Michigan 21st Century Community Learning Centers Evaluation

2012-2013 Annual Report

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Highlights for the 2012-2013 Program Year

Michigan 21st CCLC programs served diverse groups of primarily low-income students

- In 2012-2013, 34,969 students enrolled in the program, half boys and half girls. Most of the participants (82%) were from low-income families. About half were elementary school students, 26% in middle school (6th – 8th grade), and 23% high school students. As in previous years, most were African American (45%) or White (39%). Programs focused on sustaining the participation of students with low academic performance, as they are likely to benefit the most. Participation rates for students with low academic performance at 30, 60, and 90 days were nearly the same as for other students.

Programs offered a variety of academic activities

- Programs offered a variety of academic activities that focus on academic support (such as homework help and tutoring) or on academic enrichment (project-based or embedded learning). Almost all (96%) of the students participated in some academic activities. Participation in tutoring, which helps students who are behind, remains low—about half of the programs reported that they either didn't offer any tutoring (21%), or it was not required for any student to participate (28%). However, 58% of the students did participate in an activity focusing on science, technology, engineering, or math (STEM). These activities can engage students' interest in STEM fields, which will experience job growth in future years.

Participation in 21st CCLC programs was related to improved academic performance

- Students who participated for more days had greater improvement in reading and math grades, as well as teacher ratings of homework completion and school behavior. Students who participated more also were more likely to report that programs helped them with academic learning. The positive associations between greater attendance days and improved academic outcomes held true even after controlling for student and site characteristics that were relevant to academic outcomes.

Programs offered enrichment activities to students who might not have similar opportunities in school

- In addition to academics, programs offer enrichment activities known to foster an environment for positive youth development. Frequently, low-income students attending low-performing school lack such opportunities in their school or neighborhood. Most programs (80-90%) offered activities in recreation, the arts, youth development, and sports; about half also offered technology (54%) or health (46%). The most students participated in recreation (57%), and about 40% participated in the arts, 39% in youth development, and 37% in sports.

Introduction

Following the same approach used in the previous 2 years, the 2012-2013 Annual Report continued the use of the leading indicators (with the symbol ⓘ) to highlight program-level quality characteristics that are known from research and practice to affect student development. Although these quality measures are important to creating a context for overall development, they are not necessarily directly related to academic improvement.

In the outcomes section we also analyze how students' participation contributed to their academic outcomes, taking into account the characteristics of programs and students that might also affect their performance. This is the second year that we have done this type of analysis.

Who Participates in the Program?

Who participates in the 21st Community Learning Centers (CCLC) programs statewide is influenced by both the characteristics of programs that receive grants (grantees) and the types of students that they recruit into their respective programs. The Michigan Department of Education (MDE) provides guidelines for entities applying for 21st CCLC grants, specifying: (1) types of organizations that may apply (such as public schools, charter schools, community organizations); (2) characteristics of programs that may receive priority points (such as the schools eligible for Title I school-wide funding, serving students in 6th-8th grades, or having a faith-based organization as a partner); and (3) status of students and families served by the program (such as eligibility for free and/or reduced price lunches and/or living in poverty). In general, priority is given to programs serving low-performing schools in high-poverty areas. For details about priority points relevant to the group of grantees that were participating in 2012-2013, contact: Stacy Ann Sipes at 517-241-7577 or sipesS1@michigan.gov.

Grantees

The MDE website describes the 21st CCLC program as follows:

> *The 21st Century Community Learning Centers (21st CCLC) Grant Program's focus is to provide expanded academic enrichment opportunities for children attending low-performing schools. Tutorial services and academic enrichment activities are designed to help students meet local and state academic standards in subjects such as reading and math. In addition, 21st CCLC programs provide youth development activities, drug and violence prevention programs, technology education programs, art, music and recreation programs, counseling and character education to enhance the academic component of the program.*

Table 1 shows an overview of grantees over the past 4 years. In the 2012-2013 program year, 89 grants were awarded to 44 grantees serving students at 292 sites. After 2 years in which no new grantees were added, 14 grants were awarded to new grantees in 2012-2013. The largest number of grants went to local school districts (22), followed by nonprofit/community-based organizations (13) and public school academies (5). Two grants each went to intermediate school districts and universities. This distribution of grantees has remained quite stable

over the past four years. As in past years, the majority of the 21st CCLC grantees served elementary grades. When priority points were awarded in the 2009-2010 year for serving middle and high school students, the number of programs serving those students increased dramatically and has remained relatively stable since then.

Table 1. Characteristics of Grantees Funded, 2009-2013

Characteristic	*2009-10 Grantees*	*2010-11 Grantees*	*2011-12 Grantees*	*2012-13 Grantees*
Overall				
Number of funded grants	93	91	90	89
Number of grantees	49 (55[a])	48 (54[a])	48 (53[a])	44 (49[a])
Number of new grantees	15	0	0	14
Number of sites reporting on the Annual Report Form	333	333	332	292
Cohorts				
C	7			
D	92	92	90	89
E	90	93	90	157
F	156	164	160	54
G				30
Grantee's fiduciary organization				
Local school district	23	23	23	22
Intermediate school district	2	2	2	2
Public school academy (charter school)	6	6	6	5
Nonprofit/community-based organization	17	16	16	13
University	1	1	1	2
Sites serving students of different grades or grade combinations[b]				
Elementary	113	154	150	135
Middle school	89	78	75	69
High school	53	55	53	60
Elementary and middle school	51	45	48	53
Middle and high school	16	14	12	11
Elementary, middle and high school	23	3	2	2

[a] Numbers in parentheses treat the multiple subcontractors that Detroit Public Schools and Grand Rapids Public Schools used to provide their programs as grantees.
[b] Calculated based on the grades of students served.

Participating Students

Gender, Grade Level, and Family Income

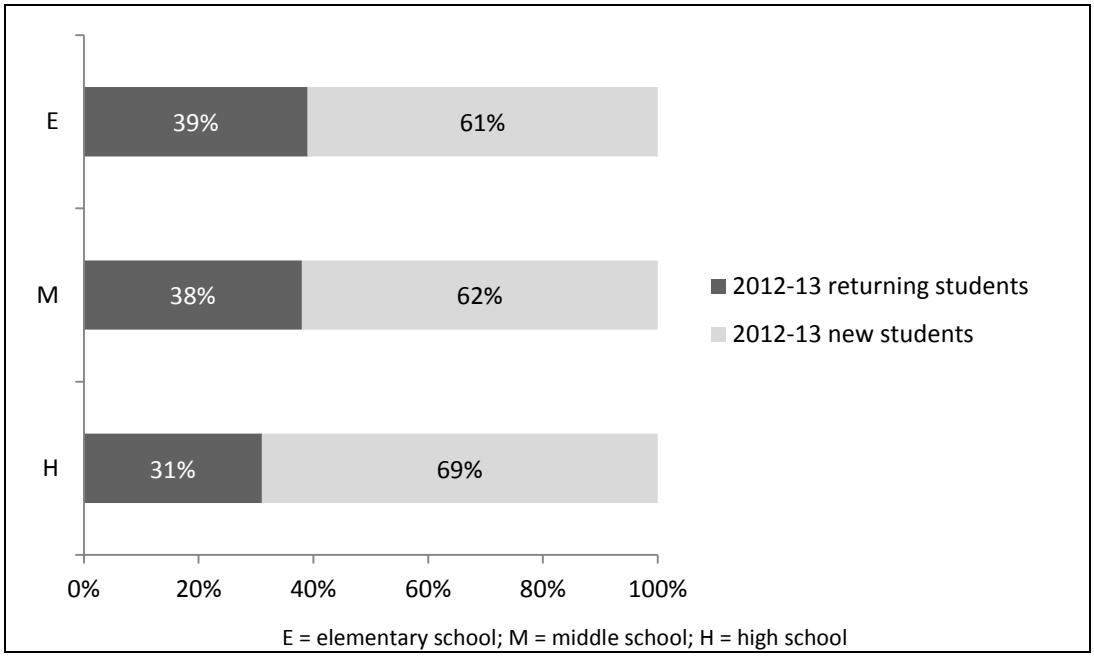
In the 2012-2013 program year, 34,969 students enrolled in the program. As had been true in past years, students were almost equally divided between boys (17,720; 51%) and girls (17,249; 49%). Most participants were in elementary grades (K-5th grades; 17,741; 51%), with middle school students second (6th-8th grades; 9,053; 26%). The smallest group were high school students (9th-12th grades; 8,166; 23%). Among those youth whose school outcome data were

returned (24, 353), about 82% were low income, which is defined as eligible for free or reduced price meals.

New vs. Returning Students

Participants were either newly enrolled in this program year or were returning for a second or third year. Getting students to return multiple years is important because sustained participation over time can lead to greater benefits. Figure 1 shows the average portion of students being new or returning from the previous years in 2012-2013. At each grade level, about one-third of participants were returning for a second or more years. The proportion of elementary and middle school participants with continuous participation from previous years was higher than the proportion of high school students returning.

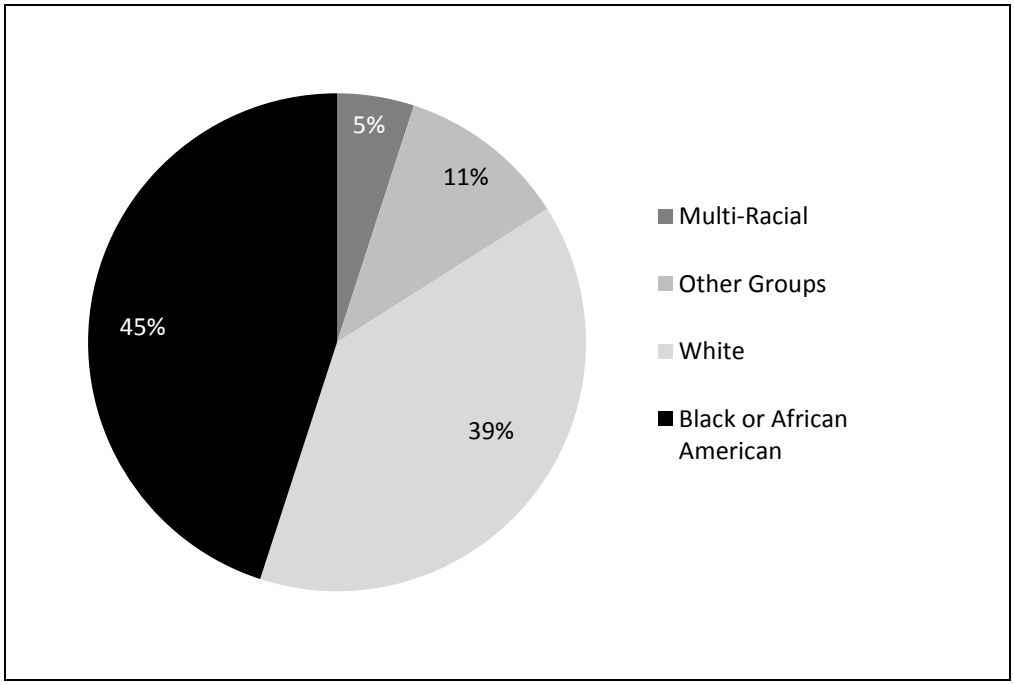
Figure 1. Percent of New and Returning Students



Race/Ethnicity

Figure 2 shows the distribution of participants by race/ethnicity. Almost half (45%) of the students identified themselves as Black or African American, and somewhat fewer (39%) identified themselves as White. The large proportion of African American participants reflects the urban focus of many programs. The category “Other Groups” included Arab/Middle Eastern and Hispanic/Latino-a.

Figure 2. Race/Ethnicity of Student Participants



Parents' Reasons for Enrolling Their Children

Parents who completed the parent end-of-year survey rated the importance they placed on various reasons for enrolling their child in the program. Table 2 shows the percent of parents who rated each reason as "very important" at each grade level.

Table 2. Parents' Reasons for Enrollment by Grade Level: Percent Who Reported "Very Important"

	GRADE LEVEL			
Reason	*E*	*M*	*H*	*All*
It is a safe place for my child after school.	95%	92%	87%	93%
I hope it will help my child do better in school.	88%	87%	85%	87%
It provides dependable after-school care.	82%	72%	61%	77%
It will help my child stay out of trouble.	79%	79%	78%	79%
It provides affordable after-school care.	76%	68%	57%	71%
School staff suggested that my child enroll.	53%	52%	54%	53%
My child has a disability or learning problem that this program can help.	47%	43%	46%	46%

NOTE: E = elementary school; M = middle school; H = high school.

Most parents at all grade levels wanted to obtain a safe place for their child to go after school (93% overall) and to help the child do better at school (87% overall). A substantial percent at each grade level also hoped the program would help their

child stay out of trouble (79% overall). Dependable and affordable child care was less important to parents of older children than to parents of younger children. It is notable that just under half of parents (43-47%) enrolled their children to obtain help with a disability or learning problem.

Sustaining Participation of Students with Low Academic Performance

Students with lower academic performance at the beginning of the school year are likely to benefit more from the additional academic support offered by 21st CCLC programs. For this report, low academic performance was defined as either having a GPA of 2.5 or below at the beginning of the school year or at the year average, or having MEAP/MME scores below proficiency level. Table 3 shows the percent of low-performing students and other students who attended for 30, 60, and 90 days. Over the past several years, programs have done better at sustaining the participation of low performing students compared to their counterparts. This year the percent of low performing students who attended at least 30, 60, and 90 days remained stable, but it's slightly lower than those with better academic performance.

Table 3. Percent of Students with Sustained Participation

Days Retained	*Low-Performing Students*	*Other Students*
30 days	64% ⓘ	66%
60 days	43% ⓘ	48%
90 days	28% ⓘ	33%

NOTE: Total students = 34,969; students with enough data to determine academic performance level = 22,074; low-performing students = 17,940; other students = 4,134.

What Are Students Doing in the Program?

The primary purpose of the 21st CCLC program is to provide opportunities for academic enrichment to students attending low-performing schools. To enhance the academic component of the program, grantees must also offer other enrichment activities in various areas such as youth development, drug and violence prevention, technology education, the arts, and recreation.

Academics

Participation in Academics

All 21st CCLC programs were required to offer academics, although Table 4 shows that across the state approximately 4% of the students in all grades did not participate in any academic activities.

Table 4. Percent of Students Who Participated in Each Type of Academic Activity

	GRADE LEVEL			
Type of Academic Activity	*E N=135*	*M N=69*	*H N=60*	*All N=330*
Academic enrichment focused on specific subjects ⓘ	40%	33%	22%	35%
Homework help	60%	57%	43%	56%
Embedded learning (academic activities occurring within non-academic enrichment) ⓘ	51%	37%	25%	42%
Tutoring (remedial instruction for 1-3 students per adult)	4%	4%	6%	4%
Credit recovery	N/A	N/A	10%	2%
STEM (science, technology, engineering, math)	68%	55%	31%	58%
Did not participate in any academic activities	2%	5%	9%	4%

NOTE: E = Elementary school; M = Middle school; H = High school

High school students have a higher level of nonparticipation (9%) in academics than do middle school (5%) and elementary school (2%) students. Most students received academic instruction in the form of homework help (56%), embedded learning activities (42%), or academic enrichment focused on specific subjects (35%). Elementary and middle school students received more homework help than high school students, and a greater proportion of younger students than older students received academic enrichment. Science, technology, engineering and math (STEM) was a new academic category in 2011-2012, and overall only 6% of students participated in STEM activities that year. In 2012-2013, the proportion of students participating in STEM activities increased greatly, with 58% of participants receiving STEM-related enrichment. Elementary students

(68%) were more likely to participate in STEM than middle (55%) or high school (31%) students; however, at all grade levels participation increased substantially.

Program Policies for Academics

Table 5 shows program policies regarding participation in academics. Program sites were much more likely to require homework help for all of their students than any other type of academic activity. However, about half of the programs reported that they either didn't offer tutoring at all (21%), or tutoring activity was not required for any student (28%). When it was available, tutoring was much more likely to be required of students with academically low performing students than of other students.

Table 5. Percent of Sites Requiring Various Levels of Participation in Academic Activities

Type of Academic Activity	*Required for All Students*	*Required for Students with Low Academic Performance*	*Required for Some Other Group of Students But Not All*	*Not Required for Any Student*	*Did Not Offer Activities of This Type*
Homework help	77%	8%	6%	8%	1%
Tutoring (remedial help for specific academic subjects with no more than 1-3 students/staff)	15%	25%	10%	28%	21%
Other activities where academic learning is the main emphasis	65%	8%	9%	16%	1%

NOTE: Rows may not sum to 100% due to rounding.

Student Perceptions of Academic Support

Table 6 shows students' responses to statements related to how their participation in academics in the after-school program affected their in-school performance.

Table 6. Students' Perceptions of the Quality of the Academic Support Provided by Their 21st CCLC Program

	GRADE LEVEL			
Item	*E*	*M*	*H*	*All*
This program helps me get my homework done.	88%	85%	88%	87%
This program helps me understand what we are doing in class.	81%	77%	81%	79%
At this program, I learn school subjects in fun ways.	80%	76%	76%	78%
My grades have gotten better because of this program.	75%	72%	81%	76%
The school work I do matches the school work we do in regular class.	67%	68%	75%	69%

NOTE: E = elementary school; M = middle school; H = high school.

A majority of students at all grade levels thought their programs helped them complete homework, understand classroom material, and learn in fun ways. High

school students were more likely than the elementary or middle school students to say the work they did in the program matched their school work and that participation helped them improve their grades. However, a majority of students at all grade levels agreed with these statements.

Other Enrichment Activities Offered

Program sites varied in the types of activities they offered to students in addition to academic activities. Table 7 shows the distribution of types of activities offered by grade level. Most program sites offered youth development, recreation, art, sports, and special event programming. More middle school sites than elementary or high school sites offered technology, and only about half of sites at any grade level offered health-related activities. It should be noted that in this table, those schools crossing elementary, middle, and/or high school boundaries, such as a K-8 school, were omitted from both the elementary and the middle school categories but do appear in the All Sites category.

Table 7. Types of Activities Offered by Program Sites

	GRADE LEVEL			
	E	*M*	*H*	*All*
	N=135	*N=69*	*N=60*	*N=330*
Recreation	90%	93%	88%	90%
Sport	86%	87%	77%	86%
Art	85%	94%	88%	89%
Youth development	82%	86%	95%	86%
Special events	81%	77%	90%	80%
Health	53%	44%	42%	46%
Technology	45%	70%	50%	54%

Participation in Other Enrichment Activities

Table 8 shows the percent of students at each grade level who participated in different types of enrichment activities.

Table 8. Percent of Students Who Participated in Each Type of Enrichment Activity

	GRADE LEVEL			
Type of Activity	*E*	*M*	*H*	*All*
Recreation (social events, games, free play, etc.)	67%	54%	33%	57%
Sports	43%	36%	23%	37%
Arts ⓘ	48%	34%	26%	40%
Youth development (character education, conflict resolution, life skills, resistance skills, etc.) ⓘ	39%	40%	39%	39%
Technology ⓘ	12%	13%	5%	11%
Health/nutrition	13%	4%	3%	9%

NOTE: E = elementary school; M = middle school; H = high school

More students participated in recreation than any other type of activity, followed by arts, youth development and sports. This is not surprising, as these activities

are offered by the most programs. With the exception of youth development, fewer high school students than elementary or middle school students participated in any type of enrichment activity.

Staff Priorities for Programming

Staff priorities for programming are important because they tell us where staff are likely to focus their efforts. In Table 9 we see that improving the academic achievement of students was the top priority as reported by over 2/3 of the 21st CCLC program staff. Almost half of the staff said that helping low-performing students achieve grade-level proficiency was a top priority.

Table 9. Percent of Staff Reporting That Each Area Is a Top Program Priority (First or Second Priority)

Program Area	*Percent of Staff*
Improve the academic achievement of youth ⓘ	67%
Enable the lowest-performing students to achieve grade-level proficiency ⓘ	46%
Improve the social and emotional development of youth	35%
Help youth keep up with homework ⓘ	25%
Allow youth to relax, play, and socialize	10%
Develop the artistic abilities of youth	8%
Develop the sports skills of youth	2%

Student Engagement in the Program

Participation in Decision Making

For students to continue to participate in programs, it is important for them to have opportunities to make developmentally appropriate decisions about their activities (Akiva, Cortina, Eccles & Smith, 2013)[1]. Table 10 shows the percent of participants who said the program offered them various opportunities for choice and decision making.

Table 10. Opportunities for Choice, Decision-Making, and Governance: Percent of Students Who Agreed or Strongly Agreed ⓘ

Survey Item: At This Program…	*Percent of Students*
I get to decide how to complete some projects or activities.	67%
My opinions matter when decisions are made about the program.	67%
I get to choose my activities.	65%
I help decide what kinds of activities are offered.	61%
I am involved in important decisions about this program.	59%
I have participated in a youth advisory committee.	49%

[1] *Akiva, T.*, Cortina, K. S., Eccles, J. S. (2012). Youth Experience of Program Involvement: Belonging and Cognitive Engagement in Organized Activities. *Applied Developmental Psychology, 34*, 208-218.

About 2/3 of students said that the program allowed them to make choices about their own and program activities and that their opinions matter. However, only half have participated in a youth advisory committee.

Skill Building

It is important to recognize that skill building and mastery are gradual processes for students, as very few people are good at doing things well the first time. Staff need to be accomplished at creating an environment where students know it's OK to make mistakes as they are learning and that staff will recognize both perseverance and proficiency. Table 11 suggests that the program created an atmosphere in which students could feel free to build mastery of new skills.

Table 11. Skill-Building and Mastery Orientation: Percent of Students Who Agreed or Strongly Agreed ⓘ

Survey Item: At This Program…	*Percent of Students*
It's ok to make mistakes as long as you're learning.	90%
Trying hard is very important.	88%
How much you improve is really important.	88%
It's important that we really understand the activities that we do.	86%
Learning new ideas and concepts is very important.	86%
Staff notice when I have done something well.	84%

Sustaining Participation

Finally, being engaged helps sustain student participation (Akiva et. al., 2013). Table 12 suggests that students may have been engaged with the program through learning new skills, thinking new thoughts, and doing things that they didn't get to do anywhere else.

Table 12. Engagement: Percent of Students Who Agreed or Strongly Agreed ⓘ

Survey Item: At This Program…	*Percent of Students*
I get to do things I like to do.	81%
The activities challenge me to learn new skills.	79%
The activities we do really make me think.	74%
I do things that I don't get to do anywhere else.	65%

How is the 21st CCLC Program Connected to the School Day?

In order to improve students' school-day performance, the 21st CCLC program must be formally connected to their school-day classes. Table 13 lists various ways that the after-school programs connect to the school day.

Table 13. Formal Policies for Connecting with the School Day: Percent of Sites Selecting Each Policy Option

Policy	*Percent of Sites*
School-day staff (teachers, principal, counselors) identified and recommended students to come to the after-school program for academic support.	98%
Site coordinator responsibilities included communicating regularly with school-day staff about student needs.	98%
The objectives for the after-school activities were intentionally influenced by grade-level content standards.	86%
The curricula used during the school day were used as part of the after-school program's academic activities.	82%
Someone was responsible for attending teacher staff meetings at least monthly and reporting back to the after-school program.	79%
Program staff:	
• Corresponded with school-day teachers at least once per week about individual students' academic progress and needs	83%
• Had access to and reviewed students' grades for each marking period and standardized test scores throughout the year	81%
• Had a process for identifying low-achieving students within one week of their enrollment in the after-school program	71%
• Had access to and use of school data systems (one example is Powerschool) that display students' progress and grades on school-day class work	70%
• Used written progress reports to correspond with school-day teachers about individual students' academic progress and needs	63%
• Had written policies and procedures about connecting with school-day teachers to support students' academic learning	62%
• Conducted any assessments to monitor students' academic learning	51%

Almost all (98%) of the sites reported that it was the site coordinator's role to communicate regularly with the school, and that school staff recommended students to the program for academic support. Most (86%) reported that their after-school activities were intentionally influenced by grade-level content standards. Most program staff communicated regularly with school-day teachers about individual students' needs and assigned someone to attend teacher staff meetings. Staff in about 70% programs had access to student school data and were able to identify low-achieving students early in the year. Fewer sites reported having written policies for connecting with school day teachers to

support their students' learning or using written progress reports to connect with school day teachers about individual students' academic progress and needs.

What School or Program Factors Affected the Program?

The context in which the 21st CCLC program operates has an impact on its success. For example, when there are many changes, such as program administrators or school leaders leaving or excessive turnover among the staff, it is hard for the program to provide the continuity that creates a positive learning environment. In addition, staff job satisfaction and opportunities for professional development contribute to staff capacity to create a positive learning environment.

Program Director and Site Coordinator Stability

Seven programs out of 46 (15%) grantees changed program directors in 2012-13 (ⓘ). Among the eight single-site grantees, three used the same person as project director and site coordinator; the others did not. (Both options are allowed by MDE.) Six (13%) grantees reported having part-time program directors. Having a full-time program director is important because frequently the program director needs to make contact with school personnel and thus needs to be there during the school day.

Seventeen percent of the site coordinators left during the 2012-2013 program year (ⓘ), and 38% did not return for the 2012-2013 program year.

Staff Stability

Table 14 shows site reports of staff stability. Sites reported on the percent of staff who stayed for the program year and the percent of staff who returned from the previous year.

Table 14. Staff Stability: Percent of Sites

	STAFF RETENTION RATES			
	0-25%	*26-50%*	*51-75%*	*76-100%*
Staff Changes	*PERCENT OF SITES*			
What percent of your paid REGULAR STAFF who provided activities STAYED for most or all of the 2012-2013 school year?	56%	9%	16%	69%
What percent of this year's REGULAR STAFF also provided activities last year? (Omits the sites that did not continue)	13%	13%	20%	54%

Sixty-nine percent of sites reported that at least three quarters of activity staff stayed for most or all of the program year. About half also reported that most of their staff returned from the previous year.

Sites Reporting School-Related Changes

Changes in the host school can affect awareness of and support for the 21st CCLC program. As seen in Table 15, the most frequent school change reported by program sites was a change in school leadership; 20% reported a new school principal and 14% reported a different superintendent. About 11% reported cuts in school budgets that affected the 21st CCLC program.

Table 15. Percent of Sites Reporting School-Related Changes

Changes	*Number of Sites*	*Percent of Sites*
Principal of the school changed ⓘ	59	20%
Superintendent changed or established	41	14%
Host school was faced with budget cuts that affected your site	31	11%
School reorganized ⓘ	16	6%
Program moved to a new school	11	4%
Other major changes at the school or district that affected your program	10	3%

How Did Students' Academic Performance Change?

We report on students' academic performance for 21st CCLC programs in the following categories:

- Percent of students showing improvement in mathematics and English/language arts/reading grades of at least ½ grade (e.g., 2.5 to 3.0) from fall to spring
- Percent of students whose teachers reported any improvement in homework completion and class participation
- Percent of students whose teachers reported any improvement in student classroom behavior

We also present the students' and parents' perceptions of how the 21st CCLC program helped the students improve in various aspects of their academic and non-academic performance and behavior.

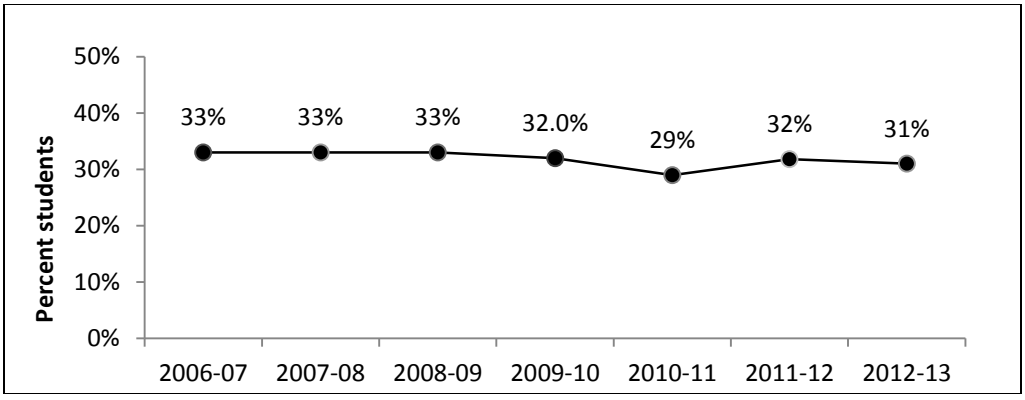
Data for this section were collected through the EZReports program reporting system, Excel files through which sites provided school grades from school records, and teacher surveys collected by 21st CCLC program staff.

Grades

Math Grades

Overall. Figure 3 shows the percent of participants whose math grades improved in each year in Michigan (2006-2013). The percent showing improvement in Michigan has been stable, with almost a third of students improving in math each year.

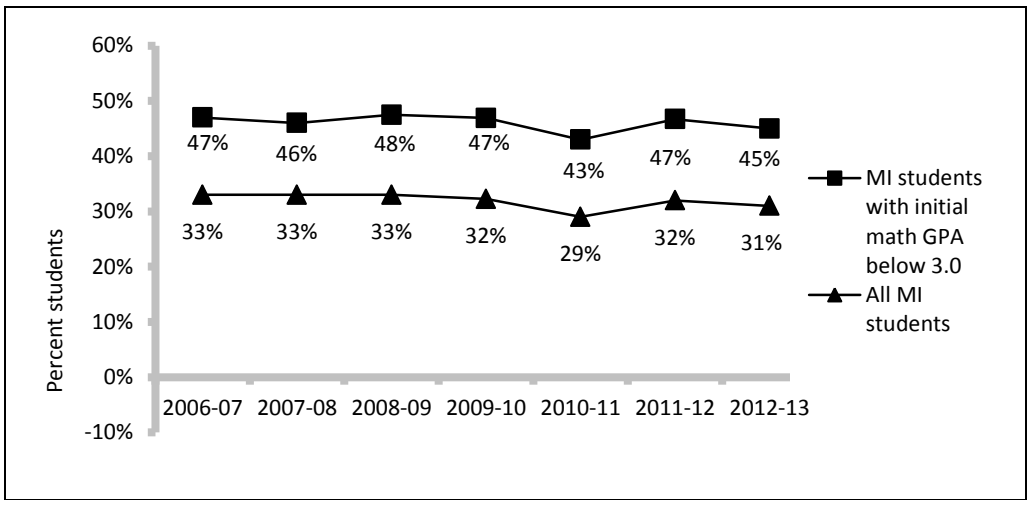
Figure 3. Percent Showing Improvement in Math Grades (2006-2013)



NOTE: Improvement is defined as ½ grade increase from fall to spring within a year. Includes only students who participated at least 30 days.

Students with room for improvement. Students who had lower grades when they entered the program have more opportunity to improve during the program year. Figure 3, above, includes all regularly attending students, both those who started with the highest grades as well as those who had room to improve (having a GPA in math of less than 3.0 at the beginning of the year). As shown in Figure 4, when Michigan students with room for improvement were compared with all Michigan students, a substantially higher percentage of those with room for improvement showed gains (15%). Over the past 7 years, the difference in improvement between all students and those with gradepoints below 3.0 has been stable.

Figure 4. Percent Showing Improvement in Math Grades for All Students vs. Students with Room for Improvement (2006-2013)

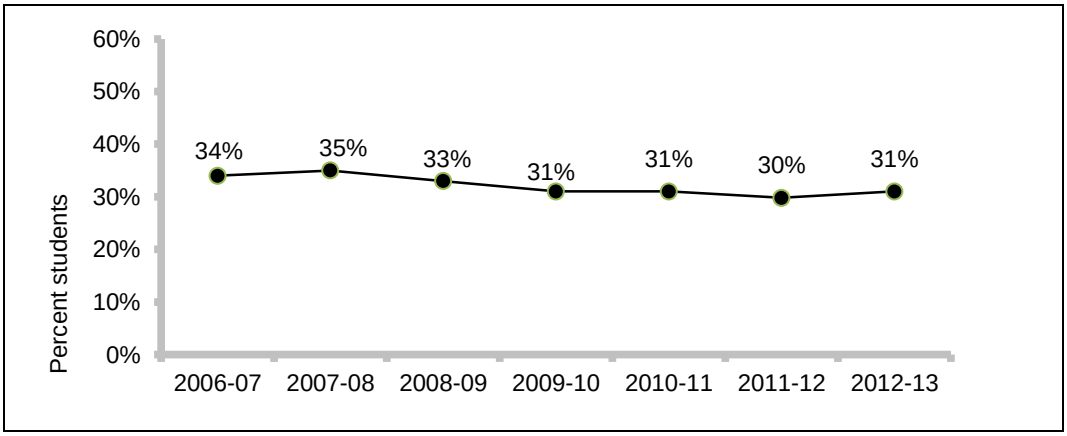


NOTE: Improvement is defined as ½ grade increase from fall to spring within a year. Includes only students who participated at least 30 days. Room for improvement is defined as having a fall grade below 3.0.

Reading Grades

Overall. Figure 5 shows the percent of participants who improved in reading grades each year in Michigan (2006-2013). The percent who improved has remained stable during this period.

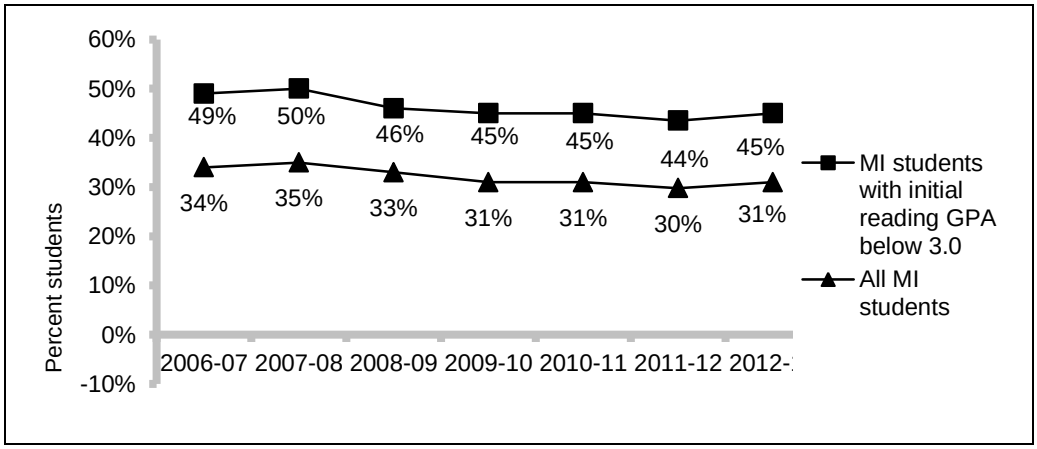
Figure 5. Percent Showing Improvement in Reading Grades (2006-2013)



NOTE: Improvement is defined as ½ grade increase from fall to spring within a year. Includes only students who participated at least 30 days.

Students with room for improvement. When we compare the performance of Michigan regular participants with room for improvement to that of all regular Michigan participants (Figure 6), a substantially higher percentage of students with room for improvement showed at least a half grade gain in reading compared to all students. This has been true over the past 7 years of the program.

Figure 6. Percent Showing Improvement in Reading Grades for All Students vs. Those with Room for Improvement (2006-2013)



NOTE: Improvement is defined as ½ grade increase from fall to spring within a year. Includes only students who participated at least 30 days. Room for improvement is defined as having a fall grade below 3.0.

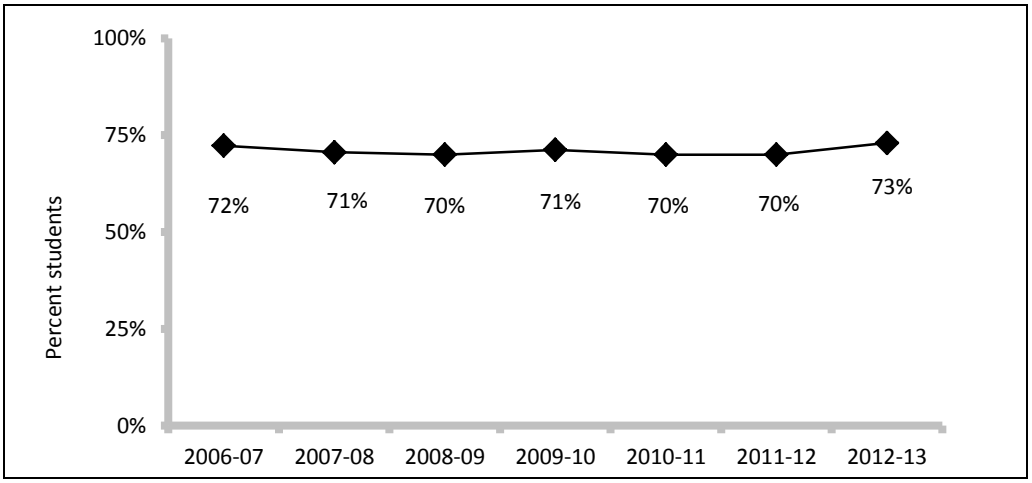
Teacher Ratings

Each year, teachers rate students attending the 21st CCLC program on the extent to which their performance changed over the year in homework completion/classroom participation and classroom behavior. Teachers may rate student performance or behavior as improved, unchanged, declined, or did not need to improve.

Homework Completion/Classroom Participation

Homework completion/classroom participation included behaviors such as turning in homework on time and completing it to the teacher's satisfaction as well as participating and volunteering in class. Figure 7 shows the percent of students who improved in homework completion/classroom participation according to teachers over the past five years. The percent of Michigan students improving has remained stable over the entire time period.

Figure 7. Percent Showing Improvement in Teacher-Reported Homework Completion and Classroom Participation (2006-2013)

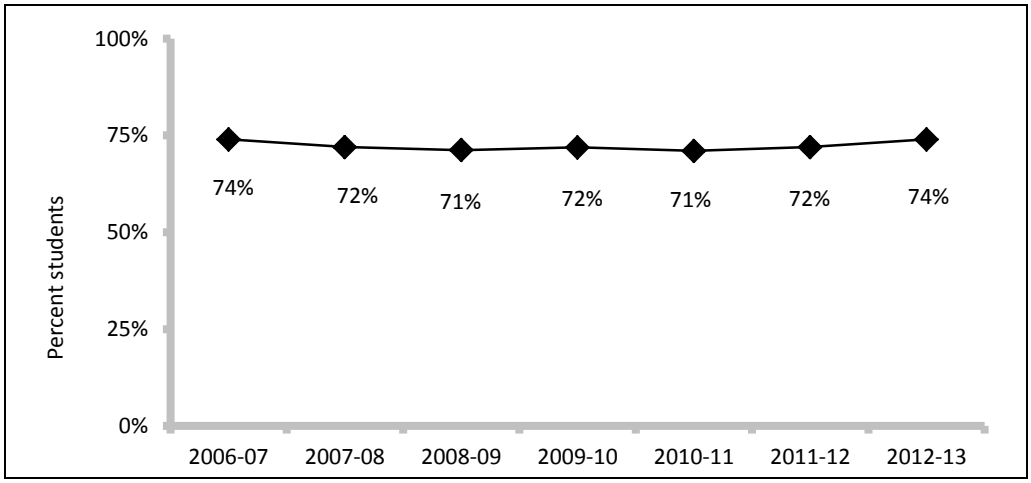


NOTE: Includes only students who participated at least 30 days.

Classroom Behavior

Classroom behavior included items such as behaving well in class and getting along with other students. As shown in Figure 8, Michigan students' performance has remained stable.

Figure 8. Percent Showing Improvement in Teacher-Reported Classroom Behavior (2006-2013)



NOTE: Includes only students who participated at least 30 days.

Student and Parent Perceptions of Program Impact

Students and parents reported on their perceptions of whether the 21st CCLC program helped them/their children improve in various aspects of their academic and non-academic performance and behavior. Note that Table 16 includes only results from those students with room for academic improvement. About two-thirds of students said the program helped them improve in academic areas, especially in reading and math. Large majorities said the program helped engage them in academics, and somewhat fewer, but still a majority, said the program was helpful with other types of skills, such as creativity, physical fitness, technology, or resistance skills. However, note that these results do not take into account whether students actually participated in activities designed to improve the specific outcomes listed.

Parent perceptions of their student's improvement were generally higher than the student's perception of her/his improvement in most categories.

Table 16. Student and Parent Perceptions of Program Impact: Percent Who Reported the Program Helped "Some" or "A Lot"

Outcome	*Percent of Students*	*Percent of Parents*
Academic areas		
Reading, English, language arts, writing	66%	87%
Math	67%	86%
Science/technology	62%	82%
Other school subjects (history, social studies)	62%	81%
Academic engagement		
Getting better grades	76%	89%
Completing homework	87%	90%
Care more about getting good grades	75%	87%
Think that doing well in school was important for having a successful career	80%	85%
Think that success in school would help you have a good life when you grow up/as an adult (parent version)	79%	88%
Want to go to college	72%	78%
Look forward to coming to school	69%	87%
Non-academic areas		
Creative skills, like art, music, dance, drama	65%	86%
Sports, athletic, physical activities	66%	82%
Working with computers/internet	64%	83%
Staying away from drugs and alcohol	69%	85%
Making and keeping friends	69%	91%
Positive youth development		
Social/psychological learning	46%	N/A
Pro-social skills	54%	N/A
Teamwork	60%	N/A
Leadership	55%	N/A

Did Students with Greater Participation in the 21stCCLC Program Have Better Academic Outcomes?

The previous sections describe overall changes in outcomes for participants regardless of what aspects of the program in which they participated. An additional question was whether students who participated to a greater extent in particular activities demonstrated greater changes in academic outcomes. The academic outcomes measured were:

- Student reports of programs helping with academic learning
- Student reports of programs helping increase commitment to school
- Student reports of program curriculum relevant to school learning
- Teacher reports of change in homework completion
- Teacher reports of change in school behavior
- Change in reading grades from fall to spring
- Change in math grades from fall to spring

Analytical Approach

To address this question, we used a series of multilevel models that test whether change occurs while taking into account differences among sites. This is done because outcomes may be similar for students within different programs if they have somewhat similar experiences. Factors that vary among sites include the number of days of operation, whether the program was operated by schools or other entities, such as community-based (CBOs) or faith-based organizations, years of experience in operating 21st CCLC programs, and the characteristics of the students who attend. For these analyses we included regularly offered activities (not special events or field trips) during the 2012-13 regular school year (spring and fall semesters; not summer). Attendance was also calculated by days of participation in certain types of activities. The analyses included the following steps.

The first step was to identify **the contribution of the differences among sites** to differences in student outcomes. For the academic outcomes measured here, results indicated that about 8% to 17% of the differences among student outcomes were associated with site-level characteristics.

The second step was to get a baseline understanding of **how students from different demographic groups, or grade levels or sites with different characteristics, could have shown different average scores on academic performance** regardless of the activities they participated/offered. This step was important in order to separate academic changes linked to greater participation in certain activities from effects that might be due to, for example, some sites having more years of programming experience or some grade levels generally having greater academic improvement. The analyses took into account a number of differences among sites: number of years of experience in operating 21st CCLC programs, total programming days in the year, type of organization operating the program (school or community-based organization), total number of students attending, and the grade levels served. Analyses also took into account different demographic characteristics among individual students: grade level, gender, race/ethnicity, and whether the student was academically low-performing, receiving free/reduced price lunch, identified as Limited English Proficiency or English as a Second Language (LEP/ESL) or special education. Also, because students' perceptions of the extent to which program helped them with academic learning is presumably highly dependent on their overall program experience, a program satisfaction score was calculated for each student and statistically controlled in student-survey related analysis. Thus, whether or not students felt programs were helpful with their academic learning was not dependent on their overall program satisfaction.

During the third step, we examined **the effects of total days of participation as well as total days of participation** in specific types of activities. Each activity was entered into EZreports by site staff with a description and objectives. MSU evaluation team staff then reviewed each activity and coded them into the following categories:

- Academic activity: Academic-focused activities, including:
  - Traditional academics: Homework help, tutoring, lessons, exam preparations, credit recovery
  - Academic enrichment: Project-based learning or embedded learning (e.g., math instruction embedded within cooking)
- Physical activity: Sports, dance and physical recreation
- Free play and social events: Non-physical games (e.g., checkers or card games) and social events
- Arts: Music, painting, and crafts
- Youth development: Character development and leadership
- Health: Nutrition, food, wellness and substance use prevention
- Technology: Computer programs (Excel, PowerPoint, programming), engineering, media and video production

Study Sample

The sample for the analyses was drawn from 26,032 K-12 students enrolled in Michigan 21st CCLC programs during the 2012-13 regular school year. The sample was evenly distributed between males and females. The majority of students were racial/ethnic minorities (61%), academically low performing (81%), and received free/reduced price lunch (82%). A small proportion of them were identified as LEP/ESL (9%) or special education (10%). Among all the 292 sites, the majority of fiduciary agents was school-based (70%) grantees, but programs were operated by non-school-based agencies (60%) such as CBOs or parks and recreation departments. On average, sites served 36 students in a day, operated about 134 days during the regular school year (not including summer), and had almost 5 years of experience operating 21st CCLC programs. About 40% of the sites were elementary school sites, with about 20% of the sites serving either middle schools, high schools, or middle and high school levels combined.

The data included 7,846 student surveys from 272 sites, 9,705 teacher surveys from 285 sites reporting on students who attended at least 30 days, and 18,508 sets of reading and math grades from 265 sites for students who attended the program at least once during the school year. The statistical program employed in this analysis, HLM 6.02, eliminates cases that do not have complete data across variables in the equation. Although most student have complete demographic information such as gender, grade level, race/ethnicity as entered in EZReports,

including additional student information such as their participation in free/reduced price lunch, LEP/ESL and special education resulted in about 15% reduction of sample size. We decided to include these characteristics in the analyses because we think they are important indicators of student backgrounds (lower income status, LEP/ESL learners and special education needs). Also, sample sizes were further dropped by an additional 18% when testing the effects of participation in major activities (academic, youth development, physical activity, free play and social events and arts), as some of the sites didn't offer all these five types of activities and therefore the dosage was missing. Also given the limited availability in program offerings, two less frequently offered activities were tested respectively with a subset of the sample: health and nutrition (about 44% of complete sample) and technology (about 26% of complete sample). A detailed display of the sample sizes of students and sites included in the analyses by each outcome can be found in Table 17 below.

Table 17. Sample Sizes by Academic Outcomes

	STUDENT REPORTS						*TEACHER REPORTS*				*GRADES*			
	Curriculum Connection		*Help with Academic Learning*		*School Commitment*		*Homework Completion*		*School Behavior*		*Reading*		*Math*	
Sample Size (N)	*Youth*	*Sites*	*Youth*	*Sites*	*Youth*	*Sites*	*Youth*	*Sites*	*Youth*	*Sites*	*Youth*	*Sites*	*Youth*	*Sites*
Complete sample	7,747	272	6082	272	5,272	272	9,705	285	9,399	285	18,508	265	18,190	264
Sample A*	6,835	262	5,361	262	4,649	262	7,774	274	7,464	274	16,558	255	16,259	254
Sample B** Academics Youth development Physical activity Free play and social events Arts	5,012	181	3,881	181	3,351	181	5,521	188	5,260	188	12,254	179	11,996	179
Sample C*** Health and nutrition	3,579	123	2,772	123	2,364	123	3,677	128	3,516	128	8,802	127	8,606	127
Sample D*** Technology	2,538	91	1,974	91	1,673	91	2,832	98	2,708	98	2,349	87	2,293	96

*A = Sample with complete demographic information
**B = Sample A + major activity dosages
***C and D = Sample B + less frequent dosage listed in the column

Results

What Characteristics of Sites and Students Are Associated with Differences in Students' Academic Outcomes?

Table 18 shows which site and student characteristics were significantly related to different academic outcomes. Asterisks indicate those site and student characteristics that are significantly related to the outcomes. We found significant

differences, although the effect sizes (the size of the differences) were small. In analyzing the relation between participation in program activities and academic outcomes, we controlled for these differences.

Table 18. Academic Outcomes Varied by Site and Student Characteristics

	STUDENT REPORTS			*TEACHER REPORTS*		*GRADES*	
Effect Size (r)	*Curriculum Connection*	*Help with Academic Learning*	*School Commitment*	*Homework Completion*	*School Behaviors*	*Reading*	*Math*
Site characteristics							
Years of operation	0.02	0.09	0.02	0.08	0.10	0.07	0.03
Operated by public school	0.11	0.03	0.07	0.01	0.01	-0.14*	-0.11
Size	0.01	0.06	0.11	0.05	0.05	0.17**	0.18**
% of regular attendees	0.12*	0.18**	0.10	0.07	0.04	0.21***	0.17***
Elementary sites	0.06	0.05	0.17**	-0.03	-0.02	0.31***	0.19**
Student characteristics							
Male	0.02	0.02	-0.01	-0.05***	-0.05***	-0.01	0.00
Grade	-0.03*	-0.01	-0.01	0.00	0.01	-0.04***	-0.04***
Racial minority	-0.01	0.02	0.04**	-0.02	-0.01	-0.02*	-0.02*
Academically low performing	0.03**	0.01	0.02	-0.02	-0.03*	0.09***	0.08***
Lunch	0.02	0.02	0.02	0.00	0.01	-0.03***	-0.02**
LEP	0.03*	0.04**	0.04**	0.03**	0.04**	0.01	0.01
SpEd	0.04**	0.02	0.01	0.00	0.00	0.00	0.01
Total days	0.01	0.03*	0.02	0.07***	0.06***	0.03***	0.04***
Cut-off days for effect	--	50 days	--	N/A	N/A	10 days	20 days

NOTE: Effect size *r* interpretation: .10 - .29 = small effect; .30 - .49 = medium effect; ≥ .50 = large effect. Effect sizes cannot be negative; sign (-) shows direction of relationship for interpretation purposes.
*$p < .05$, **$p < .01$, ***$p < .001$.

Site characteristics:

- **Site management.** Programs operated by non-school based organizations showed greater average improvement in reading grade than school-based programs.

- **Size.** Larger programs (programs serving more students in a day) showed greater average improvement in reading and math grades than programs serving fewer students in a day.

- **Regular attendance.** Compared to programs constantly serving new faces, programs keeping more regular attendees (defined by having 30 days or more attendance) showed greater average improvement in reading and math grades, and had more students reporting that programs

helped them with academic learning and the curriculum matched or improved school learning.

- **Grade level.** Elementary school sites had more students reporting that programs helped increase their school commitment, and showed greater average improvement scores in reading and math grades than middle and high school sites.

Student characteristics:

- **Gender.** Girls tended to receive higher ratings by teachers than boys on their improvement in homework completion and school behaviors.

- **Age.** Younger students tended to report the program curriculum matched or improved their school learning more than older students; younger students also had higher average improvement scores in reading and math grades than older peers.

- **Race/ethnicity.** Racial/ethnic minority students were more likely to report programs helped develop their school commitment than White students.

- **Low-performing students.** Academically low-performing students showed greater improvement scores in reading and math grades, and were more likely to report that program curriculum matched or improved their school learning. However, teacher ratings on the improvement of their school behaviors tended to be lower than for non-at-risk students.

- **Income.** Students with low incomes (students who received free/reduced lunch) showed smaller improvement in reading and math grades than students from higher income families.

- **English language learners.** Students who received LEP/ESL education showed greater gains in all self-reported aspects of programs helping them with academics (curriculum connection, academic learning and school commitment); their teacher ratings on improvement in homework completion and school behaviors were also higher than for native students.

- **Special education.** Students with special education needs were more likely to report that the program curriculum matched or improved their school learning than regular students.

Did More Days of Attendance Overall Relate to Better Academic Outcomes?

Yes. Results (Table 19) suggest that:

- Students who participated for more days had greater improvement in reading and math grades, teacher ratings on homework completion, and school behavior.

- They were also more likely to report that programs helped them with academic learning than students who participated fewer days.

Table 19. Total days of Participation Related to Several Academic Outcomes in 21st CCLC Programs

	STUDENT REPORTS			*TEACHER REPORTS*		*GRADES*	
	Curriculum Connection	*Help with Academic Learning*	*School Commitment*	*Homework Completion*	*School Behaviors*	*Reading*	*Math*
Total days of participation		✓		✓	✓	✓	✓

Additionally, we found that:

- The effects are small but significant, and hold true even after accounting for site and student characteristics (See Table 18 for effect sizes).

- There is a threshold effect for some outcomes, that is, students meeting certain days of attendance showed better outcomes than those who didn't:

  - For student reports of the program helping with academic learning, students with more than 50 days of attendance showed statistically higher ratings than students who attended fewer than 50 days.

  - The same pattern could be found in students' improvement in reading grades (10 days) and math grades (20 days), in which students with attendance lower than the threshold had lower average scores than students with attendance above the threshold.

  - Because teacher ratings were only conducted on students participating more than 30 days, we could not identify a specific threshold below 30 days; however, the data suggested that the more days students attended, the better the teacher ratings were without any specific threshold.

These results are promising but should be interpreted cautiously. It is possible that students who participated for more days had other factors such as stability or

investment in the program that contributed both to attending more days and to improving academically. Furthermore, the purpose of examining differences across site and student characteristics was to provide a baseline understanding of how academic outcomes may have differed, regardless of students' participation in different activities.

In the next step in the analysis, we further explored whether participation in specific types of activities made a difference in outcomes.

Did Participation in Specific Types of Activities Relate to Increases in Academic Outcomes?

In this section, we determined how the total number of days participating in different types activities was related to the different academic outcomes. Programs offered activities that fell into the following categories:

- **Academic activity:** Academic-focused activities, including:
  - Traditional academics: Homework help, tutoring, lessons, exam preparations, credit recovery
  - Academic enrichment: Project-based learning or embedded learning (e.g., math instruction embedded within cooking)
- **Physical activity:** Sports, dance and physical recreation
- **Free play and social events:** Non-physical games (e.g., checkers or card games) and social events
- **Arts:** Music, painting, and crafts
- **Youth development:** Character development and leadership
- **Health:** Nutrition, food, wellness and substance use prevention
- **Technology:** Computer programs (Excel, PowerPoint, programming), engineering, media and video production

Table 20 summarizes the results of these analyses; Table 21 shows the specific effect sizes for significant relations. Effects were small but significant in all cases.

Table 20. Participation in Specific Types of 21st CCLC Activities Related to Selected Academic Outcomes

Activity Type	STUDENT REPORTS: Curriculum Connection	STUDENT REPORTS: Help with Academic Learning	STUDENT REPORTS: School Commitment	TEACHER REPORTS: Homework Completion	TEACHER REPORTS: School Behaviors	GRADES: Reading	GRADES: Math
Academic	✓[a]	✓		✓			
Traditional academics		✓					
Academic enrichment	✓[a]						
Youth development							
Physical activity				✓[b]	✓[b]	✓	
Free play and social events							
Arts							
Health and nutrition							
Technology	✓[c]						

[a] School-based sites
[b] Non-school-based sites
[c] Negative

Table 21. Effect Sizes for Dosage of Activity Types Relating to Academic Outcomes

Effect Size (r)	STUDENT REPORTS: Curriculum Connection	STUDENT REPORTS: Help with Academic Learning	STUDENT REPORTS: School Commitment	TEACHER REPORTS: Homework Completion	TEACHER REPORTS: School Behaviors	GRADES: Reading	GRADES: Math
Academic	0.04(**)	0.05**	0.01	0.04**	0.04*	0.01	0.01
Traditional academics	0.04	0.08*	0.02	0.01	0.01	0.02	0.01
Academic enrichment	0.04(*)	0.01	0.04	0.03	0.02	0.01	0.01
Free play and social events	-0.02	-0.01	0.02	0.01	0.00	-0.02	0.01
Physical activity	-0.01	-0.00	0.02	0.05(**)	0.05(**)	0.03**	0.00
Arts	-0.00	-0.01	-0.01	0.00	0.00	0.00	-0.01
Youth development	0.01	0.02	0.02	0.00	0.00	0.00	0.01
Health and nutrition	0.00	0.01	0.03	0.00	0.01	0.00	0.01
Technology	-0.05**	0.02	0.02	0.02	0.02	0.01	0.01

NOTE: Controlling for student gender, grade level, race/ethnicity, academic at-risk status, free/reduced lunch, LEP and special education status.
Effect size *r* interpretation: .10 - .29 = small effect, .30 - .49 = medium effect, ≥ .50 = large effect.
Effect sizes cannot negative; sign "-" shows direction of relationship for interpretation purposes.
*$p < .05$, **$p < .01$.
( ) Interaction effect with site type.

Reading and Math Grades

Only participation in **physical activity** was significantly related to any improvement in grades; students who participated in physical activity were more likely to show improvement in reading grades. This association may reflect differences in program policies rather than any aspect of the activity that improves reading.

Teacher Ratings of Student Performance

Participation in two different activities was related to greater improvement in teacher ratings:

- Students with greater participation in **academics** were more likely to be rated as having improved in homework completion.

- Students at **non-school based sites** who participated in **physical activity** were more likely to be rated as having improved in both homework completion and school behavior; this did not hold true for students at school-based sites.

These differences in the association between participating in physical activity and teacher ratings may reflect different programming strategies for these two types of sites, such as requiring that homework be completed before sports participation, or different instructional approaches, such as connecting sports participation with behavioral improvement plans.

Help with Academic Learning

Students who had greater participation in **any academic activities** or **traditional academic activities** were more likely to report that the program helped them with academic learning.

Connection to School Curriculum

Students who participated in two different types of activities were more likely to report that the program was connected to the school-day curriculum.

- Students at school-based sites who participated in any academics or academic enrichment were more likely to report that the program was connected to the school-day curriculum.

- Students who participated more in technology activities reported a lower connection between program activities and the school-day curriculum.

It makes sense that more students in school-based sites than nonschool-based sites who participated in academics reported a connection to school-day curriculum, as many programs use school-day teachers to lead academic activities.

As to technology, only about one quarter of 21st CCLC students participated in these types of activities, since they are offered less frequently than many other types of activities. Students who participated in a lot of technology activities indicated that this was not something that they did at schools and was not related to homework or helping them get better grades. The finding is interesting in the sense that this negative association suggests that out-of-school programs are offering unique opportunities by exposing students to more technology-related learning less available at schools.

Other Types of Activities and Academic Outcomes

Most Michigan 21st CCLC program sites also offer activities in youth development, arts, and free play/social events; about half offer activities in health and nutrition. Participation in any of these activities was not related to greater improvements in academic outcomes. However, outcomes in this report are specifically academic in nature; there are other important developmental outcomes, such as better health and socio-emotional development. Thus, these activities are important to a well-rounded program in positive youth development and may also help sustain participation by engaging youth's interest.

Figure 9. The Effect of Academic Dosage on Curriculum Connection Varied by Site Types

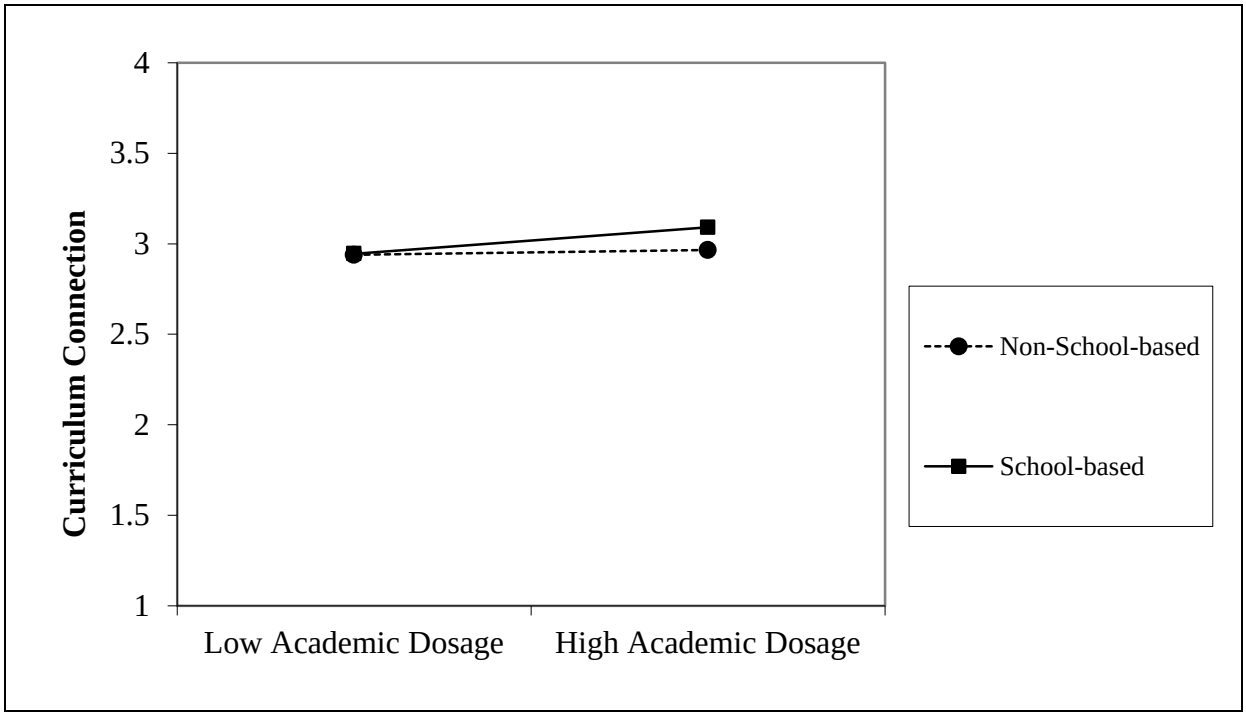


Figure 10. The Effect of Academic Enrichment Dosage on Curriculum Connection Varied by Site Types

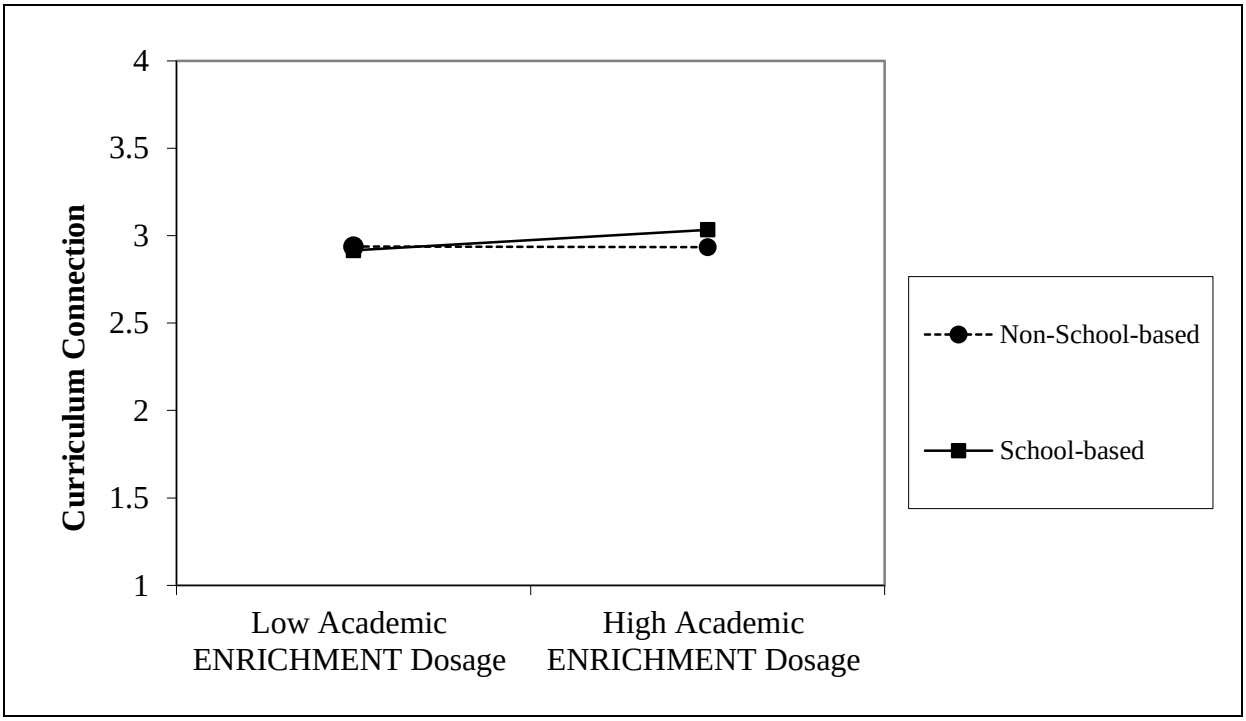


Figure 11. The Effect of Physical Activity Dosage on Teacher Ratings Varied by Site Types