



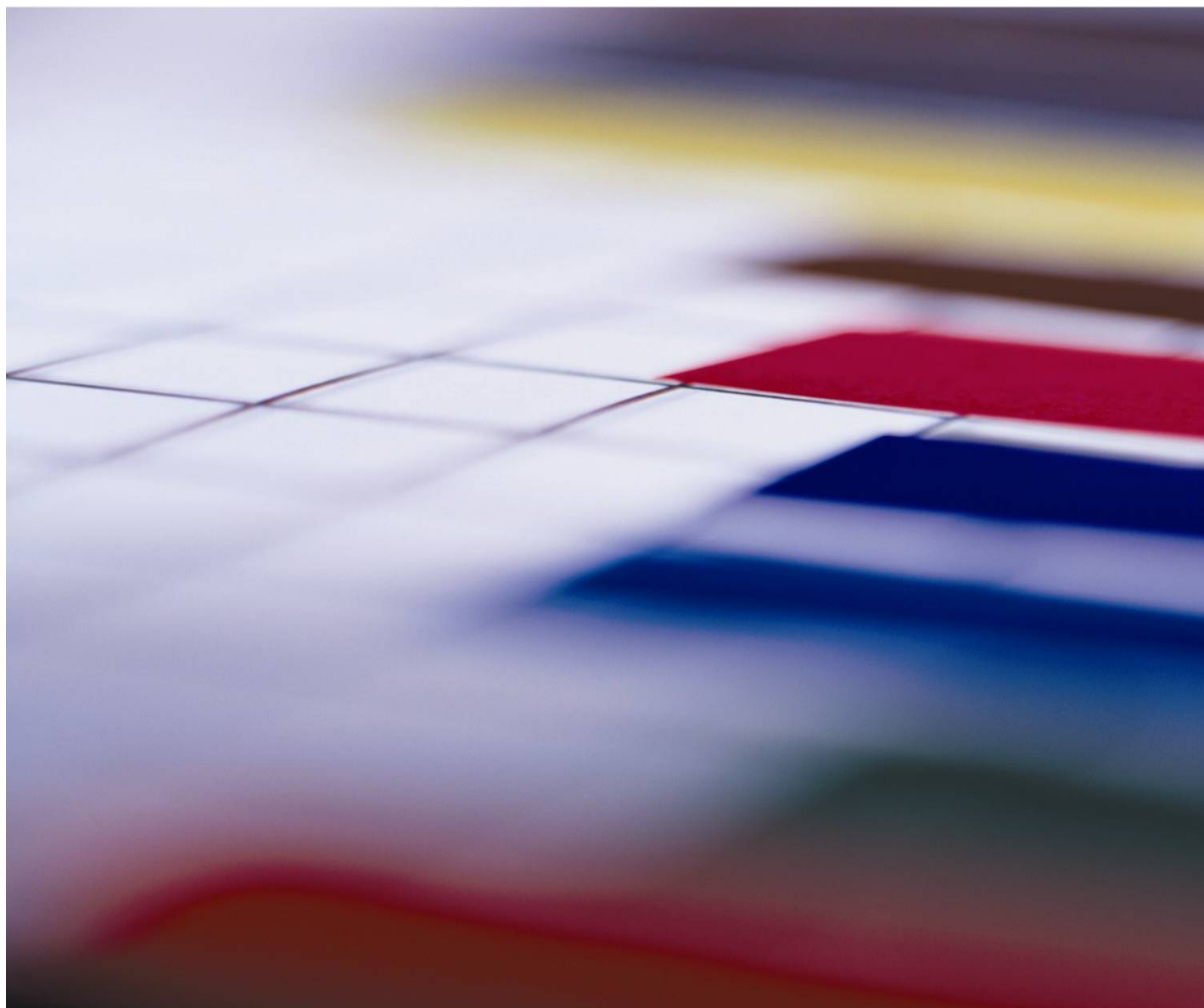
Center for Research in Educational Policy

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VIRGINIA DEPARTMENT OF EDUCATION

Evaluation of 21st Century Community Learning Centers

2007-2008





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February 2010

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Center for Research in Educational Policy

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Virginia Department of Education
Evaluation of 21st Century Community Learning Centers
2007-2008

Executive Summary

The 21st Century Community Learning Centers (21st CCLC) 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 2007-2008 Virginia 21st CCLC program. The purpose was to determine whether the federally-funded 21st CCLC 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 centers' success in achieving supplemental objectives is provided in Appendix A.

Methods and Results

Data were analyzed from three main sources: (1) an online annual local evaluation survey (ALERT); (2) the Profile and Performance Information Collection System (PPICS); and (3) assessment scores for reading and mathematics from the Standards of Learning (SOL), Virginia Alternate Assessment Program (VAAP), and Virginia Grade Level Assessment (VGLA).

Data from statewide assessments were analyzed separately by subject (reading or mathematics) using two different methods. In both cases, students who participated in 21st CCLC for 30 or more days were matched to similar students in the control group who were eligible for, but did not participate, in the program based on several demographic variables. One set of analyses was based on the categorical proficiency levels students earned (i.e., proficient or not proficient). The primary advantage of this method is that it permits the inclusion of all students, regardless of the type of assessment they used to participate in Virginia's statewide testing program, as the proficiency level outcomes are comparable 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 student subgroups (e.g., limited English proficient students). Center-level variables (e.g., total hours open) were also included, although the actual center-level variables that could be included were limited due to statistical properties of the data.

While the categorical analyses were designed to capture broad changes in student proficiency associated with participation in the 21st CCLC programs, these analyses cannot capture incremental improvements in student achievement that may occur within proficiency levels. For example, students who score at the low end of proficiency but move 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, in an effort to evaluate these more subtle changes in achievement not captured by the categorical analyses, a second set of analyses was carried out for students' scaled scores on the traditional statewide assessment. These scaled score analyses also included the same center-level variables used in the categorical analysis. 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 Virginia, certain students with disabilities and limited English proficient (LEP) students are permitted to participate in testing using alternative assessments for specific, non random, reasons. As a result, an analysis of scaled scores from the traditional assessment necessarily limits inclusion from these two student groups and therefore, may distort results particularly as applied to these groups of students.

In addition, Virginia's scaled scores are not vertically scaled between grades, meaning scores from different grade levels and years cannot be directly compared. Therefore, in order to create an appropriate outcome measure that allows different grades to be examined simultaneously, the scaled scores were converted to standardized scores (z-scores) prior to analysis. This transformation is the best available approach to measuring growth using scaled scores from multiple grades in Virginia at this time; however, it is known to be imperfect and the full implications of this conversion applied to Virginia's criterion referenced tests are not clear.

For both types of analyses, the main statistical models measured outcomes for students in grades three through eight that had two years of assessment data (i.e., current and prior year). Separate models were run for students in grade three who did not have two years of data available, but only had current year scores. Results from the grade three only analyses must therefore be treated with caution because the models do not incorporate data necessary to control for 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?

Centers were predominantly operated by schools and were open between six and 20 hours per week. There were 3,217 paid and volunteer staff members across 128 centers. Most paid employees were school division teachers or non teaching staff. A total of 20,253 students attended 128 centers during 2007-2008, and 48.6 percent (9,835) attended regularly (i.e., 30 or more days). Students were in PreKindergarten through grade 12, with the majority being in PreKindergarten through grade five. Racial/ethnic characteristics of participants were as follows: White (40.5 percent); African-American (36.7 percent); and Hispanic (9.4 percent). More than half were economically disadvantaged, while

students with limited English proficiency and special needs represented less than ten (10) percent of the total.

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

For Objectives 1 and 2, analyses were conducted by subject (reading and mathematics) comparing students who attended 21st CCLC for 30 or more days (treatment) to those students who were eligible to attend, but had zero days of attendance (control). The primary analyses were conducted using students in grades three through eight who had two consecutive years of assessment records (2006-2007 and 2007-2008). The effects of 21st CCLC participation by subgroup (i.e., students with disabilities, LEP, and economically disadvantaged) were included in the analyses of proficiency outcomes. Separate analyses were conducted for students in grade three in 2007-2008 who had no prior year test data available. The results for grade 3 only must be viewed with caution because there was no method available to control for the effects of prior year student achievement.

Objective 1: Improve Student Academic Achievement in Reading.

Both the categorical and scaled score analyses showed no statistically significant impact of 21st CCLC participation on statewide reading assessments when students were treated as a single group. However, the results indicated that programs did have an impact when subgroups were considered. The categorical analysis of proficiency outcomes showed that students with disabilities and students who were economically disadvantaged in grades three through eight who attended a 21st CCLC program for at least 30 days had statistically significantly higher odds of passing statewide reading assessments (i.e., scoring “proficient” or “advanced proficient”) compared to similar students who did not attend the program. For identified limited English proficient learners (LEP), the opposite effect was found, with students who did not participate in the program having statistically significantly higher odds of passing compared to 21st CCLC participants designated as LEP.

This result for LEP students must be interpreted with caution because the data on LEP students' English language proficiency level were not available for the purposes of matching 21st Century and control group students. Consequently, it was not possible to ensure that the 21st CCLC and control groups were comparable in terms of English language proficiency, and is therefore a limitation of the study. It is possible that the significant outcome was a result of differences in English language proficiency between the control and treatment groups at baseline (i.e., before beginning 21st CCLC) rather than a shortcoming of the 21st CCLC program itself.

Results of the analysis of reading outcomes for students in grade three who did not have prior year test scores available showed that program participation had no overall association with outcomes on third-grade test scores. However, the categorical analysis did show that third-grade students with disabilities who participated in the 21st CCLC program had statistically significantly higher odds of passing statewide

reading assessments than matched students in the control group with disabilities who did not participate in the program.

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 pattern of results for mathematics was similar to that found for reading. Both the scaled score and categorical analyses showed no statistically significant impact of 21st CCLC participation on statewide mathematics assessments when students were considered as a single group. However, the categorical analysis, which tested the impact of program participation with certain student subgroups, suggested that involvement in the 21st CCLC program led to improved academic outcomes (i.e., statistically significantly higher odds of passing) in mathematics for students with disabilities and students who were economically disadvantaged. Meanwhile, there were no statistically significant differences for English language learners who participated in the program compared to English language learners who did not participate in the program.

The results from the grade three analyses of categorical data showed that students with disabilities who participated in the program had greater odds of passing statewide assessments compared to similar students in the control group who did not participate. In contrast, the scaled score analysis revealed that participating students overall had statistically significantly lower scaled scores compared to the matched control group. The conflicting negative finding for the overall 21st CCLC effect may have resulted from the different population of students included in each analysis (i.e., all students vs. a particular subgroup of students) or the different outcome measures used in the analyses (proficiency outcomes for all assessments vs. SOL scaled scores only). In considering these findings for third grade only, it is also relevant that there was no method to control for previous achievement in either the 21st CCLC or comparison groups, which suggests all results from the analyses of third-grade outcomes should be treated with caution.

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 offering computer skills instruction, parent training and parent/child interaction activities reported meeting their internally established subobjectives. Most offering GED classes reported mixed results or not meeting their internally established objectives in this area. Internally established objectives for career development were not met in the majority of centers.

Are there relationships between attendance at a 21st CCLC, type and time allocated to activities, hours of operation, and academic achievement?

Results of analyses of the effects of center-level variables on reading and mathematics outcomes provide information that may be useful to program leaders, and are summarized below. The results from the analysis of students in grades three through eight with two years of assessment data available have been separated from the results of those third-grade students with only one year of data available.

Center-level results from analysis of reading outcomes

Results of both the categorical and scaled score analyses of students with two years of data (grades three through eight) suggested that students who participated in 21st CCLC that offered more hours of activities per week had a statistically significant chance of having better outcomes, but the increase in achievement was small. In addition, the scaled score analysis suggested that programs that employed a larger number of teachers who concurrently worked in the schools had small, but statistically better outcomes. Finally, results from both analyses suggested students who participated in centers that offered a larger number of activities had statistically lower reading achievement, with the difference again being small.

For third-grade students with one year of data, both the categorical and scaled score analyses suggested that programs that are open for more hours were associated with improved reading outcomes that were small but statistically significant. The categorical and scaled score analyses of only third-grade students showed conflicting findings for the association between reading outcomes and the total number of activities offered at centers. The categorical analysis suggested that the total number of activities was positively associated with student outcomes whereas the scaled score analysis suggested a negative association. Meanwhile, the categorical analyses showed that an increase in the number of teachers who concurrently worked in the schools and the total hours of activities per week were associated with a statistically significant decrease in student outcomes whereas the scaled score analyses of these same center variables yielded no statistically significant differences. In conjunction with the many limitations of the grade three only analyses, the implications of conflicting findings are not clear. Due to the inability to control for students' prior year achievement, all results from the analysis of third-grade outcomes only should be treated with caution.

Center-level results for mathematics

Similar to the analysis of reading outcomes, the results for center-level variables for students who had two years of assessment data (grades three through eight) suggested that more activities offered was associated with a significant decrease in the likelihood of achieving mathematics proficiency. As well, consistent with the findings from the analysis of reading scores, programs that employed a greater number of teachers who concurrently worked in the schools were associated with small, but statistically higher

standardized scaled scores. Unlike the results from the analysis of reading outcomes, an increase in the total number of hours a center was open was associated with a small, but statistically significant decrease in standardized scaled scores on the SOL assessment.

Results from center-level analysis of third-grade mathematics scaled scores showed that the number of teachers who concurrently worked in the schools was positively related to a small, but statistically significant increase in mathematics scores. On the other hand, the total number of activities programs offered was associated with a statistically significant increase in the chances of scoring proficient, and a small, but statistically significant decrease in scaled scores.

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

Many centers attributed improved student academic achievement to tutoring and homework assistance. Efforts were made to align tutoring and enrichment activities to students’ current school lessons. In some centers, staff worked closely with teachers to ensure alignment of activities. Incentives such as competitions and privileges were reported to be effective in motivating students, while free meals, child care, and joint field trips were reported to increase parental participation. Some centers considered the practice of recruiting at-risk students as helping the centers to provide services to those in the greatest need of assistance.

The predominant challenges reported by centers were parental and student participation. In particular, sustaining older students’ participation was found to be difficult. Due to transportation situations, many participants left before activities were completed. Competition from other afterschool activities and other scheduling conflicts also inhibited both parent and student involvement. Finally, the current economic downturn was also cited by several centers as a challenge to their success. The lack of financial supports available in the community, time, and resources available to partners were limited, thus reducing the range of enrichment and incentive programs that centers were able to offer.

Virginia Department of Education
Evaluation of 21st Century Community Learning Centers
2007-2008

Introduction and Overview

The 21st Century Community Learning Centers (CCLC) grant program was established by Congress as Title X, Part I, of the Elementary and Secondary Education Act (ESEA). It was reauthorized by Congress under the *No Child Left Behind Act of 2001*. The purposes of the 21st CCLC program are:

- 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 2007-2008, the Virginia Department of Education provided 21st CCLC grant funds to 93 grantees that operated a total of 128 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 Design and Measures

The Center for Research in Educational Policy (CREP) at The University of Memphis was contracted by the Virginia Department of Education 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 programs and level of participation by students?
- To what degree did centers meet Virginia’s objectives for the program?
- Are there relationships between attendance at a 21st CCLC, nature and time allocated to activities, hours of operation, and 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 2007-2008 were asked to participate in the evaluation. A detailed accounting of the number of students and centers originally available and subsequently included, along with the rationale for inclusion or exclusion in the analysis, is provided in a supplemental report.

Three main sources of data were used in the evaluation:

1. Two years (2006-2007 and 2007-2008) of Standards of Learning (SOL), Virginia Alternate Assessment Program (VAAP), and Virginia Grade Level Assessment (VGLA) proficiency and scale scores in reading and mathematics for students in grades three through grade eight. Included with the assessment scores were data regarding gender, grade, ethnicity, limited English proficient (LEP) status, disability status, economically-disadvantaged status, and days of participation in the 21st CCLC program. It should be noted that students with disabilities and LEP students at the lowest levels of English proficiency may 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 scale score outcomes.
2. The Profile and Performance Information Collection System (PPICS), which is a national Web-based data collection system that contains (a) descriptive data about grantees and their 21st 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), which 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 its center after a full year of program implementation. The ALERT is resubmitted for each center in the grant during the summer of each subsequent program year.

The Virginia Department of Education requested that grantees submit the ALERT for their centers in October and November of 2008. Approximately 94 percent (120/128) of the centers submitted the online report for inclusion in this report. The ALERT report contained both quantitative and qualitative data for analysis. For PPICS data, grantees were able to begin submitting information in April 2007, and all had completed their submissions by November 2008. PPICS reports were available for 128 centers. PPICS data within the Annual Progress Report (APR) categories of operation, objectives, activities, student behavior, and partnerships were analyzed for all grantees. Student-level SOL assessment data from the 2006-2007 and 2007-2008 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
What is the nature of the 21 st CCLC programs and level of participation by students?	ALERT PPICS demographic and attendance data
To what degree did centers meet their objectives?	PPICS APR data ALERT Virginia SOL test scores in reading and mathematics
Are there relationships between 21 st CCLC attendance, nature of and time allocated to activities, hours of operation, and student achievement?	PPICS data Virginia SOL test scores in reading and mathematics
What “promising practices” and challenges were identified by centers regarding the achievement of required objectives?	ALERT

Center Characteristics

Operations

Among centers, 81.6 percent were operated by schools. Others were operated by community centers (4.3 percent), faith-based organizations (4.5 percent), nationally affiliated nonprofit agencies (4 percent), and other agencies (units of city or county government, regional/intermediate education agencies, health-based organizations, libraries, park/recreation districts, or private schools) (4 percent). These percentages are similar to those reported by the grantees in PPICS for the 2006-2007 year. 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.

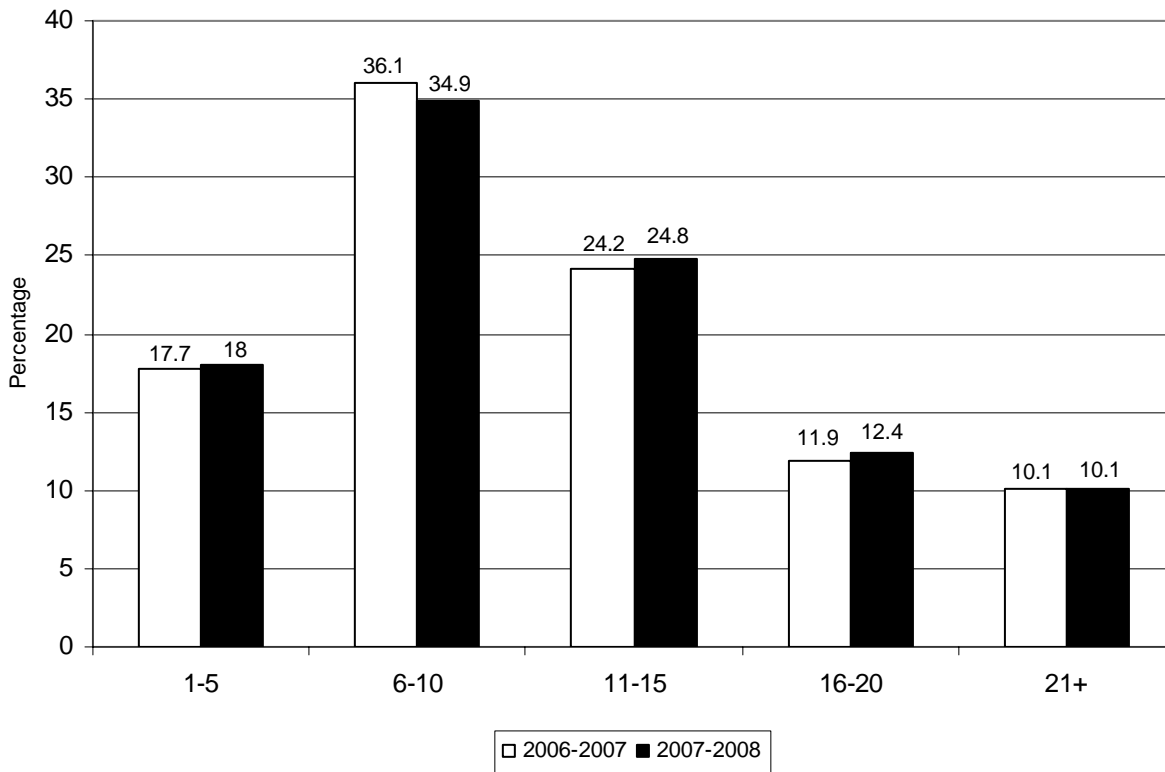


Figure 1. Hours of Operation per Week during the 2006-2007 and 2007-2008 School Years by Percent of Centers

The majority of centers (72.1 percent) were open between six and 20 hours per week during the 2007-2008 year, with the highest percentage offering between six and ten hours of services per week (34.9 percent).

Staffing Patterns

The staffing patterns across centers are displayed in Figures 2 and 3. Based on available PPICS data, there were 3,217 paid and volunteer staff members across the centers in 2007-2008. Of these staff members, the majority were paid (70.4 percent). Most paid employees were school division teachers (59.7 percent) or non teaching staff (14.6 percent). Few paid employees were parents (.5 percent), college or high school students (6.1 percent), or community members (1 percent). College and high school students were the most prevalent type of unpaid volunteers (52.7 percent), followed by community members (16.2 percent), and then parents (15.3 percent).

While the percentages of paid staff, and in most categories of volunteer staff, in 2007-2008 were similar to those in 2006-2007, there were more college or high school student volunteers in 2007-2008 when compared to 2006-2007 (52.7 percent versus 42.1 percent). In 2007-2008, there were fewer parent

volunteers when compared to 2006-2007 (15.3 percent versus 21.1 percent) and also fewer volunteer community members (16.2 percent versus 22.9 percent).

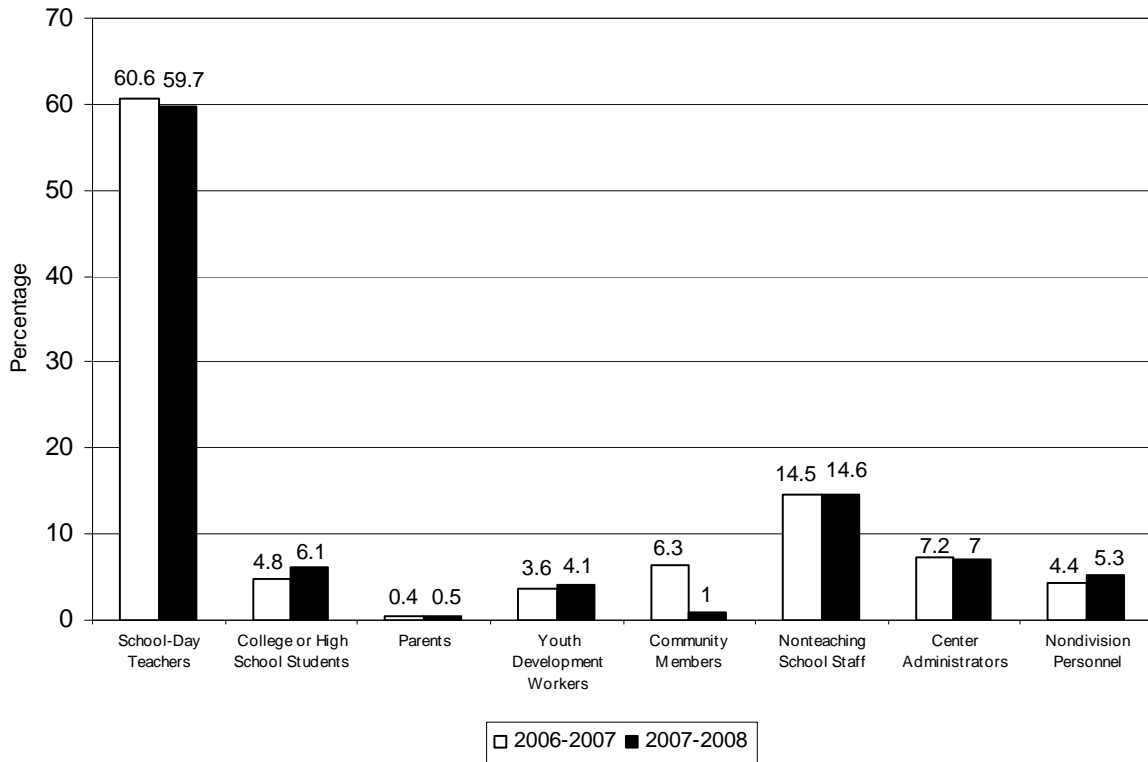


Figure 2. Paid Staff in 21st CCLC across Virginia

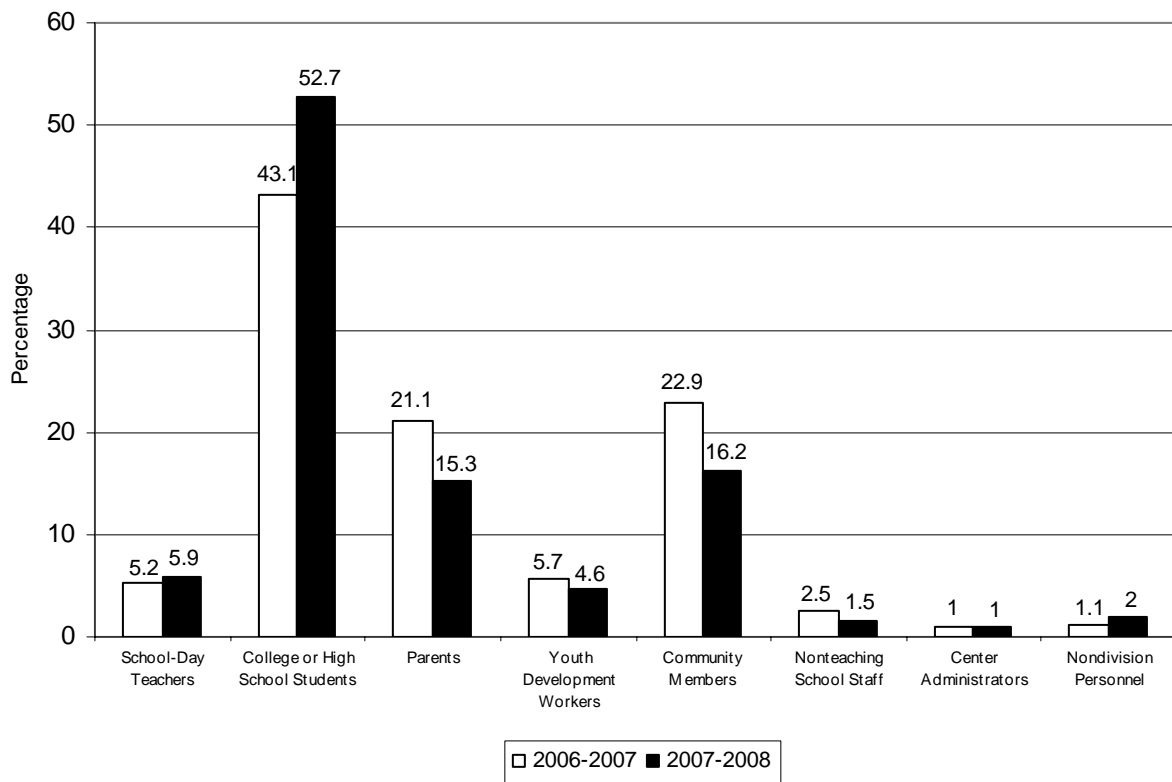


Figure 3. Volunteer Staff in 21st CCLC across Virginia

Level of Participation by Students

According to available PPICS data, a total of 20,253 students were served by 128 centers, with 9,835 (48.6 percent) attending regularly (30 days or more) in 2007-2008. More than 66 percent of participating students were in PreKindergarten through grade five (see Figures 4 and 5). The percentages of all student attendees and regular student attendees by grade were similar in 2006-2007 and 2007-2008.

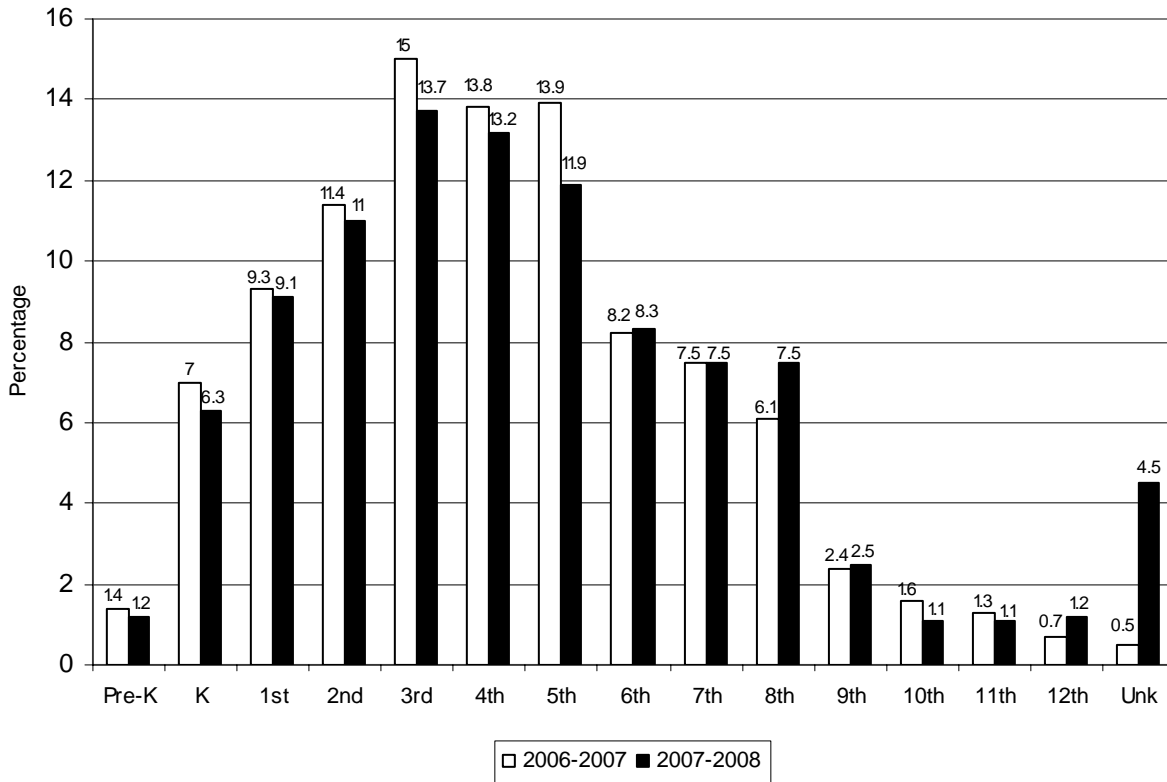


Figure 4. Percent of All Student Attendees in 21st CCLC by Grade Level for 2006-2007 and 2007-2008

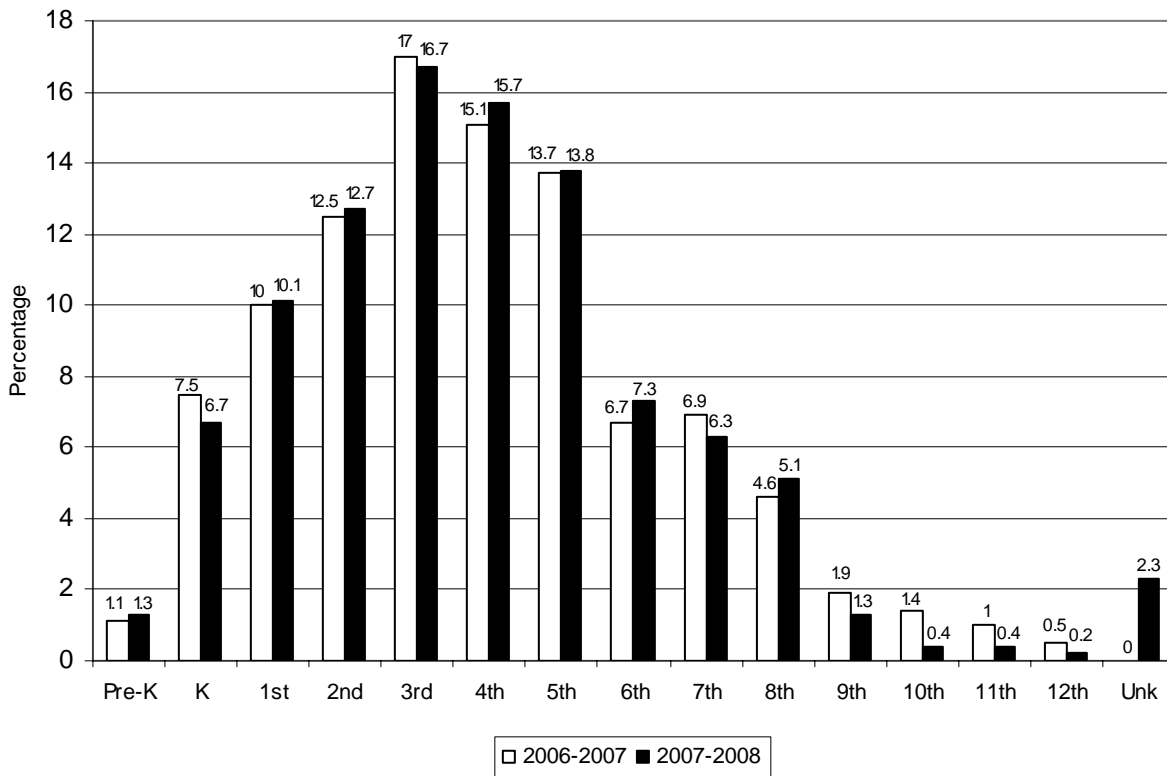


Figure 5. Percent of Regular Attendees (at least 30 days) in 21st CCLC by Grade Level for 2006-2007 and 2007-2008

PPICS data indicate that of all student attendees in 2007-2008, 40.5 percent were White, and 9.4 percent were Hispanic. These percentages are similar to those reported for 2006-2007. There were slightly fewer African-American attendees in 2007-2008 when compared to 2006-2007 (36.7 percent versus 43.9 percent). There were also slightly fewer economically-disadvantaged students in 2007-2008 when compared to the previous year (51.3 percent versus 56.4 percent of the total group). Students with limited English proficiency comprised 8.4 percent and students with disabilities comprised 7.5 percent of the total group, percentages similar to those reported in the previous year. Also similar to 2006-2007 reports, approximately equal numbers of boys and girls participated in the programs (47 percent boys, 50.1 percent girls), with approximately equal regularity of attendance.

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 determined and self-reported their individual levels of success in meeting objectives not related to student achievement based on their own criteria.

The results from Objectives 1 and 2 were examined using various regression (i.e., statistical) analyses by comparing matched pairs of treatment students who attended 21st CCLC programs for 30 or more days and students in the control group who were eligible to attend 21st CCLC programs but had zero days of attendance. Two samples were created for the analyses: one that included students in grades three through 8 who had two years of test data available, and one for students in grade three only who had one year of test data available. The first five criteria that follow were required to be met for all treatment and control student matches for students with two years of test data available, while the last five were desirable for matching. The same criteria with the exception of prior year scale score, prior year test type, and grade were required to be met for the treatment and control matching for the separate analyses for grade three.

1. Prior year (2006-2007) scale score in reading or mathematics;
2. Prior year test type (SOL, VAAP, or VGLA);
3. Grade;
4. Limited English proficient (LEP) status;
5. Students with disabilities status;
6. Economically disadvantaged status;
7. School;
8. School division;
9. Ethnicity; and
10. Gender.

Two analyses were conducted by subject (reading or mathematics). The first analysis looked at proficiency level performance in 2006-2007 and 2007-2008 based on all available test data (i.e., SOL, VAAP, or VGLA), and the second looked only at the standardized scale scores of students who took the SOL in both 2006-2007 and 2007-2008. The proficiency level on the SOL, VAAP, or VGLA test for the

2007-08 school year was treated as either (1) “pass” or proficient (based on scoring “Proficient” or “Advanced Proficient”) or (2) “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 the proficiency level outcomes are comparable 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 student subgroups (e.g., Limited English Proficient students). Center-level variables (e.g., total hours open) were also included, although the actual center-level variables that could be included were limited due to statistical properties of the data.

While the categorical analyses were designed to capture broad changes in student proficiency associated with participation in the 21st CCLC programs, these analyses cannot capture incremental improvements in student achievement that may occur within proficiency levels. For example, students who score at the low end of proficiency but move 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. The scaled score analyses were intended to be more sensitive to these types of changes that occur across the scale, regardless of students’ proficiency levels. The scaled score analyses also included the same center-level variables used in the categorical analysis. 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 applied to students with disabilities and English language learners. Further, because Virginia’s tests are not vertically scaled, the grade-level test data were converted to z-scores prior to analysis which converts the data to a single, comparable scale while retaining the distribution of the original scores. This conversion is the best available method to detect changes within proficiency level. However, the full implications of the conversion on Virginia’s criterion referenced tests are not fully understood.

Separate analyses were conducted for students in grade three in 2007-2008 who had no prior year test data available, as grade three is the first time students typically take the assessments. In addition, the effects of 21st CCLC participation by subgroup (i.e., students with disabilities, LEP, and economically-disadvantaged status) were conducted for the analyses of proficiency outcomes. The reader should interpret the results of these grade three analyses with caution because treatment and students in the control group were not matched based on prior achievement, and any significant findings (or lack of findings) could be the result of the particular group of students in the control group selected. For example, a different sample of students in the control group may have resulted in different outcomes than the ones based on the students in the control group that happened to be selected in this case. Without matching

treatment and students in the control group based on prior achievement, there is not a reliable way to determine if any significant findings are the result of differences in prior ability or are the result of participation in 21st CCLC. Therefore, more emphasis should be given to the results of the analyses that used two years of data where students were matched based on prior achievement and where achievement in 2007-2008 was evaluated based on the influence of prior achievement. Results from Objective 3 are summarized from the centers' self-reporting of parent education subobjectives from ALERT.

Objective 1: Improve Student Academic Achievement in Reading.

Both the categorical and scaled score analyses showed no statistically significant impact of 21st CCLC participation on statewide reading assessments when students were treated as a single group. However, the results indicated that programs did have an impact when subgroups were considered. The categorical analysis of proficiency outcomes showed that students with disabilities and students who were economically disadvantaged in grades three through eight who attended a 21st CCLC program for at least 30 days had statistically significantly higher odds of passing statewide reading assessments (i.e., scoring "Proficient" or "Advanced Proficient") compared to similar students who did not attend the program. For English language learners (identified as limited English proficient or "LEP"), the opposite effect was found, with students who did not participate in the program having statistically significantly higher odds of passing compared to 21st CCLC participants designated as LEP.

This result for LEP students must be interpreted with caution because the data on LEP students' English language proficiency level was not available for the purposes of matching 21st and control group students. Consequently, it was not possible to ensure that the 21st CCLC and control groups were comparable in terms of English language proficiency, and is therefore a limitation of the study. It is possible that the significant outcome was a result of differences in English language proficiency between the control and treatment groups at baseline (i.e., before beginning 21st CCLC) rather than a shortcoming of the 21st CCLC program itself.

Results of the analysis of reading outcomes for students in grade three who did not have prior-year test scores available showed that program participation had no overall association with outcomes on third-grade test scores. However, the categorical analysis did show that third-grade students with disabilities who participated in the 21st CCLC program had statistically significantly higher odds of passing statewide reading assessments than matched with students with disabilities in the control group who did not participate in the program.

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 pattern of results for mathematics was similar to that found for reading. Both the scaled score and categorical analyses showed no statistically significant impact of 21st CCLC participation on statewide

mathematics assessments when students were considered as a single group. However, the categorical analysis, which tested the impact of program participation with certain student subgroups, suggested that involvement in the 21st CCLC program led to improved academic outcomes (i.e., statistically significantly higher odds of passing) in mathematics for students with disabilities and students who were economically disadvantaged. Meanwhile, there were no statistically significant differences for limited English proficient learners (LEP) who participated in the program compared to LEP learners who did not participate in the program.

The results from the grade three analyses of categorical data showed that students with disabilities who participated in the program had greater odds of passing statewide assessments compared to similar students in the control group who did not participate. In contrast, the scaled score analysis revealed that participating students overall had statistically significantly lower scaled scores compared to the matched control group. The conflicting negative finding for the overall 21st CCLC effect may have resulted from the different population of students included in each analysis (i.e., all students vs. a particular subgroup of students) or the different outcome measures used in the analyses (proficiency outcomes for all assessments vs. SOL scaled scores only). In considering these findings for third grade only, it is also relevant that there was no method to control for previous achievement in either the 21st CCLC or comparison groups, which suggests all results from the analyses of third-grade outcomes should be treated with caution.

Objective 3: Provide Opportunities for Parental Education

Centers stated that they provided a variety of activities to meet this objective. Most centers reported the implementation of activities that invited parent/child interaction (71.8 percent). Parenting classes were reported as being conducted in 40.9 percent of the centers. These and other parent activities selected are shown in Figure 6. The most common activities cited by the centers during 2007-2008 follows.

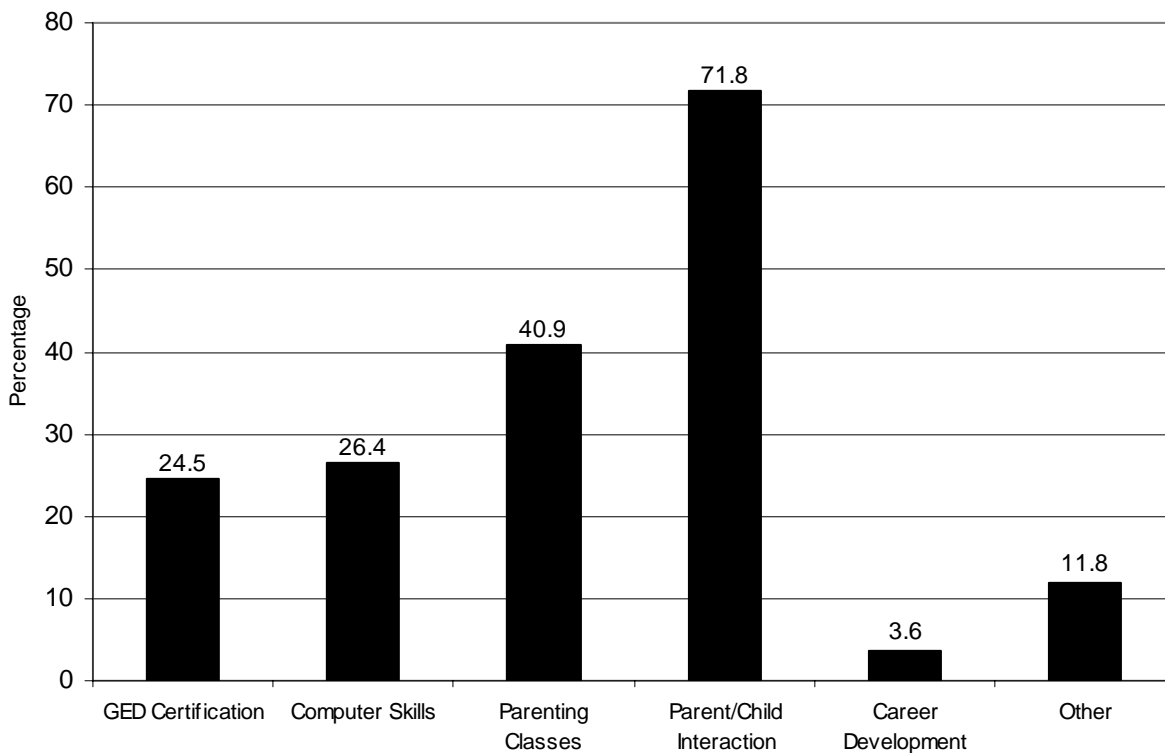


Figure 6. Percent of 21st CCLC Selecting Parent Education Subobjectives for 2007-2008

General Education Development. Of those providing a General Education Development (GED) certificate program, 55.6 percent stated the GED certificate program classes were scheduled at the center, while others referred parents to GED certification programs in the community. To determine whether the GED subobjective was met, for centers indicating that they had provided a GED certificate program (whether in-house or outside the center), 70.4 percent used the number of certificate recipients, while 66.7 percent used an attendance report. Figure 7 shows the percentage of all centers providing a GED certificate program that reported meeting the subobjective for parent participation (the percentages are based on the number of centers that chose GED attainment as an objective). A little less than half (44.4 percent) of the centers providing a GED certificate program reported meeting this subobjective. Some centers felt that participation in the program was good and reported that participants demonstrated progress, but that few actually earned their GED. Other centers described efforts to make attending sessions easier for parents, including providing transportation and scheduling sessions at parents' places of business or at churches. Several grantees indicated a lack of interest in the program by parents.

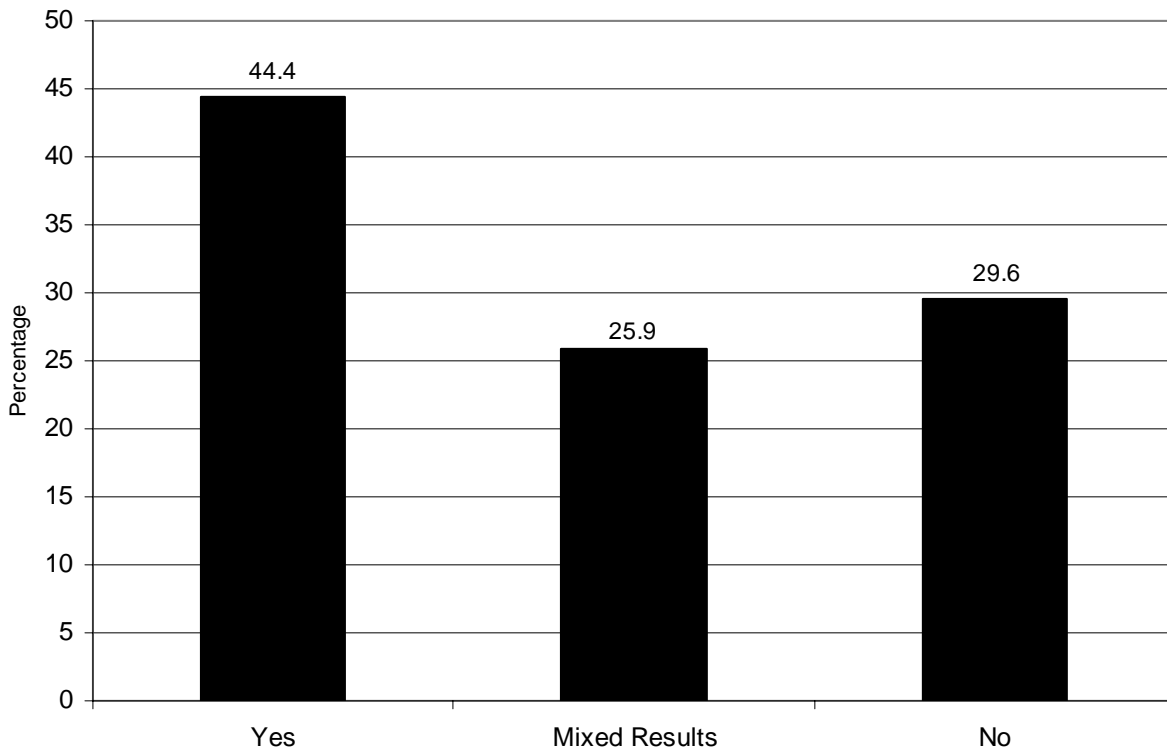


Figure 7. Percent of 21st CCLC Reporting Meeting the Objective for Parent Participation in GED Certificate Program Classes for 2007-2008

Computer Instruction. Computer skills classes were reported to be offered by 79.3 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 into broader adult education classes. To measure the degree to which this subobjective was met, for centers that reported providing computer usage activities, 86.2 percent used records of the numbers of sessions offered; 69 percent used attendance reports; and 10.3 percent used pre- post-skills assessments. Some centers reported that computer skills classes were well attended and participants demonstrated progress in their knowledge of the subject, while other centers reported that there was little or no interest in the classes offered. The percentages in Figure 8 are for those centers that reported addressing this subobjective.

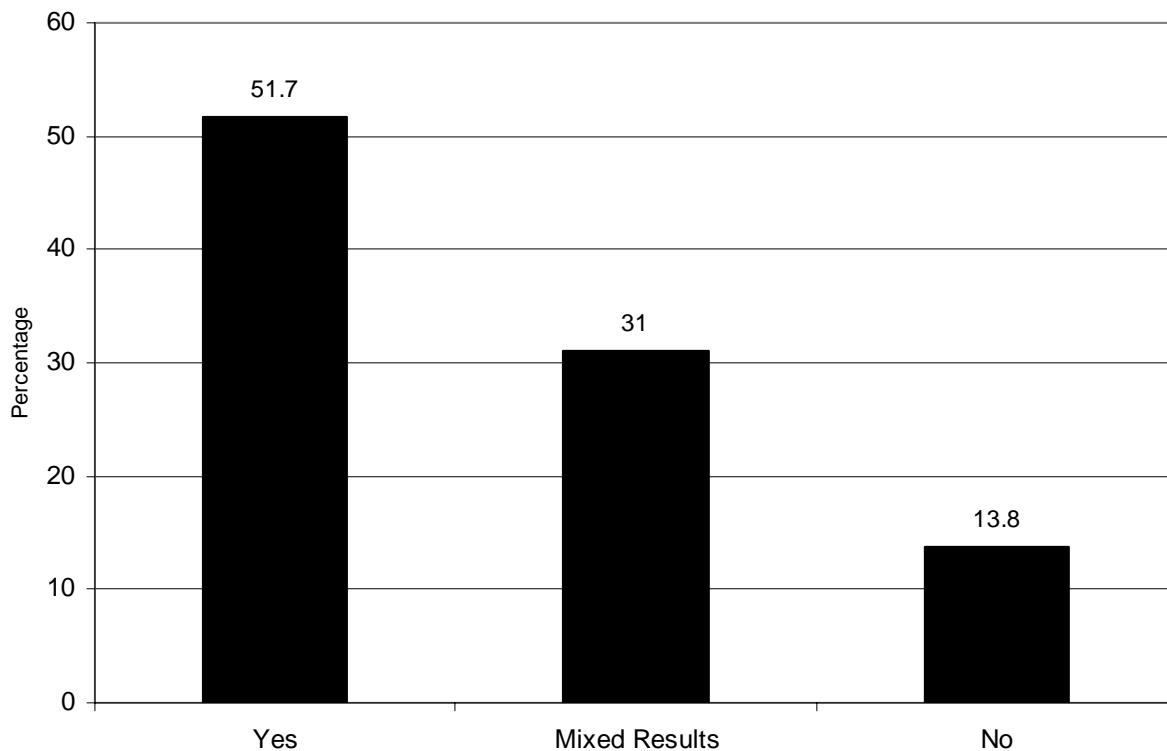


Figure 8. Percent of 21st CCLCs Reporting Meeting the Objective for Parent Participation in Computer Skills Classes for 2007-2008

Parenting Skills. Parenting skills classes were provided by 88.9 percent of centers that completed ALERT. The use of community speakers was also reported by 55.6 percent of the centers. Topics offered included strategies for parents to help their children with homework and prepare for the SOL assessments, transitioning into middle school, and preparing for college. Health and financial planning classes were also offered at some centers. To measure the degree to which this subobjective was met, for centers reporting that they offered parenting skills classes, 88.9 percent used attendance reports; 68.9 percent used the number of sessions offered; and 40 percent used evaluation forms completed by parents. Although centers reported varying attendance rates for these programs, most state that they were favorably perceived by those who did attend. Some centers indicated that the provision of incentives such as meals, door prizes, and child care affected attendance positively. Issues such as transportation and child care were cited as reasons why parents did not attend. The percentages in Figure 9 are for the number of centers that reported on this subobjective.

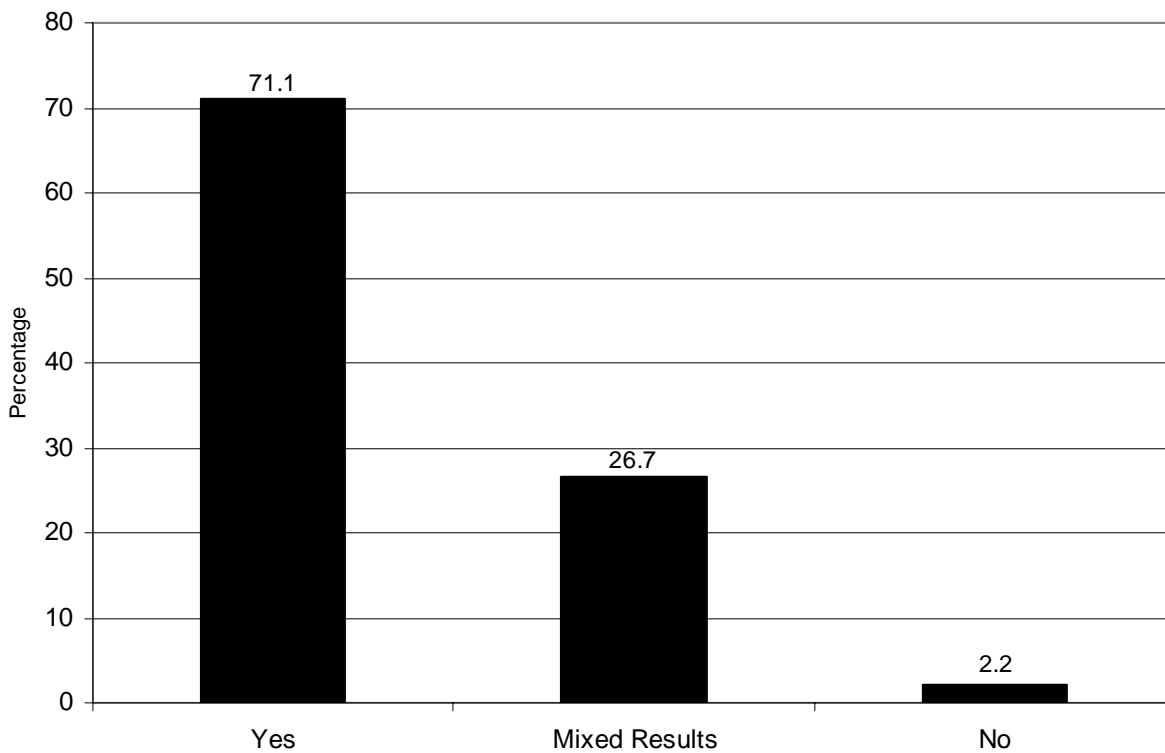


Figure 9. Percent of 21st CCLC Reporting Meeting the Objective for Parent Participation in Parent Training Classes for 2007-2008

Parent/Child Activities. Opportunities for parent/child interaction in academic activities were offered in 71.8 percent of reporting centers. Most of these centers offered family nights with parent/child activities (73.7 percent of centers reported that they provided parent/child interaction in academic activities), and many held open houses for parents to learn about their children’s work (58.2 percent of centers reported that they provided parent/child interaction in academic activities). Some offered parent training in homework help (27.8 percent of centers reported that they provided parent/child interaction in academic activities) or take-home projects for parent/child completion (25.3 percent of centers reported that they provided parent/child interaction in academic activities). Other activities reported included book clubs or literacy programs, field trips, and fitness activities. Data sources that were used by centers to determine if this subobjective was met were the number of sessions offered (74.7 percent of centers reported that they provided parent/child interaction in academic activities), attendance reports (69.6 percent of centers reported that they provided parent/child interaction in academic activities) and evaluation forms completed by parents (21.5 percent of centers reporting that they provided parent/child interaction in academic activities). The percentages in Figure 10 are for the number of centers that reported on this subobjective.

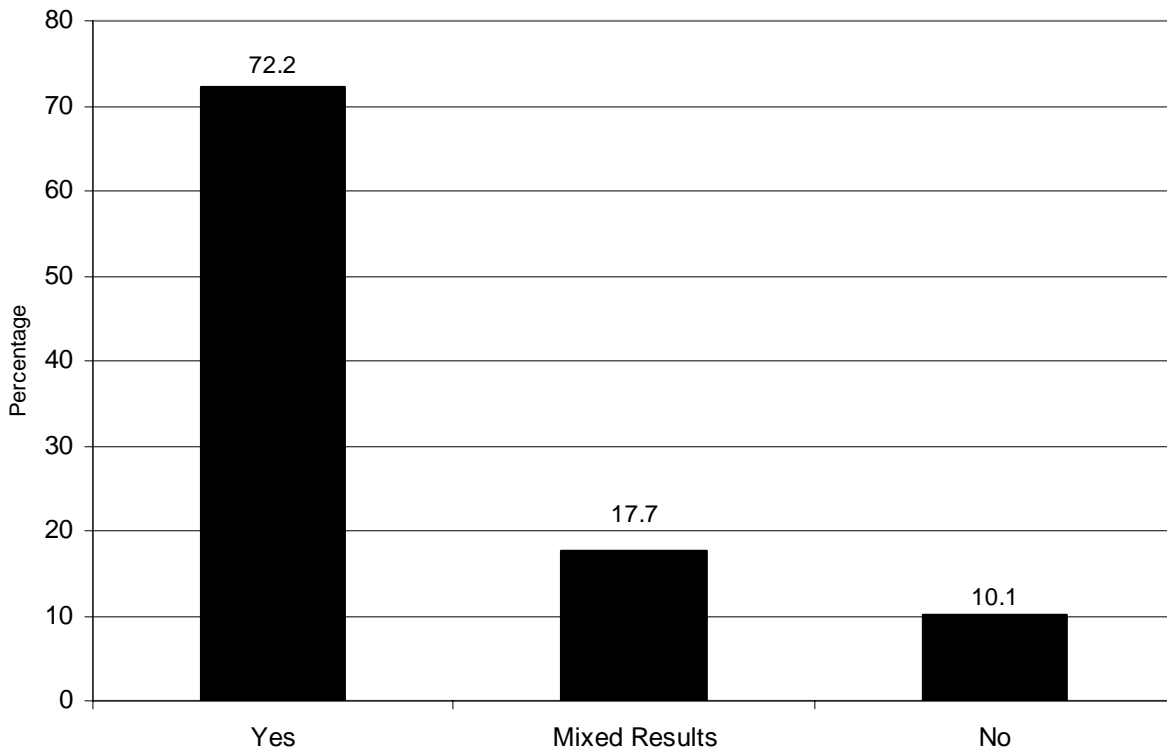


Figure 10. Percent of 21st CCLC Reporting Meeting the Objective for Parent and Children Interaction in Academic Activities for 2007-2008

Career Development. Career development was selected as a subobjective by 3.6 percent of the reporting centers. Of the centers that offered career development, 75 percent offered career exploration classes; 50 percent offered vocational classes; 50 percent offered job application assistance sessions; and 25 percent offered job fairs. To determine if the subobjective was met, for centers reporting that they provided career development, 75 percent used number of sessions offered; 25 percent used attendance reports; and 25 percent used other sources such as testing passing rates. The percentages in Figure 11 are for the number of centers that reported on this subobjective.

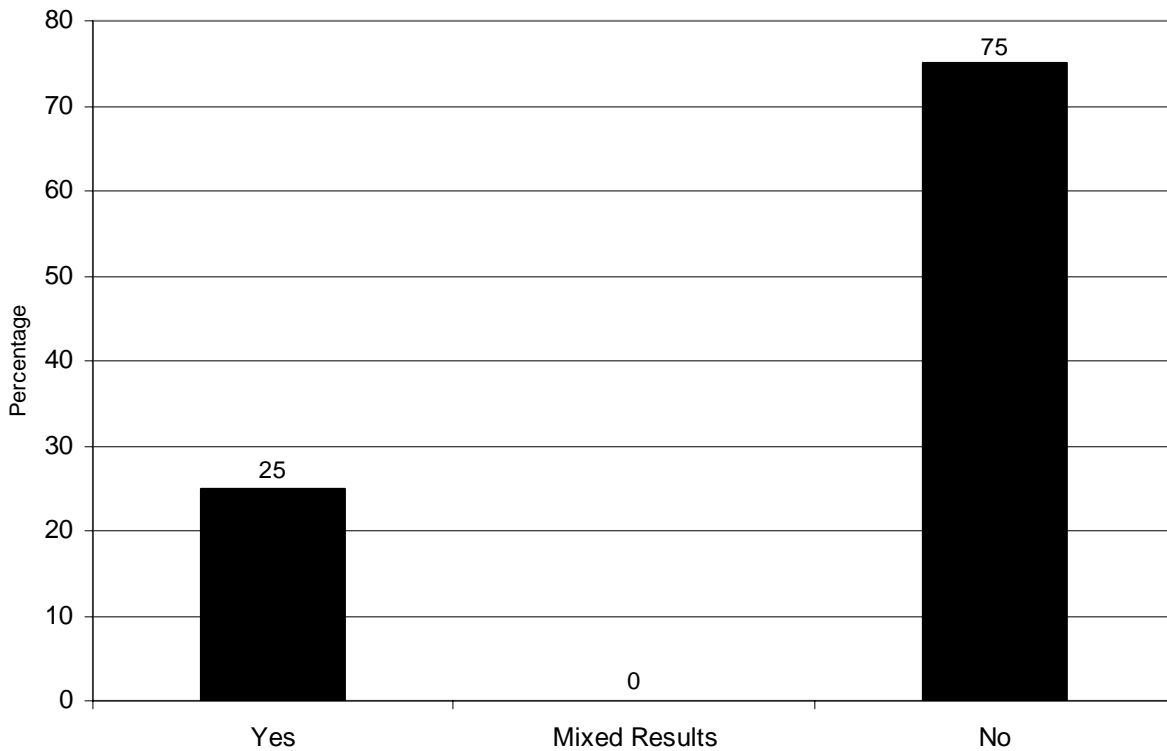


Figure 11. Percent of 21st CCLC Reporting Meeting the Objective for Parent Participation in Career Development Activities for 2007-2008

The comparative success, as reported by centers, in meeting parent education subobjectives is shown in Table 2. It is important to note that grantees determined and self-reported their individual levels of success in meeting parental education objectives based on their own criteria.

Table 2. Percentage of Centers Meeting Parent Education Subobjectives*

Subobjective	Met (percent)	Mixed Results (percent)	Did Not Meet (percent)
General Education Development	44.4	25.9	29.6
Computer Skills Instruction	51.7	31.0	13.8
Parent Training	71.1	26.7	2.2
Parent/Child Interaction Activities	72.2	17.7	10.1
Career Development	25.0	0.0	75.0

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

Relations Between Center Characteristics and Outcomes

The association between center characteristics and reading achievement

Results of both the categorical and scaled score analyses of students with two years of data (grades three through eight) suggested that students who participated in 21st CCLC that offered more hours of activities per week had a statistically significant chance of having better outcomes, but the increase in achievement was small. In addition, the scaled score analysis suggested that programs that employed a larger number of teachers who concurrently worked in the schools had small but statistically better outcomes. Finally, results from both analyses suggested students who participated in centers that offered a larger number of activities had statistically lower reading achievement, with the difference again being small.

For third-grade students with one year of data, both the categorical and scaled score analyses suggested that programs that are open for more hours were associated with improved reading outcomes that were small but statistically significant. The categorical and scaled score analyses of only third-grade students showed conflicting findings for the association between reading outcomes and the total number of activities offered at centers. The categorical analysis suggested that the total number of activities was positively associated with student outcomes; whereas the scaled score analysis suggested a negative association. Meanwhile, the categorical analyses showed that an increase in the number of teachers who concurrently worked in the schools and the total hours of activities per week were associated with a statistically significant decrease in student outcomes, whereas the scaled score analyses of these same center variables yielded no statistically significant differences. In conjunction with the many limitations of the grade three only analyses, the implications of conflicting findings are not clear. Due to the inability to control for students' prior year achievement, all results from the analysis of third-grade outcomes only should be treated with caution.

The association between center characteristics and mathematics achievement

Similar to the analysis of reading outcomes, the results for center-level variables for students who had two years of assessment data (grades three through eight) suggested that more activities offered was associated with a significant decrease in the likelihood of achieving mathematics proficiency. As well, consistent with the findings from the analysis of reading scores, programs that employed a greater number of teachers who concurrently worked in the schools were associated with small, but statistically higher standardized scaled scores. Unlike the results from the analysis of reading outcomes, an increase in the total number of hours a center was open was associated with a small, but statistically significant decrease in standardized scaled scores on the SOL assessment.

Results from center-level analysis of third-grade mathematics scaled scores showed that the number of teachers who concurrently worked in the schools was positively related to a small, but statistically

significant increase in mathematics scores. On the other hand, the total number of activities programs offered was associated with a statistically significant increase in the chances of scoring proficient, and a small, but statistically significant decrease in scaled scores.

Promising Practices and Challenges

As part of the self-reporting information provided in ALERT, grantees were requested to provide comments regarding activities they believed to be 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

Tutoring and homework help. Many centers attributed improved student academic achievement to their having a set amount of time each day devoted to homework help and tutoring. Several grantees indicated that parents appreciated the provision of a safe place where students could complete their homework and receive extra help in areas where they need it. Employment of teachers in the regular program and other certified educators to assist students was common.

Enrichment activities. Centers used enrichment activities to supplement and enhance student learning. Many cited computer-based enrichment programs such as Read 180, Accelerated Reader, and Study Island. Several grantees also mentioned nontraditional, hands-on activities to provide enrichment as being particularly motivational to students. One grantee described a center's enrichment activities as follows:

“Several enrichment classes appeared to be especially strong in providing students the opportunity to develop their academic skills through non traditional instruction. For example, in a class entitled, Things that Fly, students learned how to apply the beginning principles of physics and aerodynamics by designing paper airplanes that could really fly. The Yearbook Club gave students the opportunity to learn the techniques of creating a yearbook for the school and provided experience in art design, writing, visual layout, and business production as well as reading, writing, and mathematics skills. Creative Drama exposed students to dramatic plays, imagination journeys, and a variety of music and dance. Students developed their reading skills when studying plays along with increasing their knowledge of drama.”

Alignment of activities with school day lessons. Effort was cited by many grantees to align center tutoring and enrichment activities to students' current lessons in the regular school day. In some centers, teachers in the regular program were employed to carry on the work they were doing with the students in

class. In others, center staff worked closely with teachers to ensure alignment of activities. One grantee said, “These...programs hold weekly office hours at the school to meet with teachers and learn how to build on the school day goals.” Working with school staff also ensured that information about students who might have needed additional help with particular topics was communicated.

Incentives. Many centers found the use of incentives effective not only in motivating students, but also in increasing parental participation in center activities. For students, competition was often cited as a method to increase student engagement in enrichment activities. Academically focused games in which students competed against each other were frequently mentioned. Special activities or privileges awarded to students who completed assignments or displayed some other form of achievement (for example, work done in the Accelerated Reader program) were common. Several grantees mentioned students being offered time to play with Nintendo Wii gaming systems when work was accomplished, test scores improved, or other academic goals were reached.

Offering parents incentives was also cited as effective in order to increase their participation in center activities. Free meals offered during family nights were frequently mentioned as a means to improve parental attendance. Child care or extended student activities were often held in conjunction with parent training classes so that parents would not have to arrange childcare on their own. Field trips offered to parents as well as students, gave families the opportunity to gain exposure to art or cultural events that might not be accessible to them otherwise.

Targeting at-risk students. To ensure that students in greatest need of assistance were served, several centers actively recruited at-risk students to their programs. Staff in these centers worked with teachers and other school personnel to identify students who could benefit from the programs. Some centers targeted students who were LEP learners and tailored activities to help these students with their language skills.

Challenges

Parental Involvement. The predominant challenge faced by centers had to do with parental participation in the centers’ programs. Parents’ work schedules, other family obligations, and transportation issues were frequently cited as reasons why parents did not participate. Parents’ attitudes about the programs offered were also mentioned as barriers to their participation. One grantee attributed low attendance in GED classes to parents being embarrassed about needing to obtain a GED and not wanting their peers to know. Several other grantees said parents might be reluctant to enter a school setting after their own negative school experiences. Other grantees reported that parents see the programs as childcare and are not concerned with the enrichment activities the programs provide.

Student Participation. Several grantees mentioned that regular attendance of students in their programs was considered to be a challenge. Students may not benefit from activities offered by centers if

their parents must pick them up earlier due to their work schedules. Centers also compete with other afterschool activities such as sports for students' attention. Achieving participation by older students in particular was found to be problematic.

Economic situation. The current economic situation was mentioned by a few grantees as creating challenges for their centers. Rising costs in transportation not only affected participation by parents, but also limited activities like field trips that centers could afford to offer. It was also more challenging to recruit volunteers when those individuals who had volunteered in the past needed to work for pay. Donations from community organizations also fell below some grantee expectations.

Conclusions

Based on the analyses for grades three–eight that included two years of SOL test data, the 21st CCLC program was shown to have some benefits for students. Statewide, Virginia's program had a positive impact on both reading and mathematics proficiency achievement in 2007-2008 for students with disabilities and those who are economically disadvantaged who attended 30 or more days. This evaluation did not detect positive results in other student groups or in the participating population in general. As well, the study showed that LEP learners who participated in 21st CCLC programs had lower proficiency relative to non participating LEP students. This result should be interpreted with caution as data on LEP students' English language proficiency level were not available. Consequently, it was not possible to determine whether the 21st CCLC and control groups were comparable in terms of English language proficiency, and is therefore a limitation of the study. As a result, it is possible that differences in English language proficiency, rather than participation in the 21st CCLC program, accounted for this finding.

Differences in how the 21st CCLC operated also were associated with student outcomes. Increases in the number of hours of activities offered each week was associated with small but measurable improvements in reading, but lower outcomes in mathematics. Offering more activities was associated with lower achievement levels in both reading and mathematics. There was also some evidence that centers that employed more teachers who concurrently worked in the schools in the programs had a positive impact on student outcomes in both reading and mathematics.

Appendix A: Supplemental Program Objectives

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

Objective: Improvement of Student Behavior

The objective for improving student behavior was selected by 61.7 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

Subobjective	Percentage of Centers Selecting
Improve classroom behavior	86.5
Complete homework satisfactorily	87.8
Improve classroom participation	70.3
Improve class attendance	67.6
Improve motivation to learn	70.3
Improve ability to get along with other students	70.3
Other	0.0

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

Subobjective	Met (percent)	Mixed Results (percent)	Did Not Meet (percent)
Improve classroom behavior	71.9	28.1	0.0
Complete homework satisfactorily	92.3	7.7	0.0
Improve classroom participation	82.7	17.3	0.0
Improve class attendance	82.0	12.0	6.0
Improve motivation to learn	86.5	11.5	1.9
Improve ability to get along with other students	82.7	17.3	0.0

Objective: Provide Enrichment Opportunities

The objective for providing enrichment opportunities was selected by 86.7 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

Subobjective	Percentage of Centers Selecting
Increase children's exposure to the fine arts and cultural events	80.8
Increase children's depth of understanding of academic subjects through non-traditional instruction	71.2
Increase children's health awareness and physical education	62.5
Provide programs in preventing drug/alcohol use and/or violence	26.9
Other	6.7

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

Subobjective	Met (percent)	Mixed Results (percent)	Did Not Meet (percent)
Increase children's exposure to the fine arts and cultural events	94.1	3.6	2.4
Increase children's depth of understanding of academic subjects through non traditional instruction	91.9	8.1	0.0
Increase children's health awareness and physical education	89.2	10.8	0.0
Provide programs in preventing drug/alcohol use and/or violence	96.4	0.0	3.6

Objective: Improve Community Partnerships

The objective for improving community partnerships was selected by 42.5 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

Subobjective	Percentage of Centers Selecting
Increase the number of partners	58.8
Increase the activities of partners	54.9
Improve communication with partners	62.7
Improve the sustainability of the program through partner commitments beyond the grant period	43.1
Other	0.0

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

Subobjective	Met (percent)	Mixed Results (percent)	Did Not Meet (percent)
Increase the number of partners	53.3	30.0	16.7
Increase the activities of partners	71.4	17.9	10.7
Improve communication with partners	71.9	25.0	3.1
Improve the sustainability of the program through partner commitments beyond the grant period	72.7	22.7	4.5