

Missouri 21st Century Community Learning Centers Statewide Evaluation

2016-2017 Annual Report

Report to the Missouri Department of Elementary and Secondary Education

October 2017



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Missouri 21st Century Community Learning Centers Statewide Evaluation Report: 2016-2017 Annual Report

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Table of Contents

Introduction.....	4
Purpose and Components of the Evaluation	4
Evaluation Framework	4
21 st CCLC Evaluation Statewide Goals and Objectives	5
Evaluation & Program Quality Improvement	6
Summary of Findings.....	8
Goal 1: Student Achievement/Academics	8
Goal 2: Program Quality	9
Goal 3: College/Career Readiness.....	10
Evaluation Methodology.....	11
Measures, Data Collection Procedures, and Sample Characteristics	11
Project Director/Site Coordinator Survey & Sample.....	12
Direct Staff/Youth Worker Survey.....	13
Youth Survey	14
Parent Survey	15
Program Quality Assessment.....	16
Kids Care Center (KCC)	16
Findings/Results	17
Goal 1: Student Achievement/Academics	17
Goal 2: Program Quality	20
Goal 3: College/Career Readiness.....	31
Recommendations	35
References	38
Appendix A: Technical Detail on Reliability of Measures	40
Appendix B: Profiles of High- and Low-Performing Sites.....	42
Appendix C: Logic Model for Missouri’s Afterschool Programs	44
Including Improvement Strategies, Evaluation Goals, and Measures	44

Introduction

In 2002, the No Child Left Behind Act (NCLB) was reauthorized and the responsibility for distributing federal funding regarding 21st Century Community Learning Centers (CCLC) was shifted to each state. These dollars are intended to fund afterschool programs that are located in high poverty areas or in low-achieving schools. Grants are awarded to applicants whose main goals are to increase academic achievement, provide additional enrichment activities, and provide literacy and educational services for the parents of youth who attend the afterschool programs (United States Department of Education, 2011).

Both the State Education Agency (SEA) and grantees must comply with specific evaluation and accountability policies and reporting structures. SEAs must provide comprehensive annual evaluations of their 21st CCLC programs, reporting on the performance measures listed in their applications to the United States Department of Education. These reports must be made available for public consumption.

Since 2002, the Missouri Department of Elementary and Secondary Education (DESE) has utilized federal dollars to fund afterschool programming in a wide variety of school districts and community organizations. To date, DESE has awarded approximately 212 grants serving approximately 26,000 youth per year (Afterschool Alliance, 2013; Missouri Department of Elementary and Secondary Education, 2014).

During the 2016-2017 program year, 61 grants were awarded 21st CCLC funding from DESE. These grantees represented 149 different sites/centers splitting approximately \$19.0 million that was delegated to DESE by the federal government. In fulfillment of the federal requirement for an annual evaluation, DESE contracted with the Missouri AfterSchool Network (MASN) to coordinate data collection and evaluation efforts for the 2016-2017 academic year. MASN then consulted with both the David P. Weikart Center for Youth Program Quality (CYPQ) at the Forum for Youth Investment and the Office of Social and Economic Data Analysis (OSED) at the University of Missouri-Columbia to jointly complete the Missouri 21st CCLC Statewide Evaluation.

Purpose and Components of the Evaluation

Since 2013, DESE has contracted with the Missouri AfterSchool Network to implement the 21st CCLC Statewide Evaluation framework, coordinate the statewide data collection efforts, and consult with OSED and the Weikart Center to complete their individual and collective portions of the evaluations.

Evaluation Framework

The Missouri 21st CCLC Statewide Evaluation framework is based upon the Logic Model for Missouri's Afterschool Programs (Appendix D) adopted by the Missouri AfterSchool Network Steering Committee. As seen in the graphic below, afterschool programs benefit from training and professional development, coaching, and self-assessment activities that lead to improvements in both the skills of afterschool staff and improvements in the structure of afterschool programs. These changes in skills and structure can be measured in the quality of the afterschool programs. High quality afterschool programs lead to better youth outcomes, which lead to more success in college, career, and life.

Figure 1 – Logic Model for Missouri Afterschool Programs



21st CCLC Evaluation Statewide Goals and Objectives

Based on this framework, the Missouri 21st CCLC Statewide Evaluation includes goals and objectives in three areas: 1) academics, 2) program quality, and 3) college and career readiness skills. Historically, 21st CCLC evaluation has focused on academic outcomes such as increases in reading and math grades, but the Missouri 21st CCLC Statewide Evaluation framework also includes survey questions specific to academic self-efficacy as afterschool programs often positively influence youth's attitudes toward learning with the variety of hands-on learning activities found in afterschool. The second goal focusing on program quality includes the Leading Indicator framework and external PQA data. In addition to academic outcomes and program quality measures, the evaluation framework includes the youth outcomes that afterschool programs significantly impact which lead to college and career readiness: positive school behaviors, personal and social skills, and commitment to learning.

Starting in 2016-17, DESE modified the statewide objective benchmarks for grant-funded afterschool programs. Instead of requiring that *all* sites achieve the objective, DESE has changed the expectation to 85% of sites. This change reflects more realistic expectations at the state level.

Goal 1: Support or increase student achievement and sense of competence in the areas of reading/communication arts, mathematics, and science.

- *Objective 1.1:* For 85% of grant-funded sites, at least 70% of youth per site will maintain and/or increase their grades in reading/communication arts during the school year as measured by pre-/post-grades entered into Kids Care Center.
- *Objective 1.2:* For 85% of grant-funded sites, at least 50% of youth per site will maintain and/or increase their grades in math during the school year as measured by pre-/post-grades entered into Kids Care Center.
- *Objective 1.3:* For 85% of grant-funded sites, at least 50% of youth per site will maintain and/or increase their grades in science during the school year as measured by pre-/post-grades entered into Kids Care Center.
- *Objective 1.4:* For 85% of grant-funded sites, at least 70% of youth per site will report a medium to high level of reading efficacy as measured by items on the Leading Indicators Youth Survey (average score of 3.5 or higher).
- *Objective 1.5:* For 85% of grant-funded sites, at least 70% of youth per site will report a medium to high level of math efficacy as measured by items on the Leading Indicators Youth Survey (average score of 3.5 or higher).
- *Objective 1.6:* For 85% of grant-funded sites, at least 70% of youth per site will report a medium to high level of interest and engagement in STEM as measured by questions from the Common Instrument Science Survey (total score of 3.0 or higher).

Goal 2: Develop and maintain a quality program that includes a safe and supportive environment, positive interactions, and meaningful opportunities for engagement.

- *Objective 2.1:* At least 85% of grant-funded sites will score an average 2.9 on the Program Quality Assessment tool.
- *Objective 2.2:* At least 85% of grant-funded sites will score an average 3.0 on the Organizational Context Leading Indicators of Staffing Model and Continuous Improvement.
- *Objective 2.3:* At least 85% of grant-funded sites will score an average 3.0 on the Instructional Context Leading Indicators of Academic Press and Engaging Instruction.
- *Objective 2.4:* At least 85% of grant-funded sites will score an average 3.0 on the External Relationships Leading Indicators of Family Communication and School Alignment.

Goal 3: Enhance youth's college and career readiness skills and behaviors, including positive school behaviors, personal and social skills, and commitment to learning.

- *Objective 3.1:* For 85% of grant-funded sites, at least 50% of youth per site will meet or exceed the school district’s average rate of school-day attendance.
- *Objective 3.2:* For 85% of grant-funded sites, at least 50% of total youth enrolled in the afterschool program per site will have at least 60 days of attendance in the afterschool program.
- *Objective 3.3:* For 85% of grant-funded sites, at least 50% of youth per site will have no in-building or out-of-school suspensions.
- *Objective 3.4:* For 85% of grant-funded sites, at least 70% of youth per site will indicate a medium to high level of personal and social skills as measured by the youth outcomes survey (average score of 3.5 or higher).
- *Objective 3.5:* For 85% of grant-funded sites, at least 70% of youth per site will indicate a medium to high level of commitment to learning as measured by the youth outcomes survey (average score of 3.5 or higher).

Evaluation and Program Quality Improvement

The evaluation design includes a number of steps intended to support sites not only with their data collection efforts, but also with the interpretation of those data. Program evaluation includes 1) support in the collection and submission of federally required data through the Kids Care Center (KCC) system, 2) collection of statewide survey data at multiple levels from multiple sources, and 3) preparation of site-level Leading Indicator, Afterschool Survey Results, and External Evaluator Site Summary reports allowing for site-level comparisons to statewide norms.

In addition to evaluation, the Logic Model and Missouri 21st CCLC goals and objectives provide a structure for utilizing data to improve program quality. The Missouri 21st CCLC grantees have been receiving training and technical assistance from the Missouri Afterschool Resource Center (MOARC) since the beginning of their grant. The 2016-17 academic year marks the fourth year of participation in the Program Quality Improvement process.

The Program Quality Improvement process (see Figure 2) is aimed at embedding a culture of continuous assessment and planning, and implementation (Smith, Akiva, Sugar, Lo, et al., 2012). Using the School-Age Program Quality Assessment (School-Age PQA) and Youth Program Quality Assessment (Youth PQA) tools (Smith & Hohmann, 2005), external evaluators collected objective data about the point of service at each 21st CCLC site. Sites worked with their Afterschool Regional Educator (technical assistance coach) to review the data to see where they were doing well and where they could improve. All sites created a site level Quality Action Plan that included detailed information about the timeline for the goals, parties responsible for making them happen, resources and supports necessary, and what that goals would actually look like when they were completed.

The Program Quality Improvement process used in the Missouri 21st CCLC programs was adapted from the Weikart Center’s evidence-based continuous improvement model and includes 1) support in the understanding and interpretation of the Leading Indicator reports (provided by the Weikart Center and OSEDA), and 2) support in the creation and implementation of Program Improvement Plans based on the data in the Leading Indicator reports. The Leading Indicators and other survey data were collected at the end of the 2016-17 program year and will be incorporated into the Program Quality Improvement process for the 2017-18 program year. The 21st CCLC grantees attended a Mini-Planning with Data session where they explored the data, determined priorities, and created action plans based on both the PQA and survey data.

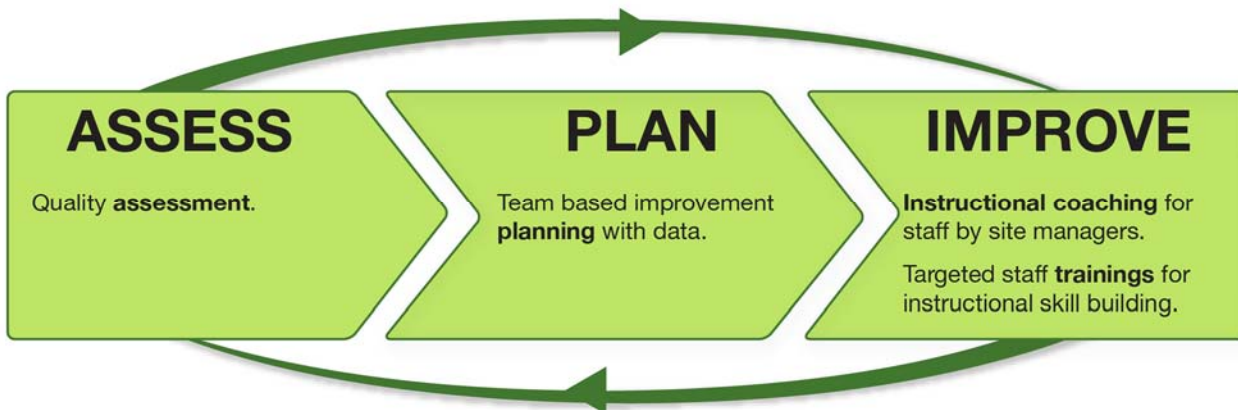
Table 1 presents a complete timeline of the services and supports surrounding program evaluation and quality improvement activities.

Table 1 – 2016-2017 Program Evaluation Component Timeline

Date/Time	Activities
Ongoing	Youth Work Methods trainings available to grantees
October 2016	DESE grantee meeting
Ongoing	Kids Care Center trainings

September 2016-May 2017 Ongoing	Mini-Planning with Data Kids Care Center data entry
October 2016-May 2017 Ongoing	External PQAs completed, feedback reports returned as completed Program and site-level technical assistance visits, action plans reviewed
February-March 2017	Evaluation surveys administered
August 2017	Site-level Leading Indicator, Academic and College/Career Readiness and Site Summary reports created
October 2017	Statewide evaluation report

Figure 2 – The Program Quality Improvement Process: ASSESS-PLAN-IMPROVE



Summary of Findings

In this section, we divide the presentation of findings into three sections arranged by the statewide goals. This section constitutes an overview of more detailed findings, which can be found beginning on page 17. We describe system-level performance against specific objectives and indicators set at the state level. In this section we draw upon several data sources including federally mandated data on school success outcomes (i.e., achievement, school behaviors), some of the Leading Indicators performance information, and Missouri-specific survey information. In the next section, we characterize findings from the all these data sources in terms of strengths and areas for improvement and summarize results across sites to describe findings at the system level.

Goal 1: Student Achievement/Academics

Goal 1: Support or increase student achievement and sense of competence in the areas of reading/communication arts, mathematics, and science.

- **Objective 1.1:** For 85% of grant-funded sites, at least 70% of youth per site will maintain and/or increase their grades in reading/communication arts during the school year as measured by pre-/post-grades entered into Kids Care Center.
 - **Objective met: 93% of sites met this objective.**
- **Objective 1.2:** For 85% of grant-funded sites, at least 50% of youth per site will maintain and/or increase their grades in math during the school year as measured by pre-/post-grades entered into Kids Care Center.
 - **Objective met: 94% of sites met this objective.**
- **Objective 1.3:** For 85% of grant-funded sites, at least 50% of youth per site will maintain and/or increase their grades in science during the school year as measured by pre-/post-grades entered into Kids Care Center.
 - **Objective met: 87% of sites met this objective.**
- **Objective 1.4:** For 85% of grant-funded sites, at least 70% of youth per site will report a medium to high level of reading efficacy as measured by items on the Leading Indicators Youth Survey (average score of 3.5 or higher).
 - **Objective unmet: 59% of sites met this objective.**
- **Objective 1.5:** For 85% of grant-funded sites, at least 70% of youth per site will report a medium to high level of math efficacy as measured by items on the Leading Indicators Youth Survey (average score of 3.5 or higher).
 - **Objective unmet: 65% of sites met this objective.**
- **Objective 1.6:** For 85% of grant-funded sites, at least 70% of youth per site will report a medium to high level of interest and engagement in STEM as measured by questions from the Common Instrument Science Survey (total score of 3.0 or higher).
 - **Objective unmet: 44% of sites met this objective.**

Strengths:

- ❖ Across almost all sites, a majority of youth maintained or increased their grades in reading/communication arts, math, and science. Given that most youth who participate are at-risk for academic problems, this finding suggests that afterschool programs are helping children with their academic achievement.

Improvement Areas:

- ❖ The benchmark percentage for maintaining/increasing reading grades has been decreasing over time, whereas the percentage for math grades has remained about the same. The benchmark percentage for science grades decreased this year, which may be due to the standardization of time points used to calculate grade changes.
- ❖ Many sites need to work on providing youth with the activities needed to enhance their academic self-efficacy in reading, math, and science. In particular, sites should focus on enhancing youth efficacy and engagement in science given that only 44% of sites met the objective.

Goal 2: Program Quality

Goal 2: Develop and maintain a quality program that includes a safe and supportive environment, positive interactions, and meaningful opportunities for engagement.

- **Objective 2.1:** At least 85% of grant funded sites will score an average 2.9 on the Program Quality Assessment tool.
 - **Objective met: 98.6% of sites met this objective (N=138).**
- **Objective 2.2:** At least 85% of grant-funded sites will score an average 3.0 on the Organizational Context Leading Indicators of Staffing Model and Continuous Improvement.
 - **Objective met: 97.9% of sites that submitted complete data for both Staffing Model and Continuous Improvement (N=137) averaged 3.0 or above.**
- **Objective 2.3:** At least 85% of grant funded sites will score an average 3.0 on the Instructional Context Leading Indicators of Academic Press and Engaging Instruction.
 - **Objective met: All (N=140) sites met this benchmark (all 140 sites had complete data).**
- **Objective 2.4:** At least 85% of grant funded sites will score an average 3.0 on the External Relationships Leading Indicators of Family Communication and School Alignment.
 - **Objective unmet: However, most sites (75.0%) that submitted complete data (N=105) met this benchmark.**

Strengths:

- ❖ Parents have reported a slight increase in communication with the afterschool program compared to the 2016-2017 year. The largest increase occurs in recruitment to participate in and/or lead sessions at the afterschool program as reported in the Family survey. This indicates that MO 21st CCLC programs are promoting and encouraging participation of family members in the program.
- ❖ Staff and project directors reported overall satisfaction with their job. Ninety eight percent reported the condition of their job was excellent over half the time and ninety eight percent reported feeling satisfied with their job over half the time.
- ❖ Total Program Quality Assessment scores have steadily increased in the Missouri 21st CCLC network since the 2013-2014 academic year. Specifically, the largest increase (.25) occurred in the engagement domain. This indicates that sites in the Missouri network are doing better at facilitating youth planning around the curriculum, amplifying opportunities to make choices based on individual interest, and most important, encouraging youth to reflect on their experiences within the program.
- ❖ Staff reported an increase and growth and mastery skills compared to the 2016-2017 year. Specifically, staff report an increase in student exposure to new experience, student responsibilities and privileges that increase over time, and student participation in sequence sessions where the task complexity increases to build skills. High scores on Growth and Mastery have been linked to strong SEL skill development (Smith, McGovern, Peck, Larson, Hillaker, Roy, 2016).

Improvement Areas:

- ❖ Project directors in the Missouri network reported a decline in staff capacity. Specifically, project directors reported a large decrease (0.23) in staff retention. Additionally, project directors reported a reduction in staff time in order to attend meetings or do adequate planning compared to the 2016-2017 program year.
- ❖ Staff in the Missouri network reported limited training. Seventy five percent of staff reported that they never attended Weikart Center's Planning with Data or Youth Work Methods trainings in the 2016-2017 program year. Twenty seven percent of staff reported attending other training focused on skill instruction or positive youth development.

Goal 3: College/Career Readiness

Goal 3: Enhance youth's college and career readiness skills and behaviors, including positive school behaviors, personal and social skills, and commitment to learning.

- **Objective 3.1:** For 85% of grant-funded sites, at least 50% of youth per site will meet or exceed the school district's average rate of school-day attendance. (FY 17)
 - *This objective will be evaluated next year (FY 2018).*
- **Objective 3.2:** For 85% of grant-funded sites, at least 50% of total youth enrolled in the afterschool program per site will have at least 60 days of attendance in the afterschool program.
 - **Objective unmet: However, nearly two-thirds (63.6%) of sites met this objective.**
- **Objective 3.3:** For 85% of grant-funded sites, at least 50% of youth per site will have no in-building or out-of-school suspensions. (FY 17)
 - *This objective will be evaluated next year (FY 2018).*
- **Objective 3.4:** For 85% of grant-funded sites, at least 70% of youth per site will indicate a medium to high level of personal and social skills as measured by the youth outcomes survey (average score of 3.5 or higher).
 - **Objective met: 97.1% of sites met this objective.**
- **Objective 3.5:** For 85% of grant-funded sites, at least 70% of youth per site will indicate a medium to high level of commitment to learning as measured by the youth outcomes survey (average score of 3.5 or higher).
 - **Objective met: 97.8% of sites met this objective.**

Program Strengths:

- ❖ Overall, youth report strong skills on the constructs of personal/social skills and commitment to learning, with nearly all sites meeting the benchmarks.

Improvement Areas:

- ❖ Nearly two-thirds (64%) of sites met the 60-day attendance benchmark. Although this percentage has been increasing over time, it is still shy of the 85% statewide benchmark. Given the research base demonstrating the importance of afterschool dosage to positive youth outcomes (e.g., Hansen & Larson, 2007; Huang et al., 2008), higher attendance is crucial to programs' success. However, it should be noted that sites that serve older youth face greater challenges in increasing attendance than those that serve younger youth.

Evaluation Methodology

Measures, Data Collection Procedures, and Sample Characteristics

The design and methodology of the Missouri 21st CCLC Statewide Evaluation intentionally uses the same structure and data as the site-level technical assistance in an effort:

- To improve cost effectiveness of investments in evaluation by reorienting evaluation purposes to include grantee/site-level continuous improvement as a primary goal while maintaining system-wide summative conclusions as an important but secondary goal.
- To support continuous improvement decisions by:
 - Collecting data which is focused on specific best practices at multiple levels – system, organization, point of service – in order to simultaneously empower actors at all levels and roles to improve performance;
 - Collecting child-level data which is proximal to the point of service setting where instruction is delivered in order to more effectively inform site level actors about actionable beliefs and skills that children both bring to, and develop, in the program.
- To improve our ability to differentiate between high and low quality programs by including information from multiple measures in a single profile of grantee/site performance, thereby reducing the threat of erroneous decision making due to error in any single measure.

The Leading Indicator framework is used for Goal 2 of this evaluation. The Leading Indicator framework came from the *Youth Program Quality Intervention Study* (Smith, Akiva, Sugar, Lo, et al., 2012) and was first executed in the state of Michigan's 21st CCLC program beginning in 2008. In the Missouri Evaluation, Leading Indicator reports were produced for each grantee, comparing grantee performance with normative performance across all grantees in the state. This report provides a summative profile of performance for the statewide system, across all sites and grantees.

The thirteen leading Indicators are constructed as composites from 29 scale scores drawn from survey and observational measures administered to program staff, students and parents. Scale scores are designed to identify best practices that impact quality and effectiveness of afterschool programs, according to theory, research and the experience of Weikart Center staff. The 13 leading indicator composite scores are constructed as means across each of the unweighted scales in that domain (Smith, Akiva, Sugar, Lo, et al., 2012). These composite scores are most appropriately used for exploratory purposes, guiding grantee/site staff toward further examination scale and item level scores. The Leading Indicators are arranged in alignment with five primary settings or contexts that characterize afterschool programming: Organizational, Instructional, External Relationships, Youth Skills, and Family Satisfaction. For the Missouri Evaluation, six of the leading indicators are used in the objectives of Goal 2.

The reliability and validity of the leading indicators are described in a report to the Oklahoma Department of Education and is based on research methods for composing scores from multiple criteria (Bobko, Roth, & Buster, 2007; Fralix & Raju, 1982; Smith, Akiva, Sugar, & Hallman, 2012). Appendix B provides descriptive information and reliability evidence for the Missouri sample. In general, the 29 scales demonstrate acceptable levels of internal consistency (items within scales) and fairly high levels of inter-rater agreement (persons within program sites).

Given the increasing evidence base of the importance of social-emotional learning for student college and career readiness development (Duckworth & Seligman, 2005; Durlack, Weissberg, Dymnicki, Taylor, & Schellinger, 2011; Dweck, Walton, & Cohen, 2011; Farrington et al., 2012), the Missouri 21st CCLC Statewide Evaluation Goal 3 is comprised of objectives that assess important facets of social and emotional skills. Objectives 3.4 and 3.5 specifically address the measurement of personal/social skills and commitment to learning. OSEDA and MASN developed scales that included items from the Leading Indicators, as well as items that reflected content from a number of existing scales. Based on feedback from last year's respondents, the Missouri-created youth scales were shortened. The Personal and Social Skills Scale is comprised of 19 self-report items that address communication skills, ability to relate to others, appropriate social behavior, and ability to take responsibility and initiative. The Commitment to Learning Scale, with six self-report items, assesses work habits and positive school engagement. Both scales are reported as unweighted means of the items that comprise the scales. Estimates for the internal consistency reliability and inter-rater consistency of these scales are within acceptable ranges (see table A1).

In addition, to measure Objective 1.6, which addresses interest and engagement in STEM, the Common Instrument Science Survey (Noam, Robertson, Papazian, & Guhn, 2014, in prep) developed at Harvard's Program in Education, Afterschool, and Resiliency (PEAR), was used. This instrument was chosen in part because of MASN's involvement with Project LIFTOFF, a grant from the Noyce Foundation to implement STEM-related professional development and programming in Missouri. Project LIFTOFF sites in Missouri participated in the validation study for the Common Instrument.

The following describes each measure and source of information used to construct the Leading Indicator and College and Career Readiness reports as well as the procedures for data collection. Sample characteristics are also provided.

Project Director/Site Coordinator Survey and Sample

In many 21st CCLC systems across the United States, a grantee typically oversees multiple sites (or locations where programming is offered), each of which is managed by a site coordinator who is responsible for the daily operations of programming and staff supervision. Conversely, the project director typically operates at a higher level of management, communicating accountability policies to site coordinators. However, in Missouri’s 21st CCLC system, there are grantees who offer programming at only one site and in which the project director is also the site coordinator. Therefore, this survey was directed primarily at project directors, although site coordinators who were not also project directors were surveyed where appropriate.

The project director/site coordinator survey consisted of 56 items addressing perceptions of various practices and organizational characteristics that fell under the Organizational and External Relationships Contexts. These questions focused on issues such as staff capacity to carry out the work, job satisfaction, the role of youth in governing the program (where age appropriate), enrollment for students with academic risk factors, accountability and collaboration norms, connections to the school day, community engagement with the afterschool program, coordination of the program, and strengthening families.

The project director/site coordinator survey was administered between February and April of 2017 via an online survey incorporated into the state’s MOPD Toolbox. Individualized survey links were prepared for each 21st CCLC site with the unique organization identifier included in the survey link so that responses were attributed to the correct site. Standardized e-mail text was provided to the grant administrator for distribution along with the site-specific survey link. E-mails were sent regularly to grant administrators to update them on the number of respondents so they could monitor their data collection.

A total of 204 project directors and site coordinators responded to the online survey, representing 99% of the 140 Missouri 21st CCLC sites (N=139). Table 2 below displays characteristics of project directors and site coordinators. The majority of respondents had a master’s degree (48%), were female (over 76%), and White (over 70%). Over half (63%) were certified teachers. The average number of hours worked per week was 27.8, and project directors and site coordinators worked for approximately 10 months out of the year.

Table 2 – Project Director/Site Coordinator Survey Respondent Characteristics

Characteristics	N=204
Average years of experience at site in any capacity	4.88
Average years of experience at site as Project Director/Site Coordinator	3.68
Education level	
Less than high school diploma/GED	0%
GED/High school diploma	1%
Some college, no degree	11%
Associate’s degree	10%
Bachelor’s degree	28%
Graduate program but no degree yet	7%
Master’s degree	48%
Doctorate	1%
Other professional degree after Bachelor’s	2%
Teaching certification	63%
Average months worked per year	9.99
Average hours worked per week	27.80
Gender	24%
Race (check all that apply)	
White	72%
African American	23%
Hispanic	1%
Arab American	0%
Asian	0%
Other race	1%

Direct Staff/Youth Worker Survey

The Direct Staff/Youth worker survey consisted of 56 questions and was directed at the staff within each site/center who were directly responsible for providing programming to children and youth. These staff were in direct contact with children and youth on a day-to-day basis. This survey asked questions regarding job satisfaction, involvement in continuous quality improvement efforts, communication with peers and with the project directors/site coordinators, the extent that academic activities are part of their afterschool offerings, the growth and mastery skills of the children and youth in their programs, and connections to the school day.

The Direct Staff/Youth Worker survey was also administered between February and April of 2017 via an online survey incorporated into the state's MOPD Toolbox. Individualized survey links were prepared for each 21st CCLC site with a unique organization identifier included in the survey link so that responses were attributed to the correct site. Standardized e-mail text was provided to the grant administrator for distribution along with the site-specific survey link. E-mails were sent regularly to grant administrators to update them on the number of respondents so they could monitor their data collection.

A total of 1,134 after school teachers and youth workers responded to the online survey, representing responses from 94% of the 140 Missouri 21st CCLC sites (N=133). Table 3 highlights the characteristics of the afterschool direct staff and youth workers that interacted with youth on a daily basis. The average number of years worked at the site was approximately three years and over half of staff had a bachelors' or a master's degree. Approximately 49% of staff was certified school-day teachers and the majority were white females. On average the staff worked 8.9 months out of the year and approximately 13.8 hours per week.

Table 3 – Direct Staff/Youth Worker Survey Respondent Characteristics

Characteristics	N=1,134
Average years of experience at site	2.81
Education level	
Less than high school diploma/GED	0%
GED/High school diploma	12%
Some college, no degree	24%
Associate's degree	9%
Bachelor's degree	25%
Graduate program but no degree yet	0%
Master's degree	28%
Doctorate	0%
Other professional degree after bachelor's	1%
Teaching certification	49%
Average months worked per year	8.95
Average hours worked per week	13.80
Gender	17%
Race	
White	68%
African American	23%
Hispanic	2%
Arab American	0%
Asian	1%
Other race	3%

Youth Survey

Two youth surveys were administered as part of the 2016-2017 Missouri statewide evaluation of 21st CCLC programs. The Younger Youth Survey consisted of 31 questions designed for youth in kindergarten through second grade. A second youth survey was designed for youth in third through twelfth grades and consisted of 59 questions. Both youth surveys were designed for youth who attended the afterschool programs. Youth were asked to report on social and emotional competencies, their homework completion in the afterschool program, the extent to which they felt engaged in and belonged in the program, work habits, commitment to learning, and their self-efficacy regarding academic content areas such as English/reading, math, science, and technology. Some of these measures were adapted from the California Outcomes Project (Vandell, 2012) and are being used with permission.

Most grantees completed the Youth Surveys via an online survey incorporated into the state's MOPD Toolbox. Individualized survey links were prepared for each 21st CCLC site with the unique organization identifier included in the survey link so that responses were attributed to the correct site. Additionally, unique student identifiers were provided for each youth so that their youth survey data could be matched to the attendance and grades data included in the Kids Care Center system. Some programs requested Spanish copies of the survey which were provided on paper. If paper copies were returned, they were entered into the online survey by MASN staff. Prior to receiving the youth survey link, sites sent home a passive consent form to parents explaining the rationale for the youth survey and the confidentiality measures being implemented. E-mails were sent regularly to grant administrators to update them on the number of respondents so they could monitor their data collection.

A total of 11,097 youth in K through 12th grade completed a survey, representing responses from 98% of Missouri 21st CCLC sites (N=137). Table 4 presents demographic information for the youth in this sample. The average age of youth in the 21st CCLC programs was 10 years old and their average grade in school was fourth grade. Fifty-one percent of youth were male while 58% reported they were white, 29% reported they were African American, 2% reported Hispanic, 4% reported "other," 0% reported being Asian, and 4% reported being Arab American.

Table 4 – Youth Survey Respondent Characteristics

Characteristics	N=11,097
Average age	10.15
Average grade	4.36
Gender	51%
Race (check all that apply)	
White	58%
African American	29%
Hispanic	2%
Arab American	4%
Asian	0%
Other race	1%

Parent Survey

The parent survey consisted of 20 questions directed at the parents/guardians of all children and youth attending the afterschool programs, regardless of their age. The parent survey asked questions about the communication between themselves and the afterschool program, the academic efficacy of their child(ren), the personal and social skills of their children, their child's commitment to learning, the confidence and convenience of the services provided at the afterschool program, and the connection that they have with the school itself.

The grantees utilized a mix of online and paper surveys for parents. Individualized survey links were prepared for each 21st CCLC site with the unique organization identifier included in the survey link so that responses were attributed to the correct site. A paper survey with the unique organizational identifier in the footer was also provided to each site to be copied and distributed if they chose. If paper copies were returned, they were entered into the online survey by MASN. E-mails were sent regularly to grant administrators to update them on the number of respondents so they could monitor their data collection.

A total of 3,816 parents completed a survey, representing responses from 95% of Missouri 21st CCLC sites (N=134). Table 5 displays information for the parent sample from 2016-2017 program year data collection. The majority of parents ranged had a four-year degree or less, and had a household income of \$60,000 per year or less. Sixty-two percent of parents reported white as their race, 27% reported African American, 1% reported Hispanic, 1% reported "other race," 0% Asian, and 4% reported Arab American.

Table 5 – Parent Survey Respondent Characteristics

Characteristics	N=2,964
Average Age	37.50
Education	
Less than high school diploma/GED	6%
GED/High School diploma	25%
Some college, no degree	27%
Associate's degree	14%
Bachelor's degree	15%
Graduate program but no degree yet	2%
Master's degree	9%
Doctorate	1%
Other professional degree after Bachelor's	1%
Race (check all that apply)	
White	62%
African American	27%
Hispanic	1%
Arab American	4%
Asian	0%
Other race	1%
Income	
\$20,000 to \$29,999	18%
\$30,000 to \$39,999	15%
\$40,000 to \$49,999	9%
\$50,000 to \$59,999	7%
\$60,000 to \$69,999	5%
\$70,000 to \$79,999	5%
\$80,000 to \$89,999	6%
\$90,000 to \$100,000	13%
More than \$100,000	7%

Program Quality Assessment

The *Youth Program Quality Assessment* (Youth PQA) and the *School-Age Program Quality Assessment* (School-Age PQA) are observation-based measures which assess various aspects of program quality, including the Instructional Context of the Leading Indicators. The PQAs use observational notes to score rubrics describing the extent to which specific staff practices are happening within each program session.

The Youth PQA is composed of 60 items comprising 18 different scales, which fall under four domains: Safe Environment, Supportive Environment, Interaction, and Engagement. The Youth PQA is currently being used in over 95 afterschool networks across the United States and evidence from multiple replication samples suggests that data produced by the Youth PQA has characteristics of both precision (reliability) and meaningfulness (validity) (Smith, Akiva, Sugar, Lo, et al., 2012; Smith & Hohmann, 2005). In 2013, MASN worked with the Weikart Center to add an additional scale for the Walkthrough version of the School-Age PQA.

The School-Age PQA is composed of 68 items comprising 20 different scales, which also fall under the same four domains as the Youth PQA: Safe Environment, Supportive Environment, Interaction, and Engagement. The School-Age PQA assesses staff instructional practices that are developmentally appropriate for younger children. Evidence of reliability and validity for the School-Age PQA is available from the Weikart Center.

Program quality *external* assessments were conducted for all sites. Sites that received program quality external assessment contracted with 4-H Center for Youth Development, which coordinated the assessment process by scheduling the raters for site-level assessments. Raters received endorsement through the completion of a rigorous reliability training process in which they are required to pass an examination by reaching 80% perfect agreement with the Weikart Center's gold standard scores on the PQA.

Between October 2016 and May 2017, a total of 140 external assessments were conducted using either the School-Age PQA Walkthrough Method or the STEM PQA (sites serving youth from kindergarten through high school were assessed using both the PQA Walkthrough Method and STEM PQA)¹, representing 100% of all sites.

Kids Care Center (KCC)

Missouri's 21st CCLC grantees enter student attendance, participation, and other data into the Kids Care Center system. The information extracted from Kids Care Center and included in this report represents recruitment and retention information, program attendance information, student progress on academic achievement, and community partnerships.

The Missouri AfterSchool Network provides technical assistance to grantees needing to fulfill data submission requirements via the online KCC system. Grantees have a schedule of due dates for various data elements in order for all required information (e.g., grantee profile and their operations, objectives, activities, partners, teacher survey, and feeder school information) to be entered.

Findings/Results

The following section presents findings from the 2016-2017 Missouri 21st CCLC Statewide Evaluation conducted by the Weikart Center and OSEDA. The 2016-2017 program year marks the fourth year the Missouri 21st CCLC has used the Leading Indicators framework, as well as the statewide goals and objectives, to collect, analyze, and present data aligned with specific best practices at multiple levels of each grantee.

Goal 1: Student Achievement/Academics

The objectives for Goal 1 provide site-level benchmarks addressing the extent to which sites are helping youth increase academic achievement, as well as efficacy in reading/communication arts, math, and science. Table 6 shows how sites performed on these objectives statewide. Figures 3-5 show performance over time on Goal 1 objectives; note that the Reading and Math Efficacy scales used for Objectives 1.4 and 1.5 were shortened in 2014-15, thus only data from the last three years are shown. The Common Instrument Science Survey (Objective 1.6) is only administered to youth in grades 3-12. For 2016-17, sites were required to enter grades for at least three time points; the first and last time points were used for these analyses. In past years, sites entered their own pre and post grades data, which meant that different time periods were used across sites. Because of this change, caution should be exercised in comparing grade change data across evaluation years.

Table 6 – Performance on Goal 1 Objectives

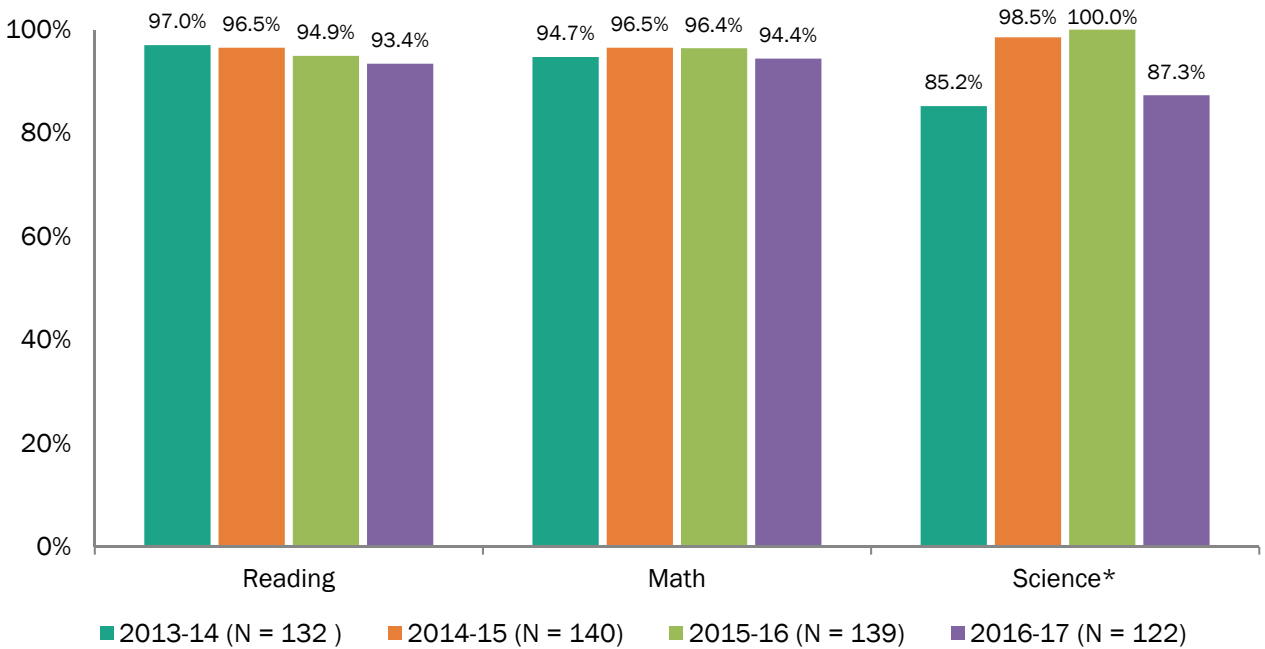
Objective	Percent of sites meeting objective	Mean site percent	Range
1.1– For 85% of grant-funded sites, at least 70% of youth per site will maintain or increase their grades in reading/communication arts during the school year as measured by pre-/post-grades entered into Kids Care Center.	93.4% (n = 122)	73.7%	0-100%
1.2– For 85% of grant-funded sites, at least 50% of youth per site will maintain or increase their grades in math during the school year as measured by pre-/post-grades entered into Kids Care Center.	94.4% (n = 124)	73.0%	0-100%
1.3– For 85% of grant-funded sites, at least 50% of youth per site will maintain and/or increase their grades in science during the school year as measured by pre-/post-grades entered into Kids Care Center.	87.3% (n = 118)	77.4%	4-100%
1.4– For 85% of grant-funded sites, at least 70% of youth per site will report a medium to high level of reading efficacy as measured by items on the Leading Indicators Youth Survey (average score of 3.5 or higher).	58.7% (n = 138)	71.3%	17-100%
1.5– For 85% of grant-funded sites, at least 70% of youth per site will report a medium to high level of math efficacy as measured by items on the Leading Indicators Youth Survey (average score of 3.5 or higher).	64.5% (n = 138)	73.4%	33-100%
1.6– For 85% of grant-funded sites, at least 70% of youth per site will report a medium to high level of interest and engagement in STEM as measured by questions from the Common Instrument Science Survey (total score of 3.0 or higher).	43.8% (n = 130)	68.8%	0-100%

Data Source: Youth Survey

Key Points:

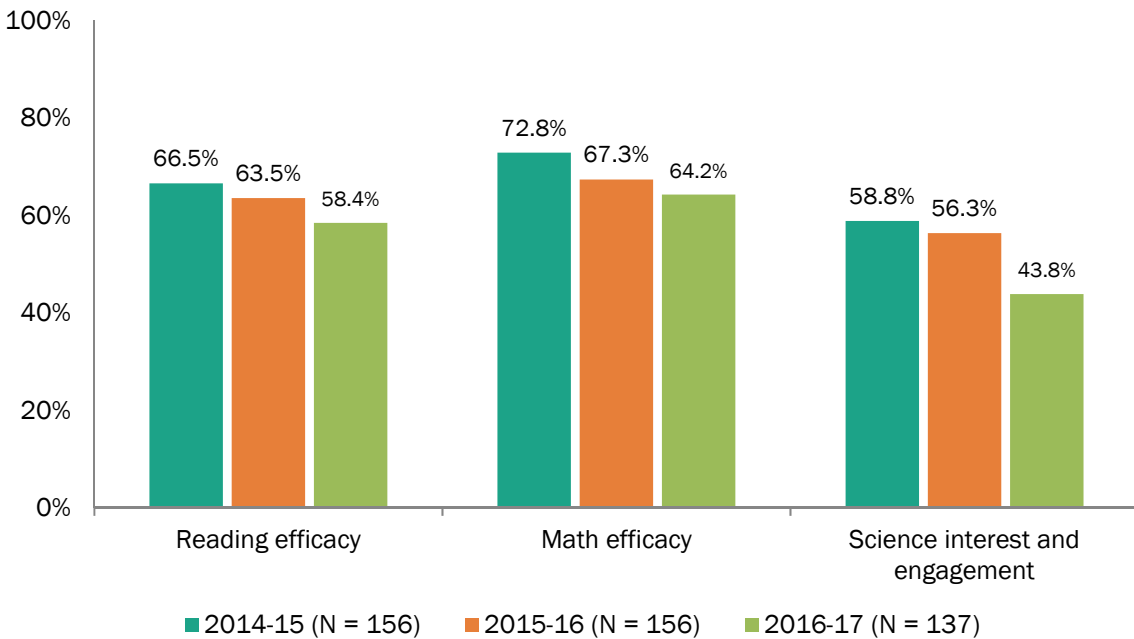
- ❖ Based on grades across time in reading/communication arts, math, and science, almost all sites were able to report that at least half of their students had maintained or increased their academic achievement in those three subjects. As shown in Figure 3, the benchmark percentage for reading grades has decreased over time, whereas the percentage for math grades has remained about the same. The benchmark percentage for science grades decreased significantly in 2016-17, which may be due to the standardization of time points used to calculate grade changes.
- ❖ Overall, a majority of sites met the established benchmark for youth reporting on their own skills with respect to reading and math efficacy. However, as shown in Figure 4, the percentage of sites meeting the reading and math efficacy benchmarks has been decreasing over time.
- ❖ Only 44% of sites met the benchmark for STEM interest and engagement. As shown in Figure 4, the percentage of sites meeting this benchmark has decreased over time, with a large decrease in 2016-17. This decline parallels the decline in science grades for 2016-17.

Figure 3—Maintenance/Increase of Grades over the School Year across Time (Objectives 1.1-1.3)



*Science N's differ from the legend: 128 for 2013-14 and 133 for 2014-15, 135 for 2015-16, 117 for 2016-17. N for Math in 2016-17 was 123.

Figure 4—Reading Efficacy, Math Efficacy, and Science Interest and Engagement across Time (Objectives 1.4-1.6)



*Science N's differ from the legend: 147 for 2014-15, 142 for 2015-16, 130 for 2016-17.

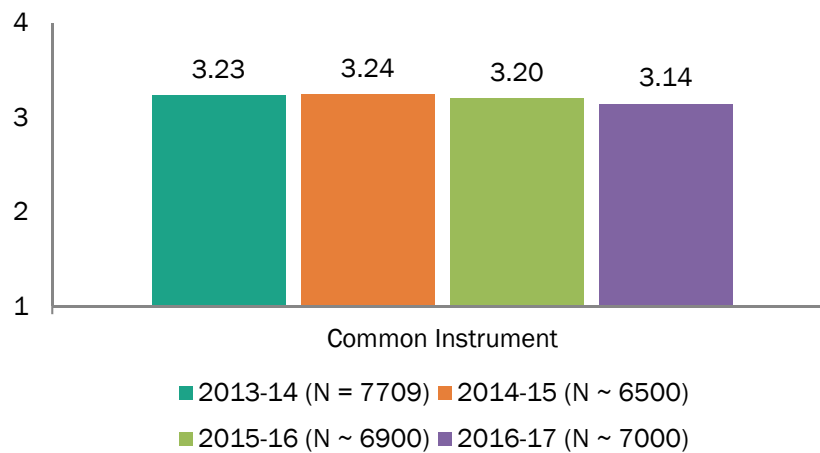
Table 7 shows how youth scored statewide on the items that compose the Common Instrument Science Survey, and Figure 5 shows overall scores over time.

Table 7 – Detailed Item Scores on Common Instrument Science Survey

PROMPT: Please check the box that best describes what you think about the statement. (1 = Strongly disagree; 2 = Disagree; 3 = Agree; 4 = Strongly agree)	Statewide average (n's differ by item; about 7000 youth)
Overall Common Instrument Score	3.14
Science is something I get excited about.	3.07
I like to participate in science projects.	3.32
I like to see how things are made (for example, ice-cream, a TV, an iPhone, energy, etc.).	3.47
I am curious to learn more about science, computers or technology.	3.26
I want to understand science (for example, to know how computers work, how rain forms, or how airplanes fly).	3.21
I get excited about learning about new discoveries or inventions.	3.27
I pay attention when people talk about recycling to protect our environment.	3.13
I am curious to learn more about cars that run on electricity.	3.02
I would like to have a science or computer job in the future.	2.70
I like online games or computer programs that teach me about science.	3.00

Data Source: Youth Survey

Figure 5—Common Instrument Means over Time



Goal 2: Program Quality

This section presents findings specific to statewide evaluation Goal 2. These findings are arranged by objective. Objective 2.1 is presented using PQA total scores, while objectives 2.2 – 2.4 are presented in the Leading Indicators framework. Each Leading Indicator is presented on its own page(s) and includes item-level details. Table 8 below summarizes performance for all sites for 2016-17.

Table 8 – Performance on Goal 2 Objectives

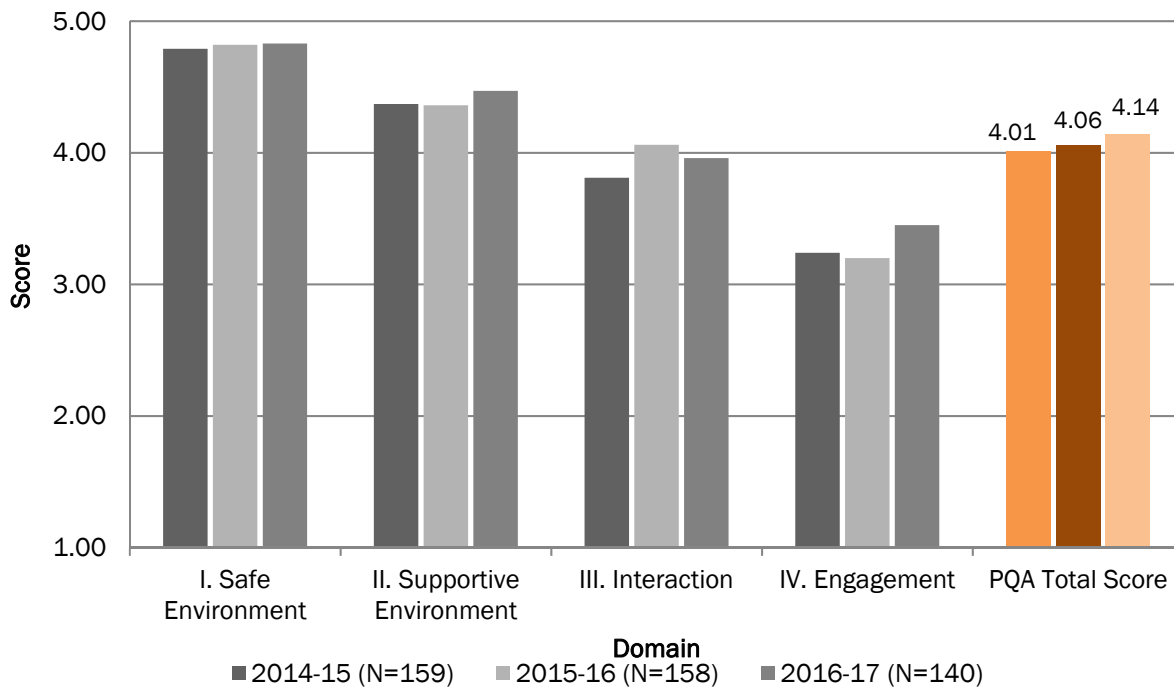
Objective	Percent of sites meeting objective
2.1– At least 85% of grant funded sites will score an average 2.9 on the Program Quality Assessment tool.	98.6% (n = 138)
2.2- At least 85% of grant-funded sites will score an average 3.0 on the Organizational Context Leading Indicators of Staffing Model and Continuous Improvement.	97.9% (n = 137)
2.3- At least 85% of grant funded sites will score an average 3.0 on the Instructional Context Leading Indicators of Academic Press and Engaging Instruction.	100% (n = 140)
2.4- At least 85% of grant funded sites will score an average 3.0 on the External Relationships Leading Indicators of Family Communication and School Alignment.	75.0% (n = 105)

Objective 2.1 – Program Quality Assessment

Objective 2.1 is related to the total score on the Program Quality Assessment. Sites used either School-Age PQA Walkthrough Method (sites serving younger youth) or the STEM PQA (sites serving older youth). Some sites that served a broader age of youth chose to do both assessments. Objective 2.1 states that all programs will achieve a total score of 2.9 or higher on the PQA. The results below describe findings from the PQA data.

One hundred percent of all 21st CCLC sites (N=140) submitted PQA data. Of these 138 sites, 98.6% met the selected benchmark of 2.9 or greater on Objective 2.1. Additionally, the average overall score for all sites that submitted PQA data was 4.14 (see Figure 6).

Figure 6 – Aggregate Domain and Total Scores on the School-Age PQA Walkthrough Method and the STEM PQA



Organizational Context: Staffing Model & Continuous Improvement

Figure 7 - Leading Indicator 1.1 - Staffing Model

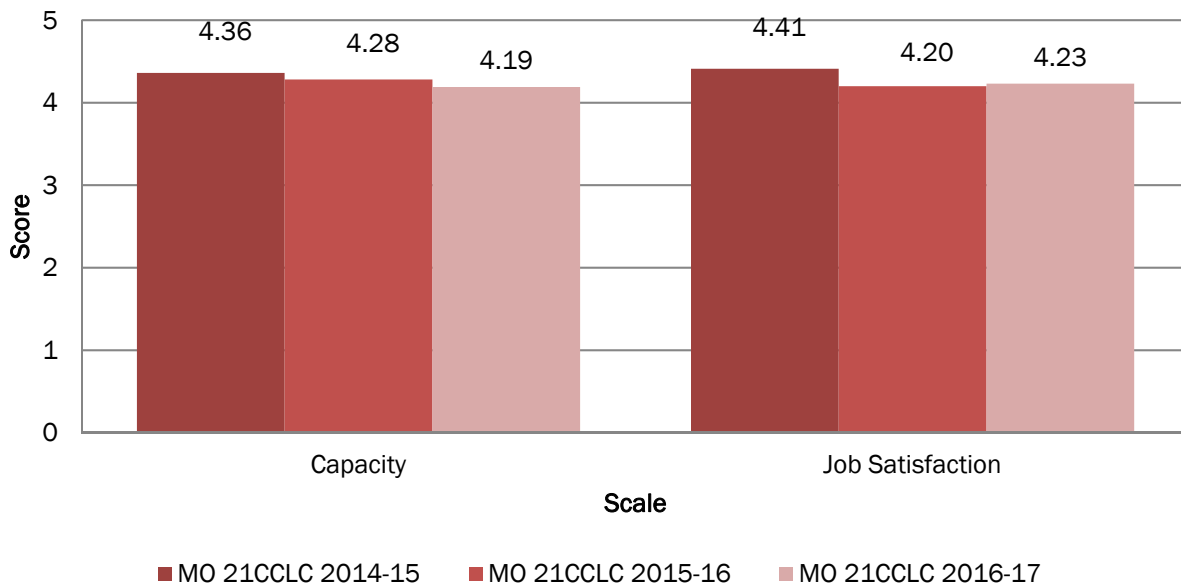


Table 9 – Capacity Scale Item Scores

<i>PROMPT: Please rate the extent to which the following statements are true for staff in your program (1=Almost never true of staff, 3=True for about half of staff, 5=Almost always true of staff).</i>	MO 21CCLC 2014-15 (N=162)	MO 21CCLC 2015-16 (N=158)	MO 21CCLC 2016-17 (N=140)
Capacity	4.36	4.28	4.19
Staff come to the program with adequate training or experience	4.25	4.17	4.05
Staff stay at our program for a long time	4.07	4.17	3.94
We have enough staff and/or student-to-staff ratios are good	4.54	4.36	4.32
New staff get an adequate orientation	4.33	4.18	4.12
Staff have enough time to attend meetings or do planning	4.35	4.41	4.26
Staff are designing and delivering activities consistent with program goals and objectives for students	4.58	4.41	4.43

Data Source: Project Director/ Site Coordinator Survey

Table 10 – Job Satisfaction Scale Item Scores

<i>PROMPT: Please rate the extent to which the following statements are true for you (1=Almost never true, 3=True about half of the time, 5=Almost always true).</i>	MO 21CCLC 2014-15 (N=162)	MO 21CCLC 2015-16 (N=158)	MO 21CCLC 2016-17 (N=140)
Job Satisfaction	4.41	4.20	4.23
In most ways, this job is close to my ideal	4.42	4.12	4.14
The condition of my current job is excellent	4.44	4.26	4.28
I am satisfied with this job	4.41	4.39	4.38
If I could change my career so far, I would not change anything	4.26	4.00	3.84

Data Source: Project Director/Site Coordinator Survey & Direct Service Staff Survey

Figure 8 - Leading Indicator 1.2 - Continuous Improvement

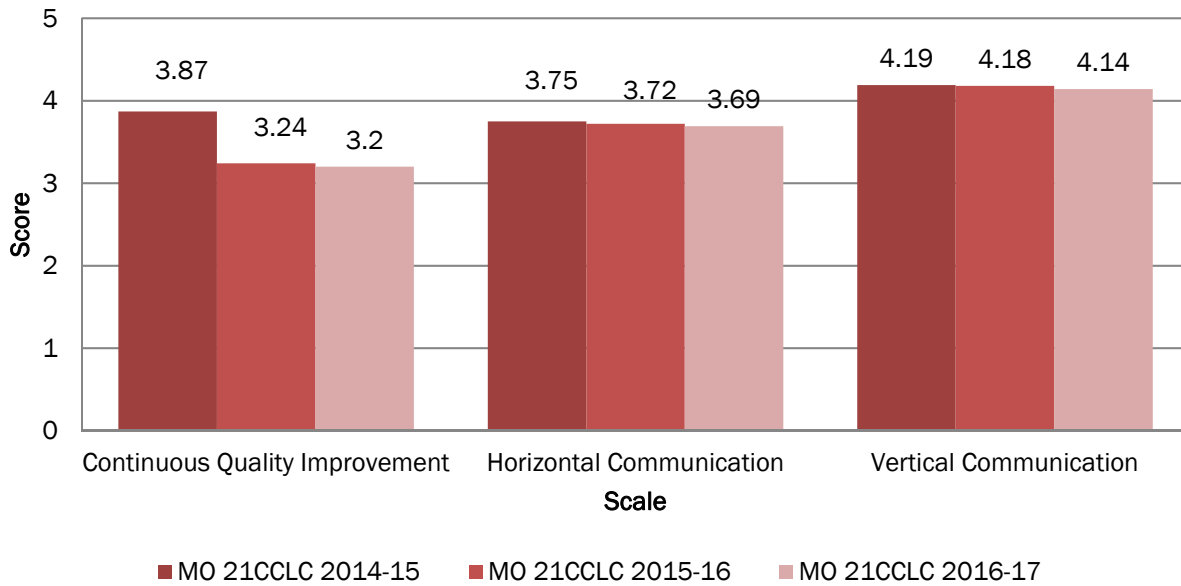


Table 11 – Continuous Improvement Scale Item Scores

	MO 21CCLC 2014-15 (N=162)	MO 21CCLC 2015-16 (N=158)	MO 21CCLC 2016-17 (N=140)
Continuous Quality Improvement	3.87	3.24	3.20
<i>Please select one response for each statement (1=No, 5=Yes).</i>			
Are you currently using the Youth Program Quality Assessment (YPQA) from High/Scope as a quality assessment tool and/or any other quality assessment tool that employs observation and written evidence to produce quality ratings at your site?	3.02	3.08	2.13
<i>In the past year or so at your program, how often have you: (1=Never, 5=At least once)</i>			
Observed staff sessions with youth to assess quality?	3.76	3.23	3.22
Collected written anecdotal evidence on program quality?	3.56	2.61	2.79
Conducted program planning using quality assessment data?	3.76	3.43	3.05
<i>How much training have you had on the following during the past year? (1=Never, 5=At least once) *</i>			
Weikart Center PQA Basics or Youth Work Methods	N/A	N/A	3.21
Weikart Center Youth Work Methods	N/A	1.93	1.74
Weikart Center Youth Planning with Data	N/A	2.06	1.74
Other training re positive youth development	3.92	3.30	3.37
<i>Please select the response that most nearly represents how often the following practices occur in your program (1=Never, 3=Every few months, 5=At least weekly).</i>			
My supervisor gives me helpful feedback about how I work with youth	4.06	4.07	4.13
My supervisor is visible during the offerings that I lead or co-lead	4.28	4.26	4.35
My supervisor knows what I am trying to accomplish with youth	4.58	4.52	4.51

Table 12 – Horizontal Communication Scale Item Scores

<i>PROMPT: Please select the response that most nearly represents how often the following practices occur in your program (1=Never, 3=Every few months, 5=At least weekly).</i>	MO 21CCLC 2014-15 (N=162)	MO 21CCLC 2015-16 (N=158)	MO 21CCLC 2016-17 (N=140)
Horizontal Communication	3.75	3.72	3.69
I co-plan with another member of staff	4.01	3.96	3.97
I discuss teaching problems or practices with another staff member	4.38	4.33	4.28
A co-worker observes my session and offers feedback about my performance	3.39	3.43	3.36
I work on plans for program policies or activities with other staff	3.82	3.75	3.78
I observe a co-worker's session and provide feedback about their performance	3.16	3.13	3.02

Data Source: Direct Service Staff Survey

Table 13 – Vertical Communication Scale Item Scores

<i>PROMPT: Please select the response that most nearly represents how often the following practices occur in your program (1=Never, 3=Every few months, 5=At least weekly).</i>	MO 21CCLC 2014-15 (N=162)	MO 21CCLC 2015-16 (N=158)	MO 21CCLC 2016-17 (N=140)
Vertical Communication	4.19	4.18	4.14
My supervisor challenges me to innovate and try new ideas	4.06	4.03	4.00
My supervisor makes sure that program goals and priorities are clear to me	4.33	4.34	4.28

Data Source: Direct Service Staff Survey

Instructional Context

Figure 9 - Leading Indicator 2.1 - Academic Press

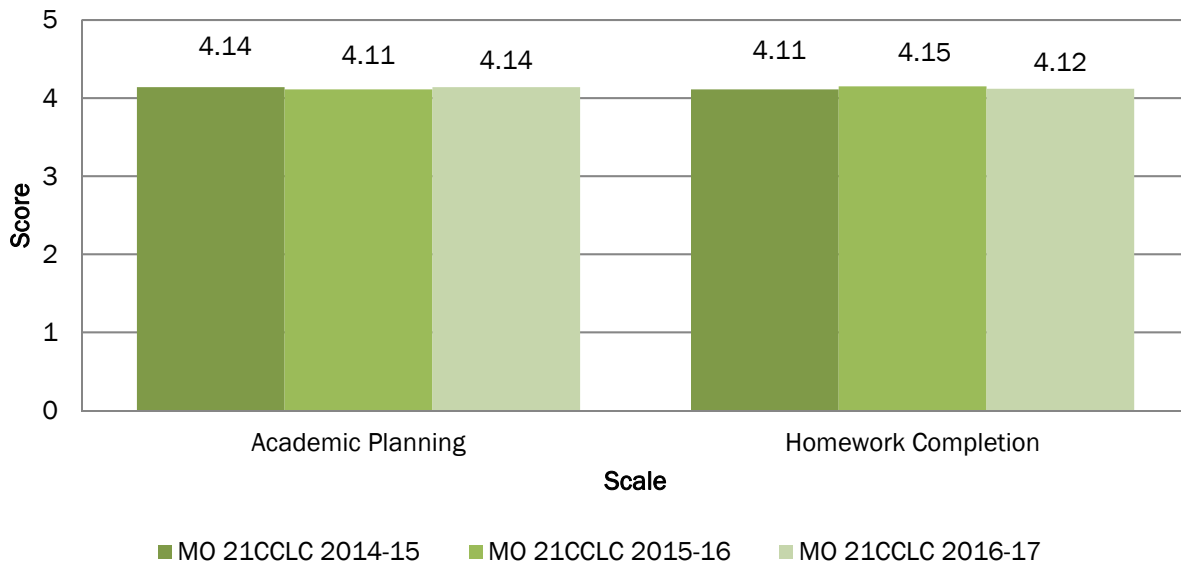


Table 14 – Academic Planning Scale Item Scores

PROMPT: When you lead sessions focused on reading, mathematics, and science, how true are the following statements? (1=Never true, 3=True about half of the time, 5=Always true)	MO 21CCLC 2014-2015 (N=162)	MO 21CCLC 2015-16 (N=158)	MO 21CCLC 2016-17 (N=140)
Academic Planning	4.14	4.11	4.14
The session is planned in advance and written out in a lesson plan format	3.98	4.02	4.15
The session is targeted at specific learning goals for the individual student, or for a school curriculum target or for a specific state standard	4.30	4.24	4.26
The session builds upon steps taken in a prior activity or session	4.17	4.16	4.16
The session is based on recent feedback from students about where they need support	3.99	3.98	3.93
The session combines academic content with the expressed interests of students	4.27	4.21	4.21

Data Source: Direct Service Staff Survey

Table 15 – Homework Completion Scale Item Scores

PROMPT: When you think about your experience in this afterschool program, how true are the following statement for you? (1=Almost never true, 3=True about half of the time, 5=Almost always true)	MO 21CCLC 2014-2015 (N=162)	MO 21CCLC 2015-16 (N=158)	MO 21CCLC 2016-17 (N=140)
Homework Completion	4.11	4.15	4.12
I get my homework done when I come to the afterschool program*	3.99	3.90	3.78
The staff here understand my homework and can help me when I get stuck*	4.19	4.03	4.08
I learn things in the afterschool program that help me in school	4.10	4.09	4.05

Data Source: Youth Survey

*Items that were only asked of older youth (grades 3+)

Figure 10 - Leading Indicator 2.2 - Engaging Instruction

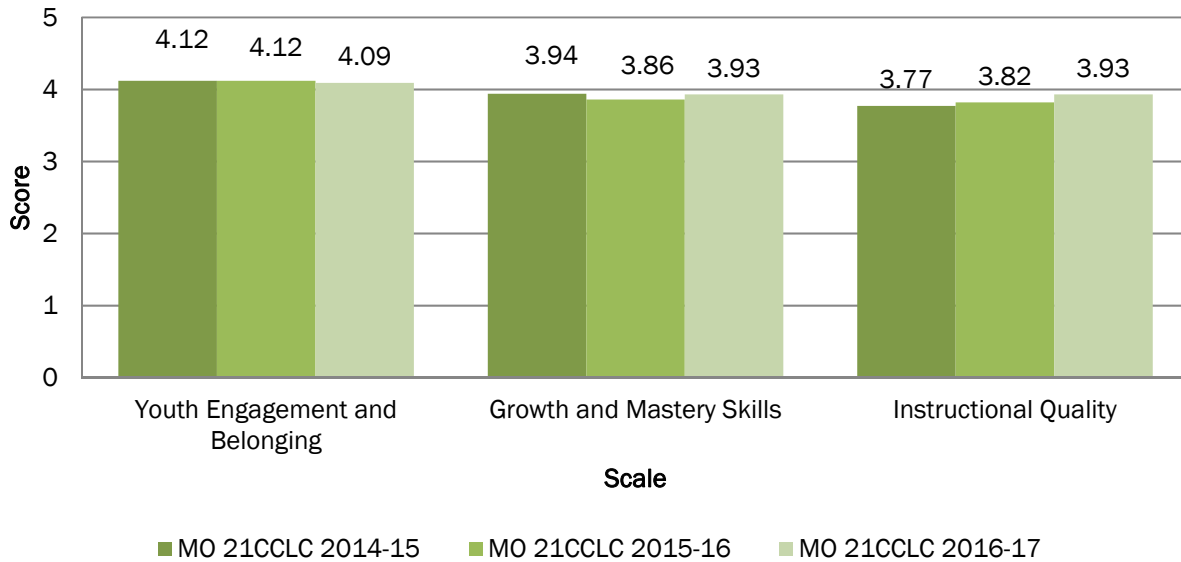


Table 16 – Youth Engagement and Belonging Scale Item Scores

<i>PROMPT: When you think about your experience in this afterschool program, how true are the following statement for you? (1=Almost never true, 3=True about half of the time, 5=Almost always true)</i>	MO 21CCLC 2014-2015 (N=162)	MO 21CCLC 2015-16 (N=158)	MO 21CCLC 2016-17 (N=140)
Youth Engagement and Belonging	4.12	4.12	4.09
I am interested in what we do*	4.09	4.26	4.02
The activities are important to me*	3.95	3.91	3.85
I try to do things I have never done before	4.07	4.20	3.99
I am challenged in a good way*	4.12	4.09	3.98
I am using my skills*	4.29	3.91	4.18
I really have to concentrate to complete the activities*	3.98	4.14	3.86
I feel like I belong at this program	4.24	4.06	4.16
I feel like I matter at this program*	4.14	4.10	4.03

Data Source: Youth Survey

*Items that were only asked of older youth (grades 3+)

Table 17 – Growth and Mastery Skills Scale Item Scores

<i>PROMPT: Please indicate the proportion of students in your program for which the following goal statements are true (1=Almost none, 3=About half, 5=Almost all).</i>	MO 21CCLC 2014-2015 (N=162)	MO 21CCLC 2015-16 (N=158)	MO 21CCLC 2016-17 (N=140)
Growth and Mastery Skills	3.94	3.86	3.93
We will expose students to experiences which are NEW FOR THEM	4.14	4.05	4.14
Students will have responsibilities and privileges that INCREASE OVER TIME	4.15	4.09	4.15
Students will work on GROUP PROJECTS THAT TAKE MORE THAN FIVE SESSIONS to complete	3.29	3.23	3.28
All participating children and youth will be acknowledged for achievements, contributions and responsibilities	4.33	4.23	4.25
At least once during a semester students will participate in SEQUENCE OF SESSIONS where TASK COMPLEXITY INCREASES to build explicit skills	3.68	3.59	3.78
Students will identify a skill/activity/pursuit that THEY FEEL they are uniquely good at	4.05	4.00	4.02

Data Source: Direct Service Staff Survey

Table 18 – Instructional Quality Scale Item Scores

<i>PROMPT: Please indicate the proportion of students in your program for which the following goal statements are true (1=Almost none, 3=About half, 5=Almost all).</i>	MO 21CCLC 2014-2015 (N=162)	MO 21CCLC 2015-16 (N=158)	MO 21CCLC 2016-17 (N=140)
Instructional Quality	3.77	3.82	3.93
Supportive Environment	4.38	4.36	4.47
Interaction	3.83	4.06	3.96
Engagement	3.24	3.20	3.45

Data Source: Youth PQA & School-Age PQA

External Relationships

Figure 11 – Leading Indicator 3.2 - Family Engagement

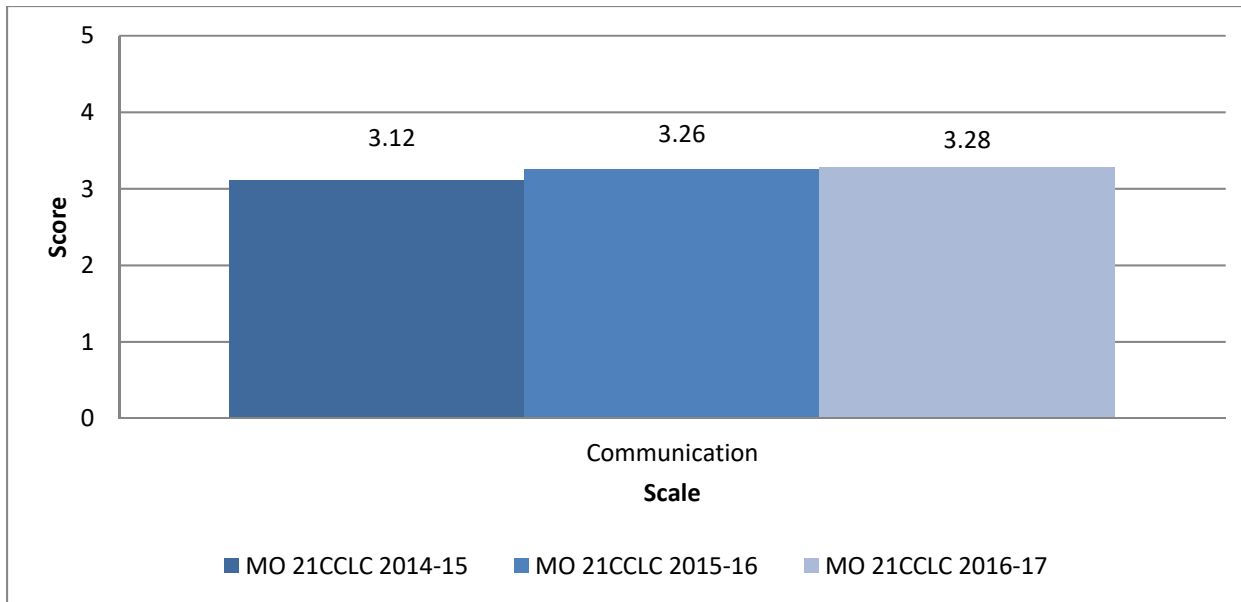


Table 19 – Communication Scale Item Scores

<i>PROMPT: For the past school year, how true are the following statements for you? (1=Almost never true, 3=True about half of the time, 5=Almost always true)</i>	MO 21CCLC 2014-2015 (N=162)	MO 21CCLC 2015-16 (N=158)	MO 21CCLC 2016-17 (N=140)
Communication	3.12	3.26	3.28
On at least a monthly basis an adult in our family receives information at home or attends a meeting about the afterschool program	3.64	3.76	3.75
Each semester an adult in our family talk on the phone or meets in person with afterschool staff to receive detailed information my child's progress in the program	3.24	3.41	3.42
An adult in our family has been personally recruited to participate in and/or lead sessions at the afterschool program	2.48	2.57	2.64

Data Source: Parent Survey

Figure 12 - Leading Indicator 3.3 - School Alignment

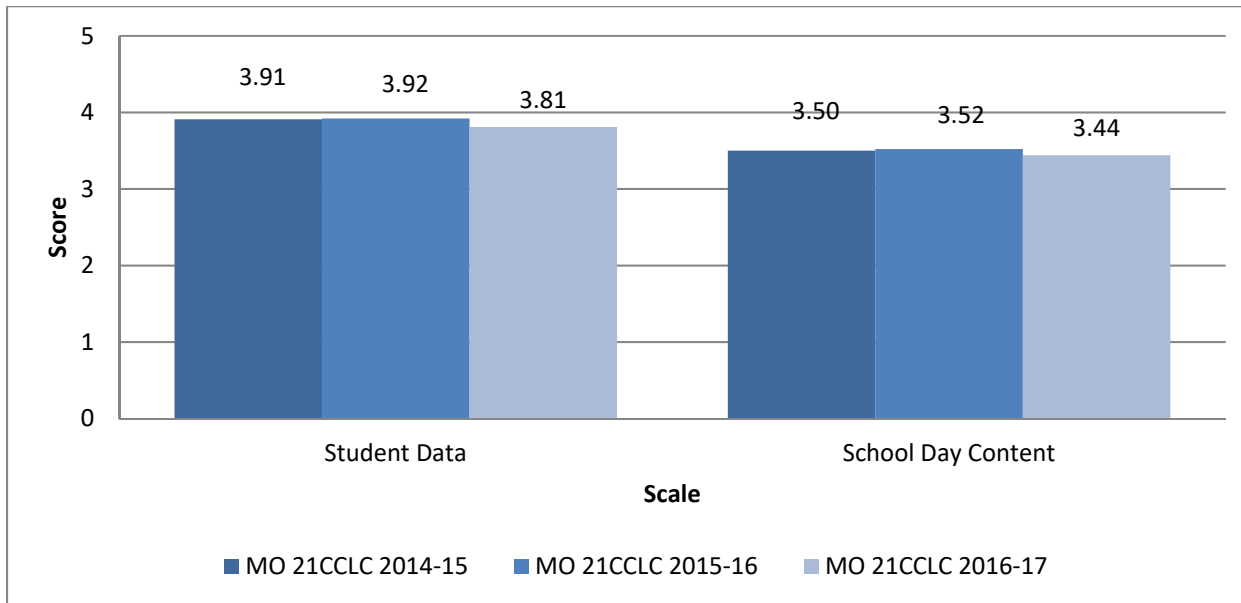


Table 20 – Student Data Scale Item Scores

<i>PROMPT: Please indicate the proportion of students in your program for which the following statements are true (1=Almost none, 3=About half, 5=Almost all).</i>	MO 21CCLC 2014-2015 (N=162)	MO 21CCLC 2015-16 (N=158)	MO 21CCLC 2016-17 (N=140)
Student Data	3.91	3.92	3.81
Each year we review achievement test scores and or grades from the previous year OR have online access to grades	4.29	4.18	4.14
We receive student progress reports from school-day teachers during the current year	3.70	3.76	3.70
We review diagnostic data from the current school year for individual students	3.73	3.81	3.61

Data Source: Project Director/Site Coordinator Survey

Table 21 – School Day Content Scale Item Scores

<i>PROMPT: When you lead academic sessions or coordinate academic learning in the afterschool program, indicate the proportion of students for which the following statements are true (1=Almost none, 3=About half, 5=Almost all).</i>	MO 21CCLC 2014-2015 (N=162)	MO 21CCLC 2015-16 (N=158)	MO 21CCLC 2016-17 (N=140)
School Day Content	3.50	3.52	3.44
I know what academic content my afterschool students will be focusing on during the school day on a week-to-week basis	4.06	3.94	3.91
I coordinate the activity content of afterschool sessions with students' homework	3.81	3.80	3.62
I help manage formal 3-way communication that uses the afterschool program to link students' parents with school-day staff and information	3.54	3.57	3.36
I participate in meetings for afterschool and school day staff where linkages between the school day and afterschool are discussed and/or where academic progress of individual students are discussed	3.36	3.40	3.26
I participate in parent-teacher conferences to provide information about how individual students are faring in the afterschool program	2.71	2.89	3.00

Data Source: Project Director/Site Coordinator Survey & Direct Service Staff Survey

Goal 3: College/Career Readiness

The objectives for Goal 3 provide site-level benchmarks addressing the extent to which sites help youth develop the skills needed to be successful in their transition to college and/or career participation. As discussed earlier in the report, Objectives 3.1 and 3.3 are not addressed because the data were not available for this year’s report. Table 22 shows how sites performed on these objectives statewide.

Table 22 – Performance on Goal 3 Objectives

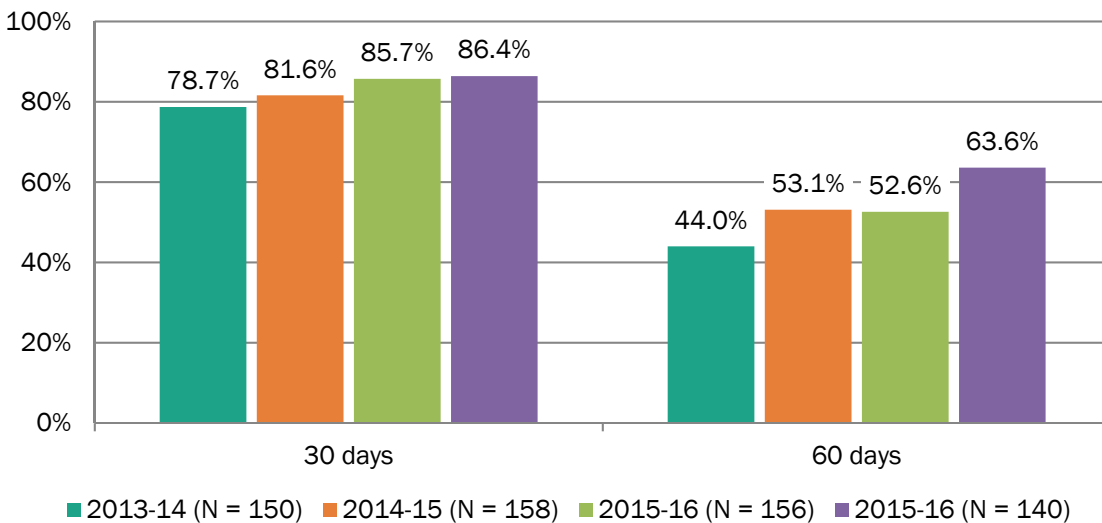
Objective	Percent of sites meeting objective	Mean site percent	Range
3.2– For 85% of grant-funded sites, at least 50% of total youth enrolled in the afterschool program per site will have at least 60 days of attendance in the afterschool program.	63.6% (n = 140)	54.3%	0-98%
3.4- For 85% of grant-funded sites, at least 70% of youth per site will indicate a medium to high level of personal and social skills as measured by the youth outcomes survey (average score of 3.5 or higher).	97.1% (n = 138)	86.5%	60-100%
3.5- For 85% of grant-funded sites, at least 70% of youth per site will indicate a medium to high level of commitment to learning as measured by the youth outcomes survey (average score of 3.5 or higher).	97.8% (n = 138)	87.6%	55-100%

Data Source: Youth Survey

Key Points:

- ❖ Nearly two-thirds (64%) of sites met the 60-day attendance benchmark.
- ❖ As shown in Figure 13, the percent of programs meeting the 60-day benchmark has increased over time, with a marked increase in the last year. Figure 13 also shows the percentage of sites that would meet the benchmark if it were 30 days. The percent of youth attending at least 30 days has increased steadily over time as well.
- ❖ Nearly all sites met the benchmark established by DESE for youth reporting on their own personal/social skills and commitment to learning.
- ❖ As shown in Figure 15, the percent of programs meeting the benchmarks for the Personal and Social Skills has remained about the same, whereas Commitment to Learning scores have increased slightly over time. Because the scales changed from the first year (2013-14), percentages from that year are not shown.

Figure 13 – Programs Meeting 30-Day and 60-Day Attendance Benchmarks over Time



The 60-day attendance benchmark is a stretch goal for Missouri programs. Since afterschool attendance generally decreases with youth age, some staff in programs that serve older youth have offered the view that 60 days is too high for the attendance benchmark. Figure 15 shows how 2016-17 sites would fare on the attendance objective if the benchmarks were different depending on age group served (60 days for sites serving elementary youth, 45 for sites serving middle school youth, and 30 for sites serving high school youth). Many middle school sites would not have met the 45-day benchmark, and most high school sites struggle to even meet the 30-day benchmark.

Figure 14 – Programs Meeting Age-Specific Attendance Benchmarks (Elementary-60 days, Middle School-45 days, High School-30 days), 2016-17

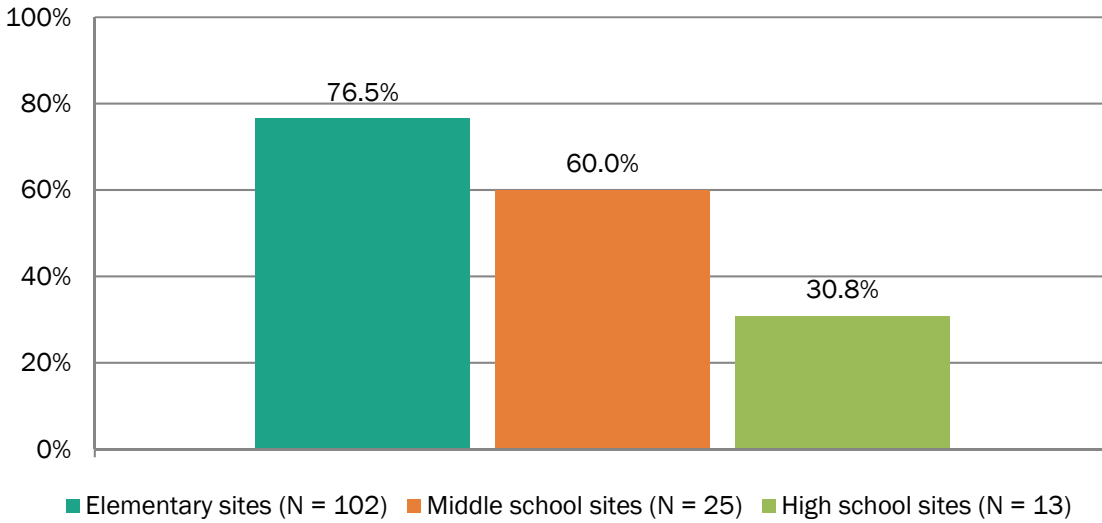


Figure 15 – Programs Meeting Personal/Social Skills and Commitment to Learning Benchmarks over Time

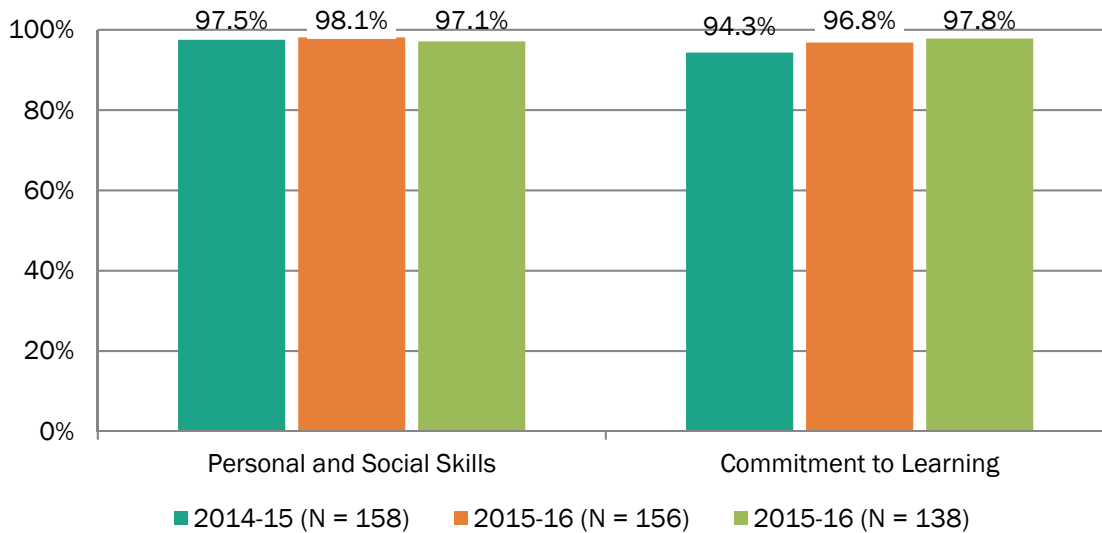


Table 23 shows how youth scored statewide on the items that comprise the Personal and Social Skills Scale and Table 24 shows scores on the Commitment to Learning Scale. There are two versions of the Personal and Social Skills and Commitment to Learning Scales: one for youth in kindergarten-2nd grade, and another for older youth (3rd grade and above). The older youth scales contained all the same items as the younger youth scales but added items to assess more sophisticated skills and attitudes. Items that were only on the older youth scale are asterisked in the following tables.

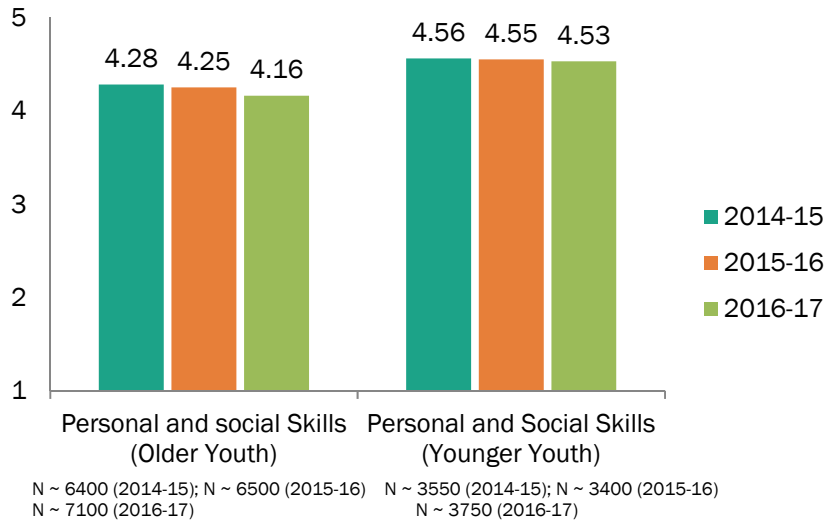
Table 23 – Detailed Item Scores on Personal and Social Skills Scale (Youth)

PROMPT: For the past school year, how true are the following statements for you? (1 = Almost never true; 3 = True about half the time; 5 = Almost always true)	Statewide average (n ~ 7100)
Personal and Social Skills Scale (Older Youth)	4.16
I am a good listener.	4.08
I work well with other kids.*	3.98
I can make friends with other kids.	4.17
I can stay friends with other kids.*	4.22
I follow the rules in my classroom.	4.31
I make good use of my time at school.*	4.23
I finish my work on time.	4.10
I keep track of my things at school.	4.16
I get along with adults.	4.28
I usually behave well.	4.30
I take responsibility when I make a mistake.	4.25
I am good at using many different strategies to complete a task or a project.*	4.12
It is easy for me to stay focused on projects that last more than one week.*	3.89
I set goals for myself.*	4.01
I show respect for others.	4.33
I know who I can go to if I need help.	4.45
I like to work with others to solve problems.	3.95
I have friends who care about me.	4.41
I am good at telling others what I think.	3.91
	Statewide average (n ~ 3750)
Personal and Social Skills Scale (Younger Youth)	4.53
I am a good listener.	4.49
I can make friends with other kids.	4.62
I follow the rules in my classroom.	4.55
I finish my work on time.	4.42
I keep track of my things at school.	4.50
I get along with adults.	4.49
I usually behave well.	4.48
I take responsibility when I make a mistake.	4.54
I show respect for others.	4.61
I know who I can go to if I need help.	4.77
I like to work with others to solve problems.	4.48
I have friends who care about me.	4.65
I am good at telling others what I think.	4.33

Data Source: Youth Survey

Note. Items with asterisks were only on the older youth (3rd-12 grade) survey.

Figure 16 – Personal and Social Skills Scale Means over Time



Key Points:

- ❖ In general, youth report strong skills in all domains of personal and social skills, including communication, relationships with others, responsibility, and planning. However, as shown in Figure 17, overall Personal and Social Skills scores have declined slightly over time, especially for older youth.
- ❖ For older youth, working with others is a relative weakness (*I work well with other kids; I like to work with others to solve problems; I am a good listener*).
- ❖ For both older and younger youth, the highest scoring items addressed positive social abilities (*I show respect for others; I have friends who care about me; I know who I can go to if I need help; I can make friends with other kids (younger youth)*).
- ❖ Both older and younger youth reported feeling relatively less confident in asserting themselves in social situations (*I am good at telling others what I think*).

Table 24 shows how youth scored statewide on the items that make up the Commitment to Learning Scale.

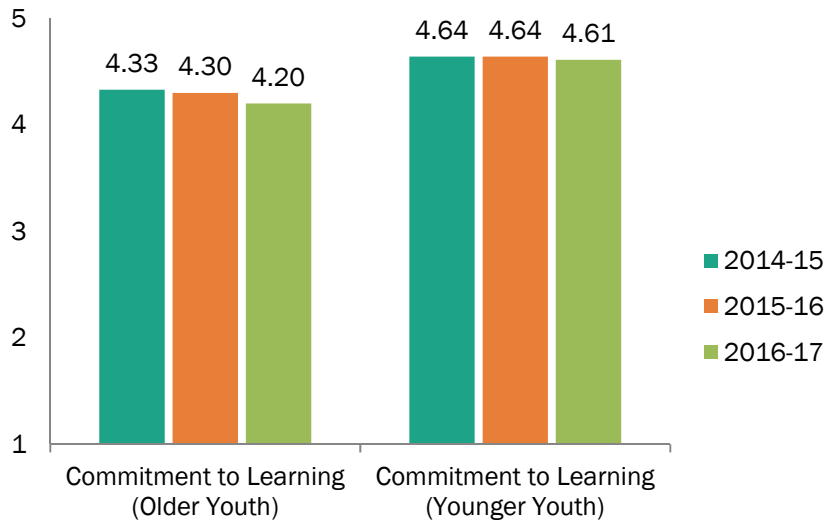
Table 24 – Detailed Item Scores on Commitment to Learning Scale

PROMPT: For the past school year, how true are the following statements for you? (1 = Almost never true; 3 = True about half the time; 5 = Almost always true)	Statewide average (n's differ by item; about 7200 youth)
Commitment to Learning Scale (Older Youth)	
I get my homework done when I come to the afterschool program.*	3.75
Doing well in school will help me when I grow up.*	4.59
I do my homework in the afterschool program or at home.*	4.20
I come to school ready.	4.34
I like to learn new things.	4.26
I pay attention in class.	4.15
Commitment to Learning Scale (Younger Youth)	
I come to school ready.	4.64
I like to learn new things.	4.70
I pay attention in class.	4.49

Data Source: Youth Survey

Note. Items with asterisks were only on the older youth (3rd-12 grade) survey.

Figure 17 – Commitment to Learning Means over Time



Key Points:

- ❖ In general, youth reported relatively good work habits and positive school engagement. As shown in Figure 17, overall Commitment to Learning scores have declined over time, especially for older youth.
- ❖ For older youth, the highest scoring items reflect awareness of the importance of school (*Doing well in school will help me when I grow up*) and positive school engagement (*I come to school ready* and *I like to learn new things*).
- ❖ For younger youth, the lowest scoring item was *I pay attention in class*.

Recommendations

Based on last year's recommendations, several changes were made to the statewide evaluation system. In 2016-17, school-day teachers used a social-emotional screener, the DESSA-mini, to rate youth enrolled in afterschool programs. Starting in 2017-2018, grant-funded programs will be required to rate youth with the DESSA-mini twice during the school year; the school-day teachers will use the same measure to rate youth at the end of the year. These ratings will then be used to determine if the percentage of youth rated as potentially needing additional help with social-emotional skills decreased from fall to spring. In addition, the time points used to calculate maintenance/increase of grades has been standardized to reflect the first time point in the fall and the last in the spring. Finally, the impact of training and technical assistance on program quality, youth outcomes, and outcomes for other stakeholders can now be examined because program staff are encouraged to provide their unique Missouri early childhood and afterschool registry number. A report examining the effects of professional development on outcomes using registry training data will be completed in the near future.

The findings presented above highlighted a few key areas where it may be beneficial to do some further investigation and reflection. The recommendations below serve as a starting point for further examination. In addition, other recommendations are provided to enhance the overall evaluation process.

- ❖ The state lead should consider the following recommendations for improving the system of data collection and quality supports available to Missouri 21st CCLC grantees.
 - For long-term grantees (with grants of 3 or more years) encourage the use of program self assessment using the School-Age PQA Walkthrough Method and/or the STEM PQA as a way to enhance sustainability.
 - Examine site- and student-level performance on outcomes based on free/reduced lunch, IEP, and ELL status. Sites can be classified as high or low depending on percentages of students who receive free/reduced lunch, who have IEPs, and who are ELL. Such analyses will assist in determining that system gains are experienced by all types of students and sites and may pinpoint particular areas that need attention for certain student populations.

- ❖ The following recommendations are to improve program design across 21st CCLC projects in Missouri. DESE/MASN may want to provide specific training and technical assistance for grantees to implement these best practices.
 - The state lead should continue to guide grantees on a process for fostering successful and positive communication with external stakeholders such as parents, school-day personnel, and other community members. When information is shared across contexts, it creates a complementary learning environment that supports the development of students (Catalano, Haggerty, Oesterle, Fleming, & Hawkins, 2004; Weiss, Little, Bouffard, Deschenes, & Malone, 2009). In particular, community-based programs should work on improving their connections with school districts and school-day personnel.
 - Consider identifying exemplar grantees who have been effective communicators with parents and community members. (Parent communication has improved over time but can continue to improve.) These exemplars could share their methods as a webinar or at a statewide network meeting. Follow-up with exemplar grantees about adjusting the content from the learning webinar that focuses on how to get parents and community members more engaged in programming.
 - Continue suggesting to grantees that sites identify a specific "point person" to facilitate communication with the school and with parents. This will establish a single individual who can be identified by both families and schools as a dedicated liaison. This individual will also serve the program as an informant for student progress and targeted need. The unique structure and more holistic developmental purpose of the afterschool program make afterschool staff especially well-positioned to mediate these entities (Harris, Rosenberg, & Wallace, 2012; Hill & Taylor, 2004; Hill & Tyson, 2009; Smith, Hillaker, Garner, & McGovern, 2015).
 - Youth voice is important in establishing a sense of ownership of the afterschool program for middle and high school youth. Opportunity to incorporate youth voice is a central feature of both the Interaction and Engagement domains of the quality measures used in the Missouri 21st CCLC QIS. Fostering youth voice involves finding ways for young people to actively participate in shaping the decisions that affect their lives (Mitra, 2004) and helping youth to develop and realize their own goal, interests and values (Assor, Kaplan, & Roth, 2002; Connell & Wellborn, 1991; Reeve, Jang, Carrell, Jeon, & Barch, 2004).
 - The state lead may want to guide grantees on establishing youth advisory boards, panels, or councils that will be able to participate in these and other organizational decisions regarding programming for middle school and high School-Age youth.
 - Improvement in the instructional quality domains of Engagement and Interaction from 2015-16 to 2016-17 on the program quality assessment tools (see Table 21) and improvement across all items of

Youth Governance (Leading Indicator 1.3, see Appendix C) suggest targeted improvement efforts focus on the area of Youth Voice during the 2017-18 programming year.²

- An important pathway to skill development is involving students in engaging activities that sequentially grow more complex over time (Durlak & Weissberg, 2007; Marzano, 1998). The state lead may want to guide grantees to implement programming that has a larger goal or end product and takes multiple sessions to complete. STEM or art activities may be a great way to build in multi-session projects.
 - Increasing task complexity (see Table 17, Growth and Mastery Skills) increased over 5% from the 2016-17 program year. The reasons for this relatively large gain are not clear, although we hypothesize that the addition of many new, high-quality grantees may have contributed to this increase. It is hoped that these gains will continue over time as programs continue to build their capacity to engage youth in multi-session projects.
 - Encourage the use of lesson planning for afterschool sessions. For example, create themes to cover a specific amount of time (days, weeks, semesters) with specific learning objectives that build from one session to the next.
- ❖ Given the importance of dosage to enhancing youth outcomes, it is recommended that DESE further explore the attendance data in order to determine what factors, both student-level and program-level, are associated with higher afterschool attendance. Some factors to consider include age of youth, transportation, and program location (rural/urban/suburban).
- Enhance current information on afterschool dosage by planning for ways to capture afterschool attendance in terms of individual-level total days attended, hours attended, and time in type of activity (e.g., minutes spent coding, working on science homework). Alternatively, the state could implement other data-tracking systems that have the capability of doing so.
- ❖ Since 2013, the Missouri Department of Education has operated a quality improvement system (QIS) for its approximately 150 federally funded 21st Century Community Learning Centers afterschool programs with the explicit purpose of improving the performance of these service providers. It is recommended that Missouri's Department of Education and Afterschool Network sponsor a report that will draw upon data from 23 performance measures collected annually over multiple annual program cycles to explore the reliability, validity, performance change, and effect of intervention fidelity on performance change. These analyses will be conducted as part of an ongoing effort to: (a) evaluate over-time change in performance that is the central purpose of the QIS and (b) improve the accuracy and usefulness of performance data available to individual organizations that participate in the QIS.

² Sample inconsistencies from year to year (e.g., changes in staff, participating youth, and in some cases site location) and fundamental differences between baseline implementation and subsequent implementation years make specific and direct comparisons of scores across the 2013-14, 2014-15, 2015-16 and 2016-17 program years problematic, however score growth is encouraging and may suggest targeted improvement efforts in the noted area.

References

- Assor, A., Kaplan, H., & Roth, G. (2002). Choice is good, but relevance is excellent: Autonomy-enhancing and suppressing teacher behaviours predicting students' engagement in school work. *Journal of Educational Psychology, 72*, 261-278.
- Bliese, P. (Ed.). (2000). *Within-Group Agreement, Non-Independence, and Reliability Implications for Data Aggregation and Analysis*: Jossey-Bass.
- Bobko, P., Roth, P. L., & Buster, M. A. (2007). The usefulness of unit weights in creating composite scores: A literature review, application to content validity, and meta-analysis. *Organizational Research Methods, 10*(4), 689-709.
- Catalano, R. F., Haggerty, K. P., Oesterle, S., Fleming, C. B., & Hawkins, J. D. (2004). The Importance of Bonding to School for Healthy Development: Findings from the Social Development Research Group. *Journal of School Health, 74*(7), 252-261.
- Connell, J. P., & Wellborn, J. G. (1991). Competence, autonomy and relatedness: A motivational analysis of self-system processes. In M. R. Gunar & L. A. Sroufe (Eds.), *Self Processes and Development* (pp. 43-77). Hillsdale, NJ: L. Erlbaum Associates.
- Durlak, J. A., & Weissberg, R. P. (2007). The impact of after-school programs that promote personal and social skills (pp. 1-50). Chicago, IL: Collaborative for Academic, Social, and Emotional Learning (CASEL).
- Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D. & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development, 82*(1):405-432.
- Fralicx, R. D., & Raju, N. S. (1982). A comparison of five methods for combining multiple criteria into a single composite. *Educational and Psychological Measurement, 42*, 823-827.
- Hansen, D. M., & Larson, R. W. (2007). Amplifiers for Developmental and Negative Experiences in Organized Activities: Dosage, Motivation, Lead Roles, and Adult-Youth Ratios. *Journal of Applied Developmental Psychology*.
- Harris, E., Rosenberg, H., & Wallace, A. (2012). Families and Expanded Learning Opportunities: Working Together to Support Children's Learning. *Family Involvement Network of Educators (FINE) Newsletter, IV*(2). Retrieved from hfrp.org website: <http://www.hfrp.org/publications-resources/publications-series/ncsl-harvard-family-research-project-brief-series-elo-research-policy-practice/families-and-expanded-learning-opportunities-working-together-to-support-children-s-learning>
- Hill, N. E., & Taylor, L. C. (2004). Parental School Involvement and Children's Academic Achievement: Pragmatics and Issues. *Current Directions in Psychological Science, 13*(4), 161-164.
- Hill, N. E., & Tyson, D. F. (2009). Parental involvement in middle school: a meta-analytic assessment of the strategies that promote achievement. *Developmental Psychology, 45*(3), 740-763.
- Huang, D., La Torre, D., Harven, A., Huber, L., Jiang, L., Leon, S., & Oh, C. (2008). Identification of key indicators of quality in afterschool programs. In C. Report (Ed.), *National Center for Research on Evaluation, Standards, and Student Testing* (pp. 1-99). Los Angeles: University of California.
- Marzano, R. J. (1998). A theory-based meta-analysis of research on instruction. Aurora, CO: Mid-continent Regional Educational Laboratory.
- Mitra, D. L. (2004). The significance of students: Can increasing student voice in schools lead to gains in youth development. *Teachers college record, 106*(4), 651-688.
- Noam, G. G., Robertson, D. L., Papazian, A., & Guhn, M. (2014, in prep). The development of a brief measure for assessing science interest and engagement in children and youth: Structure, reliability and validity of the Common Instrument. Cambridge, MA: Program in Education, Afterschool and Resiliency (PEAR), Harvard University.

- Reeve, J., Jang, H., Carrell, D., Jeon, S., & Barch, J. (2004). Enhancing students engagement by increasing teachers' autonomy support. *motivation and emotion*, 28(2).
- Smith, C., Akiva, T., Sugar, S. A., & Hallman, S. (2012). Leading indicators measurement system: Analysis of Oklahoma data - Technical appendix to the Oklahoma 21st Century Community Learning Centers statewide evaluation. Ypsilanti, MI: David P. Weikart Center for Youth Program Quality.
- Smith, C., Akiva, T., Sugar, S. A., Lo, Y.-J., Frank, K. A., Peck, S. C., & Cortina, K. (2012). Continuous quality improvement in afterschool settings: Impact findings from the Youth Program Quality Intervention study. Ypsilanti, MI: Forum for Youth Investment.
- Smith, C., Hillaker, B., Garner, A., & McGovern, G. (2015). Navigating your way to secondary success: A family engagement initiative pilot in school-based afterschool programs. Final Report to the Michigan Department of Education.
- Smith, C., & Hohmann, C. (2005). Full findings from the Youth PQA validation study *High/Scope Youth PQA Technical Report*. Ypsilanti, MI: High/Scope Educational Research Foundation.
- Smith, C., McGovern, G., Peck., S.C., Larson, R., Hillaker, B., Roy, L. (2016). Preparing youth to thrive: methodology and findings from the social and emotional learning challenge. Forum for Youth Investment, Washington, D.C.
- Vandell, D. L. (2012). California Afterschool Outcome Measures Project: Field Test Of The Online Toolbox Final Report To California Department Of Education. Irvine, CA: University of California, Irvine.
- Weiss, H., Little, P., Bouffard, S. M., Deschenes, S. N., & Malone, H. J. (2009). Strengthen What Happens outside School to Improve What Happens inside. *Phi Delta Kappan*, 90(8), 592-596.

Appendix A: Technical Detail on Reliability of Measures

The evaluation framework is comprised of multiple, nested levels of measurement that are organized under three statewide evaluation goals and their corresponding objectives. Table A1 provides descriptive information for the 32 scales including the number of items that comprise each scale, the source of the items, the scale mean, standard deviation and skew which describes the shape of the distribution of site scores for each scale. Descriptive information for the additional scales developed by OSEDA and MASN for the statewide evaluation is also included. In general, scales with skew coefficients between +/- 2 are considered in the acceptable range. Table A1 also provides reliability information for the 32 scales. Internal consistency (Cronbach's alpha or α) is an item level intra-class correlation that describes the degree to which the items that make up a scale are more highly correlated within each respondent than across respondents and $\alpha \geq .7$ is typically seen as the acceptable range.

Two additional intra-class correlations (ICC (1) and ICC (2)) are provided in the final two columns of Table A1 and these coefficients describe the reliability of multiple staff and youth reports from the same program site in terms of the degree of agreement between respondents within the same program site. In general, higher levels of agreement among respondents in the same program site are required to meaningfully interpret an average score for multiple respondents in the same program site. ICC (1) can be understood as the reliability of a rating from a single respondent and the proportion of scale score variance explained by differences between sites. ICC (2) describes the reliability of the scale mean for each site by taking into account the number of additional raters included in the mean scale score (Bliese, 2000). In general, ICCs (1) and (2) indicate that there is relatively high agreement within program sites and that program site means can be meaningfully interpreted.

ICCs (1) and (2) were calculated using variance estimates from one-way ANOVA with random effects model for the data with each scale as the dependent variable and the site ID as the factor. The formulas for each are provided in Figure A1 where MSB is the scale score variance accounted for between sites, MSW is the scale score variance accounted for within sites and K is the average number of staff, youth or parents contributing to the mean scale score for that site.

Figure A1. Calculating Formulas for Intraclass Coefficients

$$ICC(1) = \frac{MSB-MSW}{MSB+[(k-1)*MSW]}$$

$$ICC(2) = \frac{k(ICC(1))}{1+(k-1)ICC(1)}$$

Table A1. Descriptive and Reliability Information for Scale Scores

	Number of Items	Source*	Mean	SD	Skew	Cronbach's Alpha	ICC (1)	ICC (2)
Goal 1			3.14	0.63	-0.77	0.89	0.06	0.79
Common Instrument Science Survey	10	Y						
Goal 2								
1.1 - Staffing Model								
Capacity	6	SC	4.24	0.70	-0.82	0.84	0.45	0.47
Job Satisfaction	4	SC,S	4.25	0.72	-0.85	0.86	0.66 ³	0.68
1.2 - Continuous Improvement								
Continuous Quality Improvement	14 ⁴	S	3.10	0.86	0.18	0.74	0.17	0.23
Horizontal Communication	5	S	3.55	1.15	-0.46	0.86	0.46	0.55
Vertical Communication	2	S	4.12	1.00	-1.21	0.81	0.65	0.67
1.3 - Youth Governance								
Youth Role in Governance	5	SC	3.36	1.02	-0.09	0.85	0.43	0.59
1.4 - Enrollment Policy								
Access	4	SC	3.19	0.74	0.19	0.59	0.27	0.42
Targeting Academic Risk	4	SC	2.17	1.01	0.92	0.86	0.50	0.60
2.1 - Academic Press								
Academic Planning	5	S	4.19	0.89	-1.56	0.83	0.49	0.49
Homework Completion	3	Y	4.08	1.07	-1.14	0.65	0.37	0.38
2.2 - Engaging Instruction								
Youth Engagement & Belonging	8	Y	4.06	0.92	-1.04	0.86	0.43	0.44
Growth & Mastery Skills	6	S	3.90	0.87	-0.84	0.85	0.44	0.49
Instructional Quality	3	PQA	3.93	0.63	-0.64	0.80	0.29	0.56
3.1 - System Norms								
Accountability	3	SC	4.52	0.59	-1.29	0.70	0.40	0.43
Collaboration	2	SC	4.41	0.76	-1.25	0.75	0.57	0.60
3.2 - Family Engagement								
Communication	3	P	3.27	1.29	-0.24	0.80	0.48	0.56
3.3 - School Alignment								
Student Data	3	SC	3.83	1.26	-0.94	0.83	0.59	0.61
School Day Content	5	SC,S	3.50	1.16	-0.28	0.87	0.64 ⁵	0.63
3.4 - Community Engagement								
Community Engagement	4	SC	2.86	1.11	0.31	0.77	0.38	0.46
4.1 - Socio-Emotional Development								
Social & Emotional Competencies	3	Y	4.21	0.87	-1.17	0.77	0.51	0.52
4.2 - Academic Efficacy								
Work Habits	4	Y	4.30	0.78	-1.31	0.78	0.47	0.48
Reading/English Efficacy	2	Y	3.95	1.16	-0.94	0.72	0.55	0.56
Math Efficacy	2	Y	4.03	1.20	-1.10	0.79	0.64	0.65
Science Efficacy	2	Y	4.15	1.10	-1.30	0.80	0.67	0.67
Technology Efficacy	2	Y	4.23	1.12	-1.47	0.83	0.71	0.71
Academic Efficacy (parent)	4	P	4.26	0.79	-1.16	0.88	0.64	0.64
5.1 - Family Satisfaction								
Confidence in Care	3	P	4.63	0.62	-2.09	0.65	0.37	0.38
Convenience of Care	2	P	4.61	0.71	-2.21	0.51	0.34	0.34
Family-School Connection	3	P	4.23	0.90	-1.22	0.77	0.49	0.53
Goal 3								
Personal and Social Skills - (Older Youth Survey)	19	Y	4.16	0.68	-1.01	0.92	0.07	0.80
Personal and Social Skills - (Younger Youth Survey)	13	Y	4.53	0.57	-1.74	0.85	0.10	0.86
Commitment to Learning - (Older Youth Survey)	6	Y	4.20	0.75	-1.22	0.74	0.06	0.74
Commitment to Learning - (Younger Youth Survey)	3	Y	4.61	0.70	-2.40	0.70	0.06	0.73

*SC=Site coordinator survey; S=Staff survey; Y=Youth survey; P=Parent survey.

³ ICC represents the average value of Job Satisfaction for Staff and Job Satisfaction for Site Coordinators

⁴ Two items no data collected: PWD and YWM, so for this reliability only 10 items were included

⁵ ICC represents the average value of School Day Content for Staff and School Day Content for Site Coordinators

Appendix B: Profiles of High- and Low-Performing Sites

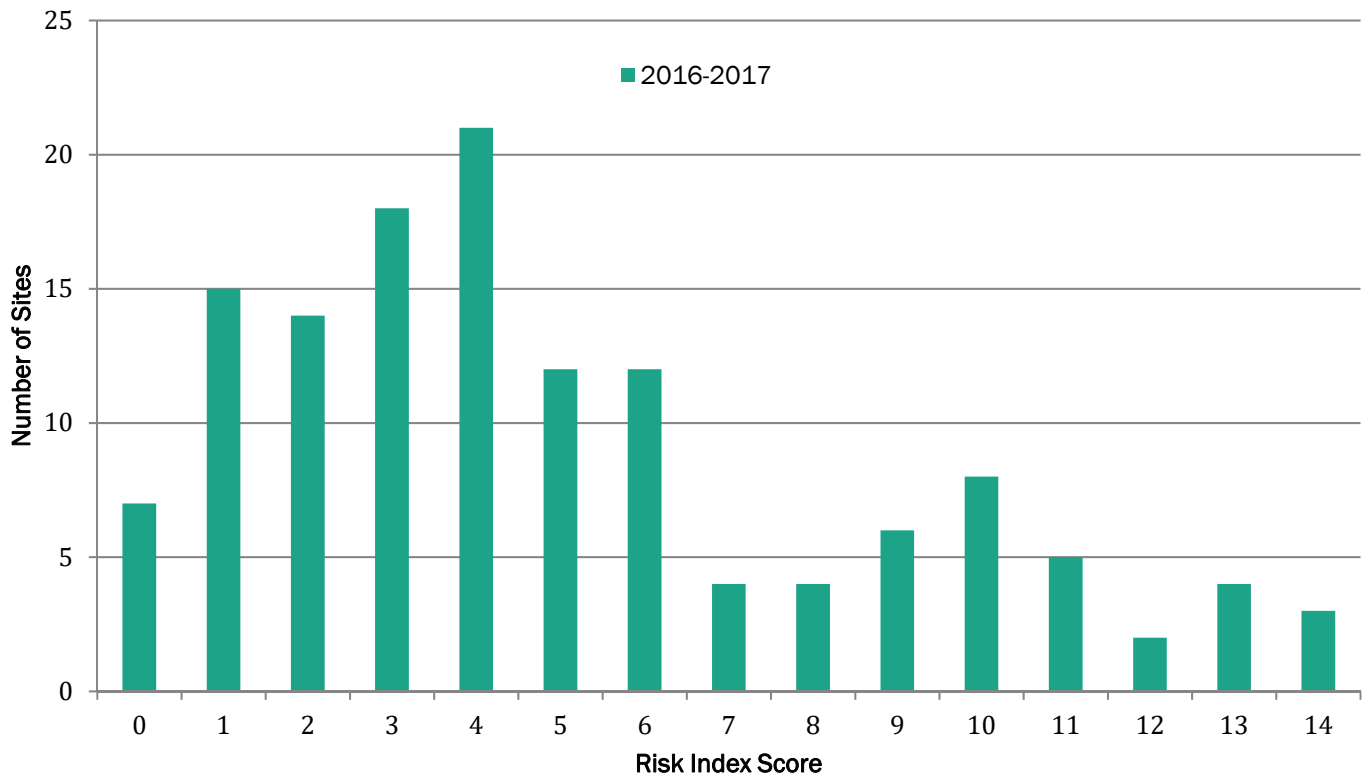
In this appendix we examine the prevalence of “low performance”⁶ defined as assignment to the low quartile on one or more of 23 leading indicator scale scores. The 10 student outcome scales were excluded from this analysis. We examined the difference between group mean scores for the highest and lowest quartile groups on each scale. We also conducted a statistical significance test of the difference using an independent subjects T-test. Table B1 describes the results of these analyses including p-values indicating statistical significance of the difference. Statistically significant differences between high and low quartile means scores are indicated for all scales presented. In the 2016-2017 program year there were notable increases in high quartile mean values for job satisfaction, youth governance, instructional quality, community engagement and academic efficacy, as well as increases in low quartile means values for all the scales except school day content and community engagement. The lack of increase in the low quartile mean for school day content and community engagement can be attributed to the increase in community based programs.

Table B1 – Comparison of Group Means for High and Low Quartiles

	# Sites in High Quartile 2016-17	High Quartile Mean 2016-17	# Sites in Low Quartile 2016-17	Low Quartile Mean 2016-17	Mean Score 2016-17	Difference High/Low Quartile Means	P value
Capacity	36	4.97	37	3.17	4.24	1.17	0.00
Job Satisfaction	35	4.83	35	3.51	4.25	0.72	0.00
Continuous Imp	31	4.00	31	3.09	3.1	0.86	0.00
Horizontal Comm.	31	4.51	31	2.73	3.55	1.07	0.00
Vertical Comm.	32	4.84	32	3.29	4.12	0.82	0.00
Youth Governance	24	4.68	24	2.14	3.36	1.50	0.00
Access	29	4.10	29	2.36	3.19	1.00	0.00
Targeting	32	3.55	32	1.25	2.17	1.00	0.00
Academic Planning	32	4.74	32	3.37	4.19	0.73	0.00
Hwk Completion	34	4.28	34	3.61	4.08	0.58	0.00
Yth. Eng. & Belong	34	4.47	34	3.70	4.06	0.42	0.00
Growth & Mastery	32	4.52	32	3.29	3.9	0.58	0.00
Instructional Quality	35	4.67	35	3.08	3.93	0.85	0.00
Accountability	50	5.00	50	3.95	4.52	0.75	0.00
Collaboration	62	5.00	62	3.54	4.41	1.00	0.00
Communication	30	4.18	30	2.47	3.27	0.84	0.00
Student Data	37	5.00	37	2.09	3.83	2.00	0.00
School Day Content	34	4.47	34	2.43	3.5	1.23	0.00
Community Engage	29	4.27	29	1.60	2.86	1.50	0.00
Acad. Eff. Parent Rep	32	4.14	32	3.80	4.21	0.35	0.00
Confidence in Care	30	4.93	30	4.49	4.63	0.31	0.00
Convenience of Care	32	4.93	32	4.15	4.61	0.36	0.00
Family-School Conn	32	4.74	32	3.74	4.23	0.53	0.00

A risk index was created to identify membership in low quartile groups. For each scale we created a risk variable where 1= membership in the lowest quartile and 0= membership in one of the higher quartiles. We then summed across the 23 possible risk variables to create the risk index ranging between 0 and 23. Figure B1 illustrates the prevalence of low performance across sites. Risk Index Scores range from zero to 14, meaning that some sites had zero scales for which their scores were in the lowest quartile (out of 23), while some sites had as many as 14 scales. Here, it is important to note that even though sites are placed in a low quartile, it does not necessarily mean they have received a low aggregate score on an indicator. Quartile membership is based upon scores relative to other sites. In the 2016-2017 program year there were only 12 sites with 6 scales in the low quartile, a decrease from 20 sites in the 2015-2016 program year. A majority of the sites in the current year had fewer than five scales in the lowest quartile in the 2016-2017 program year.

Figure B1 – Risk Index Score by Number of Sites



Appendix C: Logic Model for Missouri's Afterschool Programs Including Improvement Strategies, Evaluation Goals, and Measures

