency	SOL
Total Hours Open		Positive	Negative	Negative
Number of Paid School-Day Teachers	Positive	Positive		Positive
Total Hours of Activities				
Total Number of Activities	Negative			Positive
Number of Days Attended		Positive	Positive	Positive

Note: Only outcomes listed in the Proficiency and SOL columns were statistically significant.

The association between center characteristics and mathematics achievement

As in reading, while the impact was small, the total number of hours that centers were open was associated with statistically significantly lower odds of achieving mathematics proficiency and lower standardized SOL mathematics scores in 2009-2010. Neither the total number of paid school-day teachers nor the total hours of activities was statistically significant in predicting mathematics outcomes in 2009-2010. An increase in the total number of activity hours was associated with a very small but statistically significant increase in the odds of achieving proficiency but was also associated with a statistically significant decline in standardized SOL mathematics scores in 2009-2010. There was no statistically significant relationship between days attended and 2009-2010 z-scores in mathematics. The “Results for Grades 3–8” section of the Supplemental Technical Report provides more detailed, statistically oriented findings on the center-level outcomes.

The following trends emerged in the achievement outcomes in mathematics over the past two years (Table 6):

- As with reading, there were mixed results for the impact of an increase in the total hours centers were open, with a positive impact for both proficiency and SOL scaled score outcomes in 2008-2009 and a negative impact for both proficiency and SOL scaled score outcomes in 2009-2010.
- An increase in the number of days attended increased proficiency outcomes in both years.

Table 6: Center Level Outcomes Summary in Mathematics for Grades 3-8

Predictor	Math 2008-2009		Math 2009-2010	
	Proficiency	SOL	Proficiency	SOL
Total Hours Open	Positive	Positive	Negative	Negative
Number of Paid School-Day Teachers	Positive	Positive		
Total Hours of Activities		Negative		
Total Number of Activities			Positive	Negative
Number of Days Attended	Positive	Positive	Positive	

Note: Only outcomes listed in the Proficiency and SOL columns were statistically significant.

Promising Practices and Challenges

As part of the self-reporting information provided in ALERT, grantees were requested 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: enrichment activities that enhance student engagement; tutoring and homework help provided by high-quality staff; collaboration and

communication with regular classroom teachers, school administrators, and other school staff; use of high-quality, research-based curricula with nontraditional instructional elements; individualized and structured opportunities for extended learning; use of needs assessment and progress monitoring data to inform program planning; commitment to increasing parent education and engagement in student learning; and transportation, convenient location, flexible scheduling, meals, and other parent and student incentives. These promising practices are each described in further detail below.

Enrichment activities that enhance student engagement

Grantees used enrichment activities to supplement and enhance student learning. Many grantees reported providing a variety of offerings to maximize student interest and participation. Students were given the opportunity to participate in activities and field trips that they would not otherwise be able to experience. Enrichment activities cited by grantees included the following: basketball, crab ball, golf, martial arts, and other health and physical education activities; acting and film, arts and crafts, drama, music, musicals, Reader's Theater, solving mysteries, and other fine and performing arts. Other activities cited were career exploration, cooking, cosmetology, Geomats, service-learning, and projects in technology, mathematics, and science. A few centers had science and history enrichment trips outside Virginia. Several grantees reported using computer-based academic enrichment programs such as Accelerated Reader; A+ Mathematics; Apangea Math; Book Flix; Brain Child; Criterion writing; Education City interactive whiteboard activities; Interactive Notebook; Internet4classrooms.com; Jefferson Lab; Reader's Theater; Soar to Success; Standards of Learning Assessment Resource (SOLAR) online assessment system; SOLpass; Starfall reading; Study Island standards-based online assessment, instruction, and test preparation software; and ThinkLink Learning. Maintaining open lines of communication with partners was emphasized to ensure that workshops, activities, and events sponsored by partners were of sustained high quality.

Tutoring and homework help provided by high-quality staff

Many grantees perceived a relationship between improvements in student academic achievement and the homework help and tutoring provided before or after school. At some centers, homework assistance was provided after school by regular classroom teachers. At other centers, teacher liaisons worked with program tutors to ensure daily homework completion. Several grantees indicated that students from local high schools and colleges served well as academic tutors. In general, the quality of both paid and volunteer program staff was a widely noted strength.

Collaboration and communication with regular classroom teachers, school administrators, and other school staff

Several grantees indicated that they held regular meetings with the school-day teachers; Title I teachers; curriculum and technology specialists; school library media specialists; school counselors; school administrators; and other staff to discuss individual student progress toward graduation goals and to coordinate the day and after-school programs. At some centers, the school-day teachers served as afterschool instructors. At other centers, the program used the same model for behavioral improvement as was used in the school. Grantees also indicated that open lines of communication were established with school-day staff and that regular reports were exchanged on attendance and homework completion. Grantees noted that informing students that the staff was aware when they were not in school was effective in maintaining high student attendance.

Use of high-quality, research-based curricula with nontraditional instructional elements

In addition to aligning program instructional and enrichment activities with school-day learning, many grantees reported using evidence-based instructional strategies such as differentiated instruction and maximizing time on task. In addition, the program gave teachers the chance to teach material in a nontraditional manner through experiential learning. Centers reported providing engaging, interactive, hands-on activities, projects, and feedback discussions targeted directly to Virginia SOL assessment strands and areas of student weakness. Such exposure to nontraditional instruction through the afterschool program was reported to support the goal of providing students with a well-rounded education. In particular, centers in rural areas, where students might not otherwise have had such opportunities, reported that exposure to these afterschool programs was successful in supporting this goal.

Individualized and structured opportunities for extended learning

Grantees maximized individual student opportunities for structured learning after school by focusing resources on students at risk of failing SOL assessments and by implementing small-group and one-on-one instructional arrangements; strategized seating arrangements; coordinated and consistent homework time; and designated daily or weekly hours for reading and mathematics support. In addition, a number of grantees indicated that providing a Saturday academy and summer programs helped centers meet their objectives for student achievement. These extended opportunities for learning were reported to keep students actively engaged in learning and in constant contact with the peer group and with positive adult mentors. College planning and preparation; career development; volunteer work; leadership training; financial literacy education; academic enrichment; incentives; and field trips were some of the mentioned areas of focus for Saturday and summer sessions.

Use of needs assessment and progress monitoring data to inform program planning

The reported use of student needs analyses and progress monitoring tools increased in 2009-2010. Many grantees employed regular data collection and analyses using computer software to chart student growth and to inform targeted instruction to ensure concept mastery. More effective use of agenda books, checklists, homework logs, remediation logs, point sheets, and student folders were cited as effectively allowing students to monitor their own progress while aiding grantees in documenting evidence of program success.

Commitment to increasing parent education and engagement in student learning

Grantees reported various ways that they demonstrated a commitment to increasing parent education and engagement in student learning. Several grantees noted that building rapport with parents, engaging in regular communication, and encouraging parent collaboration in center activities contributed to the success of their programs. Many centers provided occasions for parents to share their children's experiences on field trips, during events showcasing student work, and through craft-making and other activities, both at centers and at home. These centers offered regular opportunities for parents to actively participate in club activities, family nights, and community night events dually focused on student enrichment and parent education. Additionally, some centers held parent training sessions that focused on assisting children with schoolwork and homework. Educating parents about the importance of school attendance was cited by grantees as a promising practice for increasing student attendance. Several centers offered quarterly workshops in mathematics, literacy, and ESL classes to help parents extend learning at home. Computer skills instruction was integrated into the adult education ESL classes at some of these centers. Job application assistance was also offered at some centers.

Transportation, convenient location, flexible scheduling, meals, and other parent and student incentives

Grantees reported that showing sensitivity to family and community needs and outside commitments helped them meet parent education objectives at their centers. Providing transportation home from enrichment classes, meeting at a conveniently located venue, making multiple sessions available, and providing healthy snacks and evening meals were some of the practices mentioned as being most effective in gaining and maintaining both student and parent attendance. In addition, several grantees indicated that using a regular system of incentives helped to motivate and encourage student participation as well as recognize and reward positive behavior.

Challenges

Grantees were asked to reflect upon their centers' objectives that were not met or showed mixed results, identifying challenges that could have been associated with the lower results. Major challenges appearing in grantees' responses included the following: low or inconsistent parent attendance due to personal conflicts; low or inconsistent student attendance; difficulty developing rapport and effective partnerships with parents, community partners, and students; difficulty maintaining alignment and continuity with school day activities; issues with planning and project management; difficulty maintaining alignment and continuity with home activities; and inconsistent use of progress monitoring tools and data. These challenges are each described in further detail below.

Low or inconsistent parent attendance due to personal conflicts

The predominant challenge reported in 2009-2010 concerned low or inconsistent parent involvement due to personal scheduling conflicts and low interest in parent educational programs. Many grantees reported low or inconsistent attendance at their centers due to scheduling conflicts arising from parent work demands, children's sports activities and other interests, or other family obligations. Another obstacle to parent attendance at many centers was the unavailability of transportation to and from adult education and family events. At some centers, recruitment for GED and other classes failed because outreach strategies did not reach the targeted population of parents and guardians.

Low or inconsistent student attendance

Several grantees indicated that regular attendance of students was a challenge, both at their centers and at schools during the school day. Low student interest in academic activities led to irregular program attendance, particularly among students who were struggling in school. Some grantees indicated that some of these students may perceive afterschool mathematics and reading programs as "another mathematics/reading class," and may have chosen to pursue sports or other interests in lieu of attending these afterschool programs.

Difficulty developing rapport and effective partnerships with parents, community partners, and students

Garnering trust and support for the afterschool program from parents and the community were noted as being a challenge at some centers. Grantees indicated that parents may have had negative past experiences related to academics, which may cause them to feel uncomfortable in the school environment or experience anxiety related to educational matters. Furthermore, a number of grantees indicated that more effective communication was needed with parents and the community about the programs and

services offered at their centers as well as about the effectiveness and value of these opportunities. Language barriers were reported at a few centers. Additionally, a few grantees reported that lack of follow-through on community partner commitments also presented a challenge at their centers.

Time constraints due to external influences

A number of grantees reported recurring interruptions in their centers' program and incentive schedules due to school reorganization or weather-related delays and cancellations. These disruptions made it challenging to maintain academic continuity and focus at these centers for student and parent participants, as well as for school and program staff and partners.

Alignment and continuity with home activities

Grantees further indicated that challenges to continuity may have also arisen due to a lack of support for learning in the students' home environments and a lack of transfer of positive behaviors practiced during and after school to students' homes and communities. It was suggested that students may face unstable living circumstances, low parent support and communication, and inconsistent discipline, among other obstacles at home or in the community that may impede their academic progress.

Alignment and continuity with school day activities

A few grantees reported that their centers struggled with inconsistent or ineffective classroom instructional practices. Others indicated that their centers were sorting out issues with irregular communication of student progress with regular classroom teachers.

Inconsistent use of progress monitoring tools and data

Several grantees reported contending with inconsistency in data collection procedures and in outcome and school data availability. Others indicated that they experienced difficulties in aligning their data across old and revised standards assessments and across different reporting systems, including the Department's Online Management of Education Grant Awards (OMEGA).

Conclusions

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 21st CCLC program was associated with a statistically significant increase in reading proficiency for LEP students compared to controls, but a statistically significant negative outcome for participants based on SOL scaled scores, where participants underperformed control students. In addition, the number of days of participation in 21st CCLC program had a statistically significant and positive influence on reading proficiency as well as on reading standardized scaled scores in 2009-2010. Furthermore, the results suggest that the more hours centers were open had a small yet statistically significant negative impact on both reading standardized scaled scores and proficiency. In addition, the outcomes imply that a larger number of paid school-day teachers had a relatively small but statistically significant and positive impact on standardized SOL scaled scores in reading. Finally, a higher total number of activities offered at the center was associated with statistically significantly higher standardized SOL reading scaled scores.

However, it should be noted that the predictor variables included in the statistical analyses only explained 49 percent of the variance (i.e., variability) in 2009-2010 SOL standardized scaled score changes in reading. In other words, additional variables not able to be included in the SOL analyses (e.g., student motivation, parental involvement) are accounting for nearly half of the variability in SOL reading achievement in 2009-2010. Similarly, the predictor variables included in the models only provided for a fair classification of students as proficient/not proficient.

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 21st CCLC program had no statistically significant impact on either mathematics proficiency or SOL scaled scores when participants were looked at as either a single group or by subgroups. Meanwhile, the number of days of participation in 21st CCLC program had a statistically significant and positive influence on mathematics proficiency in 2009-2010. Furthermore, the results suggest that the more hours centers were open had a small yet statistically significant negative impact on both mathematics standardized scaled scores and proficiency. Finally, the total number of activities was associated with a statistically significant increase in mathematics proficiency but with statistically significantly lower mathematics standardized SOL scaled scores, compared to control students.

However, it should be noted that the predictor variables included in the statistical analyses only explained 46 percent of the variance in 2009-2010 SOL standardized scaled score changes in mathematics. In other words, additional variables not able to be included in the SOL analyses (e.g., student motivation, parental involvement) are accounting for nearly half of the variability in SOL mathematics achievement in 2009-2010. Similarly, the predictor variables included in the models only provided for a fair classification of students as proficient or not proficient.

Objective 3: Provide Opportunities for Parent Education

As required by the 21st CCLC grant, centers offered General Education Development (GED) certificate programs, computer instruction, parenting skills classes, parent/child activities, and/or career development activities for parents. The majority of centers offering parent/child interaction activities reported meeting their internally established subobjectives. In addition, over half of centers offering computer skills instruction and parent training reported meeting their internally established subobjectives. Centers offering career development activities reported mixed results.

Therefore, it appears that attending more days in the program did lead to increased achievement. However, upon further investigation to help determine whether there is a cutoff for the minimum number of days of attendance that results in improved achievement, the outcomes did not suggest a way to establish such a cutoff. As with the findings related to days of attendance, future studies may want to look at the cost/benefit balance between increasing the number of hours open, the number of paid school-day teachers, and the number of activities and the impacts on achievement to help determine if there is a cutoff point where the number of hours open, the number of paid school-day teachers, and the number of activities begins to hamper achievement. Such investigations could help to identify whether centers are trying to provide too many different types of activities to be effective.

In the case of analyses of achievement outcomes such as those conducted, it is not possible or practical to include all potential sources of influence in the statistical model, as the data available to include are limited to that which states are reasonably able to collect. In addition, as the analyses examined the effects of all centers combined, individual centers may have experienced gains in student achievement that were not evidenced in the aggregated analyses. Finally, while some differences between treatment and control groups as a whole were not statistically significant, individual students may have made gains in achievement or had other positive experiences in 21st CCLC not measured by achievement test scores.

Appendix A: Supplemental Program Objectives

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

Objective: Improvement of Student Behavior

The objective for improving student behavior was selected by 62.5 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 2009-2010

Subobjective	Percentage of Centers Selecting
Improve classroom behavior	87.5
Complete homework satisfactorily	85.0
Improve classroom participation	72.5
Improve class attendance	73.8
Improve motivation to learn	68.8
Improve ability to get along with other students	71.3
Other	0.0

Table A-2. Percentages of Success by Reporting Centers in Meeting Subobjectives for Improving Student Behavior in 2009-2010

Subobjective	Met (percent)	Mixed Results (percent)	Did Not Meet (percent)
Improve classroom behavior	75.7	22.9	1.4
Complete homework satisfactorily	85.3	14.7	0.0
Improve classroom participation	79.3	20.7	0.0
Improve class attendance	71.2	25.4	3.4
Improve motivation to learn	76.4	23.6	0.0
Improve ability to get along with other students	75.4	24.6	0.0

Objective: Provide Enrichment Opportunities

The objective for providing enrichment opportunities was selected by 92.2 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 2009-2010

Subobjective	Percentage of Centers Selecting
Increase children’s exposure to the fine arts and cultural events	80.5
Increase children’s depth of understanding of academic subjects through nontraditional instruction	79.7
Increase children’s health awareness and physical education	69.5
Provide programs in preventing drug/alcohol use and/or violence	34.7
Other	0.8

Table A-4. Percentages of Success by Reporting Centers in Meeting Subobjectives for Providing Enrichment Opportunities in 2009-2010

Subobjective	Met (percent)	Mixed Results (percent)	Did Not Meet (percent)
Increase children’s exposure to the fine arts and cultural events	93.7	5.3	0.0
Increase children’s depth of understanding of academic subjects through nontraditional instruction	94.7	3.2	1.1
Increase children’s health awareness and physical education	86.6	12.2	0.0
Provide programs in preventing drug/alcohol use and/or violence	90.2	4.9	2.4

Objective: Improve Community Partnerships

The objective for improving community partnerships was selected by 46.9 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 2009-2010

Subobjective	Percentage of Centers Selecting
Increase the number of partners	35.0
Increase the activities of partners	70.0
Improve communication with partners	61.7
Improve the sustainability of the program through partner commitments beyond the grant period	30.0
Other	0.0

Table A-6. Percentages of Success by Reporting Centers in Meeting Subobjectives for Improving Community Partnerships in 2009-2010

Subobjective	Met (percent)	Mixed Results (percent)	Did Not Meet (percent)
Increase the number of partners	76.2	9.5	14.3
Increase the activities of partners	69.0	21.4	9.5
Improve communication with partners	73.0	18.9	5.4
Improve the sustainability of the program through partner commitments beyond the grant period	66.7	27.8	5.6