Evidence of Program Quality and Youth Outcomes in the DYCD Out-of-School Time Initiative: Report on the Initiative's First Three Years

Christina A. Russell
Monica B. Mielke
Elizabeth R. Reisner

Policy Studies Associates, Inc.

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Executive Summary

In September 2005, the New York City Department of Youth and Community Development (DYCD) launched the Out-of-School Time Programs for Youth (OST) initiative to provide young people throughout New York City with access to high-quality programming after school, on holidays, and during the summer at no cost to their families. Working closely with the nonprofit community and with ten City agencies, including the Department of Education (DOE), DYCD created a comprehensive public system of out-of-school time programming. Each OST program is operated by a nonprofit organization and is located in a school, community center, settlement house, religious center, cultural organization, library, or a public housing or Parks facility.

DYCD contracted with Policy Studies Associates (PSA) to conduct a comprehensive evaluation of the OST initiative. PSA designed the evaluation to describe the characteristics of OST programs and participants and to assess the initiative's contribution to the growth and development of New York City youth. In addition to providing descriptive information on the initiative and its participants, the third-year report explores the associations among program quality, patterns of youth participation, and youth outcomes, using known features of high-quality programs as identified through previous research.

Scope of Services

Since its inception in 2005, the OST system has provided services to a total of 181,001 individual youth throughout New York City. During the 2007-08 school year, more than 81,000 youth participated in one of 622 OST programs citywide, all of which were available at no cost to families. Elementary-grades programs generally provided services from 3 to 6 pm Monday through Friday. Middle-grades programs offered at least eight hours of programming per week, and high school programs offered a minimum of 108 hours of programming on a flexible schedule throughout the school year. In addition, in order to meet the needs of working families, programs serving elementary- and middle-grades youth were open on school holidays. Many programs also offered programming for 50 hours per week for eight weeks during the summer.

The OST initiative grew over its first three years to serve increasingly large numbers of youth each year. In the first year of the initiative (2005-06), 50,618 youth enrolled in OST programs throughout the city, including 40,584 participants in the Option I programs that are at the core of this report. In the second year of the initiative (2006-07), this number had increased to 68,449 participants overall and 56,742 in Option I, and by the third year the initiative had grown to serve 81,213 youth, including 67,524 Option I participants. The initiative also expanded in terms of the number of programs offering OST services, with the addition of 111 new elementary-grades programs in the third year of the initiative.

Program Quality

Varied program activities. Aligned with core program goals, OST programs generally offered varied activities, including academic skills enhancement, cultural exposure and enrichment, sports, recreation, community service, and leadership development. Nearly all elementary- and middle-grades programs offered academic enhancement, arts and culture, and recreational activities. About two-thirds of these programs offered life-skills activities, and about half offered community-building activities. Consistent with the age ranges they serve, relatively few elementary- and middle-grades programs offered any career or work activities in the third year of the OST initiative (15 percent and 24 percent, respectively). In contrast, high school OST programs often focused on a narrow set of activities or topic areas. Reflecting that focus, the activity patterns in high school programs differed from those of elementary- and middle-grades programs: while more than two-thirds of high school programs offered academic enhancement, arts and culture, and recreational activities, only about half of high school programs offered life skills, community building, and career or work activities.

Exposure to new experiences. Overall, participants reported a high degree of satisfaction with the extent to which their OST program exposed them to new experiences (average score of 3.20 out of 4 on the youth-survey scale). Elementary-grades youth were somewhat more likely to report a high level of participation in new experiences (3.34 out of 4) than were middle-grades (3.22) and high school youth (3.27). Based on the evaluation's statistical measure of the difference in responses, high school youth responded notably more positively to this scale than did middle-grades youth, suggesting that in general there is most room for improvement in creating engaging, innovative activities at the middle-school level.

Observed program quality. In structured observations of program activities in a stratified, random sample of 15 programs, evaluators found that OST staff generally created warm, welcoming, yet structured environments. However, programs struggled in their efforts to implement active learning opportunities through activities that built on each other in a sequenced manner. On average, observed activities demonstrated clear activity goals (5.07, out of 7 on the evaluation's *task-oriented* scale). Activities also rated high on the *relationship-focused* scale, which measures the extent to which activities developed personal and social skills (4.21, out of 7). In contrast, evaluators observed less evidence of activity quality as defined by the extent to which the activity built on skills and content previously learned (3.60, out of 7, on the *skill-building* scale) or engaged youth in active, hands-on learning experiences (1.75, out of 7, on the *active-learning* scale).

Positive Relationships Involving Youth

Youth interactions with peers. Youth were overwhelmingly positive in their assessment of their social interactions within the program (average scale score of 3.32, out of 4), although both middle-grades and high school youth responded somewhat more positively than did elementary-grades participants (3.35 and 3.37, compared to 3.28). These high scores are an indication that OST programs were successful in creating welcoming social environments for youth to develop friendships.

Youth interactions with staff. OST participants also responded very positively to a scale measuring the quality of their interactions with program staff (average scale sore of 3.35, out of 4), with high school youth responding somewhat more positively than either elementary-grades or middle-grades youth (3.46, compared to 3.31 for both elementary- and middle-grades youth).

Effective Program Partnerships and Supports

Staffing patterns. The majority of programs (82 percent) hired college students, and 69 percent of programs hired at least one professional specialist (e.g., a professional artist, coach, dancer). In addition, 63 percent of programs had at least one certified teacher on staff, and 61 percent hired teen staff members. Fifty percent of OST program directors reported that a staff member was assigned to be a master teacher or educational coordinator within the program.

OST programs were strategic in the roles they assigned to certified teachers and specialists within the programs. Certified teachers were employed mainly to provide academic support to programs by leading academic activities (72 percent of programs) and tutoring (71 percent). Specialists were hired primarily for non-academic enrichment activities such as arts and sports (88 percent). College students, in contrast, played roles across program activities, including tutoring youth (88 percent) and assisting with enrichment and academic activities (82 percent and 78 percent, respectively). More than two-thirds of programs also employed college students to lead enrichment and academic activities (73 percent and 70 percent, respectively). Teen staff were mostly hired as activity assistants (82 percent) or as tutors (80 percent). Through these mixed staffing patterns, programs aimed to involve young staff members in connecting with younger participants; teen staff were supported by experienced staff who could provide ongoing mentoring and supervision. Thanks to these varied staffing patterns, including the use of both paid and volunteer staff, OST programs maintained an overall low ratio of youth-to-staff, with a median ratio of 8:1.

Building staff capacity. With the launch of the OST initiative in 2005, DYCD contracted with the Partnership for After-School Education (PASE) to provide technical assistance and professional development workshops for OST program staff. In survey responses, 88 percent of program directors reported that PASE was a primary source of technical assistance and training for themselves and their staff members. Other primary sources of technical assistance included the provider organizations (67 percent) and the DYCD program manager (40 percent). Program directors reported that their staff received professional development through staff meetings at the program (86 percent), internal staff orientations (66 percent), and off-site workshops (62 percent).

Partnerships with schools. In the third year of the OST initiative, program directors reported regular communication with school staff in several areas. Program directors reported communicating with school administrators or staff at least monthly about: the needs or progress of individual students (61 percent), issues related to sharing classroom space (56 percent), homework assignments (56 percent), and student discipline policies (50 percent). In surveys, directors reported high levels of satisfaction with their communication with school staff. Sixty-one percent of program directors said that receiving responses to requests to coordinate services

or resources with school staff was not a challenge; only 6 percent reported that this was a major challenge.

Partnerships with parents. Programs reached out to the families of participants to engage them and to meet youth needs more effectively. Nearly all program directors (91 percent) had conversations with parents over the phone at least a few times a month; 83 percent met in person with parents that frequently. Programs also relied on family or parent liaisons to engage families and encourage high rates of participation: 45 percent of programs employed someone for this role.

Evidence of Youth Outcomes

Program engagement. In the third year of the OST initiative, programs on average exceeded their targeted enrollment levels. Option I programs had a target enrollment overall of approximately 63,000 youth, based on the contracts awarded by DYCD; programs actually served a total of about 64,500 students from September 2007 through June 2008. Even so, some individual programs could not meet their targeted enrollment, measured by the number of slots available for participants as established in the program's contract with DYCD. Sixty-nine percent of elementary programs met or exceeded their enrollment targets, as did 70 percent of middle-grades programs and 59 percent of high school programs.

As in Years 1 and 2, programs reached a high standard of participation. On average, elementary-grades participants attended 377 hours during the year, compared to the 432 hours they were expected to attend. This represents an average of 87 percent of targeted hours, exceeding average participation rates of 72 percent and 83 percent attained in Year 1 and 2, respectively. Older youth also surpassed their targeted number of OST participation hours, on average. Middle-grades participants as a group achieved their targeted number of hours of participation: on average, middle-grades participants attended 218 hours of the 216 hours expected at the middle-grades level (101 percent of the targeted hours). High school participants exceeded their targeted number of hours of participation, attending on average 92 hours in the third year of the initiative, 16 hours above their target of 76 hours.

The evaluation also measured the duration of participation across years: 6,371 youth participated in all three years of OST school-year programming. Almost 22,000 youth participated in two years of OST programming, either in Years 1 and 2 or in Years 2 and 3, while 102,837 participated in a single year of programming (Year 1, Year 2 or Year 3). Approximately 22,000 youth only participated in summer programming.

Social development. Overall, participants reported a strong sense of belonging in the third year of the initiative, with an average youth-survey scale score of 3.38, out of 4. In particular, more than two-thirds of participants "agreed a lot" that they felt safe in the program (68 percent) and 58 percent said that the program was a "good place to hang out." High school students were especially likely to report a strong sense of program connection (scale score of 3.48, compared to 3.32 for elementary-grades participants and 3.38 for middle-grades participants).

Educational development. Analyses examined the relationship between OST participation and the following measures of educational development: academic motivation, school attendance rate, academic benefits reported by youth, performance on the state English language arts (ELA) and mathematics tests (for grades 3-8), and credits accrued and Regent exams passed for high school students.

As in prior years, participants reported an overall strong level of academic motivation in Year 3, with an average scale score of 3.34 out of 4. Elementary-grades participants reported notably higher levels of academic motivation than did middle-grades or high school participants (scale score of 3.34, compared to 3.25 for both groups of older youth).

Participants reported moderate levels of academic benefits on a survey scale (average scale score of 3.06, out of 4). The most common academic benefit reported by participants was that the program helped them to finish their homework more often (54 percent agreed a lot). However, no significant differences were found between participants and matched nonparticipants on the measures of educational performance that are maintained by the Department of Education. OST participants and nonparticipants in the 15 sampled sites were closely matched on their baseline academic performance in both the state ELA and math tests. Consistent with citywide trends, both groups showed small improvements in performance over the course of the OST initiative, with no significant differences in the size of the gains posted by the two groups. For high school youth in the sampled sites, evaluators examined the cumulative number of course credits accrued after each year of OST participation. Analyses found no significant differences between the groups on this measure. Analyses also examined the number of New York State Regents exams that participants and matched nonparticipants had taken and passed to assess progress towards graduation, and found no significant differences. Analyses of school-attendance patterns of participants and matched nonparticipants found no notable differences in attendance changes over time.

Relationships Among Participation, Program Quality, and Youth Outcomes

Relationship between program quality and youth outcomes. Overall, correlation analyses revealed positive relationships between youth reports of the extent to which a program exposed youth to new experiences and youth reports of their sense of belonging in the OST program, their academic benefits, and their rates of school attendance. However, a program's mean rating of exposing youth to new experiences was negatively correlated with individual youths' mean hours of participation in OST. A possible explanation for this pattern is that youth who attend OST more become accustomed to the program offerings over time and therefore lower their perceptions of novelty within the program. The breadth of OST program content in OST programs, measured by the number of different activity types offered, was positively associated with the total number of hours of youth participation and with the number of credits earned by high school participants.

Relationships involving social interactions. In general, measures of a supportive OST environment, including average reports of youth interactions with their peers and with staff

members in the program, were positively correlated with youth reports of their sense of belonging and of the program's academic benefits.

Relationships involving effective partnerships and supports. Several measures of effective partnerships and supports were negatively associated with youth outcomes. For example, the number of professional development opportunities in which OST staff members participated was negatively correlated with youth program participation, youth reports of sense of belonging, and school attendance. Rather than being an indication that staff professional development is ineffective, more likely this finding is an indication that programs that are struggling to implement a high-quality program and contribute to positive youth outcomes are, in fact, taking greatest advantage of the professional development opportunities available through DYCD, PASE, and other resources, either as a result of a referral to technical assistance by their DYCD program manager or by their own choice. Measures of communication with schools and with parents were positively associated with the number of hours of youth participation in OST programming.

Program quality index. Based on all of the findings from the correlation analyses, evaluators created a program quality index as a tool for assessing the overall quality of an OST program. Final components of the program quality index include exposure to new experiences, youth interactions with peers, youth interactions with staff, wide mix of staff, presence of a master teacher, and presence of a parent liaison. Analyses found a positive relationship between the program quality index and whether the program succeeded in meeting its targeted enrollment level. Analyses also found positive correlations between overall program quality and aggregate youth reports of their sense of belonging in the program, their engagement in pro-social behaviors, their academic motivation, and their academic benefits. Multi-level analyses revealed some significant relationships between OST program quality and youth outcomes, even though program-level variables accounted for only a small amount of variance in youth outcomes.

Creation of a City-wide OST System

Capacity of provider organizations. Executive directors of provider organizations reported that the OST initiative increased their organizational capacity in several ways. More than half of executive directors reported that the initiative increased the organization's capacity to reach out to serve more youth and families to a great extent or somewhat (83 percent), provide staff training and technical assistance (73 percent), partner with a public school (71 percent), partner with cultural organizations (65 percent), partner with city agencies (63 percent), offer programming on weekends and holidays (59 percent), and provide a career ladder for OST staff (57 percent).

Executive directors also reported increased capacity to implement certain practices in the third year of the OST initiative, compared to previous years. Fifty-nine percent of executive directors reported that their programs provided much more or somewhat more training and technical assistance for staff in the third year of the initiative than in the first or second year. Overall, executive directors reported high levels of satisfaction with DYCD's management of the OST initiative and support of OST. More than half of executive directors reported that they were

very satisfied with the support provided by the DYCD program manager (67 percent) and the opportunities for staff professional development (55 percent). Executive directors were least satisfied with DYCD's assistance in negotiating partnerships with schools (29 percent reported that they were very satisfied).

Meeting the needs of working families. A goal of the OST initiative was to provide support to working families in New York City, particularly in the target zip codes identified as priorities for out-of-school time services. Survey responses from parents of OST participants in the elementary- and middle-grades indicated that overall the initiative succeeded in reaching this goal and meeting the needs of families: about three-quarters of parents rated the OST program that their child attended as either excellent (43 percent) or very good (33 percent).

Parents especially valued the academic-support features of OST programs. Forty-seven percent of parents cited homework help as the most important activity in the after-school program, and an additional 26 percent cited academic enrichment as the most important activity. In addition, parents' reports of their reasons for enrolling their child in the OST program reflected an emphasis on seeking academic support: 76 percent believed the program would help their child do better in school, and 72 percent wanted their child to get help with homework. Seventy-five percent of parents also said that they enrolled their child in an OST program to provide them with the opportunity to participate in new activities.

Parents also responded positively to questions about the ways in which the OST initiative had enabled them to work more or pursue more education. Across all responding parents, 74 percent agreed that the program made it easier for them to keep their job, and 73 percent agreed that they miss less work than they had previously because their children attended the OST program. In addition, 71 percent of parents reported that they were able to work more hours because their children were in the program.

Looking Ahead to Long-Term Sustainability

Through the first three years of the OST initiative, DYCD has established foundations in policy and practice for the long-term sustainability of high-quality, publicly funded, out-of-school time programming for the youth of New York City. With the launch of the OST initiative in 2005, the collaborative relationship between DYCD and the New York City Department of Education has grown, particularly through adoption of a Memorandum of Understanding committing hundreds of public schools as sites for OST programs and the provision of in-kind support by the DOE for OST programs through facilities, security, and snacks and meals for OST participants. At the same time, DYCD strengthened its network of community-based organizations, foundations, and providers of technical assistance to support the initiative through partnerships with the Wallace Foundation and the Partnership for After-School Education, among others. Importantly, the City has included funding for OST programming in its four-year financial plan and the budget for OST programming has steadily increased from $46.4 million in FY 2006 to $117.1 million in FY 2009.

As the OST initiative enters its next phase, evaluation findings from the first three years point to elements of program quality to maintain as well as possible areas in which focused

resources and technical assistance can improve quality and youth outcomes. DYCD has already committed resources to improving the quality of its monitoring and support of OST programs through ongoing technical assistance opportunities, particularly those focused on data management, behavior management techniques, and program content development. The DYCD Online data management system offers opportunities to continue to track patterns of program and activity engagement across the initiative and within specific programs. The development of new program management tools, including those that track the implementation of features in the evaluation's program quality index, will provide opportunities to continue to strengthen the capacity of OST programs to provide high-quality services to youth.

Additional research-based steps will support the city's OST providers as they shape the city's OST system of the future. These steps include the following:

- Assist programs in identifying resources—or in learning to better plan and budget existing resources—directed specifically to hiring specialized staff members to maximize youth recruitment and engagement (e.g., parent liaisons) and to help plan and oversee high-quality, structured program content (e.g., certified teachers or professional specialists).

- Focus technical assistance related to activity planning on teaching staff strategies to engage youth in dynamic, active learning opportunities in which they discuss, collaborate, plan, and take on leadership roles, regardless of the content area.

- Through technical assistance, encourage OST programs and provider organizations to utilize the capacity of the DYCD Online system to generate data that can support program management and improvement efforts, including, for example, the monitoring of program participation patterns to determine whether certain types of activities appeal more or less to particular groups of students.

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The New York City Department of Education (DOE) reviewed and approved the design of this research. The DOE also provided student-level demographic and performance data. We are grateful for their support, and we express special thanks to Janet Brand for her work in extracting data from DOE administrative files.

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1. Overview of the OST Initiative and This Evaluation

In September 2005, the New York City Department of Youth and Community Development (DYCD) launched the Out-of-School Time Programs for Youth (OST) initiative to provide young people throughout New York City with access to high-quality programming after school, on holidays, and during the summer at no cost to their families. Working closely with the nonprofit community and with ten City agencies, including the Department of Education (DOE), DYCD created a comprehensive public system of out-of-school time programming. Each OST program is operated by a nonprofit organization and is located in a school, community center, settlement house, religious center, cultural organization, library, or a public housing or Parks facility.

DYCD designed the OST initiative to deliver high-quality OST services under three program options. Option I, which is the focus of this report, supports comprehensive OST programs throughout New York City. Program expectations for Option I vary by grade level, with programs for younger youth expected to provide more programming hours and hence more comprehensive services to youth who attend programs on a frequent basis. Option II was designed to support OST programs that use private matching funds to subsidize at least 30 percent of their OST budgets, and Option III programs were to be operated in collaboration with the Department of Parks and Recreation at Parks sites. All options were designed to serve youth of all grade levels.

The OST initiative concentrates services in high-need neighborhoods, targeting public funding to high-priority zip codes identified based on the size of the youth population, the youth poverty rate, the percent of youth disconnected from school or work, the number of English Language Learners in public schools, the number of single-parent families, and the number of children eligible for state-subsidized childcare.

Since its launch in 2005, New York City's investment in the OST initiative has grown. The OST budget increased from $46.4 million in FY 2006, the first year of the initiative to $76.8 million in FY 2007 and $117.1 million in FY 2009. Funding for the OST initiative is included in the City's four-year financial plan and is thus expected to provide sustainable out-of-school time services for New York youth into the future. In addition to public funds, the City has received a $12 million grant from the Wallace Foundation to support system-wide OST development.

DYCD contracted with Policy Studies Associates (PSA) in 2005 to conduct a comprehensive evaluation of the OST initiative. PSA designed the evaluation to describe the characteristics of OST programs and participants and to assess the initiative's contribution to the growth and development of New York City youth. The Year 2 evaluation report (Russell, Mielke, & Reisner, 2008) examined evidence of OST programs' achievement of high quality and broad scale. Evaluators analyzed the extent to which programs were establishing structures to support high-quality programming, successfully engaging youth, and developing youth skills in both social and educational domains.

Among other findings of the Year 2 evaluation report, evaluators identified eight program quality features that were positively associated with high levels of program participation and with desirable social and academic outcomes.[1] The quality features were consistent with recent research on out-of-school time programming (Durlak & Weissberg, 2007; Grossman, Campbell, & Raley, 2007; Little, 2007) and with the elements of positive developmental settings identified by the National Research Council's Committee on Community-Level Programs for Youth (Eccles & Gootman [Eds.], 2002). The quality features include the following:

Rich Program Content

- Programs offer a variety of both academic enrichment and non-academic activities, including arts, recreation, and civic engagement.
- Youth are exposed to new and engaging experiences.

Positive Relationships

- Youth have opportunities to interact with their peers.
- Youth interact with and develop positive relationships with staff.

Effective Partnerships and Supports

- Programs staffing patterns include younger staff members, who are supported by more experienced staff.
- Program directors and staff participate regularly in professional development.
- Programs communicate with schools regularly about learning objectives and methods.
- Programs reach out and engage families through parent liaisons and special events for parents.

This report explores the associations among OST program quality, youth participation, and youth outcomes, using the preceding program features as the guiding framework. The report first describes the extent to which these elements of program quality are present in OST programs. It next summarizes evidence regarding youth engagement and social and educational outcomes for participants in the OST initiative. The report then reviews analyses examining the relationships among youth social and educational outcomes, level of youth participation, and program quality. Finally, the report describes the extent to which the OST initiative has helped to build a system for comprehensive out-of-school time services in New York City, including

[1] The Year 2 evaluation report also identified a ninth programmatic feature associated with program quality—the opportunity for youth to participate in both summer and school-year programming. However, this feature depends on program funding and may not be under programs' control to implement. For this reason, it was not included as a key element in program-quality analyses in Year 3.

development of the capacity of provider organizations to deliver high-quality services and meet needs of working families.

Findings in this report are based on data collected during Years 1 through 3 of the OST initiative (2005-06 through 2007-08) from the sources listed below. Descriptive analyses of program quality and of systems-building focus on Year 3 data, noting when changes occurred over the course of the initiative. Analyses of youth outcomes examine data from across the first three years of the OST initiative, describing youth outcomes after one year, two years, and three years of participation in OST programming. Detailed summaries of the data collected in each year are presented in Appendix A. The report focuses on programs funded under Option I of the OST initiative; analyses of data from Option II and III programs are presented in Appendix B. Specific data sources include the following:

- OST enrollment, participation, and activity data, as collected in **DYCD Online**, the agency's participant tracking system

- **Survey of executive directors** of all OST provider organizations

- **Survey of program directors** overseeing the day-to-day operations of all OST programs

- **Survey of OST participants** in grades 3-12 who attended any of the 133 randomly selected Option I programs in the evaluation sample from which evaluators received appropriate principal and parental consents to participate in the evaluation

  This sample was structured to be representative of Option I OST programs as a whole, including their distribution by grade level served and by whether the program was school-based or center-based.

- Demographic, school attendance, and educational performance **data from DOE's student records** for participants with parental research consent who attended one of the evaluation's 15 in-depth Option I programs at any time during the initiative, and a group of matched nonparticipants[2]

- **Survey of program staff** members in the 15 randomly selected in-depth study programs

- **Survey of parents** of OST participants in the 15 in-depth study programs

- **Interview and observation data** collected during site visits to each of the in-depth study programs

[2] These 15 OST programs were randomly selected from within the larger participant-survey sample, stratified to be representative based on grade level served and on whether the program was located in a school or other site. However, the sample was not designed to be able to detect differences among groups for small program effects.

These visits included interviews with the program director, program staff, participants, and, in many cases, parents. Evaluators also conducted structured activity observations during these visits.

Analytic Approach

All findings presented in the report are statistically significant at the $p<0.05$ level. In addition, for each comparative or associative measure reported, the evaluation computed an effect size to measure the magnitude or strength of the finding.

The statistical tests and measures of effect size used in analysis varied based on the properties of the data analyzed. For analyses of continuous variables, the evaluation generally selected an independent samples t-test and computed a Cohen's *d* measure of effect. For categorical data, the evaluation conducted chi-square analyses and reported either a Cramer's *V* effect (for nominal data) or a gamma (γ) statistic (for ordinal data). Analyses of association between continuous variables typically relied on a Pearson's correlation (*r).* For analyses of participant survey scales and observational data, data typically were not normally distributed. In those cases, the evaluation employed nonparametric tests, including the Mann-Whitney U test as an alternative to the independent samples t-test, a Kruskal-Wallis test as an alternative to the ANOVA, and a Spearman correlation as the nonparametric alternative to the Pearson's correlation. The effect sizes for the Mann-Whitney U test and the Kruskal-Wallis test are both reported as r_{ES}; for the Spearman correlation, r_s serves as the effect size measure. For correlations with dichotomous variables, a point-biserial correlation coefficient (r_{pb}) is reported.

Conventions for educational research suggest that effect size values between 0.10 and 0.20 indicate a "small but meaningful" association, between 0.21 and 0.50 an "important" association, and 0.51 or higher an "impressive" association (Cohen, 1988; Lipsey, 1990). This report focuses on findings with an effect size of at least 0.10; comparisons or associations below this threshold were considered too weak to warrant reporting. In general, however, while the associations discussed in this report describe notable relationships between program structures and youth outcomes, they should not in any instance be interpreted as implying causation.

2. Scope of OST Services

Since its inception in 2005, the OST system has provided services to a total of 181,001 individual youth (an unduplicated count) across New York City and across Options I, II, and III. During the 2007-08 school year alone, more than 81,000 youth participated in one of 622 OST programs citywide, all of which were all available at no cost to families. Elementary-grades programs generally provide services from 3 to 6 pm Monday through Friday. Middle-grades programs offer at least eight hours of programming per week, and high school programs offer a minimum of 108 hours of programming on a flexible schedule throughout the school year. In addition, in order to meet the needs of working families, programs serving elementary- and middle-grades youth are open on school holidays. Many programs also offer OST-supported programming for eight weeks during the summer.

As shown in Exhibit 1, the OST initiative grew over its first three years to serve increasingly large numbers of youth. In the first year of the initiative, a total of 50,618 youth enrolled in OST programs throughout the city, including 40,584 participants in the Option I programs that are the focus of this report. In the second year of the initiative (2006-07), this number had increased to 68,449 participants overall and 56,742 in Option I, and by the third year the initiative had grown to serve 81,213 youth, including 67,524 Option I participants. The initiative also increased the number of programs offering OST services, with the addition of 111 new elementary-grades programs in the third year of the initiative.

Exhibit 1
Total OST Enrollment Across Years

Component	Year 1	Summer 06	Year 2	Summer 07	Year 3	Summer 08 (July only)
Overall	50,618	13,160	68,449	16,257	81,213	29,757
Option I	40,584	10,140	56,742	16,257	67,524	26,761
Option II	9,024	3,020	10,448	n/a*	12,340	2,996
Option III	1,010	0	1,259	n/a*	1,349	n/a

*Youth enrollment in summer programs is included in school-year figures.

Exhibit reads: Across all OST initiative options, 50,618 participants were enrolled in Year 1.

The OST initiative has served youth of diverse backgrounds from across the five boroughs, as shown in Exhibit 2. Most youth participants attended OST programs located in public schools (79 percent); the remaining youth attended OST programs in center- or community-based locations. More than half of the youth served were in the elementary grades (58 percent); 23 percent were in the middle grades; and 18 percent were in high school. As shown in Exhibit 3, across all Option I programs, slightly more girls than boys enrolled in programming (51 percent, compared to 49 percent), and more than three-quarters of participants were either African American or Hispanic/Latino (39 percent and 38 percent, respectively). Most participants (84 percent) were eligible for free or reduced-price lunch, and 20 percent were English Language Learners.

Exhibit 2
Numbers of Option I OST Programs and Participants in Year 3

Program Characteristics	Programs *n=514*	Participants *n=67,524*
Borough		
Brooklyn	188	22,208 (33)
Bronx	108	17,141 (25)
Manhattan	85	10,994 (16)
Queens	107	13,979 (21)
Staten Island	26	3,202 (5)
Program Location		
School	369	53,565 (79)
Center	145	13,959 (21)
Grade Level Served		
Elementary	284	39,376 (58)
Middle	116	15,764 (23)
High	114	12,384 (18)

Figures in parentheses are the percent of participants with each characteristic within each category. Percents do not necessarily add to 100 due to rounding.

Exhibit reads: In Option 1 programs in Year 3, there were 188 programs in Brooklyn. These programs served 22,208 youth, who constituted 33 percent of all New York City participants.

Exhibit 3
Demographic Characteristics of Participants in Year 3, in Percents

Gender	*n=67,524*
Male	49
Female	51
Race/ethnicity	*n=67,524*
American Indian	1
Asian	9
African American	39
Hispanic/Latino	38
Pacific Islander	0
White (non-Hispanic)	7
Other	6
Educational characteristics	*n=1,880*
Eligible for free/reduced price lunch	84
English Language Learner	20
Eligible for special education services	16

Sources: DYCD Online (gender and race/ethnicity); DOE (educational characteristics)

Exhibit reads: Forty-nine percent of participants in Year 3 were male, and 51 percent were female.

3. Evidence of Program Quality in Year 3

The vision for OST described by DYCD in its 2005 RFP called for: the provision of safe and developmentally appropriate environments for youth; support for their academic, civic, creative, social, physical, and emotional development; and response to the needs of New York City's families and communities. The objectives reported by OST program directors in surveys consistently reflect these diverse goals. In Year 3, nearly all program directors (98 percent) reported that providing a safe environment for youth was a major objective of their program. In addition, more than three-quarters of program directors cited the following as major objectives of their programs, indicating a high priority on social development goals:

- Help youth develop socially (93 percent)
- Promote respect for diversity (91 percent)
- Provide health/well-being/life skills development (85 percent)
- Provide opportunities for cultural enrichment (85 percent)
- Provide recreational activities (84 percent)
- Help youth improve their academic performance (80 percent)
- Support working families (80 percent)
- Provide hands-on academic enrichment activities (78 percent)
- Provide leadership opportunities for youth (78 percent)

Continuing a trend noted in the second year, the percent of program directors who reported that academic improvement was a major objective of their program declined relative to reports in the prior year. In Year 3, as in Year 2, 80 percent of program directors reported that academic improvement was a major objective, compared to 88 percent in Year 1 (V=.10).[3] In contrast, in Year 3 evaluators found a substantial increase in the percent of program directors who identified support for working families as a major objective, compared to Year 1 and Year 2 of the initiative, perhaps reflecting the challenging economic circumstances that emerged in Year 3 (80 percent, compared to 71 percent in Year 1 and 69 percent in Year 2; V=.13).

The remainder of this chapter reviews evidence of program quality as organized in three clusters of program features, including rich program content, positive relationships, and effective partnerships and supports.

Rich Program Content

Research on youth development and on teaching and learning underscores the importance of providing youth with rich content-based experiences, led by instructors or coaches who encourage mastery of both skills and knowledge and who use both structured and unstructured teaching strategies that capture youth interest (Bransford, Brown, & Cocking, 1999; McLaughlin, 2000). Evaluators used survey data, activity observation data, and program reports in DYCD

[3] All comparative or associative findings presented in the report text are statistically significant at the $p<0.05$ level. For each of these findings, evaluators also computed an effect size, using methods that varied based on the properties of the data analyzed, as described more fully on page 4.

Online to examine the extent to which OST programs provided engaging, enlightening program experiences to youth.

Varied Academic and Non-academic Program Activities

Aligned with core program goals, OST programs generally offer varied activities, including academic skills enhancement, cultural exposure and enrichment, sports, recreation, community service, and leadership development. Evaluators assessed the mix of activities in each OST program, using DYCD Online records of youth participation in specific activities. Program staff categorize each actual OST activity under one of the 17 activity categories established in DYCD Online. For analysis purposes, evaluators collapsed these categories into six primary activity types, including academic enhancement, career and work, life skills, community building, arts and culture, and recreation.[4]

As shown in Exhibit 4, almost all elementary- and middle-grades programs offered academic enhancement, arts and culture, and recreational activities (ranging from 92 percent to 100 percent of programs). About two-thirds of these programs offered life-skills activities, and about half offered community-building activities. Consistent with the age ranges they serve, relatively few elementary- and middle-grades programs offered any career and work activities in the third year of the OST initiative (15 percent and 24 percent, respectively). As reported in Russell, Vile, Reisner, Simko, Mielke, & Pechman (2008), high school OST programs often were structured to focus on a targeted set of activities or topic areas. Reflecting that focus, the activity patterns in high school programs differed from those of elementary- and middle-grades programs: more than two-thirds of high school programs offered academic enhancement, arts and culture, and recreational activities, and about half of high school programs offered life skills, community building, and career and work activities.

Exhibit 4
Percent of Programs Offering Types of Activities, by Grade Level

Activity Category	Elementary *n=284*	Middle *n=116*	High *n=114*
Academic Enhancement	100	99	84
Arts and Culture	94	97	68
Recreation	92	97	68
Life Skills	64	67	57
Community Building	51	48	52
Career and Work	15	24	50

Exhibit reads: One hundred percent of elementary programs offered some type of academic enhancement activity, as did 99 percent of middle-grades and 84 percent of high school programs.

[4] Evaluators excluded the following activity types from categorization: snack/supper, DOE extended day, DOE summer school, and holiday programming.

Exhibits 5-7 illustrate the extent or intensity of activity offerings, as measured by the proportion of total programming time focused on each activity. These exhibits indicate that this proportion of time devoted to each activity varied by grade level, with elementary- and middle-grades programs delivering a greater concentration of academic enhancement, arts and culture, and recreation activities, in comparison to programs serving older youth. High school programs showed a wider range of program offerings. On average, 46 percent of the hours of programming offered by elementary programs was devoted to academic enhancement activities, followed by 20 percent in arts and culture and 19 percent in recreation. Middle-grades programs, on average, spent about a third of programming time on academic enhancement activities (35 percent) and recreation activities (27 percent). Across the initiative, high school programs spent, on average, 30 percent of their total programming hours on academic enhancement activities, followed by recreation (23 percent of their hours). High school programs also spent 17 percent of their programming hours on arts and culture activities, 11 percent each on life skills and on career and work activities, and 8 percent on community building.

Example of an Academic Enhancement Activity

In a middle-grades program, evaluators observed the rehearsal of a spoken word poetry event. Youth practiced performing poems they had written, and they received feedback from the staff and youth audience. The activity observed was participants' first chance to perform in front of a crowd; youth did not yet have their poems memorized and read from a computer screen. Youth took turns performing the poetry they had written, and the staff opened up the room for discussion and feedback after each performance. Overall, the poems reflected participants' developing skills and employed complicated rhyming and wordplay. Staff gave constructive criticism and support to students who performed: "Go to the place in your heart or mind that you were at when you wrote the poem." A staff member modeled performing and receiving criticism by reading his own poem and responding to the group's reactions and suggestions.

Exhibit 5
Proportion of Hours Offered by Activity Type, Elementary-Grades Programs, in Percents *(n=284)*

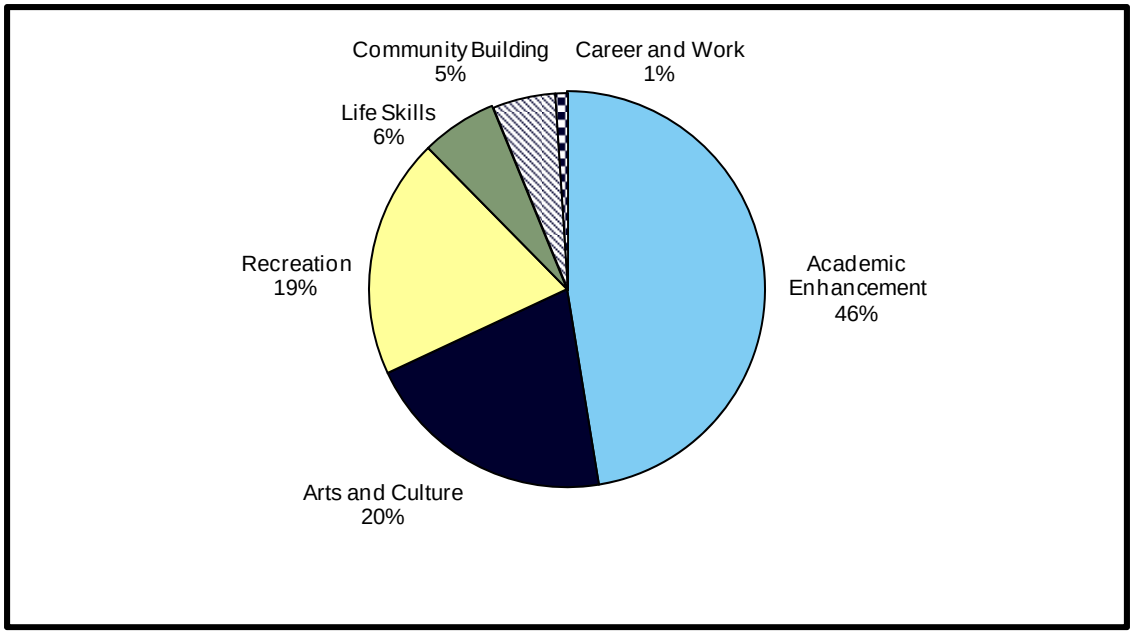

Exhibit reads: On average, 46 percent of the hours that elementary-grades programs offered were in academic enhancement activities.

Exhibit 6
Proportion of Hours Offered by Activity Type, Middle-Grades Programs, in Percents *(n=116)*

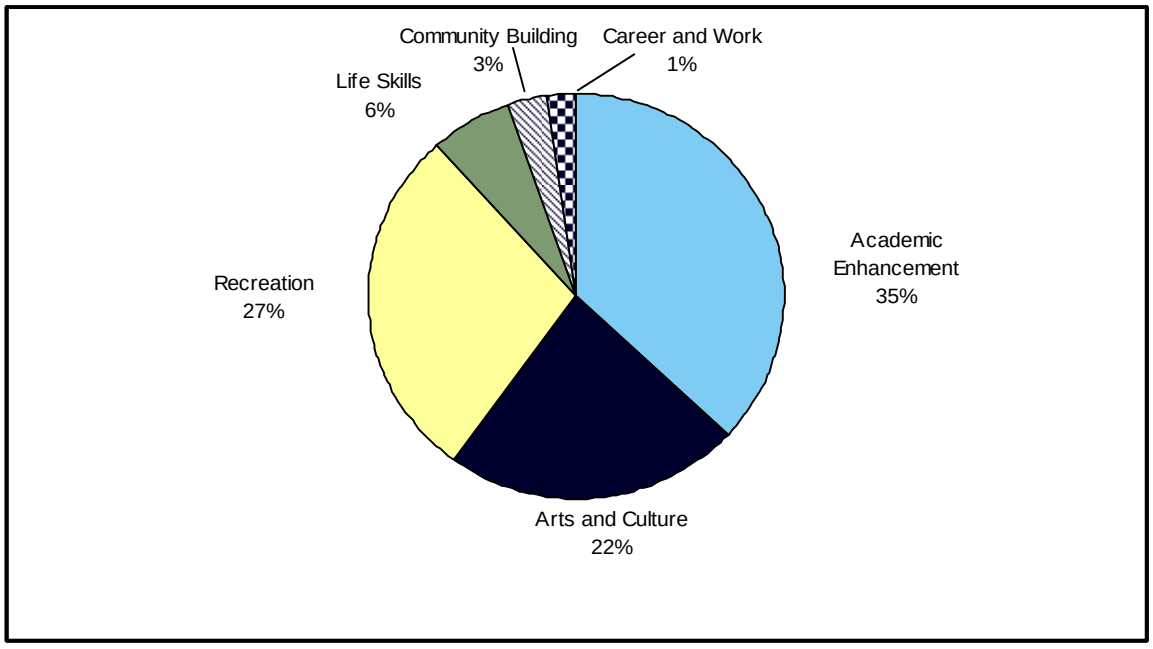

Exhibit reads: On average, 35 percent of activity hours that middle-grades programs offered were in academic enhancement.

Exhibit 7
Proportion of Hours Offered by Activity Type, High School Programs, in Percents *(n=114)*

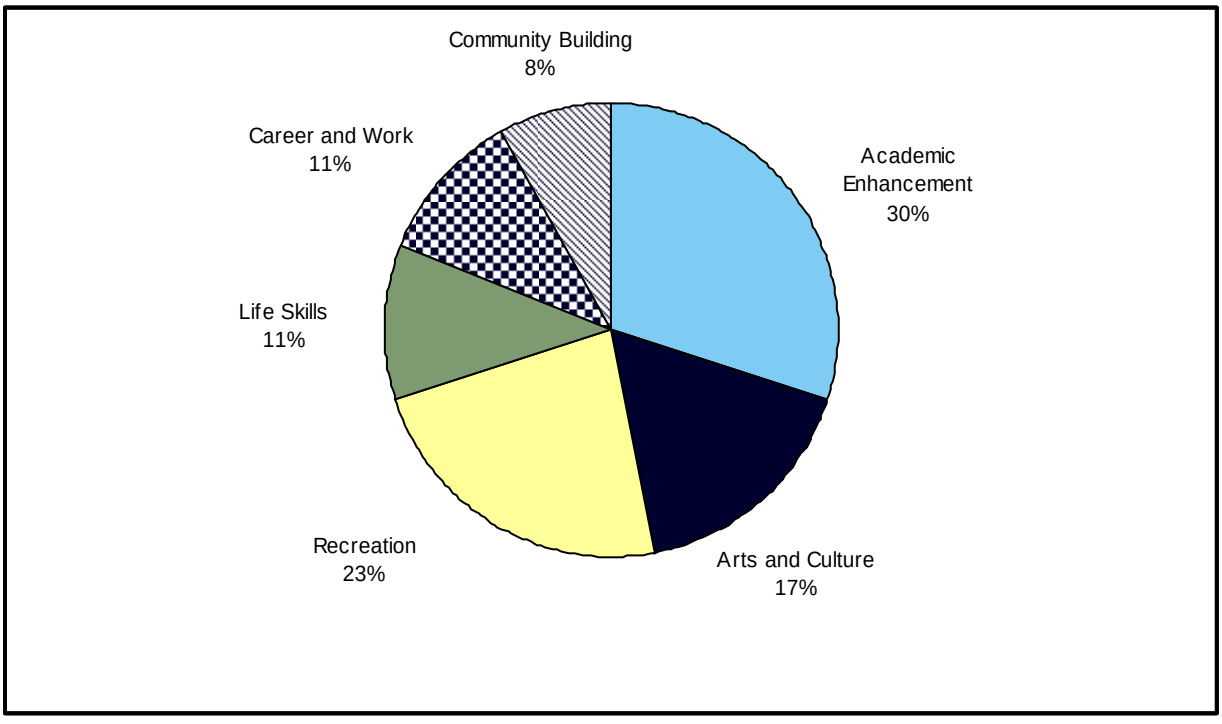

Exhibit reads: On average, 30 percent of the hours that high school programs offered were in academic enhancement activities.

Exposure to New and Engaging Experiences

To measure the extent to which participants reported that their OST program exposed them to new and engaging activities, evaluators asked a series of questions, and participants were asked whether they agreed a lot, agreed a little, disagreed a little, or disagreed a lot with each of the statements in the question. As shown in Exhibit 8, participants were generally positive in their responses to individual survey questions. For example, 52 percent agreed a lot that the activities in their OST program really get them interested and 34 percent agreed a little. Only 14 percent of participants disagreed with this statement.

Exhibit 8
Participant Reports of Exposure to New Experiences, in Percents *(n=6,186)*

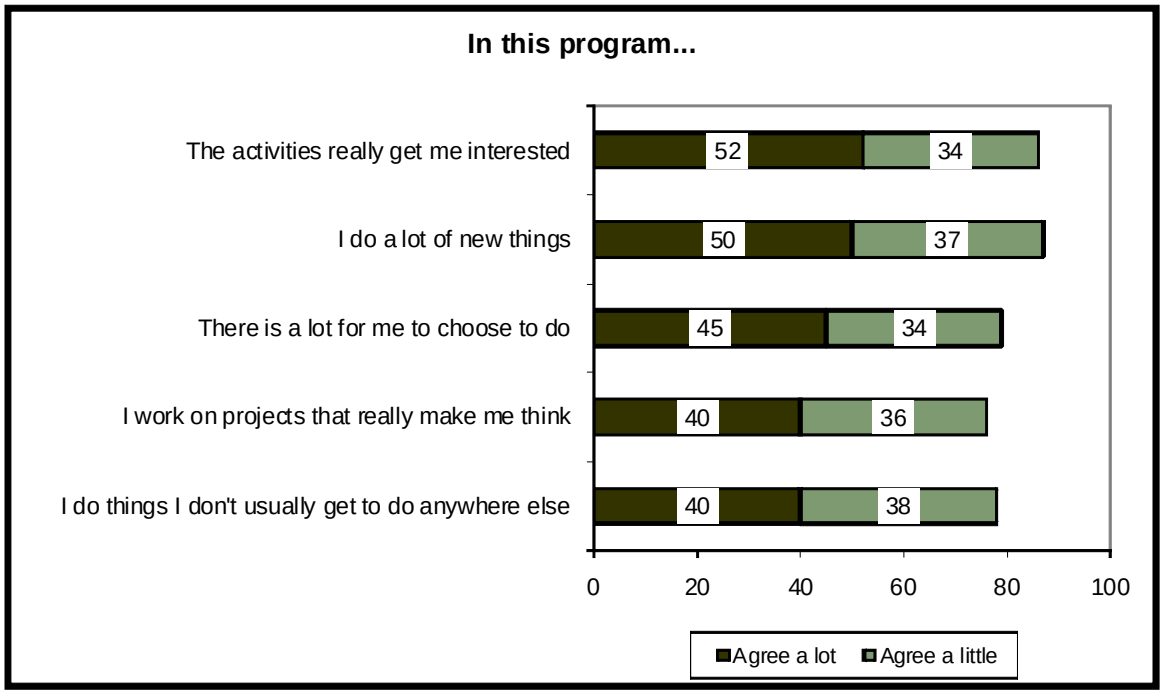

Exhibit reads: Fifty-two percent of participants surveyed agreed a lot that the activities in their program really get them interested and 34 percent agreed a little.

The individual survey items were then combined into a scale calculated to range from 1 to 4, with 4 indicating that on average participants agreed a lot with each of these statements, and 1 indicating that on average participants disagreed a lot with each of these statements. Technical details about the range and reliability of all youth survey scales are included in Appendix C.

Similar to previous years, participants on average reported a high degree of satisfaction with the extent to which their OST program exposed them to new experiences (average score of 3.20 out of 4 on the survey scale). Overall, elementary-grades youth were somewhat more likely to report a high level of exposure to new experiences (3.34) than were middle-grades (3.22; d=.12) and high school youth (3.27; d=.20). High school youth also responded notably more positively to this scale than did middle-grades youth (d=.15), suggesting that in general there is most room for improvement in creating engaging, innovative activities at the middle-grades level.

In addition to the activity content offered, content delivery strategies contribute to program quality and can vary greatly from one program to the next. Using an out-of-school time

program observation scale developed by PSA researchers (Pechman, Mielke, Russell, White, & Cooc, 2008), evaluators observed program activities in the 12 elementary- and middle-grades programs visited in the third year of the initiative. They conducted structured observations and rated the quality of program activities on four scales measuring the content delivery and youth program experience. The scales, which are described in Exhibit 9, are grounded in recent research on out-of-school time quality (Durlak & Weissberg, 2007). Technical details about these observational scales are presented in Appendix D.

Exhibit 9
Results of Observational Scales *(n=141)*

Skill-Building	**Mean**	**Alpha**
Activity builds on and expands skills and content learned to increase youth knowledge and understanding	3.60 out of 7	0.88
Activity involves the practice or a progression of skills Staff challenge youth to move beyond their current level of competency Activity requires analytic thinking Staff employ varied teaching strategies Activity challenges students intellectually, creatively, developmentally, and/or physically Staff assist youth without taking control Staff verbally recognize youth efforts and accomplishments		
Active Learning	**Mean**	**Alpha**
Activity offers youth opportunities to actively participate in learning	1.75 out of 7	0.67
Staff plan for and ask youth to work together Youth are collaborative Youth take leadership responsibilities and roles Youth have opportunities to make meaningful choices Youth assist one another Youth contribute opinions, ideas, and concerns to discussions Staff encourage youth to share their ideas, opinions, and concerns Staff ask youth to expand on their answers and ideas		
Relationship-Focused	**Mean**	**Alpha**
The activity focuses on developing positive relationships among youth and with staff	4.21 out of 7	0.77
Youth show positive affect to staff Youth are friendly and relaxed with one another Youth respect one another Staff show positive affect toward youth Staff engage personally with youth Staff provide guidance for positive peer interactions Staff use positive behavior management techniques Staff are equitable and inclusive		
Task-Oriented	**Mean**	**Alpha**
The activity is organized with clear goals, and youth and staff are engaged and attentive.	5.07 out of 7	0.81
Activity is well organized Youth are on task Staff communicate goals, purposes, and expectations Youth listen actively and attentively to peers and staff Staff attentively listen to and/or observe youth		

Exhibit reads: The *skill-building* observational scale had a mean of 3.60 points out of a possible 7 points and an alpha of 0.88.

Analyses of these observational data revealed that OST activities are generally successful at creating warm, welcoming, yet structured environments. However, programs were less successful in their efforts to implement active learning opportunities through activities that built on each other in a sequenced manner. On average, observed activities were rated highest on the *task-oriented* scale, which measured the extent to which the activity goals were clear and specific (5.07, out of 7). Activities also rated high on the *relationship-focused* scale, which measured the extent to which activities developed personal and social skills (4.21, out of 7). In contrast, evaluators observed less evidence of activity quality based on the extent to which the activity built on skills and content previously learned (3.60, out of 7, on the *skill-building* scale) or engaged youth in active, hands-on learning experiences (1.75, out of 7, on the *active learning* scale).

However, evaluators found notable differences in ratings on the *skill-building* and *active learning* observational scales based on the content of the activity observed, suggesting that some activity types lend themselves more easily to implementation that reflects those quality components. In particular, art activities averaged 4.30 points, out of 7, on the *skill-building* scale, compared to 3.30 points for all other activities (r_{ES} = .35)[5], indicating that art activities were more likely to involve a progression or practice of skills and to challenge youth intellectually and/or creatively. Not surprisingly, activities categorized as "open and unstructured" scored lower on the *skill-building* scale than other activities (2.28 points, compared to 3.82; r_{ES} = .39).

In addition, academic enrichment activities scored notably higher than non-academic enrichment activities on the *active learning* scale (2.14, compared to 1.64; r_{ES} = .22). These results suggest that academic activities were more likely to provide youth with opportunities to engage with their learning and apply their skills than were other activities. In contrast, homework activities scored lower on the *active learning* scale than did other activities (1.46, compared to 1.86; r_{ES} = .26).

Programs in the site visit sample took varied approaches to implementing activities that met quality criteria. One program blended academic support with arts-based enrichment activities for the purpose of increasing youth engagement and learning. These activities also created active, hands-on learning opportunities for youth. A youth participant described this active learning process in a drama activity:

> *I like the drama aspect of the after-school program. I learn a lot from it. We don't just learn how to act. We learn the stuff we're going to act about and the history behind it. We did a thing a couple of months ago with Dominican Independence Day. We learned about their whole history and then did a play and dancing. It's really in-depth and I like that.*

Some programs also offered active learning through youth leadership opportunities. For example, a middle-grades program sponsored a youth council that engaged participants in activities to improve their communities. One group of participants in this program decided to begin a project on global warming. They conducted research and planned a recycling campaign.

[5] For these analyses, r_{ES} refers to the effect size measure for non-parametric statistical tests.

As one youth member said, "We go to conferences and go to other schools to speak about our school. We speak for the youth in our school.… A lot of people don't have a voice, so we speak for them." The program director explained, "These are kids who have been empowered to get results for something they want to do.… This was a youth-led process. I assigned an adult to supervise the process but not get involved in the process."

Programs were often explicit in their approach to fostering positive relationships within the program environment. For example, one program organized its activities around a set of core assets, each representing a different social value such as sharing, giving compliments, and making safe choices. The program focused on one asset at a time, and the asset permeated all youth activities. Each day the program began with an opening assembly that set the tone for the rest of the day. In this session, the program director led a brief activity emphasizing the current asset. Staff members then worked to bring the featured asset into their lesson plans so that different activities built on one another. According to the program director:

> *Our biggest strength is daily assembly. It is wonderful because it gives students transition time between school and after-school. I set standards as the program leader in the assembly… I have gotten so much support and recognition from day teachers who can hear what goes on in assembly. We are very mindful of language and tone [that we] use with students, and then we see the kids model our behavior.*

Another program implemented clear structures in which youth can express their opinions and air their frustrations and concerns. According to the program director:

> *We have a community circle to voice ideas. They're learning, it's a process. Kids come with a lot of baggage and problems. We have a social worker come here during the day and after school. Our motto is "Be a buddy, not a bully." To reduce violence, [we] give kids alternate ways to be heard. Kids are free to come and fill out a form and talk with a group leader. If the group leader is still having a problem, the social worker comes and picks up the kid.*

Similarly, a middle-grades program held rap sessions on Fridays, when youth and staff talked about issues important to the youth participants. The program director noted that these sessions were beneficial for the program because they promoted closer, more open relationships between staff and participants:

> *I would recommend sitting down and getting kids in a comfort zone to talk about what's on their mind. It helps throughout the week. It helps you understand them a little more. You are not as quick to discipline because you know where they're coming from. It helps with the relationships with me and the staff. It helps my relationship with them. I share in those sessions, too. I share personal things as well. It helps.*

Positive Relationships

Research on the quality of out-of-school time programs suggests that staff can enhance youth engagement and learning by creating program structures that encourage youth to feel respected and supported by their peers and by staff members (Grossman et al., 2007). To assess the extent to which OST programs contributed to the development of these positive relationships, evaluators analyzed participant reports of their interactions in the program.

Positive Interactions with Peers

Evaluators created a scale based on youth survey questions about the quality of youth interactions within the OST program (displayed in Exhibit 10), in order to measure the extent to which programs provided opportunities for youth to develop positive relationships with their peers. Overall, youth were overwhelmingly positive in their assessment of their social interactions within the program (average scale score of 3.32, out of 4 on the survey scale), although middle-grades and high school youth responded somewhat more positively than elementary-grades participants (3.35 and 3.37, compared to 3.28; *d*=.11 and *d*=.15, respectively). These high scores are an indication that OST programs were successful in creating welcoming social environments for youth to connect with each other and develop friendships—in their responses to individual items in the survey scale, 64 percent of youth agreed a lot that they have a lot of friends in the program, and an additional 26 percent agreed a little.

Exhibit 10
Participant Reports of Interactions with Peers, in Percents *(n=6,127)*

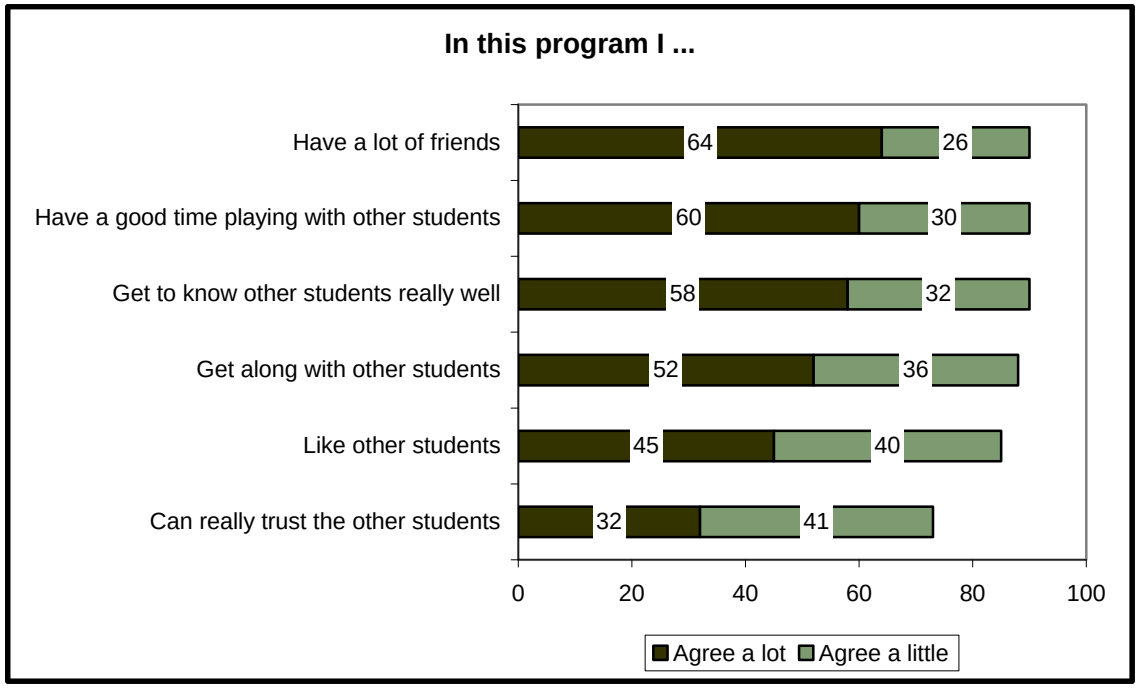

Exhibit reads: Sixty-four percent of participants surveyed agreed a lot and 26 percent agreed a little that they have a lot of friends in their program.

Positive Interactions with Staff

Another measure of the quality of the environment of an out-of-school time program involves assessment of interactions between youth and staff. Evaluators created a scale measuring youth respondents' assessments of their interactions with and relationships with staff members, based on the survey items summarized in Exhibit 11. As with the peer interactions scale, OST participants responded very positively to this scale (average scale sore of 3.35, out of 4), with high school youth responding somewhat more positively than either elementary-grades or middle-grades youth (3.46, compared to 3.31 for both elementary- and middle-grades youth; *d*=.21 and *d*=.20, respectively).

Effective Program Partnerships and Supports

The second year of the OST evaluation found positive associations between certain program staffing structures and youth outcomes. In particular, evaluators found positive correlations between diversified staffing patterns (including teen staff) and youth reports of academic benefits and motivation (Russell et al., 2008). In a related finding, a recent study of the Philadelphia Beacons found positive relationships between staff skills and youth ratings of program quality, including staff skills in managing group dynamics to foster respect and support youth learning (Grossman et al., 2007).

Exhibit 11
Participant Reports of Interactions with Staff, in Percents *(n=6,112)*

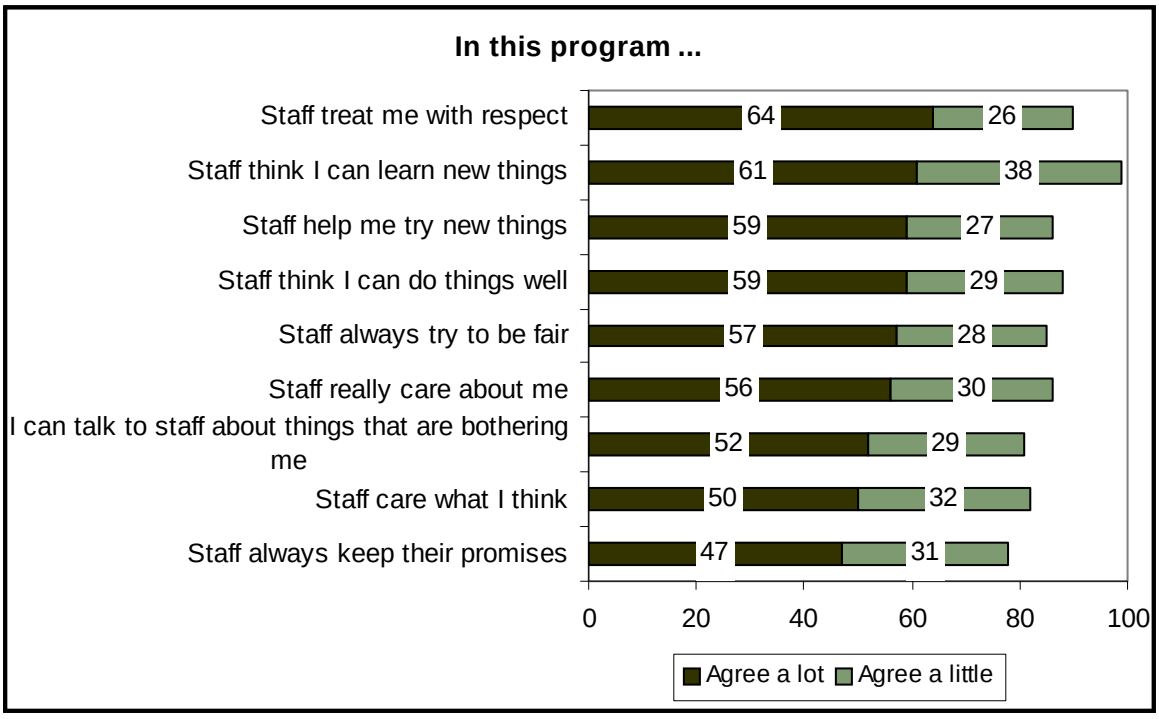

Exhibit reads: Sixty-four percent of participants surveyed agreed a lot and 26 percent agreed a little that staff treat them with respect.

Staffing Patterns

Findings from previous years of the OST evaluation suggested that employing a diverse mix of staff and a master teacher contributed to program quality. In Year 3, OST programs continued to employ staff members with diverse backgrounds, as illustrated in Exhibit 12. The majority of programs (82 percent) hired college students, and 69 percent of programs hired at least one professional specialist (e.g., a professional artist, coach, or dancer). In addition, 63 percent of programs had at least one certified teacher on staff, and 61 percent hired teen staff members.

The number of paid staff varied considerably across OST programs. Program directors reported between one and 65 staff members on payroll, with a median of 15 paid staff. More than half of programs (52 percent) enhanced their staff capacity by recruiting a median of three volunteer staff members.

Not surprisingly, the median hourly wage varied considerably by staff member characteristics and background, with certified teachers receiving $30 on average, specialists $20, college students $11, and teen staff $8 per hour. Other adult staff were paid between $12 and $16 per hour. With funding a primary concern—74 percent of directors reported that not being able to afford the competitive salaries necessary to hire qualified staff was a challenge—OST program directors maintained a balance of certified and professional staff members and younger, less experienced staff members. Accordingly, certified teachers and specialists were hired for a median of nine hours per week, compared to a median of 15 hours per week for all other staff types. Fifty-one percent of OST program directors reported having a staff member assigned to be a master teacher or educational coordinator within the program.

Exhibit 12
Percent of Programs Hiring Staff with Varied Characteristics and Backgrounds
(n=456)

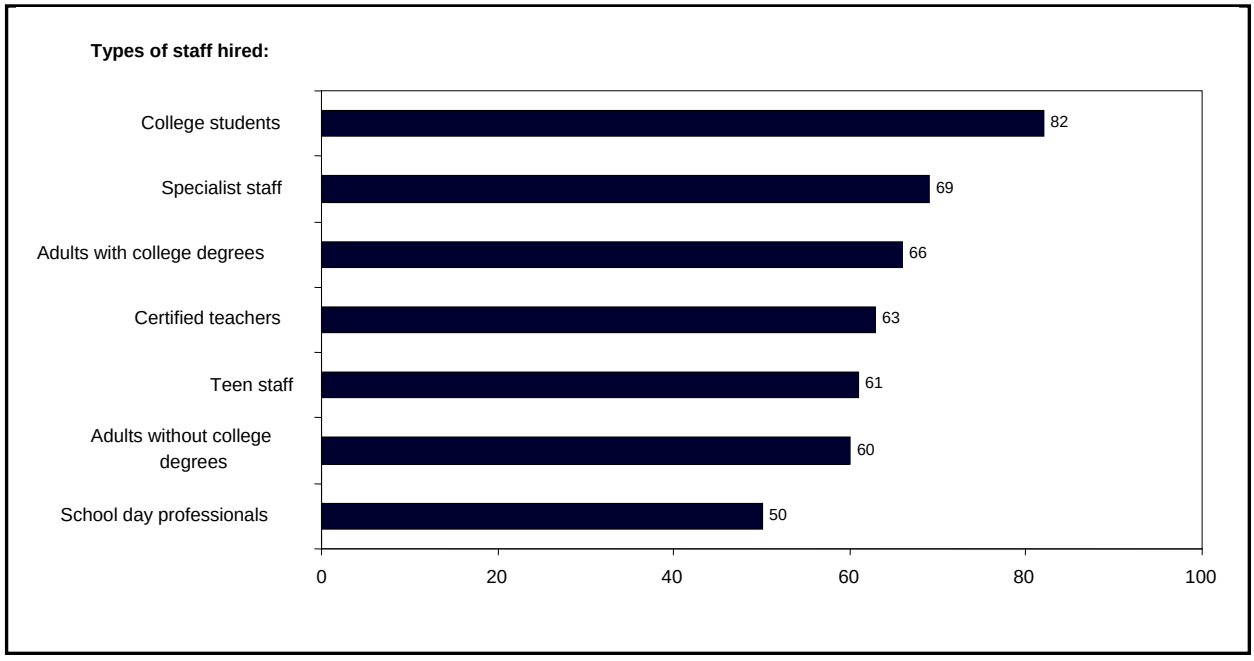

Exhibit reads: Eighty-two percent of program directors reported hiring college students to work in their programs.

Exhibit 13 indicates that OST programs were deliberate in the roles they assigned to certified teachers and specialists within the programs. Certified teachers were employed mainly to provide academic support to programs by leading academic activities (72 percent of programs) and tutoring (71 percent), while specialists were hired primarily for non-academic enrichment activities such as arts and sports (88 percent). College students, in contrast, played roles across program activities, including tutoring youth (88 percent) and assisting with enrichment and academic activities (82 percent and 78 percent, respectively). More than two-thirds of programs also employed college students to lead enrichment and academic activities (73 percent and 70 percent, respectively). Teen staff were mostly hired as tutors (80 percent) and activity assistants (82 percent).

Exhibit 13
Distribution of Staff Roles by Staffing Category, in Percents

Staff Categories	Tutor Youth	Lead Academic Activities	Lead Other Types of Activities (Arts, Sports)	Assist with Academic Activities	Assist with Other Types of Activities	Train Other Staff Members
College students	88	70	73	78	82	32
Teen staff	80	42	49	76	82	6
Certified teachers	71	72	47	60	48	50
Specialists	30	28	88	33	56	41

Exhibit reads: In 88 percent of OST programs, college students had responsibilities for tutoring youth.

Consistent with these patterns, programs visited in the evaluation typically relied on young staff, including college students, to form the core of their OST staff. These programs often hired students who were pursuing studies in education and had experience working with youth or participating themselves in an OST program. Directors described the benefits of hiring these younger staff members:

> *We always try to get former participants. They know each other from the neighborhood. It helps with retention as well, of the staff and of participants. It's someone they [participants] can talk to, someone they can relate to.*

> *[Younger instructors] can relate to the students better. I feel that the children are able to relate more to them. They listen more. They think, "This person isn't that far from where I am." It's that bonding, the personality.*

> *High school students are the ones who are learning how to run these programs. We empower them to do a little bit of everything. It's the same thing with the [participants]. It comes all the way down. They get to see these high school and college students as role models doing great jobs.*

Youth also appreciated having younger staff members work with them, because they felt better able to forge personal connections:

> *They are like teenagers. They are not teenagers, but they can talk with us more closely than a grown-up could. It is like … imagine that a teenager came in to teach a class—they would be able to talk to us more easily than a teacher. I like teachers. They are nice and you learn new things from them, but the young staff are different; you can talk to them more easily.*
>
> *The staff are modernized. They are into what we are into. They aren't old-school.*
>
> *It's good for the teachers to be closer to our age, because they can understand where we're coming from. They're close to our age. If we have problems, they can give us advice. One actually lives in my building, and I see her on a regular basis. We have a different relationship on the block than we do in the program.*

To complement and support younger staff members, some programs also hired certified teachers or other experienced staff who could provide ongoing mentoring and supervision. One director described this as a "checks and balances system" for staff structure and noted that "having the younger staff paired with the older staff is great because they can learn from each other and create a nice sort of interaction. The older staff provide a maturity that the younger staff cannot bring." A common approach was to employ certified staff during academic and homework help activities, both to provide targeted and high-quality help to students and to support the development of teaching skills in the younger staff: "The tutors really have gotten a chance to see how the teachers interact with the students and see how they interact in a classroom setting."

However, hiring certified teachers tended to increase the staffing expenses for programs and required program leaders to plan their program budgets to allow for the higher wages typically earned by teachers. These choices necessitated trade-offs in other program areas: "You have to really make use of your budget—you have to allocate enough money to hire the qualified staff. A lot of [organizations] maybe don't budget enough, or say they'll just hire students, or take out more for administrative expenses. [But] if you have a lot of [staff] turnover that can destroy a program." In one program that had not budgeted to hire any certified teachers, the program director admitted that the quality of the academic component of the program had suffered:

> *If we could afford certified teachers, that would be great. They come at their own rate, they are expensive.… It would help during the homework and academic portion. They would know how to address kids on that level. I have good staff who know how to deal with the kids, but not necessarily [how to help kids with homework]. It is easier for staff to motivate students during activity time, when the activity is their expertise.*

Building Staff Capacity

With the launch of the OST initiative in 2005, DYCD contracted with the Partnership for After-School Education (PASE) to provide technical assistance and professional development workshops for OST program staff. In survey responses, 88 percent of program directors reported that PASE was a primary source of technical assistance and training for themselves and their staff members. Other primary sources of technical assistance included the program's provider organization (67 percent) and its DYCD program manager (40 percent).

Various professional development opportunities and tools were available to OST programs through the initiative, as illustrated in Exhibit 14. Program directors most frequently reported that their staff received professional development through staff meetings at the program (86 percent), internal staff orientations (66 percent), and off-site workshops (62 percent). In addition, 27 percent of program directors reported receiving on-site consultations from PASE or other TA providers in Year 3 of the initiative. This represents a decrease from the 64 percent of directors who reported on-site consultations in Year 2. The change is consistent with DYCD's focus on providing more in-depth assistance to fewer programs in the third year.

Exhibit 14
Percent of Programs Reporting Use of
Various Professional Development Opportunities *(n=456)*

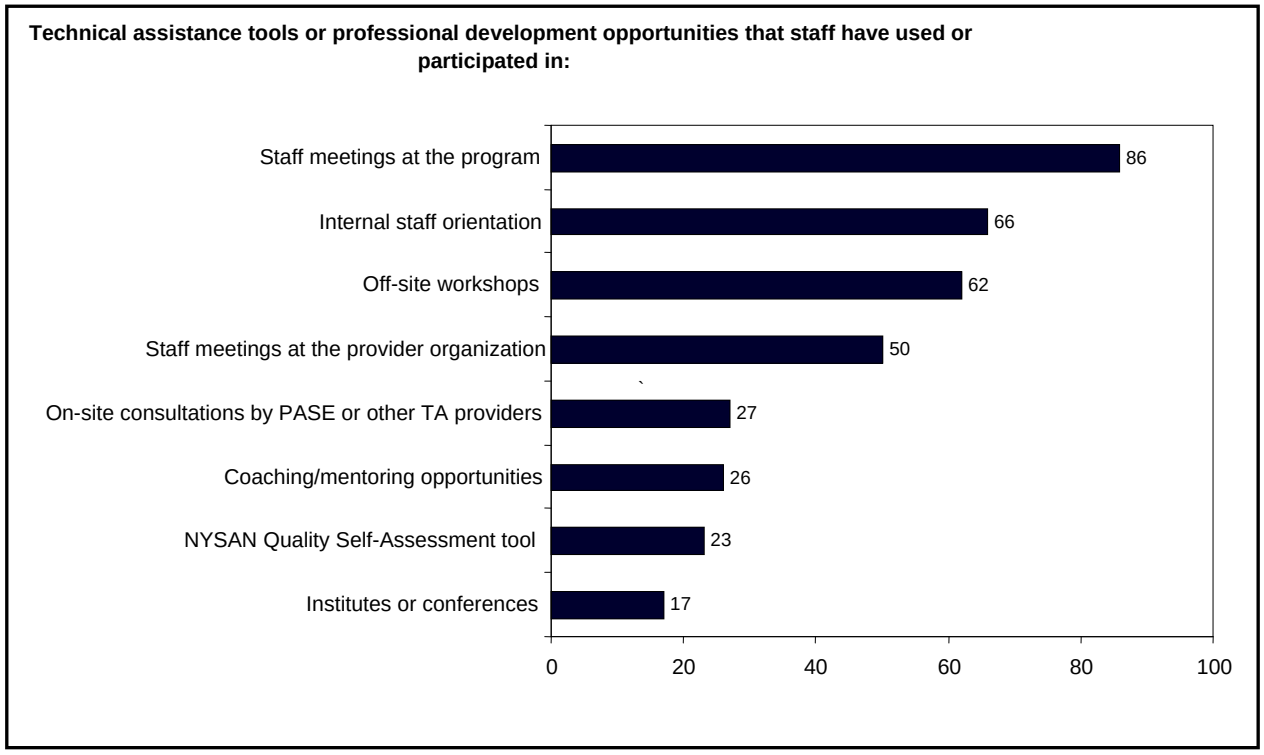

Exhibit reads: Eighty-six percent of program directors reported holding staff meetings at the program.

Programs in the in-depth sample relied heavily on internal professional development, which included review of lesson plans and regular staff meetings. More than half of program directors (54 percent) reported that they required most or all staff to submit activity plans; only 14 percent never asked any staff to submit activity plans. In addition, 42 percent of directors held staff meetings at least once a week; another 31 percent held meetings two or three times a month. Program directors said that these meetings were a good opportunity for staff to discuss program improvements and share ideas:

> *It's also time for [staff] to unwind. They can say, "Oh, this child is doing that…" Then they talk to each other and give advice. They help each other in that way. It helps that they have a good rapport with each other.*

In interviews, some directors also described conducting more formal evaluations with their staff members. In one program, for instance, the director met with staff to conduct formal evaluations two to three times per year, and staff were required to submit quarterly summaries of their work, assessing their progress and delineating any challenges they are facing. During evaluations, the director and staff members discussed not only how the staff member was performing but also how he or she could sharpen or improve his or her work. The director gave staff specific feedback on how to incorporate content and/or improved delivery strategies into his or her work with youth. The director explained that she often helped a staff member plan a lesson as part of this evaluation meeting. After the staff member had a chance to implement the lesson, they met again to discuss what worked and what didn't work. The director said that she believed that supporting staff professionally was very important to helping them improve their work with youth. Directors and staff commented:

> *[You must] treat the staff well for a successful program. Be firm and fair. Most staff will agree with the evaluation [I give them]. I always give people chances to grow with lots of feedback and guidance. It's not the right place if you can't get it after a period of time with structured help.*

> *We do a lot of debriefing after professional development. Next week's session will involve staff implementing a skill they learned. We do a lot of check-in where we talk about challenges and accomplishments. We provide advice or suggestions or recommendations.*

> *We shared different experiences that we have had, and we learn about different activities—then you can take them back to the site. Honestly, when other staff members present what they learn at their trainings, I sometimes feel like I was there myself. It is really good.*

Data from DYCD's records of technical assistance offered in partnership with PASE confirmed that the focus of the OST initiative's professional development shifted over time to provision of on-site, in-depth technical assistance to particular programs to meet their specific needs. In both the first and second years of the initiative, 93 OST programs completed at least

0.5 full-day equivalent (FDE) of technical assistance, with a median of 1.5 FDEs.[6] Programs that received technical assistance in Year 1 were most frequently assisted in developing programs/activities (43 percent), using DYCD Online (36 percent), and behavior/classroom management (25 percent). In Year 2, technical assistance was most frequently directed toward developing programs/activities (50 percent), behavior/classroom management (40 percent), and using DYCD Online (25 percent). In Year 3 of the OST initiative, fewer OST programs participated in technical assistance, but those who did participate received more intensive assitance. Fifty-four OST programs completed a minimum of 0.5 FDEs of technical assistance in Year 3, with a median of 3.5 FDEs. The most frequent technical assistance topics addressed in Year 3 were behavior/classroom management (52 percent), developing programs and activities (35 percent), and program administration, management, and organization (19 percent). This shift in topics may reflect DYCD's increased focus on organizational development as well as the increased stability of OST programs, leading to greater focus on improving program capacity and quality.

Program directors appreciated the hands-on nature of site-based trainings. One noted that "what's really wonderful about the site-based training … is that you select a provider and a topic area, but then you can kind of custom-fit the workshop to the needs of the staff in the program." Another anticipated a site-based training on youth development and behavior management, and explained that "[PASE] had a consultant come and meet with us before, and she gave suggestions and resources. I know this workshop will be really good for the staff." This director explained the benefit of having an outside perspective for staff training: "It resonates more when it comes from someone other than your supervisor. They might have new ideas I didn't talk about."

Partnerships with Schools

A statewide study of after-school programs in Massachusetts found that after-school programs that nurtured strong relationships with teachers and principals also improved participants' homework effort and completion, behavior, and initiative (Miller, 2005). In the third year of the OST initiative, program directors reported regular communication with school staff in several areas. As shown in Exhibit 15, more than half of program directors reported communicating with school administrators or staff at least monthly about: the needs or progress of individual students (61 percent), issues related to sharing classroom space (56 percent), homework assignments (56 percent), and student discipline policies (50 percent). On surveys, directors reported high levels of satisfaction with their communication with school staff. Sixty-one percent of program directors said that receiving responses to requests to coordinate services or resources with school staff was not a challenge; only 6 percent reported that this was a major challenge.

[6] OST programs may self-refer to technical assistance or be referred through their DYCD program manager. A self-referral generally indicates that a program is committed to the technical assistance process and is actively seeking out consultation.

Exhibit 15
Communication with Schools, in Percents *(n=456)*

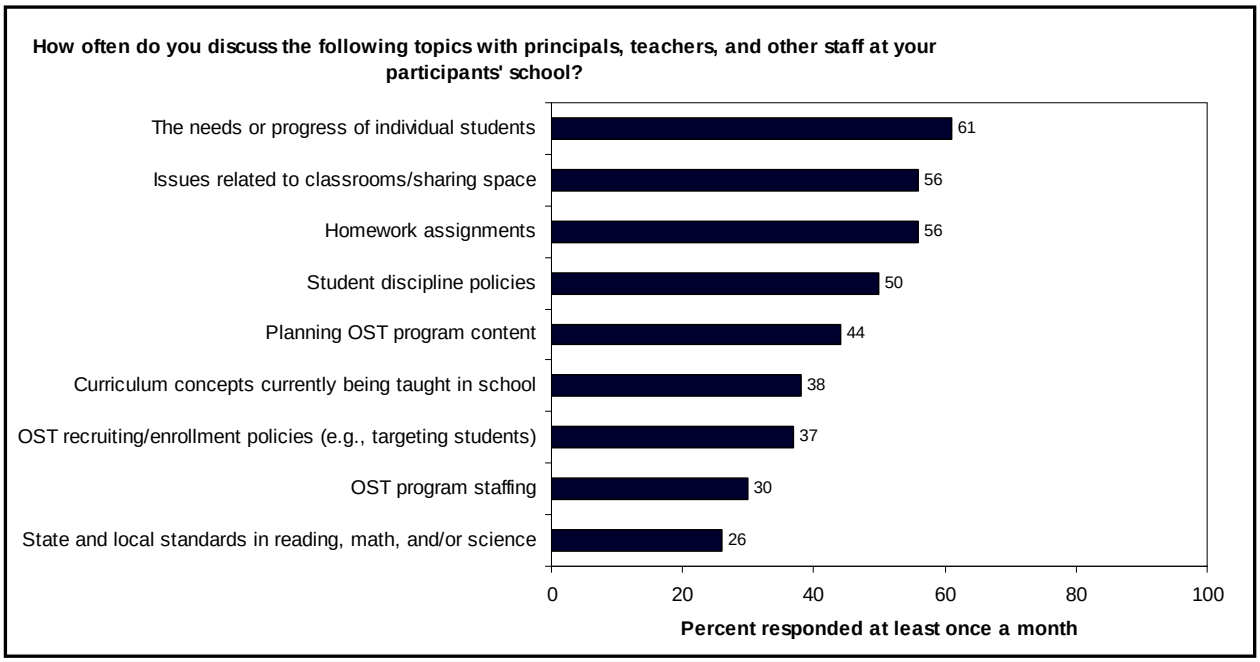

Exhibit reads: Sixty-one percent of program directors reported discussing the needs or progress of individual students with school personnel at least once a month.

In interviews, OST staff reported ongoing, informal communication with participants' school-day teachers:

> *We have a lot of meetings, and we have access to the principal. Even though he assigns assistant principals to oversee the program, we have access to the principal to tell him what we think is working and what is not. A good relationship with the principal is the backbone of success for an after-school program.*

> *I'll ask, "How is so-and-so doing in class?" Their teacher will say, "Yes, they did this homework, they're working independently."*

> *We've developed such a great relationship with the teachers that I can go into the classroom during the day and ask about a particular student and whether he has homework, and the teacher will tell me.*

Partnerships with Parents

Programs reach out to the families of participants to engage them and to meet youth needs more effectively. As shown in Exhibit 16, programs use varied methods to communicate with families. Nearly all (91 percent) have conversations with parents over the phone at least a few times a month; 83 percent meet in person with parents that frequently. In interviews,

program directors described the importance of being accessible to parents. According to one elementary-grades program director:

> *I like to walk around, specifically at dismissal time. I stand out there as the parents come in. I make myself accessible. Parents have things they want to ask, but if they don't see me, they'll forget about it. My strategy is to be accessible…. That way parents know that I'm here, their children are safe, I know what's going on.*

Recognizing the importance of family connections, programs also rely on family or parent liaisons to engage families and encourage high rates of participation. Forty-five percent of programs employed someone as a parent or family liaison. In one program, for example, the family liaison was a paid part-time position described as "the first point of contact with families." The liaison was responsible for contacting families when a child was sick or having problems during the program and also for monitoring youth participation, including data entry for DYCD Online.

Exhibit 16
Communication with Parents, in Percents *(n=456)*

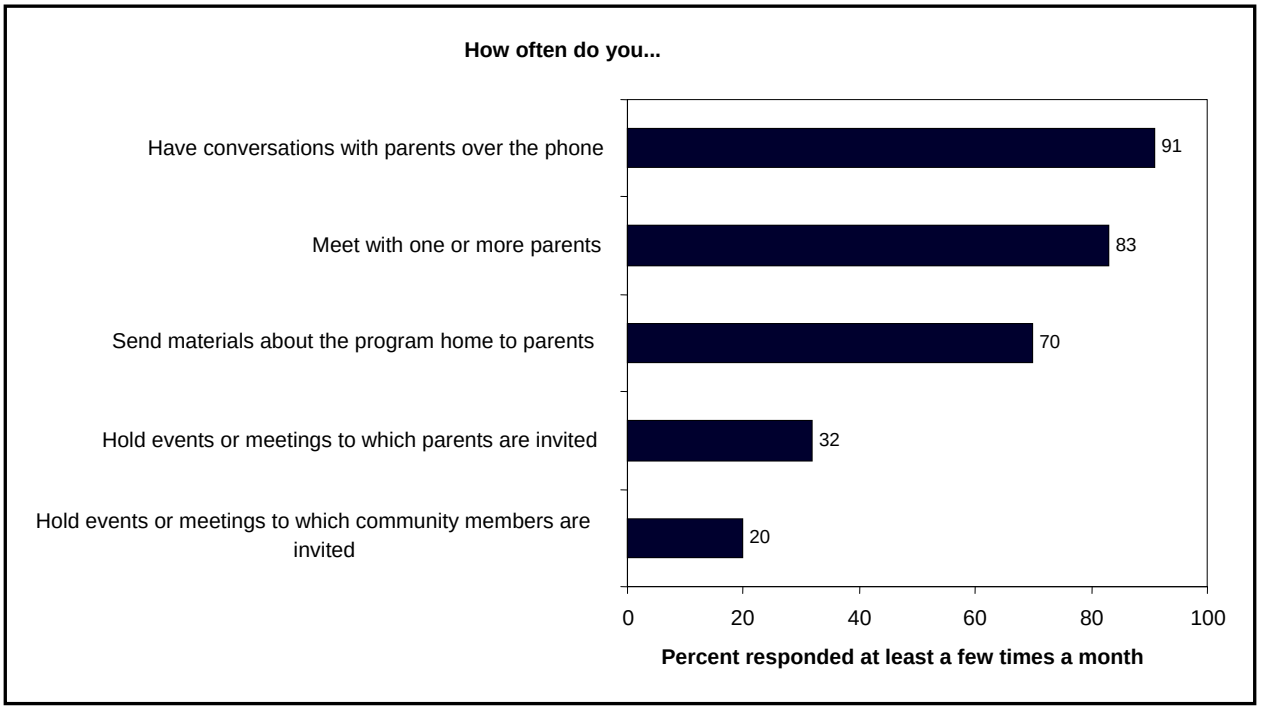

Exhibit reads: Ninety-one percent of program directors reported having conversations with parents over the phone at least a few times a month.

4. Evidence of Youth Outcomes

This section reviews evidence of youth outcomes in three areas, including youth engagement in OST programming, social development of participants, and their educational development. While program engagement by itself does not constitute evidence of positive youth development, it is directly instrumental to the emergence of growth in the other two outcome domains considered in this chapter.

Program Engagement

Recent research identifies the following four important measures of out-of-school time program engagement (Chaput, Little, & Weiss, 2004), each of which were used in this evaluation to assess the extent of youth engagement in the OST initiative:

- **Enrollment:** Whether youth spend any time in an OST program
- **Breadth:** The variety of OST activities in which youth participate
- **Intensity:** The amount of time that youth spend in a program during a given period
- **Duration:** A youth's attendance history across program years

Enrollment

The first steps in achieving high levels of program enrollment are effective outreach and recruitment. Throughout the OST initiative, program directors reported consistent use of recruitment strategies to meet their enrollment and participation goals. In Year 3, the majority of Option I program directors (90 percent) reported that they offered open enrollment to all youth who were interested in attending the program. In addition, more than half of the program directors reported that they targeted youth who were recommended by school-day teachers or counselors (58 percent) and youth with siblings already attending the program (55 percent).

Over three-quarters (76 percent) of elementary-grades programs reported that they had a waiting list, as did 25 percent of middle-grades programs and 19 percent of high school programs. Programs that had a waiting list were significantly more likely than were programs that did not have a waiting list to target recruitment efforts to youth who were eligible for subsidized child care (e.g., former ACS) (64 percent, compared to 42 percent; V=.22), and to youth with siblings already in the program (61 percent, compared to 41 percent; V=.20). Not surprisingly, programs with a waiting list were less likely to have open enrollment for all interested youth than were programs without a waiting list (50 percent, compared to 74 percent; V=.15).

Analyses of data from DYCD Online indicate that in the third year of the OST initiative, Option I programs on average exceeded their targeted enrollment levels. Option I programs had a target enrollment overall of approximately 63,000 youth, based on the contracts awarded by DYCD. As shown in Exhibit 17, these programs actually served a total of about 64,500 students from September 2007 through June 2008.[7]

Exhibit 17
Targeted Enrollment and Actual Number of Students Served, by Grade Level

Grade Level	Targeted Enrollment	Students Served
Elementary	37,551	37,830
Middle	13,499	14,860
High	12,146	11,834
Total	63,196	64,524

Exhibit reads: The enrollment target for elementary programs was 37,551 youth, and elementary programs actually served 37,830 youth.

However, some individual programs struggled with meeting their targeted enrollment, as measured by the number of slots available for participants based on the program's contract with DYCD. As shown in Exhibit 18, in the third year of the OST initiative, 69 percent of elementary programs met or exceeded their enrollment targets, as did 70 percent of middle-grades programs and 59 percent of high school programs.

[7] DYCD permitted programs to over-enroll participants by a certain percentage. Option I elementary-grades programs were permitted to over-enroll by 20 percent, middle-grades-programs by 25 percent, and high school programs by 30 percent. In its program-level monitoring efforts, DYCD calculated participation rates using the budgeted, rather than actual, enrollment count. For example, an elementary-grades program that was budgeted to serve 100 participants and enrolled 120 participants could achieve its 80 percent participation target through an average daily attendance of 80 students.

Exhibit 18
Percent of Programs Meeting Enrollment Targets, By Grade Level

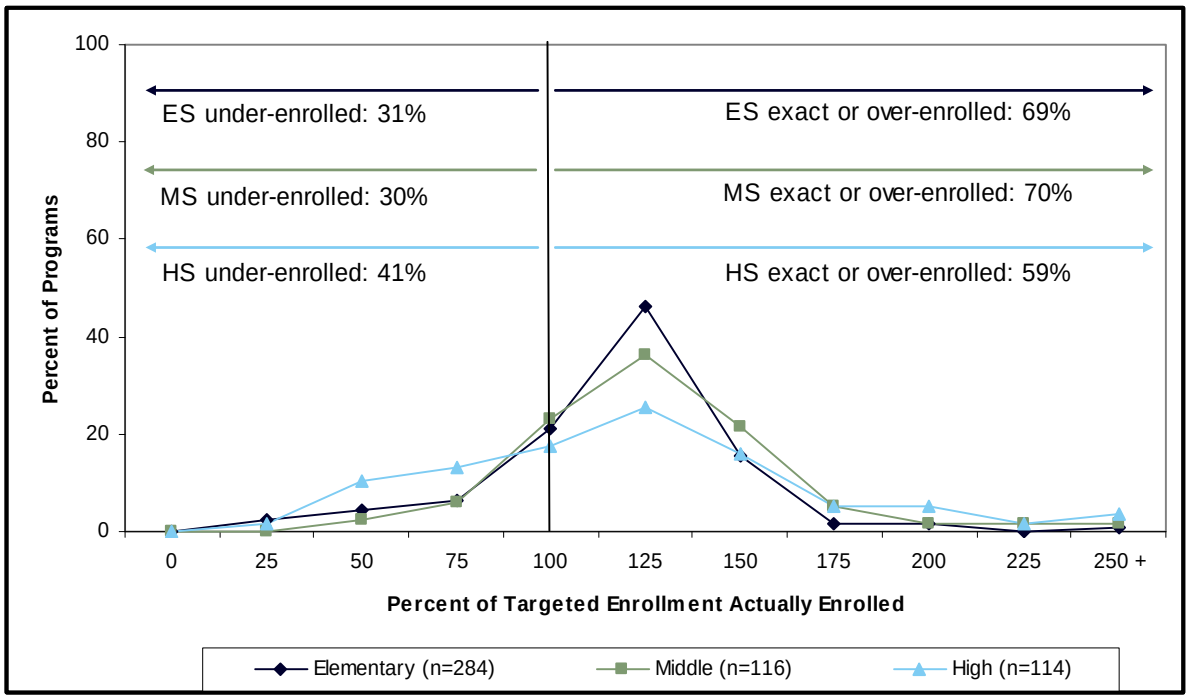

Exhibit reads: Thirty-one percent of elementary programs were under-enrolled, while 69 percent of elementary programs met or exceeded their enrollment targets.

Breadth

As described earlier in the report, evaluators collapsed the DYCD Online activity categories into academic enhancement, arts and culture, community building, life skills, career and work, and recreation activities. Analyses yielded an index depicting the different types of activities in which each youth participated, ranging from 1 to 6, which indicated the breadth of activities in which OST programs engaged participants. Participants in elementary-grades programs engaged in the widest range of activities, with an average of 3.4 (out of 6) activity types, while middle-grades students participated in an average of 3.0 activities. As expected, high school participants attended a more focused set of activities: high school youth participated in an average of 2.1 different types of activities in Year 3, with 53 percent participating in academic enhancement activities and 44 percent in recreation activities. These were also the most commonly attended activities for elementary-grades and middle-grades participants, with a substantially higher rate of participation for both activities among these younger students: 96 percent of elementary-grades participants and 91 percent of middle-grades participants attended academic enhancement activities, and 75 percent and 83 percent attended recreation activities, respectively. In addition, more than three-quarters of elementary-grades students participated in arts and culture activities (78 percent). These numbers reflect the patterns seen in earlier years of the initiative.

Intensity

Based on the program-level OST participation goals established by DYCD, evaluators calculated the minimum number of hours each Option I participant was expected to receive during Year 3, as shown in Exhibit 19.[8] As in Years 1 and 2, programs reached a high standard of participation, with elementary-grades programs continuing a trend of improving their average rate of participation. On average, elementary-grades participants attended 377 hours during the year, compared to the 432 hours they were expected to attend. This represents an average of 87 percent of targeted hours, an increase over both Year 1 (72 percent) and Year 2 (83 percent) of the initiative. In elementary-grades Round 2 programs, which started operations in winter 2008, the evaluation computed a pro-rated 173 hours of expected participation, and, on average, participants in these programs surpassed that expectation, achieving 180 hours of participation on average.

Older youth also surpassed their targeted number of OST participation hours, on average. Middle-grades participants as a group achieved their targeted number of hours of participation: on average, middle-grades participants attended 218 hours of the 216 hours expected at the middle-grades level (101 percent of the targeted hours). This was about the same as the 213 hours that middle-grades participants attended on average in Year 2, which was a substantial increase over the 159 hours attended, on average, by middle-grades participants in Year 1. Finally, high school participants exceeded their targeted number of hours of participation, attending on average 92 hours in the second year of the initiative, 16 hours above their target of 76 hours, although somewhat fewer hours than in the previous two years of the initiative (97 hours in Year 1 and 105 hours in Year 2).

Exhibit 19
OST Participants' Actual and Targeted Mean Attendance, in Hours

Hours of Attendance	Elementary (Round 1 only) *n=25,812*	Middle *n=14,860*	High *n=11,834*
Targeted hours	432	216	76
Actual hours (mean)	377	218	92
Actual (mean) as percent of target	87%	101%	121%

Exhibit reads: The targeted level of participation at the elementary level is 432 hours, and elementary participants actually attended for an average of 377 hours, or 87 percent of targeted hours.

[8] At the elementary level, programs are expected to offer programming for a minimum of three hours a day, five days a week, for 36 weeks, plus 10 hours a day over 20 vacation days for a total of 740 hours. For purposes of computing the expected number of hours of participation, evaluators used the daily service-availability guidelines but excluded the OST service hours expected on school-closing days, which produced a total of 540 hours. Adapting DYCD's program-level participation-rate requirement, evaluators set the expected number of hours for an elementary-grades participant at 80 percent of this level, or 432 hours. Using similar calculations, the expected numbers of program hours for middle-grades and high school participants were set at 216 and 76 hours, respectively.

Overall, 42 percent of elementary-grades participants attended for at least the targeted number of hours. Somewhat higher percentages of middle and high school participants met the attendance targets: 47 percent of middle-grades participants did so, as did 49 percent of high school participants. As shown in Exhibits 20-22, some youth at each grade level far exceeded their targeted number of hours, and the attendance rates of those who fell below the targeted range varied to a similar extent.

Exhibit 20
Percent of Participants Who Met Participation Target, Elementary-Grades Youth

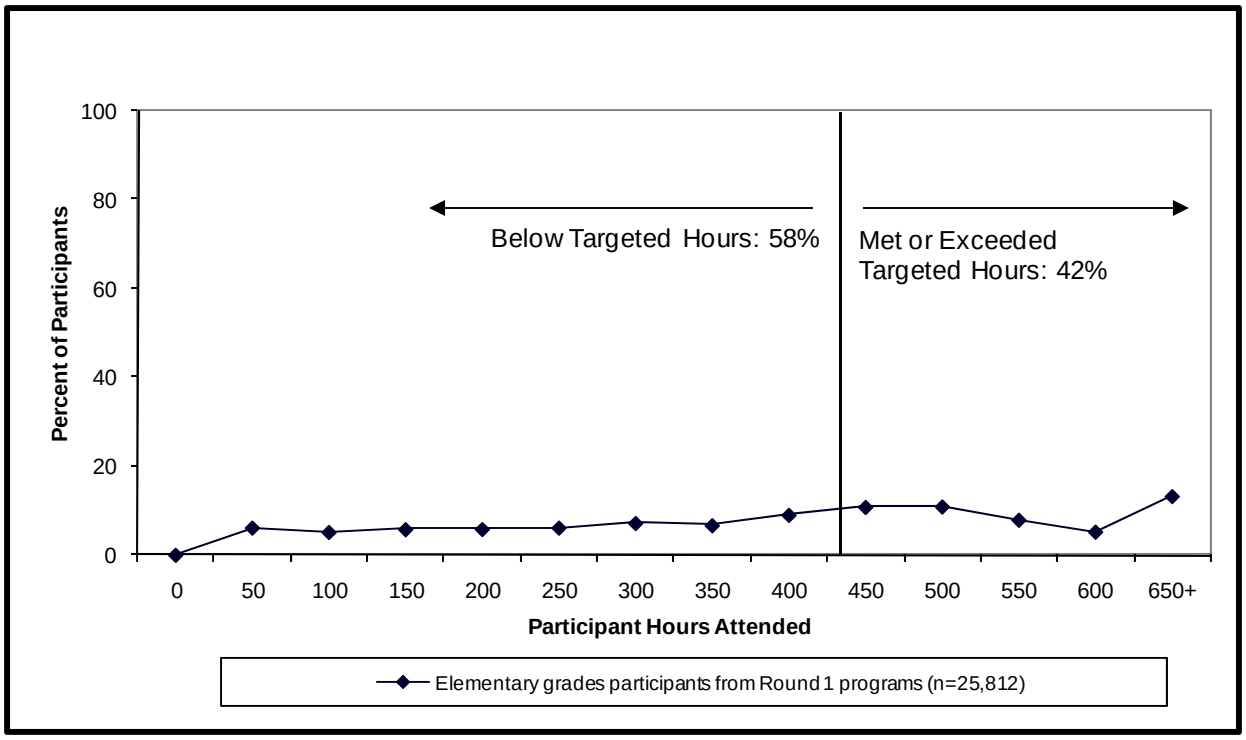

Exhibit reads: Fifty-eight percent of elementary-grades participants did not attend their OST programs for the targeted number of hours, while 42 percent met or exceeded the target.

Evaluators also examined the relationship between whether a program met its targeted enrollment goal and whether participants in the program met their targeted number of hours, and found a significant positive relationship at all grade levels, indicating a greater proportion of participants achieving the participation goal in programs that also successfully enrolled large numbers of students. Conversely, programs that were likely to struggle to achieve their enrollment goal also struggled to have individual participants attend regularly. Among elementary-grades programs that met their target enrollment goal, 35 percent of participants were at or above their targeted hours, compared to 14 percent of participants in elementary-grades programs that did not meet their goal. The pattern was similar for middle-grades OST programs (50 percent compared to 40 percent) and for high school programs (53 percent compared to 39 percent).

Exhibit 21
Percent of Participants Who Met Participation Target, Middle-Grades Youth

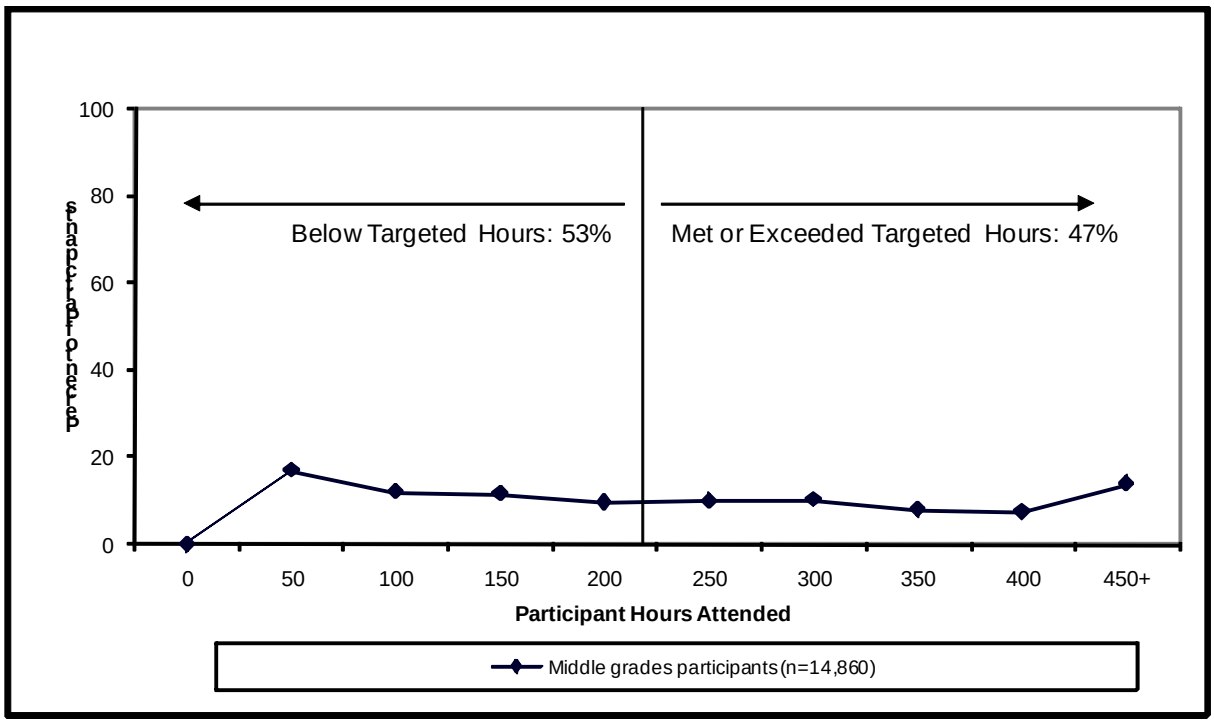

Exhibit reads: Fifty-three percent of middle-grades participants did not attend their OST programs for the targeted number of hours, while 47 percent met or exceeded the target.

Exhibit 22
Percent of Participants Who Met Participation Target, High School Youth

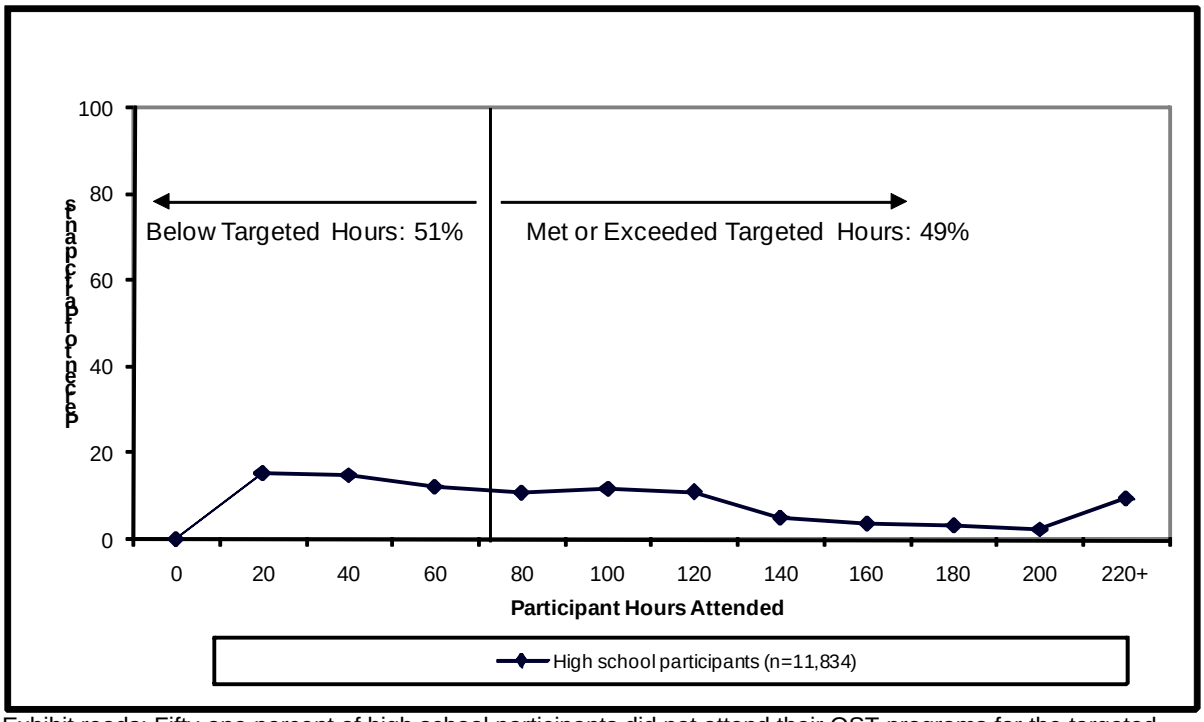

Exhibit reads: Fifty-one percent of high school participants did not attend their OST programs for the targeted number of hours, while 49 percent met or exceeded the target.

Duration

As shown in Exhibit 23, 6,283 youth participated in all three years of OST school-year programming, in the programs that had begun in September 2005 (Round 1 programs). Almost 22,000 youth participated in two years of OST programming, either in Years 1 and 2 or in Years 2 and 3, while 90,826 youth participated in just one year of programming (Year 1, Year 2 or Year 3). Approximately 22,000 youth only participated in summer programming. An additional 12,286 youth participated for part of the third year of the initiative, in the elementary-grades programs that were first funded in January 2008 (Round 2 programs).

Exhibit 23
Years of OST Participation, Round 1 Programs

Duration of Participation	Number of Participants
One year of participation only	90,826
Two years of participation only	21,501
Three years of participation	6,283
Only participated in summer(s)	22,178
Total unique participants	140,788

Exhibit reads: 90,826 youth participated for a single year of OST programming in the Round 1 programs that began in September 2005.

Evaluators examined the rate at which Option I OST participants from the 2006-07 school year (Year 2) re-enrolled in the same OST program in the 2007-08 school year (Year 3). Of the 43,503 participants who attended an OST program in the initiative's second year and were eligible to return to that program, 16,918 (39 percent) enrolled in the same OST program in 2007-08. This 39 percent retention rate is similar to the 37 percent retention rate in Year 2. These data underestimate the percent of Year 2 participants who *desired* to continue their OST participation for another year: OST programs typically enroll participants on a first-come, first-served basis each year, and returning participants are not guaranteed enrollment for a subsequent year.

As shown in Exhibit 24, evaluators combined the measures of duration and intensity to compute the total number of hours each participant was exposed to OST programming after one year, two years, and three years of participation. Hours attended during the summer months were included in the totals for the year following that summer. On average, after one year of participation, OST participants of all ages in Round 1 programs had attended 227 hours of programming; after two years of participation they had been exposed to 658 hours of OST. Participants who were enrolled during each of the three years of OST initiative participated in an average of 1,168 hours over that time period. Among other things, these figures indicate that youth who participated for the longest duration had especially high levels of annual participation.

Exhibit 24
Average Cumulative Hours of OST Participation, Round 1

Duration of Participation	n	Hours of OST Exposure
After one year of participation	114,629	227
After two years of participation	27,602	658
After three years of participation	6,283	1,168

Exhibit reads: After one year of participation, youth had participated in an average of 227 hours of OST service.

Social Development

Recent studies of OST programs have found positive social development outcomes for youth participants. By creating positive environments for youth to interact with each other and with adults, and by offering activities that explicitly promote youth development, OST programs can contribute to youths' sense of belonging within the program community and to the development of pro-social behaviors. An analysis of the program effects of the LA's BEST after-school program, for example, found that participants were less likely than their peers to compile juvenile crime records in later years, suggesting that after-school participation contributed to positive social outcomes (Goldschmidt & Huang, 2007).

Sense of Belonging

The sense of belonging scale, created based on the youth survey items displayed in Exhibit 25, describes the extent to which participants felt connected to their OST program. Technical details about this and other youth outcome survey scales are included in Appendix C. Overall, participants reported a strong sense of belonging in the third year of the initiative, similar to their reports from previous years, with an average scale score of 3.38 out of 4. In particular, more than two-thirds of participants agreed a lot that they felt safe in the program (68 percent) and 58 percent felt that the program was a "good place to hang out." High school students were especially likely to report a strong sense of program connection (scale score of 3.48, compared to 3.32 for elementary-grades participants and 3.38 for middle-grades participants; d=.25 and d=.16 respectively).

Exhibit 25
Participant Reports of Sense of Belonging *(n=6,122)*

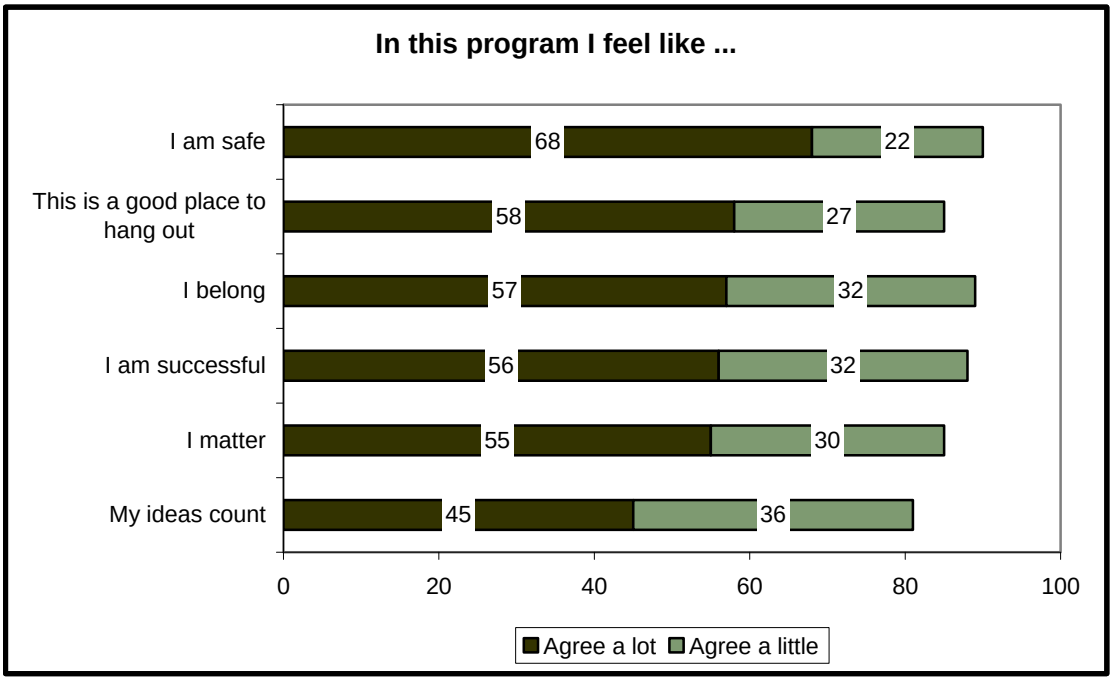

Exhibit reads: Sixty-eight percent of participants agreed a lot that they are safe in their program.

Participants interviewed confirmed this sense of belonging and reported in group interviews that they enjoyed spending time in their OST program:

I like coming because I get to spend time with my friends and talk to my friends.

I like [the program] because it is giving me a lot more friends and a lot more speciality [makes me feel special]. I feel that I am appreciated in this program, because everyone treats me very nice.

When I came, I was nervous because I didn't know anyone, then I made friends. I get to meet new people.

I feel I'm wanted here. I have fun here. If I am wanted, I will keep coming.…The staff are friendly. You can talk to them and have a conversation.

Pro-social Behavior

To measure participants' engagement in pro-social behaviors, evaluators asked middle-grades and high school participants to report on the frequency in which they engaged in the following positive behaviors in the month prior to the survey:

- Helped someone stay out of a fight
- Told other students how I felt when they did something I liked
- Cooperated with others in completing a task
- Told other students how I felt when they upset me
- Protected someone from a bully
- Gave someone a compliment
- Helped other students solve a problem

In the third year of the program, as in previous years, participants reported moderate levels of engagement in pro-social behaviors, with an average score of 2.50, out of 4, and no significant differences by grade level. Participants were most likely to report that they had done the following more than three times in the prior month: given someone a compliment (62 percent), cooperated with others in completing a task (62 percent), and helped other students solve a problem (56 percent).

In interviews, staff members described experiences in which youth developed strong, trusting bonds with program staff and with each other, developing their social skills:

I had a kindergartener last year, and most of them are in the same class this year. They want to talk, they want to tell you everything. I have this one student—she would sulk and sit by herself all the time last year. This year, she gives me hugs, and she talks all the time. She is a lot more social, and she is a lot more confident. I think that it helped her.

I had one child, she would not speak at all, she would sit there and start crying, she would not say anything. We would go to the bathroom and calm her down. She needed someone to just sit with and get that attention, and now she talks and brings her little sister. She wanted someone to pay her some attention.

There were two girls who constantly fought, we would have to separate them, they would physically fight and verbally fight. And now they are pretty good, they even go to dance class together. I think that it is all because of family and seeing that everyone belongs, like a family we do not need to like everything, but because we are a family, we get along.

Youth also described ways in which participation had helped them improve their social skills:

I have become more social with other people. Usually I don't really talk to other people, I am very quiet. It helps me get along with everybody else and my personality grew more. It goes back to the staff—the staff and the kids that are attending make me feel happy.

I wasn't really the [kind of] person that would be so friendly. But as I started to get into the program, [the director] helped us learn to talk to people in a way that they would want to be our friend again.

Educational Development

Analyses examined the relationship between OST participation and the following measures of educational development: academic motivation, school attendance rate, academic benefits reported by youth, performance on the state English Language Arts (ELA) and mathematics tests, and credits accrued and Regent exams passed for high school students. Evaluation findings regarding educational development in other after-school and out-of-school time programs are mixed.

Academic Motivation

The academic motivation scale created for this evaluation measures participants' reports of the extent to which they enjoy and engage in academic pursuits, which can be an important precondition to academic achievement. The scale employs the survey items displayed in Exhibit 26. Participants reported an overall strong level of academic motivation in Year 3, as in prior years, with an average scale score of 3.34 out of 4. Most notably, 71 percent of participants agreed a lot that they try hard in school. Elementary-grades participants reported notably higher levels of academic motivation than did middle-grades or high school participants (scale score of 3.34, compared to 3.25 for both groups of older youth; *d*=.34 for both comparisons).

Exhibit 26
Participant Reports of Academic Motivation, in Percents *(n=6,118)*

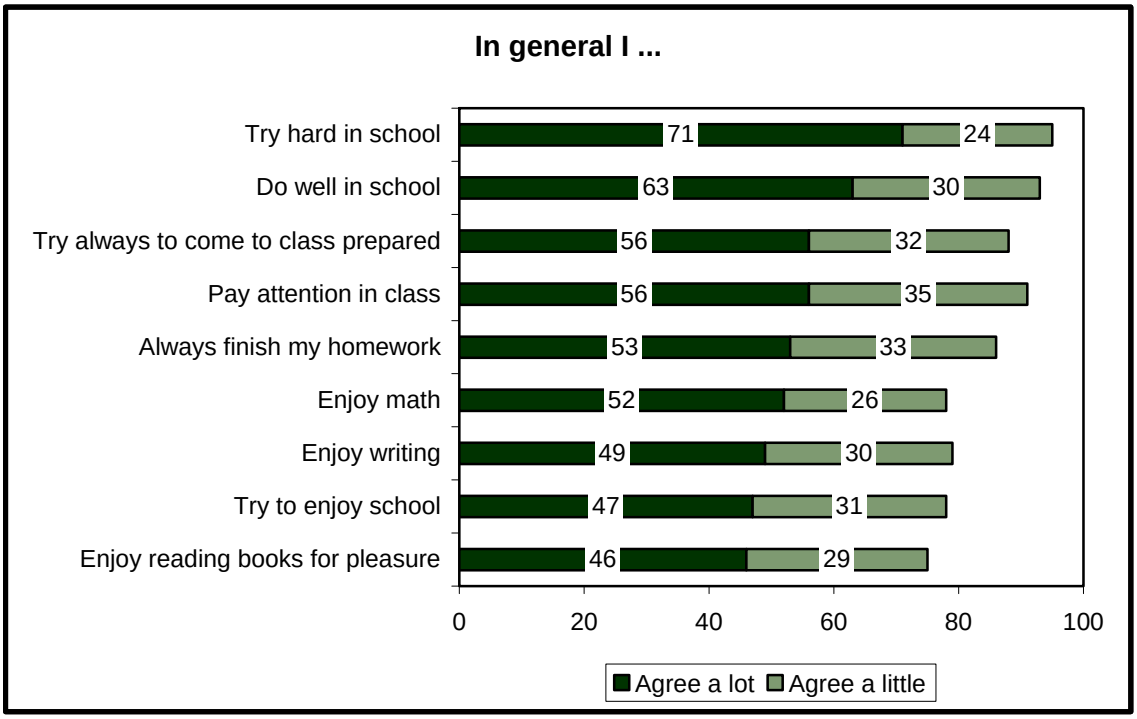

Exhibit reads: Seventy-one percent of participants agreed a lot that they try hard in school.

School Attendance Rate

Another measure of academic engagement is school-day attendance rate. DOE provided evaluators with daily school attendance data for OST participants who had attended the programs in the evaluation's in-depth sample at any time during the initiative and for matched nonparticipants who attended schools that did not host a DYCD youth program and who had similar characteristics as the OST participants. Technical details about the matching process are described in Appendix E.

Although closely matched on school and individual demographic characteristics, OST participants attended school significantly more frequently than did nonparticipants at baseline, prior to the youth's enrollment in OST (92.6 percent attendance rate at baseline for OST participants, compared to 91.3 percent for nonparticipants, d=0.14). This suggests that higher attending youth self-select into OST programs. Participants continued to attend school at a higher rate than nonparticipants after one, two, and three years. After accounting for different baseline attendance levels, analyses found no notable differences in changes in school attendance rates over time between participants and matched nonparticipants.

Program Structures to Support Academic Improvement

A middle-grades program in the evaluation's in-depth sample has a strong partnership with its host school and incorporates test preparation for the state ELA and math tests into the program schedule. Prior to the January test, participants study ELA three days a week with teachers from the day school. After the ELA test, students prepare for the math test in mid-March. Program tutors, who are college students, assist in classrooms during ELA and math prep periods, and then participants go to their chosen OST activities, including athletic and artistic enrichment activities. After ELA and math tests are completed for the year, participants use the first hour of the program to complete their homework. The program makes a concerted effort to keep participants engaged by approaching literacy and math activities with materials that differ from those used during the school day. According to the program director, having different instructional materials in the after-school program also helps teachers remain engaged. "What makes it easier for the teachers, they are not using the same program from the day school or in the Saturday program. It is a whole new program. It is something totally different. I didn't want the kids to be burned out with doing the same thing in after-school."

Academic Benefits

In the third year of the OST evaluation, participants reported moderate levels of OST-related academic benefits on a scale developed based on youth responses to the survey items summarized in Exhibit 27. On average, participants had an average scale score of 3.06, out of 4, similar to the level found in previous years of the evaluation, with no notable differences by grade level. The most common academic benefit reported by participants was that the program helped them to finish their homework more often (54 percent agreed a lot).

Interviews with youth participants revealed that the personalized instruction they received from staff in OST programs contributed to their learning:

> *Tutors, they actually listen. Teachers [during the school day] are in a rush, they can't hear what you're saying.*

One time in math, they taught me fractions. I didn't know how, so in the program I asked the tutors, [and they] taught me a lot. The next day at school I showed the teachers I could do it… My teacher asked, "Who was helping you? after school?" She said that was good.

Exhibit 27
Participant Reports of Academic Benefits, in Percents *(n=6,118)*

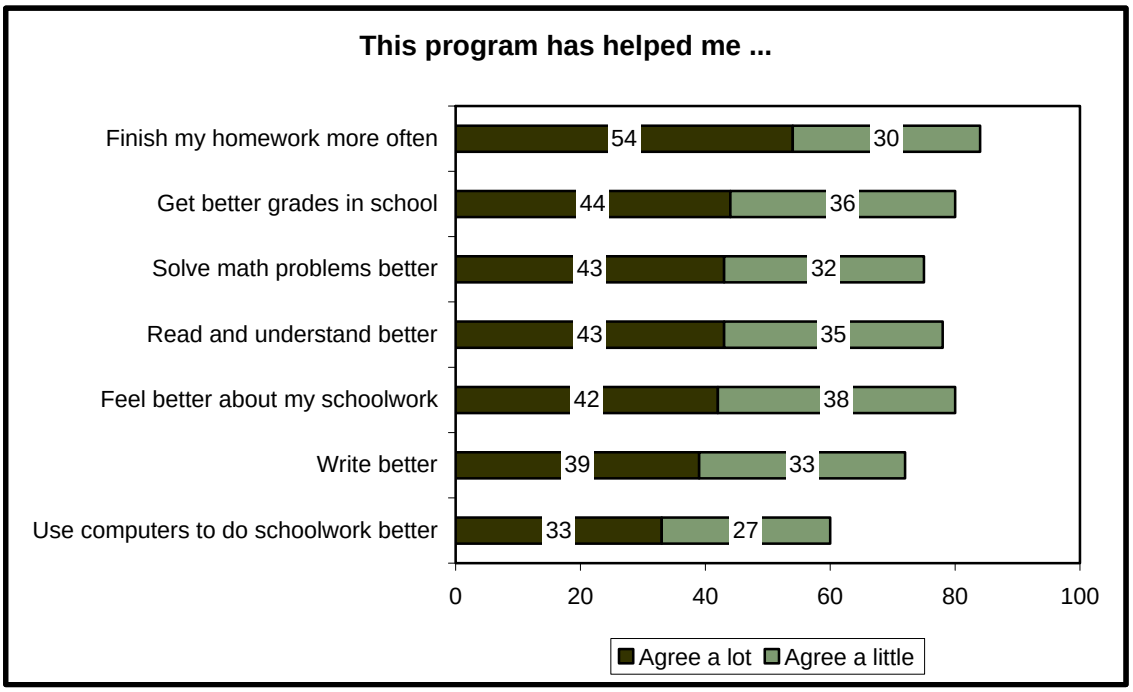

Exhibit reads: Fifty-four percent of participants agreed a lot and 30 percent agreed a little that the program helped them finish their homework more often.

Performance on ELA and math state tests. New York State administers annual tests in English Language Arts (ELA) and mathematics to students in grades 3-8 in January and March, respectively. Test-takers receive a scale score and one of four performance levels—ranging from *Not Meeting Learning Standards* (Level 1) to *Meeting Learning Standards with Distinction* (Level 4)—on the test. However, the scaling of student achievement test scores for the New York State tests poses special challenges for the analysis of test-score change. In particular, distribution of scale scores is neither identical across grade levels, nor does it follow a regular progression across grade levels. In addition, there is no standard for the expected gain between grade levels. This problem significantly complicates comparisons of scale scores from one grade to the next.

As a solution, evaluators took the approach of standardizing the scale scores across grades, so that the range of possible test scores was 0 to 100 at each grade level and the mid-point of the possible scale scores for each grade level was always 50. The formula used to transform each student's scale score at each grade level into a standardized score is:

$$\left(\frac{\textit{Scale Score — Minimum Possible Scale Score}}{\textit{Maximum Possible Scale Score — Minimum Possible Scale Score)}} \right) \times 100$$

Using this method, differences in standardized scale scores across grade levels represent change in student performance that are independent of the differences in the particular scale applied to the test scores at each grade level. Differences in the standardized scale scores across grade levels are thus expressed as differences in the proportion of possible scale-score points that a student earns in one grade level compared to the proportion earned at the next.

Two important factors affect analyses of the relationship between OST participation and performance on the ELA and mathematics tests. First, because of the timing of test administration during the school year, it is unlikely that one-year participants would have received sufficient exposure to OST programming to make a significant impact on their test performance in January and March. Second, the OST initiative operates within a context of significant educational reforms in New York City: beginning prior to the launch of the OST initiative in September 2005, New York City students have made steady achievement gains in both ELA and math, as illustrated in Exhibit 28.

Exhibit 28
Citywide Trends in Attendance and in ELA and Math Passing Rates

Performance Indicator	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
School Attendance (percent)	89.5	89.0	88.6	88.4	89.2	89.7
ELA (percent at grade level)	41.0	41.1	51.8	50.7	50.8	57.6
Math (percent at grade level)	41.9	46.7	52.9	57.0	65.1	74.3

Exhibit reads: In 2002-03, the average school attendance rate was 89.5 percent.
Source: http://schools.nyc.gov/Accountability/YearlyTesting/TestResults/default.htm

For the analyses described here, OST participants and nonparticipants were closely matched on their baseline academic performance in both ELA and math, with no significant differences. The average ELA standardized score was 55.0 points for participants and 55.5 for nonparticipants; both groups had an average math score of 57.9 at baseline. Consistent with the citywide trends, both groups showed small improvements in performance over the course of the OST initiative, with no significant differences in the size of the gains between the two groups.

High school performance. To assess the performance of high school OST participants compared to matched nonparticipants, evaluators examined the cumulative number of course credits accrued after each year of OST participation. Analyses found no significant differences between the groups on this measure. Analyses also examined the number of New York State Regents exams that participants and nonparticipants had taken and passed, in order to assess progress towards graduation, and found no significant differences.

5. Relationships Among Participation, Quality, and Outcomes

The analyses summarized in the preceding chapters describe how OST programs performed on specific measures of program-implementation quality and also describe the overall patterns of participant outcomes. In addition, evaluators examined relationships among measures of youth participation, program quality, and youth outcomes in a series of complementary analyses, including correlational analyses (see Appendix F for technical details) and multi-level regression models (see Appendix G), presented below.

In addition to the quality of programming, the duration and intensity of exposure to programming are important contributors to youth outcomes. For example, the evaluation of programs sponsored by The After-School Corporation (TASC) found that outcomes were greatest for students who participated in TASC programs on a regular basis for more than a year (Reisner, White, Russell, & Birmingham, 2004). These types of relationships and others are reviewed in this chapter.

Relationships Between Participation and Youth Outcomes

Evaluators analyzed the relationship between participation over the course of the initiative and youth social and educational outcomes for youth in the in-depth sample. These analyses focused on cumulative outcomes based on the most recent year of OST participation. For example, for a student who participated in OST for two consecutive years starting in 2005-06, the evaluation examined the relationship between total hours of OST during those two years and academic outcomes at the end of the 2006-07 school year. Details of these correlational analyses are shown in Appendix F.

The number of hours of OST participation was positively correlated with school attendance rates after one, two, and three years of OST enrollment (r_s=.17, r_s =.13 and r_s =.14, respectively). As noted earlier, on average OST participants attended school significantly more frequently than did nonparticipants at baseline, prior to the youth's enrollment in OST (92.6 percent attendance rate, compared to 91.3 percent, d=0.14), and continued to attend school at a higher rate than nonparticipants, with no notable differences between groups after accounting for baseline school attendance levels. However, as seen in Exhibit 29, OST participants who attended the program for fewer than 200 hours had lower school attendance than did nonparticipants (90.8 percent, compared to 91.2 percent), while participants who attended more hours of OST tended to have higher school day attendance rates. For example, students who attended from 201 to 400 hours of OST had an average school attendance rate of 92.5 percent, compared to 95.6 percent for students who attended OST for more than 1,000 hours.

Analyses did not find other patterns of significant correlations between program participation and youth social or educational outcomes.

Exhibit 29
Average School-Day Attendance Rate by Hours of OST Participation, All Grades

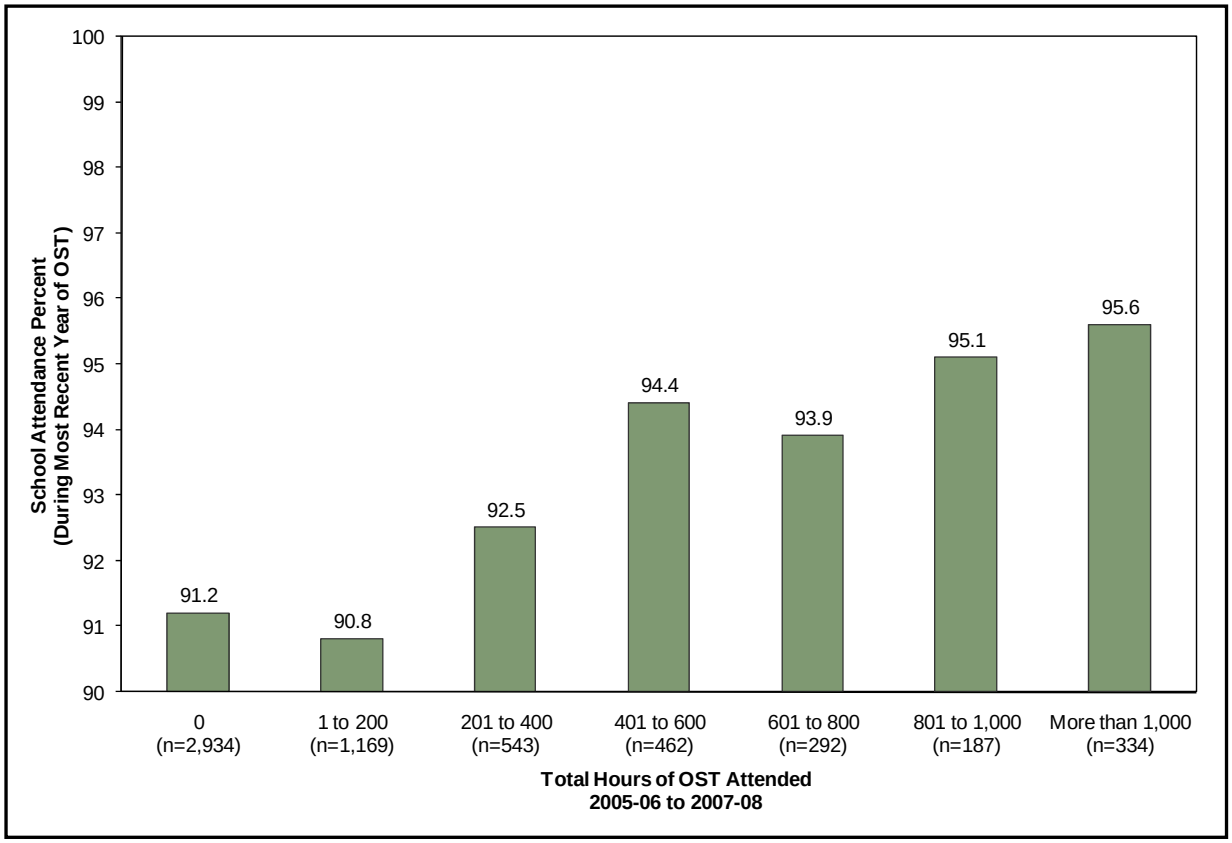

Exhibit reads: Nonparticipants (attended 0 hours) had an average school-day attendance rate of 91.2 percent.

Analyses found no notable relationships between levels of OST participation and performance on the New York State ELA and mathematics exams for youth in grades 3-8 or total credits earned by high school students.

Relationship Between Program Quality and Youth Outcomes

Evaluators also examined associations between measures of program quality and youth outcomes. Notable correlations between the evaluation's measures of program quality and youth engagement, social, and educational outcomes are summarized in Exhibits 30-32 and presented below. These reports of correlations focus on those where there was a consistent pattern in the relationship between the measure of program quality and the youth outcome at two or more analysis time points. Because of the relatively small number of in-depth programs in the evaluation sample (15), these analyses could not be accurately sub-divided by the grade level served by the OST program.

Relationships Involving Rich Program Content

Overall, the correlation analyses revealed positive relationships between the extent to which a program exposed youth to new experiences (as measured by aggregate youth reports) and several measures of youth social and educational outcomes (Exhibit 30). Fewer positive correlations were found between program-content range and measured youth outcomes.

Exhibit 30
Correlations between Features of Rich Program Content and Youth Outcomes

Youth Outcomes		Spearman Correlation Coefficient (r_s)	
		Average Youth Ratings of Exposure to New Experiences	Range of Program Content
Program Participation	After 1 year	-.31	
	After 2 years	-.43	.16
	After 3 years	-.18	.32
Sense of Belonging	After 1 year	.24	-.21
	After 2 years	.24	-.24
	After 3 years	.26	
Prosocial Behavior	After 1 year		
	After 2 years		
	After 3 years	n/a	n/a
School Attendance	After 1 year		
	After 2 years	.11	
	After 3 years	.22	
Academic Motivation	After 1 year		-.14
	After 2 years	.15	-.20
	After 3 years		
Academic Benefits	After 1 year	.17	-.20
	After 2 years	.23	-.23
	After 3 years		
ELA Gains	After 1 year		
	After 2 years		
	After 3 years		
Math Gains	After 1 year		
	After 2 years		
	After 3 years		
Total Credits Earned (High School)	After 1 year		.25
	After 2 years		.24
	After 3 years	n/a	n/a

Note: Only correlations that are statistically significant and with effect sizes of at least .10 are included in this exhibit. Shaded cells indicate positive correlations.

Exhibit reads: Total hours of participation after one year of OST enrollment and a program's average youth reports of exposure to new experiences were negatively correlated (r_s=-.31).

- Youth reports of their sense of belonging in the OST program were positively correlated with the program's extent of exposing youth to new experiences after one, two, and three years of participation (r_s=.24, r_s =.24 and r_s =.26, respectively).

- Youth engagement in the school day was positively associated with average program-level reports of exposure to new experiences, especially as measured by school attendance after two and three years of OST participation (r_s =.11 and r_s =.22, respectively).

- Youth reported higher levels of academic benefits after one and two years of OST participation when the OST program exposed youth to more new opportunities (r_s =.17 and r_s =.23, respectively).

However, the extent to which a program exposed youth to new experiences was also negatively correlated with the total hours of youth participation in OST after one, two and three years (r_s =-.31, r_s =-.43, and r_s =-.18, respectively). One possible explanation for this pattern is that youth who attend OST more become accustomed to the program offerings over time and therefore heighten their expectations for a continuing stream of novel experiences in the program.

The breadth of OST program content in OST programs, measured by the number of different activity types offered by the program, was negatively correlated with several youth social and educational outcomes, including youth reports of their sense of belonging and of academic motivation and benefits. In contrast, the range of program content was positively associated with the total number of hours of youth participation after two and three years (r_s =.16 and r_s =.32, respectively) and with the number of credits earned by high school participants after one and two years (r_s =.25 and r_s =.24). The reasons for this relationship are unclear, although it may be an indication that providing too wide a range of activity offerings may appeal to youth but cause programs to spread their resources thin and thus be less likely to provide a focused and structured environment for participants.

Relationships Involving Social Interactions

In general, measures of a supportive OST environment, including the programs' average youth reports of interactions with their peers and with staff members, were positively correlated with youth social and educational outcomes, as shown in Exhibit 31. Most notably:

- Youth reports of their sense of belonging were positively correlated with the extent to which programs fostered positive interactions among youth after one, two, and three years of OST participation (r_s=.26, r_s=.31 and r_s=.22, respectively). Similarly, sense of belonging was positively correlated with programs' capacity to foster positive interactions between youth and staff, as measured by average youth reports of their interactions (r_s=.29 after one year, r_s =.35 after two years, and r_s=.29 after three years).

- Youth also reported higher levels of academic benefits after one and two years of OST participation when they had attended a program that on average fostered positive interactions among youth (r_s=.18 and r_s =.24, respectively) and between youth and staff (r_s =.19 and r_s =.26, respectively).

Exhibit 31
Correlations between Features of Positive Relationships and Youth Outcomes

Youth Outcomes		Spearman Correlation Coefficient (r_S)	
		Average Ratings of Youth Interactions with Peers	Average Ratings of Youth Interactions with Staff
Program Participation	After 1 year	-.29	-.29
	After 2 years	-.48	-.43
	After 3 years	-.45	-.21
Sense of Belonging	After 1 year	.26	.29
	After 2 years	.31	.35
	After 3 years	.22	.29
Prosocial Behavior	After 1 year		
	After 2 years		
	After 3 years	n/a	n/a
School Attendance	After 1 year		-.16
	After 2 years		-.12
	After 3 years		
Academic Motivation	After 1 year		
	After 2 years	.18	.17
	After 3 years		
Academic Benefits	After 1 year	.18	.19
	After 2 years	.24	.26
	After 3 years		
ELA Gains	After 1 year		
	After 2 years	-.35	-.22
	After 3 years		
Math Gains	After 1 year		
	After 2 years		
	After 3 years		
Total Credits Earned (High School)	After 1 year	-.26	
	After 2 years		
	After 3 years	n/a	n/a

Note: Only correlations that are statistically significant with effect sizes of at least .10 are included in this exhibit. Shaded cells indicate positive correlations.

Exhibit reads: Total hours of participation after one year of OST enrollment and a program's average youth reports of their interactions with peers were negatively correlated (r_S=-.29).

The evaluation also found a few noteworthy patterns of negative associations between measures of positive relationships in the program and the level of youth attendance in the OST program. It is possible that this may be due in part to a lack of other alternatives available to youth, especially for younger participants, who do not have as much choice as their older peers to quit program participation if they are not happy with the program; however, there were too few high school and middle-grades programs in the evaluation's in-depth sample to permit this

analysis by program grade level. School attendance rates were also negatively correlated with average youth reports of their interactions with staff. One possibility for this pattern is that programs serving youth with the lowest school attendance rates are working in some of the most challenging environments, and these programs are attempting to build increased engagement in school by focusing on relationships in the program.

Relationships Involving Effective Partnerships and Supports

As illustrated in Exhibit 32, several measures of effective partnerships and supports were negatively associated with youth outcomes. For example, the number of professional development opportunities in which OST staff members participated was negatively correlated with youth program participation, reports of sense of belonging, and school attendance (r_s ranging from -.10 to -.29). Rather than being an indication that staff professional development is ineffective, more likely this finding is an indication that programs that know they are struggling to implement a high-quality program and contribute to positive youth outcomes are, in fact, taking greatest advantage of the various professional development opportunities available through DYCD, PASE, and other resources.

Similarly, the extent of a program's communication with schools and communication with families was negatively correlated with youth reports of their sense of belonging, school attendance, and (for parent communication only) performance on the ELA state tests (r_s ranging from -.10 to -.29 depending on the measure). In contrast, communication with schools and with parents was positively associated with the number of hours of youth participation in OST programming after one, two and three years (r_s ranging from .26 to .37). The presence of a parent liaison was positively correlated with the level of youth participation after one, two, and three years (r_{pb}=.24, r_{pb} =.25, and r_{pb}=.54, respectively). This suggests that OST programs work to form partnerships with schools and parents most when they are serving youth with the greatest academic needs. While the programs may not be contributing to immediate program gains, their outreach efforts are effective at enrolling and retaining participants.

As described earlier, OST programs frequently employed a mix of staff members to provide services for youth, ranging from high school students to certified teachers or other professional specialists. Evaluators created an index variable that measured the number of different types of staff members employed by the program, and correlations revealed that having a variety of staff backgrounds was positively associated with participants' sense of belonging in the program after one and two years (r_s=.11 and r_s=.14, respectively). However, school attendance rates were negatively correlated with programs' patterns of hiring a diverse staff, perhaps because programs serving participants with low levels of school engagement are making efforts to reach out to them by hiring staff who differ from school-day staff

Employing a master teacher was mixed in associations with youth outcomes. For example, master teachers were associated with more positive youth reports of their sense of belonging in the program after one, two and three years (r_{pb}=.22, r_{pb}=.22, and r_{pb}=.25, respectively) and with youth reports of academic benefits after one and two years (r_s=.19 and r_s=.17). However, there was a negative correlation between hiring a master teacher and the level

of youth participation in OST programming after one, two, and three years (r_s=.-.17, r_s=.-.29, and r_s=.-.14, respectively). Again, this suggests that OST programs may hire teachers more frequently when they are serving youth most in need of additional support and structure—and, in turn, the increased structure and outreach create a welcoming environment to improve youth belonging in the program.

Exhibit 32
Correlations between Features of Effective Partnerships and Supports and Youth Outcomes

Youth Outcomes		Spearman Correlation Coefficient (r_s)					
		Mix of Staff	**Professional Development**	**Communication with Schools**	**Master Teacher***	**Communication with Parents**	**Parent Liaison***
Program Participation	After 1 year		-.26	.26	-.17	.26	.24
	After 2 years	-.15	-.18	.33	-.29	.37	.25
	After 3 years	.16		.32	-.14	.36	.54
Sense of Belonging	After 1 year	.11	-.10	-.10	.22	-.14	
	After 2 years	.14	-.18		.22	-.21	-.16
	After 3 years		-.21		.25		
Prosocial Behavior	After 1 year	.10					
	After 2 years						
	After 3 years	n/a	n/a	n/a	n/a	n/a	n/a
School Attendance	After 1 year	-.13			-.18	-.11	-.11
	After 2 years	-.16	-.12	-.17	-.11	-.17	
	After 3 years	-.19	-.29	-.24		-.27	
Academic Motivation	After 1 year		-.13			-.10	
	After 2 years	.11	.12			-.16	-.22
	After 3 years						
Academic Benefits	After 1 year	.19			.19		.19
	After 2 years		-.22		.17	-.13	
	After 3 years						
ELA Gains	After 1 year						
	After 2 years	-.28			-.25	-.29	-.31
	After 3 years						
Math Gains	After 1 year	.11			.10		
	After 2 years						
	After 3 years						
Total Credits Earned (High School)	After 1 year	.27	.27	-.27	.13	.13	
	After 2 years						
	After 3 years	n/a	n/a	n/a	n/a	n/a	n/a

* For dichotomous predictor variables, a point-biserial coefficient (r_{pb}) is presented.

Note: Only correlations that are statistically significant with effect sizes of at least .10 are included in this exhibit. Shaded cells indicate positive correlations.

Exhibit reads: Total hours of participation after one year of OST enrollment and staff participation in professional development opportunities were negatively correlated (r_s=-.26).

Program Quality Index

Based on the findings from the correlation analyses described above, evaluators created a program quality index as a tool for assessing the overall quality of OST programs, using indicators available in this evaluation. The index is based on key structure, process, and content variables from the study's participant survey and program-director survey, as displayed in Exhibit 33. Measures of program quality that consistently demonstrated a negative association with youth outcomes, such as the range of program content, communication with schools and families, and staff participation in professional development, were excluded from the index.

Exhibit 33
Components of the Program Quality Index *(n=87)*

Component	Source	Mean	Range
Features of Rich Program Content			
Exposure to New Experiences *(aggregated participant survey scale)*	Participant survey	3.21	1-4
Features of Positive Relationships			
Youth Interactions with Peers *(aggregated participant survey scale)*	Participant survey	3.32	1-4
Youth Interactions with Staff *(aggregated participant survey scale)*	Participant survey	3.38	1-4
Features of Effective Partnerships and Supports			
Mix of Staff *(count of the different types of staff employed)*	Director survey	4.52	1-7
Master teacher *(whether program has a master teacher)*	Director survey	0.51	0-1
Parent liaison *(whether program has a parent liaison)*	Director survey	0.45	0-1

The program quality index was computed by summing a program's standardized *z* scores on each of the components of the index.[9] The distribution of the program quality index, shown in Exhibit 34, demonstrates that OST programs varied in the extent to which they achieve a high level of overall program quality.

As expected based on the correlations observed between individual measures of program quality and youth outcomes, analyses found moderate-to-strong positive correlation between overall program quality and aggregate reports of the following youth social and educational benefits:

- Youth reports of their sense of belonging in the program (r=.58)
- Youth reports of academic benefits (r=.44)

[9] Because the variables within the program quality index are measured on different scales (for example, the *exposure to new experiences* scale ranges from 1 to 4, while the *mix of staff* scale ranges from 1 to 6), the evaluation computed *z* scores for each variable, and then added these *z* scores together to create a program's quality index score. By converting the variables into *z* scores, which express values in terms of standard deviations, each element in the index is given the same weight. The evaluation calculated this program index for the 87 programs that had data for all of the variables in the index.

- Youth reports of engagement in pro-social behaviors (*r*=.37)
- Youth reports of academic motivation (*r*=.32).

Exhibit 34
Distribution of OST Program Quality *(n=87)*

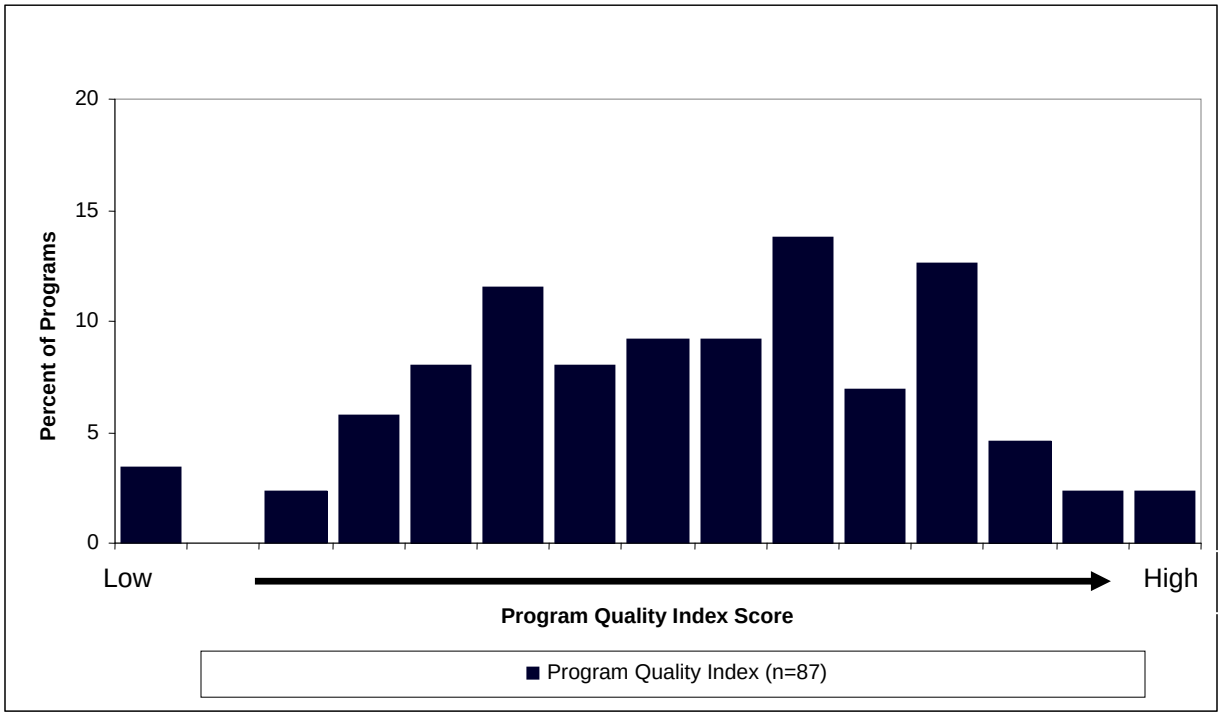

Exhibit reads: Approximately 3 percent of programs scored at the lowest end of the range of values for the program quality index.

In addition, there was a strong and significant positive correlation between the program quality index and whether the program met its targeted enrollment (*d*=.56). The strength of these relationships suggests that successfully implementing key features of program quality, including the provision of program content that exposes youth to a range of experiences and creation of an environment of positive relationships with diverse staff members, can contribute to an OST programs' effects on the social and educational development of youth participants.

Multi-level Relationships

To examine the relationships among program quality, youth participation, and youth outcomes, evaluators created a series of multi-level models. Multi-level modeling is a statistical method that accounts for the grouping of individuals within higher-level units. In this case, it allowed evaluators to examine OST participants within the context of their specific OST programs.[10]

Evaluators created a simple multi-level regression model for each youth engagement, social development, and educational development outcome, examining the impact of student-level participation (as measured by the total number of hours of exposure to OST programming) and of program-level quality (as measured by the program quality index) on the outcome. For educational performance outcomes measures gathered from DOE data, evaluators controlled for performance in the year prior to participation. In addition, the participants' grade was controlled for in each model.

Multilevel Model Equation:

$$Y_{ij} = \beta_0 + \beta_1 X_{ij} + \beta_2 X_i + (\varepsilon_{ij} + u_i)$$

There is a total or composite residual that contains two parts for each participant:

A participant-level residual, ε_{ij}
A program-level residual, u_i.

Predictors at each level are distinguished by subscripts:

i = program
j = participant

Effects of Program Participation

As shown in Exhibit 35, multi-level analyses revealed a similar pattern of positive relationships between OST participation and school attendance after one and two years of exposure to OST as was found in the correlational analyses. The low intra-class correlations (ICC)—which summarize the proportion of outcome variability due to differences across programs—for measures of school attendance after one and two years of OST participation (*ICC*=.11 and *ICC*=.12, respectively) suggest that most of the variability in school attendance is

[10] By accounting for the shared program experience of youth participants within a program, multi-level modeling reduces error caused by violating the assumption of the independence of various youth outcomes, and allows evaluators to determine how much of the variability in outcomes can be attributed to program-level factors and how much can be attributed to participant-level factors (Miles & Shelvin, 2005).

due to differences within programs rather than across programs, and therefore participant-level differences (which were not measured by the evaluation) are likely the most important predictors of school attendance.

Exhibit 35
Directionality of Significant Relationships with Youth Outcomes

Youth Outcome[11]	Youth Participation	Program Quality Index	Intra-Class Correlation (ICC)[a]
Hours of Program Participation			
After 1 year of exposure	N/A	NS [b]	0.30
After 2 years of exposure	N/A	- [c]	0.49
Sense of Belonging			
After 1 year of exposure	NS	+	0.08
After 2 years of exposure	NS	+	0.13
School Attendance			
After 1 year of exposure	+	NS	0.11
After 2 years of exposure	+	NS	0.12
Academic Motivation			
After 1 year of exposure	NS	+	0.06
After 2 years of exposure	NS	NS	0.10
Academic Benefits			
After 1 year of exposure	NS	+	0.12
After 2 years of exposure	NS	+	0.11
ELA Gain in Standardized Score			
After 1 year of exposure	NS	NS	NS
After 2 years of exposure	NS	NS	0.13
Math Gain in Standardized Score			
After 1 year of exposure	NS	+	0.03
After 2 years of exposure	NS	NS	NS

[a] The intra-class correlation summarizes the proportion of the outcome variability that is due to differences across programs.
[b] NS indicates that the relationship was not statistically significant at the p<.05 level.
[c] Because the program quality index was computed using standardized z-scored variables, the coefficients cannot be practically interpreted. Therefore, the exhibit emphasizes the direction of the significant relationships between the outcome and predictor variable, rather than the coefficient value.

Effect of Program Quality

As described above, many of the intra-class correlations for youth-reported outcomes were low, indicating that most of the variance in those outcomes was due to participant-level characteristics. Nonetheless, the program quality index was positively related to youth reports of their sense of belonging after one and two years of participation (*ICC*=.08 and *ICC*=.13), suggesting that quality elements measured in the index made a small but significant contribution to participants' social development. Similarly, in the multi-level models, program quality had a significant positive relationship with youth reports of academic benefits after one and two years

[11] Too few cases were available to permit the reporting of analyses of three years of exposure to OST. In addition, there were too few cases for analyses of the pro-social behaviors scale and of total credits earned in high school after two years of exposure.

of participation, although it explained only a small proportion of the differences between programs (*ICC*=.12 and *ICC*=.11, respectively). While gains in math scores after one year of OST participation were positively related to the program quality index, the amount of variation in gains due to program-level characteristics was negligible (*ICC*=.03). This finding should be interpreted with caution given that the New York math test is administered in early March, after only a few months of OST programming.

It is noteworthy that the intra-class correlations are relatively high for the measures of the total number of hours of program participation, meaning that differences across programs account for more of the variation. However, the multi-level analysis also revealed a significant negative relationship between the total number of hours of youth participation in OST after two years of program attendance and the program quality index *(ICC*=.49). One possibility for this relationship is that, while the program quality index measures features of programs that research has shown may contribute to better youth educational and social outcomes, youth themselves may be attracted to programs for a variety of other reasons not measured by the index. As noted earlier in this report, youth are overwhelmingly positive in their reactions to the OST initiative and report high levels of satisfaction with the programs and the safe spaces they provide.

6. The OST Initiative's Role and Impact on Creation of a City-wide OST System

This chapter reviews the contribution of the OST initiative to three key components of system development, including improvement of the capacity of provider organizations, professionalization of the out-of-school time youth-service field, and satisfaction of the needs of working families.

Capacity of Provider Organizations

Through the OST initiative, provider organizations in New York City have increased their capacity to serve large numbers of youth during the out-of-school time hours. As described earlier, the number of youth served under the initiative increased from about 51,000 in the first year to more than 81,000 in the third year. In addition, in the third year of the initiative, 111 new elementary-grades programs received funding to offer school-year and summer programming.

Executive directors of provider organizations reported that the OST initiative increased their organizational capacity in several ways, as shown in Exhibit 36. In Year 3, more than half of executive directors reported that the initiative increased the organization's capacity to serve more youth and families to a great extent or somewhat (83 percent), to provide staff training and technical assistance (73 percent), partner with a public school (71 percent), partner with cultural organizations (65 percent), partner with city agencies (63 percent), offer programming on weekends and holidays (59 percent), and provide a career ladder for OST staff (57 percent). These patterns of responses were similar to those from the first two years of the evaluation. However, in Year 3, reflecting the OST initiative's maturity in the schools and community, executive directors reported significant increases in their ability to partner with public schools and to partner with cultural organizations, as compared to Year 1. The percent of executive directors who reported that the OST initiative increased their organizational capacity to partner with a public school increased from 59 percent in Year 1 of the OST initiative to 71 percent in Year 3 (V=.13). Similarly, the percent of directors who reported increased capacity to partner with cultural organizations rose from 55 percent in Year 1 to 65 percent in Year 3 (V=.10).

Exhibit 36
Executive Director Reports of Increased Capacity, in Percents *(n=169)*

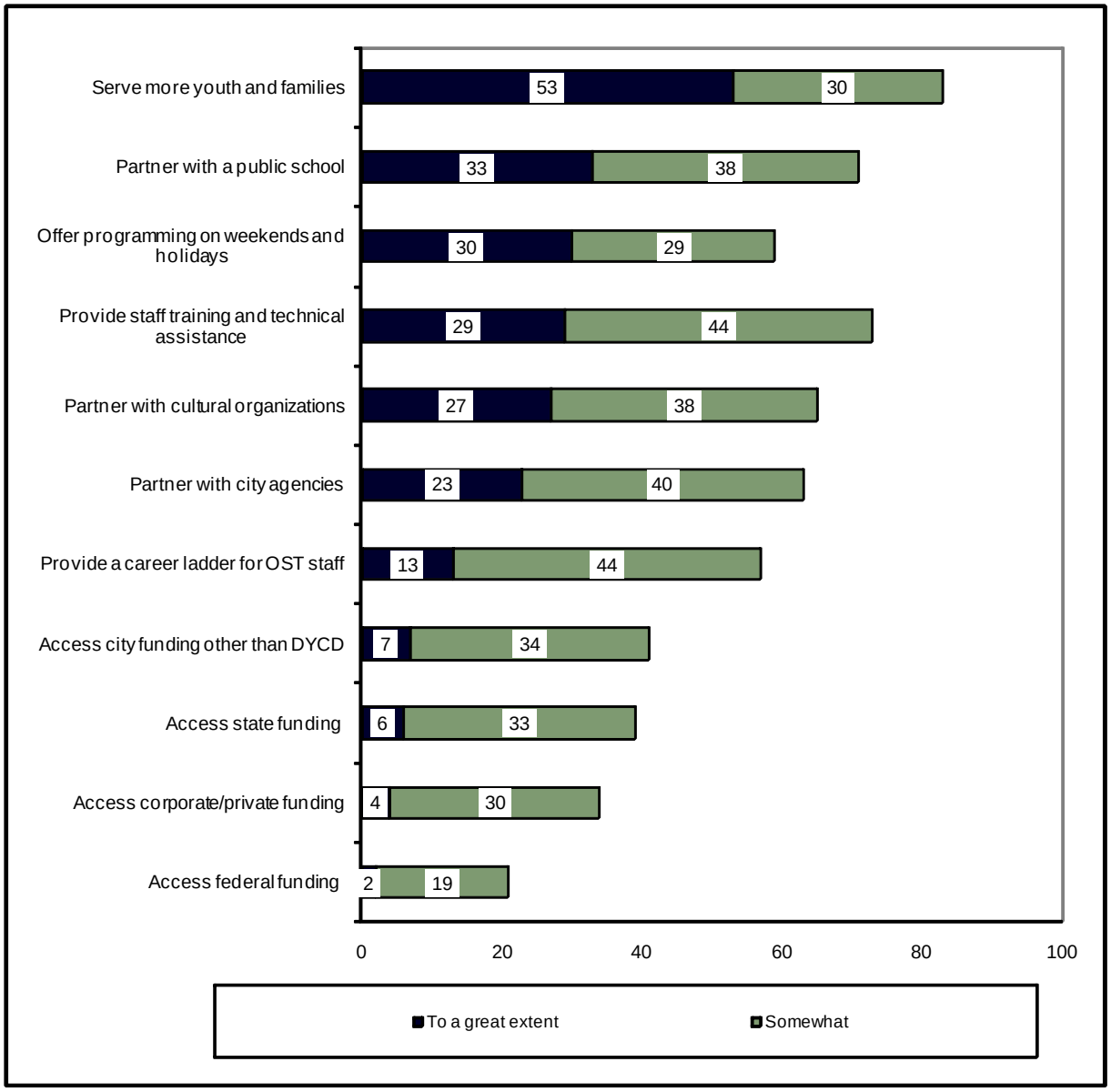

Exhibit reads: Fifty-three percent of executive directors agreed to a great extent and 30 percent somewhat agreed that participating in the OST initiative had increased their organization's capacity to serve more youth and families.

Executive directors were also asked to rate the extent to which their OST programs implemented certain practices in the third year of the OST initiative, compared to previous years, as shown in Exhibit 37. Fifty-nine percent of executive directors reported that their programs provided much more or somewhat more training and technical assistance for staff in the third year of the initiative than they did in the first or second year. In addition, nearly half reported that programs were better able to establish linkages with schools surrounding their programs (48 percent), enforce minimum attendance policies for participants (47 percent), and track student program attendance (46 percent).

Exhibit 37
Reports of OST Implementation Compared to Previous Years, in Percents *(n=160)*

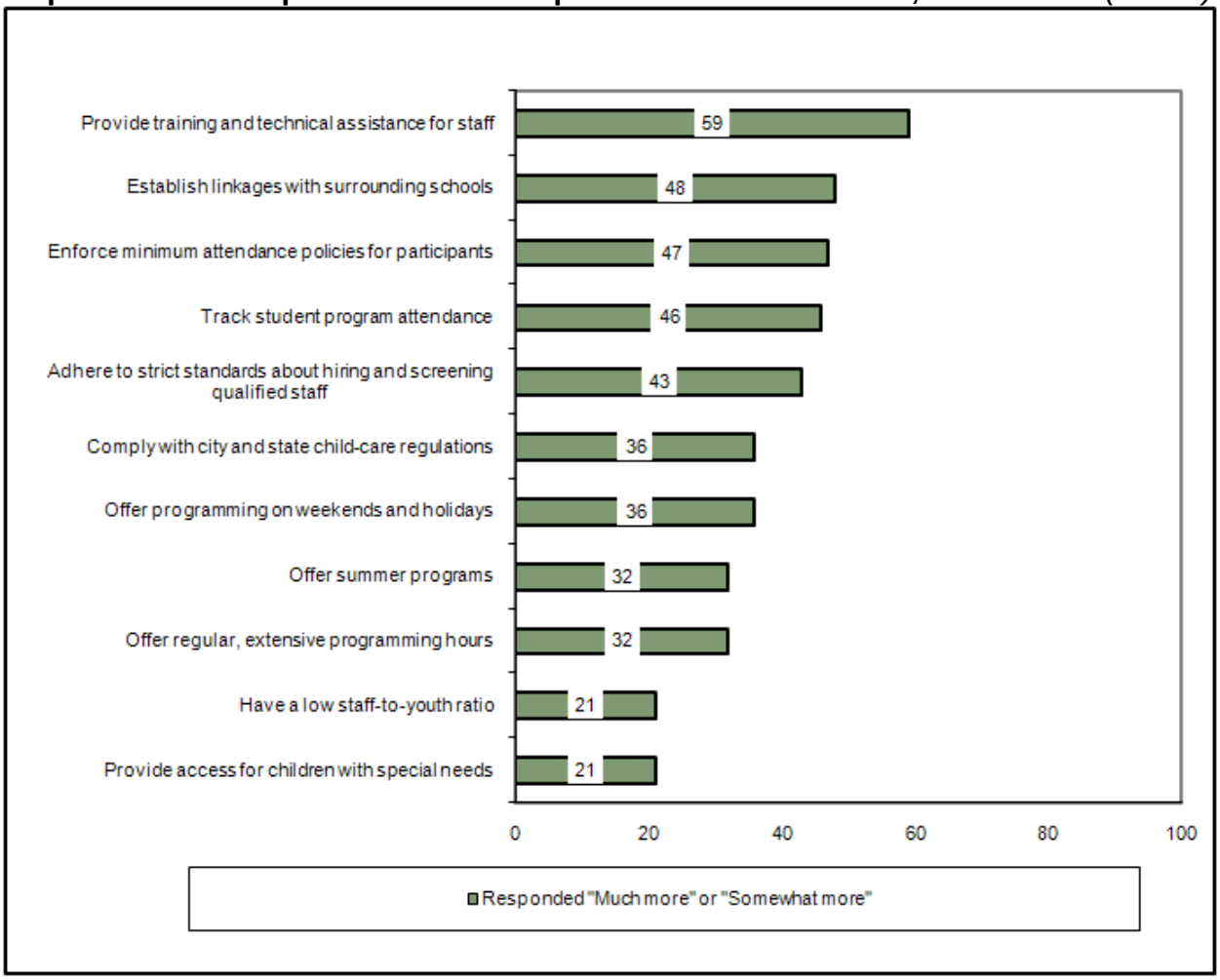

Exhibit reads: Fifty-nine percent of executive directors surveyed reported that their programs provided much more or somewhat more training and technical assistance for staff this year, compared to previous years.

Overall, executive directors reported high levels of satisfaction with DYCD's management of the OST initiative and support of OST programs, as shown in Exhibit 38. More than half of executive directors reported that they were very satisfied with opportunities offered for staff professional development (55 percent). In addition, about two-thirds (67 percent) of executive directors were very satisfied with the support provided by the DYCD program manager, although site-level program directors are more likely to interact directly with DYCD managers than are executive directors. Executive directors were least satisfied with DYCD's assistance in negotiating partnerships with schools (29 percent reported that they were very satisfied).

Exhibit 38
Executive Director Reports of Satisfaction, in Percents *(n=168)*

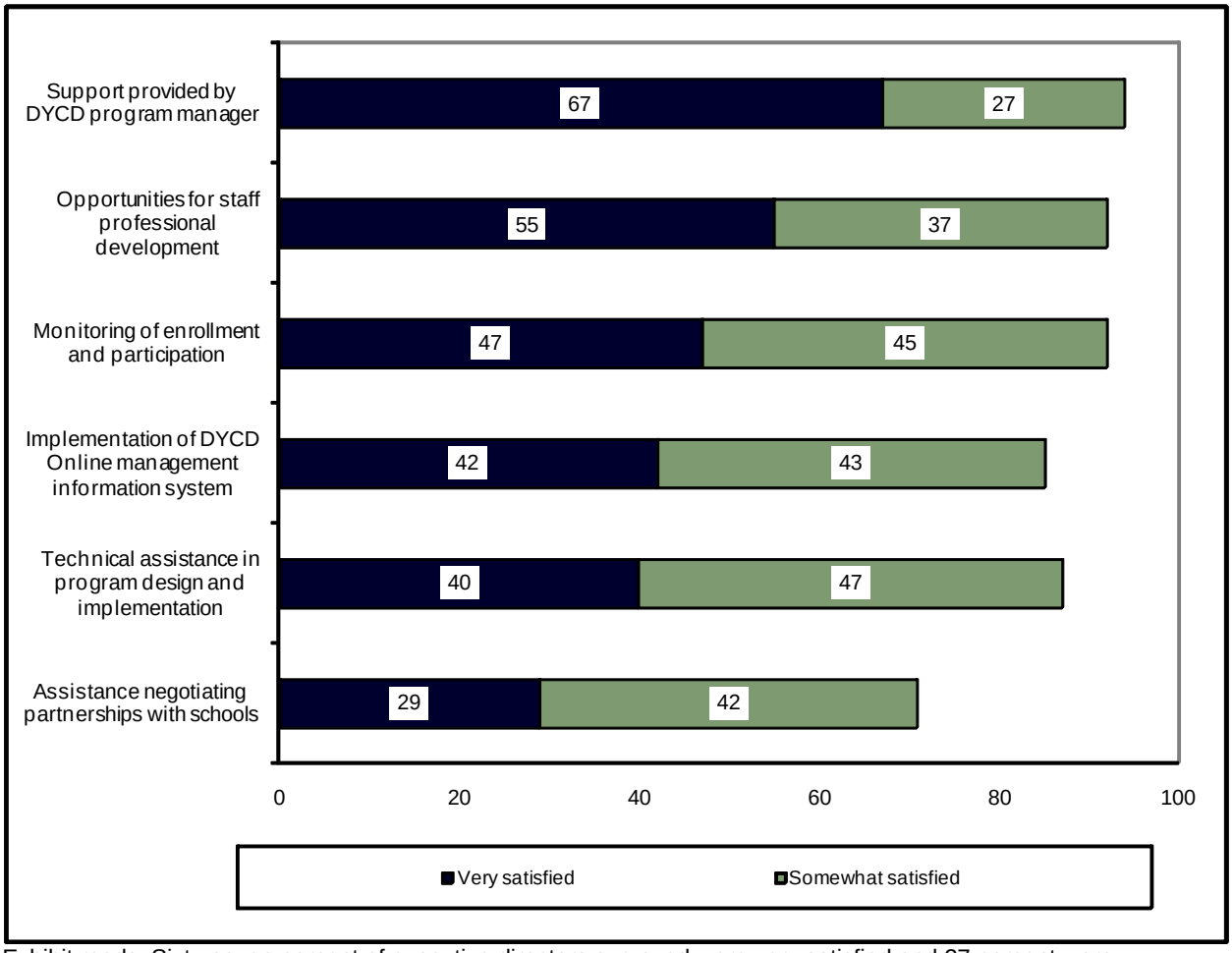

Exhibit reads: Sixty-seven percent of executive directors surveyed were very satisfied and 27 percent were somewhat satisfied with the support provided by DYCD program managers.

In general, executive directors reported few significant challenges to implementing out-of-school time programming through the OST initiative. The most frequent challenges reported included administrative burden (48 percent reported that this was a challenge to a great extent or somewhat), meeting enrollment and attendance requirements (44 percent), and using the DYCD Online tracking system (39 percent). These challenges were similar to those reported by executive directors during the first two years of the OST initiative. However, there were some notable changes in challenges reported. The percent of executive directors reporting administrative burden as a challenge decreased from 61 percent in Year 1 to 48 percent in Year 3 (V=.13), and the percent reporting that using DYCD Online was a challenge decreased from 54 percent to 39 percent (V=.15), reflecting the system's learning curve. In contrast, the percent of executive directors reporting that hiring qualified staff was a challenge increased from 23 percent in Year 1 to 33 percent in Year 3. (V=.10).

Professionalizing the Field of Out-of-School Time

On-site OST program directors received relatively high levels of professional benefits, as reported by executive directors of provider organizations. More than three-quarters of executive directors reported that they offered program directors paid training or professional development (85 percent), paid attendance at staff meetings and conferences (85 percent), paid time off for vacation and sick leave (83 percent), and health insurance (78 percent). This reflected a stable level of benefits in comparison to the first two years of the initiative.

In contrast to program directors, OST program staff received few benefits outside of professional development. Nearly three-quarters of provider organizations offered OST staff paid attendance at staff meetings and conferences (72 percent), and 69 percent offered paid training or professional development. The percent of organizations offering paid attendance at staff meetings represented a notable increase from Year 2 of the initiative, when only 62 percent of executive directors reported this benefit for staff (V=.11).

Meeting the Needs of Working Families

A goal of the OST initiative was to provide support to working families in New York City, particularly in the target zip codes identified as priorities for out-of-school time services. In Year 3, as in previous years, survey responses from parents of OST participants in the elementary and middle grades indicated that overall the initiative succeeded in reaching this goal and meeting the needs of families. As shown in Exhibit 39, about three-quarters of parents rated the OST program that their child attended as either excellent (43 percent) or very good (33 percent).

As in previous years of the evaluation, parents especially valued the academic support features of OST programs in survey responses. Forty-seven percent of parents cited homework help as the most important activity in the after-school program, and an additional 26 percent cited academic enrichment as the most important activity. In addition, as illustrated in Exhibit 40, parents' reports of their reasons for enrolling their child in the OST program reflected an emphasis on seeking academic support: 76 percent believed the program would help their child do better in school, and 72 percent wanted their child to get help with homework. Seventy-four percent of parents also said that they enrolled their child in an OST program to provide them with the opportunity to participate in new activities.

Exhibit 39
Parent Ratings of the OST Program, Year 3 *(n=413)*

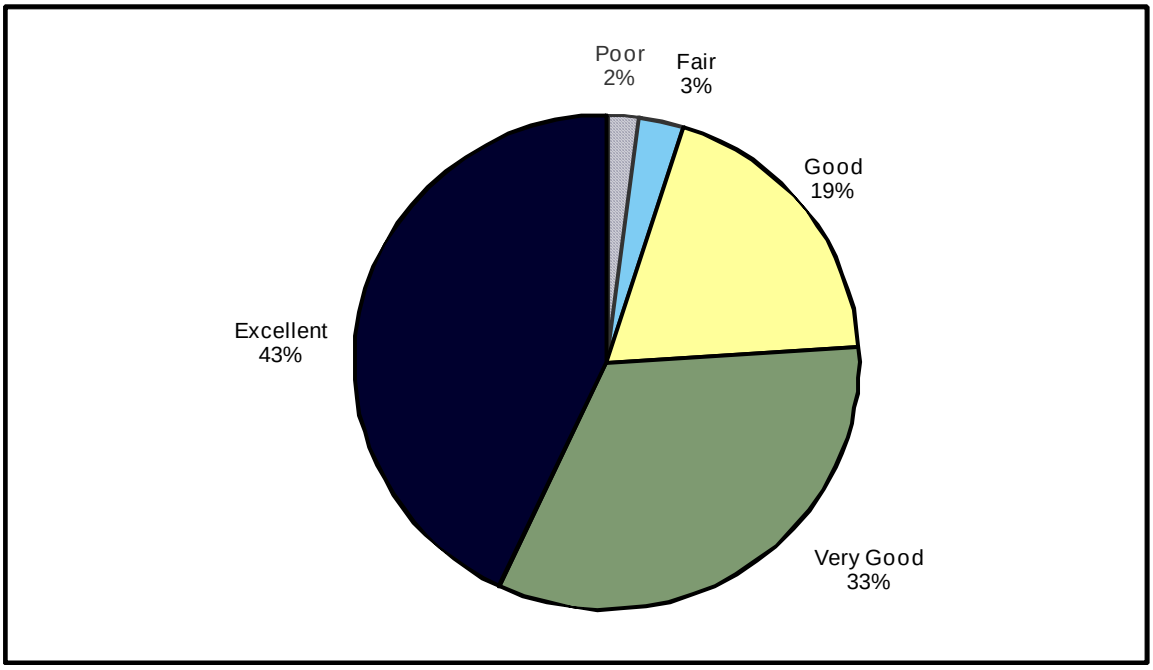

Exhibit reads: Forty-three percent of parents rated the OST program that their child attended as excellent.

Exhibit 40
Parent Reports of Reasons for Enrolling Their Child, Year 3 *(n=407)*

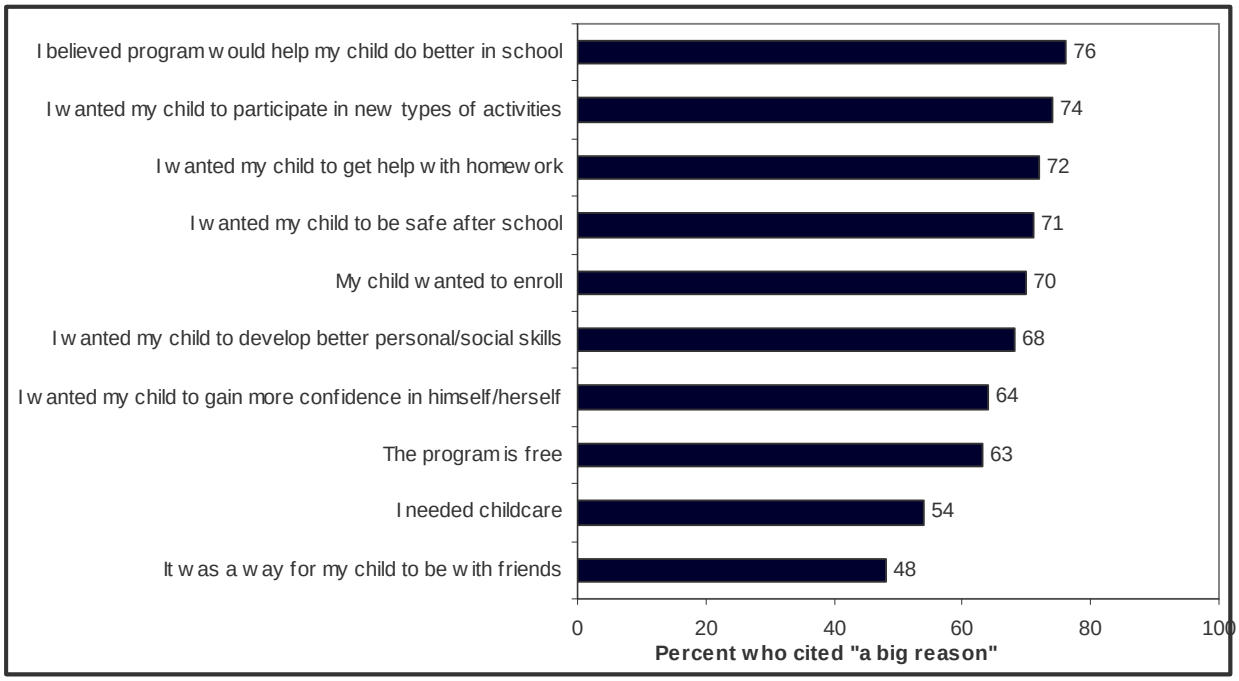

Exhibit reads: Seventy-six percent of parents surveyed enrolled their child because they believed the program would help their child do better in school.

Overall, parents reported satisfaction with the ways in which the OST program supported their children academically. As illustrated in Exhibit 41, 91 percent of parents agreed that their child is doing better in school as a result of participation in OST. Similarly, 90 percent agreed that their child was getting the academic help he or she needed.

Exhibit 41
Parent Reports of Youth Benefits of Participation, Year 3 *(n=406)*

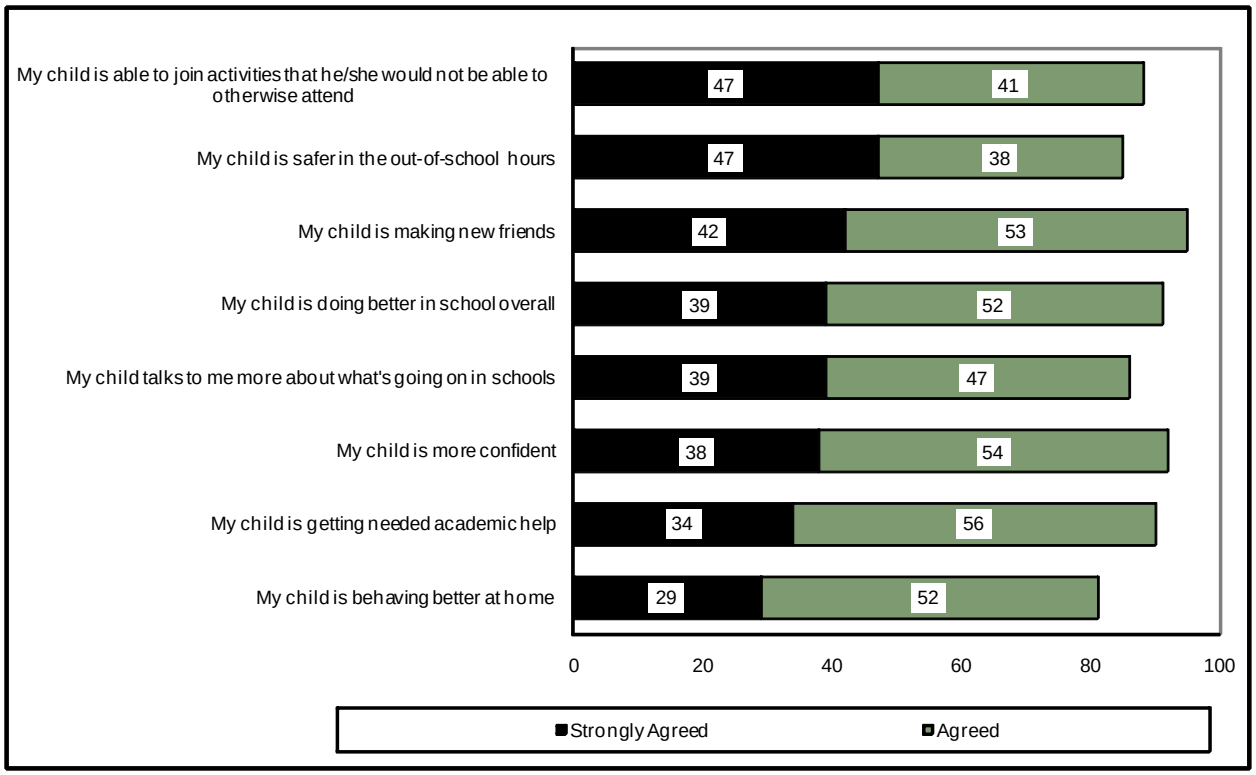

Exhibit reads: Forty-seven percent of parents surveyed strongly agreed that because of their OST program, their child is able to join activities that he or she would not be able otherwise to attend.

[The program has] helped my son with his homework, with his ability to learn how to socialize and be more outspoken with people and strangers. It has also helped him learn more about art, chess, and other board games, for example, chess, checkers, Scrabble, etc.

This program helped my son and my family in many ways. My son gets help with his daily homework. He gets to be with his friends and participate in other after-school activities. It also allows my wife and me to work a full day without worrying about after-school hours care for my son. It is a great program for my son and my family.

The availability of this program has helped us so much. It has helped my son to integrate with more friends, participate in various activities offered by the program, and also it allows him to go over his school matters and do his homework with the help of the great staff. They are all wonderful and superb, and most of all this program allows me and my

wife to be able to attend our jobs without worrying about how we're gonna handle [our son] after school.

My child is very active and very curious intellectually. This program gives him an outlet and a source of knowledge and keeps him busy.

Well, it's helped [my son] with his studies, because sometimes I don't know enough to help him with his homework. [Translated from Spanish.]

As shown in the exhibits above, parents also reported that they chose to enroll their children in an OST program to support their social development. Sixty-eight percent of parents said that they wanted their child to develop better personal and social skills, 64 percent wanted their child to gain more confidence, and 48 percent felt that the OST program was a way for their child to be with friends after school. Parents agreed that the OST program fulfilled these goals: 95 percent agreed that their child was making new friends, and 92 percent agreed that their child was more confident as a result of participating.

My child is sociable, she's learning more, and she's confident about herself. School work is getting done and her attitude about going to school changed—she likes school now.

[My child's] work is school has improved greatly as well as his self-esteem. He is more outgoing and is very sure of himself in the things that he feels he can achieve.

My son's teachers suggested that I enroll him in the program. Now he expresses himself better because program activities have endowed him with more self-confidence, and he's become more sociable and better-behaved in group activities. [Translated from Spanish.]

I think highly of the program, because my children are developing higher physical and mental skills. In addition, they've learned how better to relate with other children and have self-confidence. [Translated from Spanish.]

Finally, parents reported enrolling their children in the OST program because it offered them a safe place to be after school (71 percent), was free of charge (63 percent), and offered needed child care (54 percent). Indeed, parents overwhelmingly reported that they worked or attended school. The majority of parents responding to the survey reported that they worked outside the home (94 percent), including 21 percent who worked more than 20 hours per week. In addition, 84 percent of parents reported that they were pursuing their own education (86 percent of this group attended school less than 10 hours per week). Parent comments reflected the value they placed on the OST program for allowing them opportunities to work or pursue their education more than they would have otherwise.

In interviews and on surveys, parents commented:

The program is helping my family a lot because I am able to attend college full time… I am very thankful to the program, and it's very essential to have those kinds of programs in public school.

Thanks to the program, my wife has the chance to have a job. Besides, my daughter feels very comfortable during the program because she is around children her age.

I am a single parent and having three of my children in this program made it possible for me to be able to go back to work full-time.

I was able to go back to school and my husband was able to work more. My child is safer in the after-school program than staying with a babysitter.

This free after-school program provided a safe and affordable place for my son. The program enabled me to work a full day.

I think that this after-school program has literally saved my life. If it wasn't for [the program], I don't know where I would've been. So thanks to this program I'm able to attend college and make myself a better future for my life.

[The program] allows me to work longer hours so I can help economically at home and much more. [Translated from Spanish.]

In general, I think the program is a great help for parents because while they're working, they know that their children are being looked after and not alone at home and they can participate in many fulfilling and worthwhile activities. [Translated from Spanish.]

Parent responses about the benefits of the OST program also confirmed the sense of security provided: 85 percent agreed that their child was safer in the out-of-school hours as a result of the program.

Parents also responded positively to questions about the ways in which the OST initiative had enabled them to work more or pursue more education. Across all responding parents, as shown in Exhibit 42, 74 percent agreed that the program made it easier for them to keep their job, and 73 percent agreed that they miss less work than they had previously because their children attended the OST program. In addition, 71 percent of parents reported that they were able to work more hours because their children were in the program.

Exhibit 42
Parent Reports of Family Benefits of Participation, Year 3 *(n=408)*

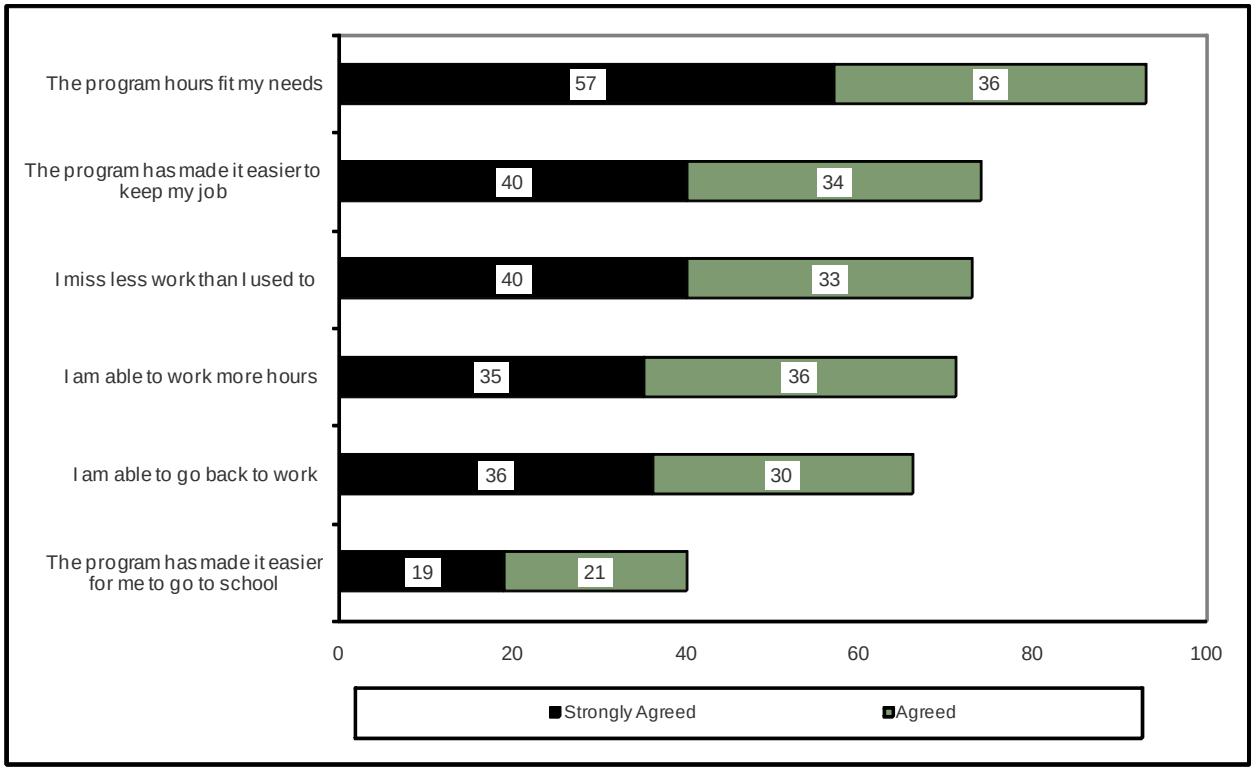

Exhibit reads: Fifty-seven percent of parents surveyed strongly agreed that their program's hours fit their needs.

7. Looking Ahead to Long-Term Sustainability

Through the first three years of the OST initiative, DYCD has established the policy and practical foundations for the long-term sustainability of high-quality, publicly funded, out-of-school time programming for the youth of New York City. With the launch of the OST initiative in 2005, the collaborative relationship between DYCD and the New York City Department of Education has grown, particularly through adoption of a Memorandum of Understanding committing hundreds of public schools as sites for OST programs and the provision of in-kind support by DOE for OST programs through facilities, security, and snacks and meals for OST participants. At the same time, DYCD strengthened its network of community-based organizations, foundations, and providers of technical assistance to support the initiative through partnerships with the Wallace Foundation and the Partnership for After-School Education, among others. Importantly, the City has included funding for OST programming in its four-year financial plan, and the budget for OST programming has steadily increased from $46.4 million in FY 2006 to $117.1 million in FY 2009.

As the OST initiative enters its next phase, evaluation findings from the first three years point to elements of program quality that should be maintained as well as areas in which focused resources and technical assistance can improve quality and both educational and social outcomes for youth.

Engaging youth. Over the first three years of the OST initiative, out-of-school time programs in New York City succeeded in reaching large numbers of youth, serving more than 181,000 participants, including 7,589 participants who remained enrolled for three years. The initiative scaled up rapidly from 2005-06 to 2007-08, from 50,618 participants in 528 programs in the first year of programming to 81,213 participants in 622 programs in the third year. However, some programs continued to struggle to enroll high numbers of participants (approximately one-third of programs did not meet their enrollment target) and to engage all participants at high levels of attendance (fewer than half of program participants achieved the targeted number of hours of participation).

Evaluation findings point to positive associations between high levels of participation and youth's sense of belonging in the program and academic benefits, suggesting that directing efforts to help programs increase their appeal to youth and better engage participants can lead to long-term benefits. The evaluation also found that effective strategies for achieving high levels of participation include offering a range of activities for youth and communicating regularly with schools and with families.

Creating positive environments. Overall, OST programs succeeded in their objectives to create positive environments for youth by fostering healthy relationships among youth participants and between youth and staff members. Programs achieved this goal in varied ways, including the implementation of activity structures that focused on relationship-building and development of social skills and by hiring a diverse mix of staff members, including younger staff who could relate to and serve as mentors and role models for youth. As a result, youth reports of their interactions were overwhelmingly positive. OST programs faced more

challenges in implementing active learning experiences for youth, as evidenced through survey data as well as program observations.

Evaluation data also suggest that, as they scaled up programming and become increasingly established within their schools and communities, OST program directors took advantage of professional development opportunities—both internal and external—and built strong partnerships with their schools and communities, in order to improve OST program quality and better meet the needs of the youth served.

DYCD has committed resources to improving the quality of its monitoring and support of OST programs through ongoing technical assistance opportunities, particularly those focused on data management, behavior management techniques, and program content development. The DYCD Online data management system offers opportunities to continue to track patterns of program and activity engagement across the initiative and within specific programs. In addition, the development of new rubrics and program management tools, including those that track the implementation of features in the evaluation's program quality index, will provide opportunities to continue to strengthen the capacity of OST programs to provide high-quality services to youth.

Shaping the city's OST system of the future. Based on the evaluation findings from the first three years of the OST initiative, we offer the following additional recommendations for DYCD in improving the capacity for OST programs to deliver high-quality services to improve outcomes for New York City's youth:

- Assist programs in identifying resources—or in learning to better plan and budget existing resources—directed specifically to hiring specialized staff members to maximize youth recruitment and engagement (e.g., parent liaisons) and to help plan and oversee high-quality, structured program content (e.g., certified teachers or professional specialists).

- Focus technical assistance related to activity planning on teaching staff strategies to engage youth in dynamic, active learning opportunities in which they discuss, collaborate, plan, and take on leadership roles, regardless of the content area.

- Through technical assistance, encourage OST programs and provider organizations to utilize the capacity of the DYCD Online system to generate data that can support program management and improvement efforts, including, for example, the monitoring of program participation patterns to determine whether certain types of activities appeal more or less to particular groups of students.

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Appendix A

Survey and Observational Data Collected in Years 1-3 of the OST Initiative

Exhibit A-1
Executive Director Survey Data

	Executive Director Surveys		
	Number of Executive Directors	Number of Surveys Received	Response Rate (in percents)
Year 1	190	161	85
Year 2	191	148	77
Year 3	203	169	83

Exhibit A-2
Program Director Survey Data

	Programs Director Surveys					
	Number of Program Directors	Number of Surveys Received	Response Rate (in percents)	Option I Surveys Received	Option II Surveys Received	Option III Surveys Received
Year 1	543	483	89	393	80	10
Year 2	547	470	86	385	77	8
Year 3	630	555	88	460	87	8

Exhibit A-3
Participant Survey Data

	Participant Survey Sample (n=118 programs)		In-depth Sample (n=15 programs)	
Year	Surveys Received	Programs Returning Surveys	Surveys Received	Programs Returning Surveys
Year 1	3,088	82	524	13
Year 2	4,499	86	837	14
Year 3	5,490	93	811	15

Exhibit A-4
Program Staff and Parent Survey Data from 15 In-Depth Sites

	Program Staff Surveys		Parent Surveys	
	Surveys Received	**Programs Returning Surveys**	**Surveys Received**	**Programs Returning Surveys**
Year 1	114	12	283	12
Year 2	191	13	500	12
Year 3	193	14	450	13

Exhibit A-5
Site Visit Observation Data

	Independent Observations	Co-observations	Inter-rater Reliability
Year 1	238 (in 15 programs)	40	0.83
Year 2	199 (in 15 programs)	33	0.72
Year 3*	141 (in 12 programs)	10	0.76

*In Year 3, the evaluation emphasized qualitative data collection and observations in OST high school programs, which reduced the number of programs included in observation data analyses.

Appendix B

Program Implementation in Options II and III

The DYCD OST initiative supports programming under three service options. The focus of the evaluation is Option I programs, which serve youth in elementary, middle, and high schools throughout New York City. In addition, Option II programs were designed to build on public-private partnerships and were required to receive at least 30 percent of their funding from private sources such as corporations, foundations, and individuals. Option III programs operate through the Department of Parks and Recreation and are offered at Parks sites.

In Year 3, the evaluation collected program director survey data for 86 Option II programs and eight Option III programs. DYCD Online data were available for 12,340 participants in 96 Option II programs, and 1,349 participants in 12 Option III programs for Fiscal Year 2008 (July 2007 through June 2008). Data were also available for 51 Option II programs and one Option III program for July of 2008. Because of the different structures and expectations of Option II programs and Option III programs, evaluators analyzed their data separately. This appendix presents a summary of program implementation under these service options in Year 3 of the initiative.

Scope of OST Services

In Fiscal Year 2008, Options II and III served almost 14,000 youth in 108 programs across New York City.[12] As shown in Exhibit B-1, programs operated in all boroughs and in all grade levels, with the most Option II participants in Manhattan and the most Option III participants in Brooklyn.

Eighty percent of Option II program directors reported that they have open enrollment for all interested youth. Fifty-nine percent of Option II programs also reported that they seek to serve youth who were recommended by school-day teachers or counselors.

All eight responding Option III program directors reported that they have open enrollment for all interested youth. More than half of Option III programs also reported seeking to serve youth who scored below proficient on city or state exams (6 programs), youth with siblings already attending the program (7 programs), and youth who participate in other programs sponsored by the organization (7 programs).

[12] Because DYCD tracks their Option II and III programs according to fiscal years, the numbers for Option II and III programs represent the time period July 2007 through June 2008.

Exhibit B-1
FY 2008 Number of OST Programs and Participants, by Option

Program Characteristics	Option II		Option III	
	Programs (*n=96*)	Participants (*n=12,340*)	Programs (*n=12*)	Participants (*n=1,349*)
Borough				
Brooklyn	24	3,313 (27)	3	578 (43)
Bronx	23	2,352 (19)	2	68 (5)
Manhattan	31	3,564 (29)	4	221 (16)
Queens	16	3,016 (24)	2	257 (19)
Staten Island	2	95 (1)	1	225 (17)
Program Location				
School	40	5,333 (43)	N/A	N/A
Center	56	7,007 (57)	12	1,349
School Level				
Elementary	42	6,695 (54)	8	866 (64)
Middle	19	2,410 (20)	2	428 (32)
High	35	3,235 (26)	2	55 (4)

Figures in parentheses indicate the percent of participants with each characteristic within each category. Percents do not necessarily add to 100 due to rounding.

Exhibit reads: Twenty-four out of the 96 Option II programs in FY 2008 were located in Brooklyn, as were 3,313 of participants, who made up 27 percent of all Option II participants.

As shown in Exhibit B-2, Options II and III programs served youth in a range of grade levels, with the highest concentration of youth in elementary grades. The gender ratio of youth served in Option II was balanced, but Option III programs served more males than females (63 percent, compared to 38 percent.) Youth in Options II and III programs came from diverse backgrounds: 42 percent of youth in Option II and 36 percent of youth in Option III were Hispanic/Latino, and 30 percent of Option II youth and 26 percent of Option III youth were African American.

Exhibit B-2
Demographic Characteristics of Participants, by Option, in Percents

	Option II	Option III
Total Number of Enrolled Participants	*n=12,340*	*n=1,349*
Grade Span	*n=12,340*	*n=1,349*
K-5	54	64
6-8	20	32
9-12	26	4
Gender	*n=12,340*	*n=1,349*
Male	49	63
Female	51	38
Race/ethnicity	*n=12,340*	*n=1,349*
American Indian	0	0
Asian	8	4
African American	30	26
Hispanic/Latino	42	36
Pacific Islander	0	0
White (non-Hispanic)	10	8
Other	10	26

Exhibit reads: Fifty-four percent of participants in Option II were in grades K through 5.

Evidence of Program Quality

In the Year 2 report, evaluators identified certain elements of OST programs that may be conducive to producing a high quality program. Program director surveys from Option II and III programs addressed some of these elements: whether programs presented rich, varied content; whether staff were deployed effectively and well supported; and whether effective program partnerships and supports were in place.

Rich Program Content

Option II program directors most frequently reported social development goals for their programs. In particular, they reported that a major objective of their program was to provide a safe environment for youth (94 percent). Other major objectives included:

- Help youth develop socially (89 percent)
- Promote respect for diversity (81 percent)
- Provide health/well-being/life skills development (81 percent)
- Provide leadership opportunities (77 percent)

Option III program directors reported a mix of academics and social development goals. All eight responding Option III program directors reported that major objectives of their program were to provide a safe environment for youth, help youth improve their academic performance,

help youth develop socially, promote respect for diversity, and provide hands-on enrichment activities.

Evaluators analyzed the activities that program directors reported offering to all or most youth. More than three-quarters of Option II program directors reported offering the following activities to the majority of participants on an ongoing basis: unstructured time for socializing (98 percent), peer discussion of topics that are important to youth (90 percent), and discussion about diversity issues (85 percent).

Option III program directors most frequently reported offering the following activities to most participants on an ongoing basis: homework help (seven programs), discussion of issues, events, or problems in their community (five programs), group instruction in specific academic subjects (four programs), recreational reading (five programs), organized writing activities (three programs), and unstructured time for socializing (five programs).

Staffing Strategies

Option II programs had a median youth-to-staff ratio of 8:1, including both paid and volunteer staff members. Sixty-seven percent of Option II program directors reported between 1 and 10 paid staff members, and 43 percent reported between 1 and 10 volunteer staff. Staff came from many backgrounds: 55 percent of program directors reported employing specialists, 65 percent employed college students, 33 percent employed high school staff, and 29 percent employed certified teachers. Seventy-eight percent of Option II programs reported hiring a staff member either part- or full-time to provide administrative support, and approximately half of programs employed a master teacher (48 percent).

Seven of eight responding Option III program directors reported between one and 10 paid staff members, and only one program had volunteer staff. The median youth-to-staff ratio in the eight Option III programs was 19:1. Six programs employed college students, and six programs employed high school staff. Three programs had a part-time paid administrative support position, and three Option III programs employed a master teacher on either a part-time or full-time basis.

Building staff capacity. Option II program directors reported frequent internal supervision and training opportunities. Nearly all Option II program directors (98 percent) reported holding staff meetings at least monthly, and 52 percent of program directors held staff meetings at least once a week. Seventy-two percent of program directors required most or all staff to submit activity plans on a regular basis, and 26 percent of programs used a published or externally developed curriculum to guide at least some of their activities.

All eight Option III program directors reported holding staff meetings at least monthly, while three program directors held staff meetings at least once a week. Two program directors required most or all staff to submit activity plans on a regular basis, and another two program directors occasionally asked staff to submit activity plans. None of the program directors used a published or externally developed curriculum to guide any activities.

Seventy-seven percent of Option II program directors reported participating in workshops offered through the OST initiative, 47 percent participated in institutes or conferences, and 31 percent participated in on-site consultations. The topics on which nearly half of program directors received training or professional development were program development and management (48 percent), maintaining healthy and safe environments (47 percent), and using developmentally appropriate practices (53 percent). Program directors reported that their staff received similar types of training in similar topics.

Among the training and professional development activities offered to Option III program directors through the OST initiative, seven reported participating in workshops, three participated in institutes or conferences, and one participated in on-site consultations. The topics on which half or more of program directors received training or professional development were academics, enrichment, and learning (four programs), maintaining healthy and safe environments (five programs), and program development and management (five programs).

Staff challenges. Forty-eight percent of Option II program directors reported that over half of their program staff worked in the same OST program during the previous year. However, hiring and adequately compensating qualified staff remained a challenge for most Option II program directors. More than half of Option II program directors reported the following staffing-related obstacles to implementing high-quality programming:

- Capacity to offer the competitive salaries necessary to hire qualified staff (72 percent)
- Finding volunteers with the time and expertise needed (59 percent)
- Not being able to afford to offer potential staff enough hours of paid employment (55 percent)

Two of eight Option III program directors reported that more than half of their program staff remained in their program in Year 3. Among Option III program directors, more than half reported that not being able to afford to offer potential staff enough hours of paid employment and offering the competitive salaries necessary to hire qualified staff were challenges to implementing high quality programming in Year 3.

Effective Program Partnerships and Supports

Establishing policies and structures. Option II program directors reported establishing effective program policies and structures in the third year of the initiative. Ninety-seven percent of program directors strongly agreed or agreed that the time allowed for activities in their programs was generally appropriate. Three-quarters or more of Option II program directors strongly agreed or agreed that groups were small enough for staff to meet participant/individual needs (97 percent), procedures were in place to report suspicions of child abuse and neglect (93 percent), the program had a process in place for obtaining participant input and suggestions (93

percent), procedures for dealing with participant behavior were in place and effective (92 percent), the program had links to organizations to which they could refer participants in need of additional services (89 percent), participants had regular opportunities to lead activities (81 percent), and participants with special needs were successfully integrated (80 percent).

Similarly, directors of Option III programs reported effective program structures. Four of the seven responding Option III program directors reported discussing the needs or progress of individual students with school principals. Two program directors reported talking with teachers or other key staff at least monthly, and two regularly discussed homework assignments. Five Option III program directors reported that at least one other outside organization provided activities or services for participants, and three reported that other organizations provided additional funding through grants or contracts.

Option III program directors most commonly reported challenges related to youth recruitment or participation. Six of eight program directors reported that a major or minor challenge to implementing high-quality programming was that youth do not attend the OST program regularly enough to have enriching experiences, and six reported that they cannot recruit enough youth to participate. Four of six responding Option III program directors strongly agreed or agreed that, compared to Year 2, the program did a better job of fostering positive relationships between youth and staff in the third year.

Partnerships with parents. Seventy-nine percent of Option II program directors reported that supporting working families was a major or minor objective, as did seven of eight responding Option III directors.

Eighty-seven percent of Option II program directors reported having conversations with parents over the phone a few times a month or more. Seventy-eight percent of program directors reported meeting with one or more parents a few times a month or more. Program directors also reported doing the following a few times a month: sending material about the program home to parents (42 percent), holding events or meetings to which parents were invited (41 percent), and holding events or meetings to which community members were invited (24 percent). At least half of Option II program directors reported that their program sponsored the following events or activities for parents/families at least monthly: events at the program (84 percent) and opportunities to attend cultural or recreational events in the community (67 percent).

Seven of eight Option III program directors reported having conversations with parents over the phone at least a few times a month. Six of seven program directors reported meeting with one or more parents at least a few times a month. Five of seven responding Option III program directors reported offering families opportunities to attend cultural or recreational events in the community at least monthly, and six regularly invited parents to events at the program.

Evidence of Youth Outcomes

As shown in Exhibit B-3, Option II programs at all grade levels exceeded their enrollment targets, as did Option III middle-grades programs. Analyzed by program, 71 percent of Option II programs and 46 percent of Option III programs met or exceeded their enrollment targets in the third year of the OST initiative.

Exhibit B-3
Targeted Enrollment and Actual Number of Students Served, by Option and Grade Level

	Option II			Option III		
Grade Level	Targeted Enrollment	Students Served	Percent of Target Achieved	Targeted Enrollment	Students Served	Percent of Target Achieved
Elementary	5,916	6,695	113	1,025	866	84
Middle	1,995	2,410	121	275	428	156
High	3,118	3,235	104	225	55	24
Total	11,029	12,340	112	1,525	1,349	88

Exhibit reads: In Option II, the total targeted enrollment for elementary programs was 5,916, but elementary programs actually served a total of 6,695 youth (or 113 percent of the target.)

Option II programs were expected to offer at least 160 hours of programming, with a 70 percent rate of participation. On average, Option II participants attended 184 hours of programming in Year 3, exceeding this goal. The median number of hours participants attended was 150. Option III programs were expected to offer 144 to 360 hours of service, depending on the youth served. However, on average Option III participants attended only 76 hours of programming during FY 2008; the median number of hours attended in Option III was 53.

Appendix C

Technical Properties of Participant Survey Scales

For each series of survey items addressing a common theme, evaluators created a survey scale to measure participants' overall response to that theme. For each of the individual survey items, participants were asked to respond whether they agreed a lot, agreed a little, disagreed a little, or disagreed a lot. These survey items were combined into a scale calculated to range from 1 to 4, with 4 indicating that on average participants agreed a lot with each of these statements, and 1 indicating that on average participants disagreed a lot with each of these statements.

This appendix describes the individual items that are included in each scale, and presents the following statistical properties of each scale:

- **Cronbach's Alpha—**a measure of the internal consistency of the survey scale ranging from 0-1, with higher numbers indicating a greater cohesiveness of items
- **Mean—** the average score on the scale across all participants, ranging from 1 to 4
- **Standard deviation—**an estimate of the average variability of the scale data
- **Minimum/maximum—**the minimum and maximum scores possible on the scale
- **25th percentile/75th percentile—**respectively, the scale scores below which 25 percent of participants and 75 percent of participants scored

Academic Benefits of the Program

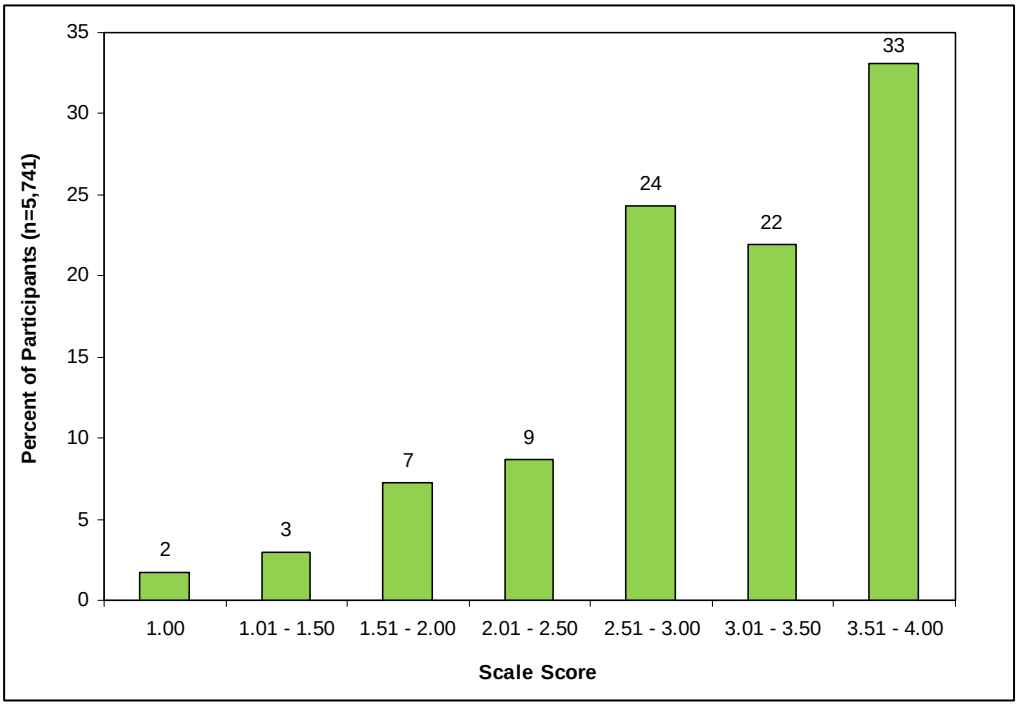
The Academic Benefits of the Program scale was computed to range from one to four, with four indicating that on average participants strongly agreed with the following statements:

This program has helped me…

- Get better grades in school
- Feel better about my schoolwork
- Read and understand better
- Solve math problems better
- Finish my homework more often
- Write better
- Use computers to do schoolwork better

Descriptive Statistics:

Alpha	Mean	Standard Deviation	Minimum	25th Percentile	75th Percentile	Maximum
0.87	3.06	0.74	1	2.71	3.57	4



Academic Motivation

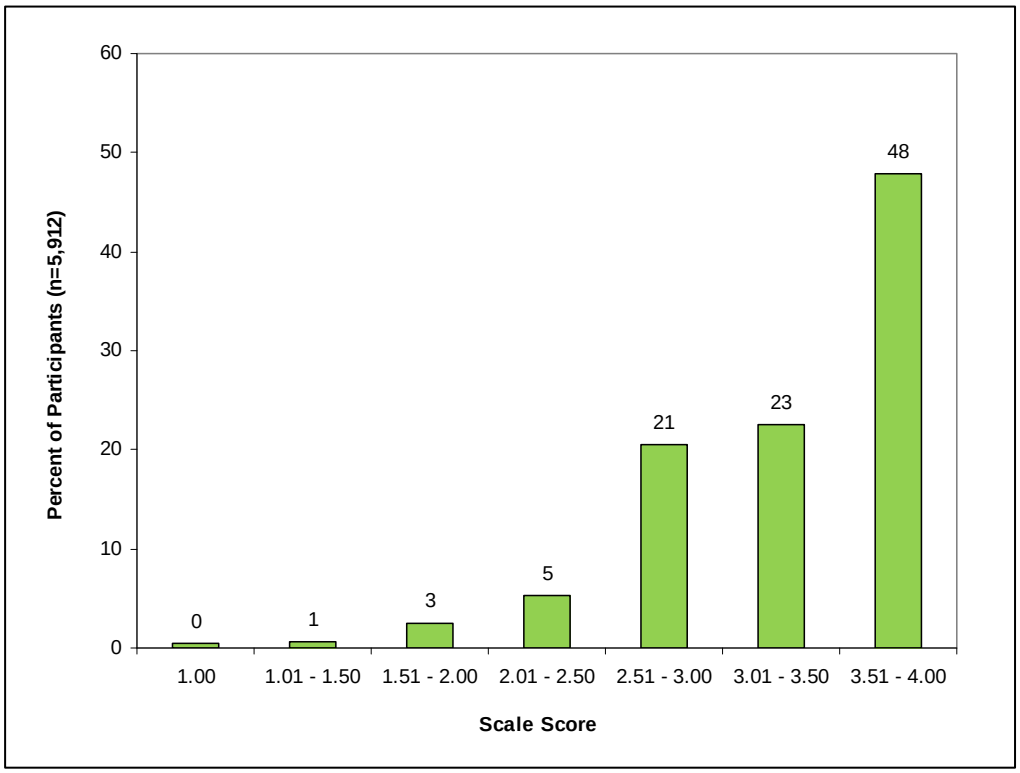
The Academic Motivation scale was computed to range from one to four, with four indicating that on average participants strongly agreed with the following statements:

In general I…

- Try hard in school
- Pay attention in class
- Always come to class prepared
- Enjoy school
- Enjoy reading books for pleasure
- Enjoy math
- Enjoy writing
- Always finish my homework
- Do well in school

Descriptive Statistics:

Alpha	Mean	Standard Deviation	Minimum	25th Percentile	75th Percentile	Maximum
0.86	3.34	0.59	1	3.00	3.78	4



Interactions with Staff

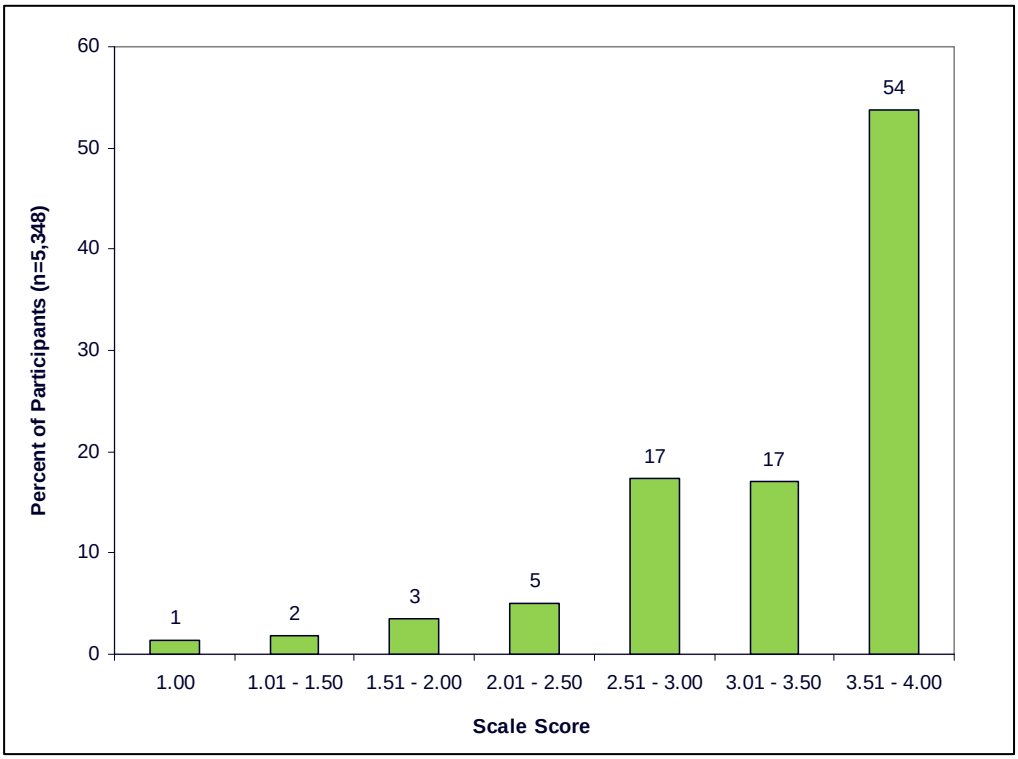
The Interactions with Staff scale was computed to range from one to four, with four indicating that on average participants strongly agreed with the following statements:

In this program…

- Staff treat me with respect
- I feel that I can talk to staff about things that are bothering me
- Staff really care about me
- Staff always keep their promises
- Staff care what I think
- Staff always try to be fair
- Staff think I can do things well
- Staff help me to try new things
- Staff think I can learn new things

Descriptive Statistics:

Alpha	Mean	Standard Deviation	Minimum	25th Percentile	75th Percentile	Maximum
0.93	3.35	0.71	1	3.00	4.00	4



Exposure to New Experiences

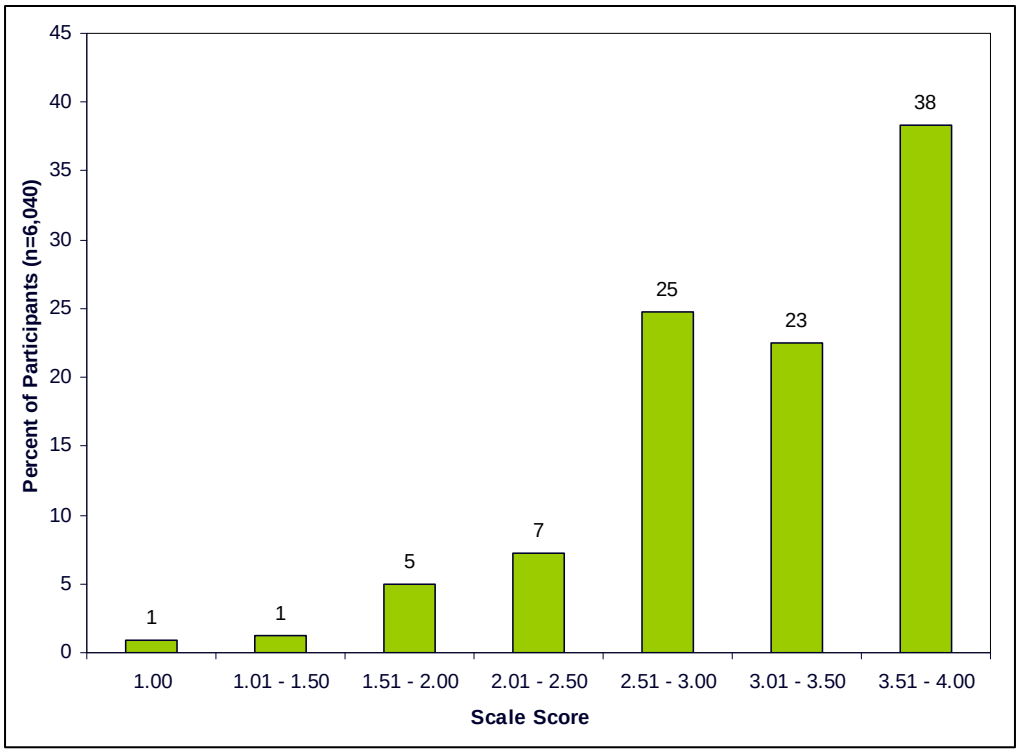
The Exposure to New Experiences scale was computed to range from one to four, with four indicating that on average participants strongly agreed with the following statements:

In this program…

- I get a chance to do a lot of new things
- I get to do things that I don't usually get to do anywhere else
- I get to work on projects that really make me think
- There is a lot for me to choose to do
- The activities really get me interested

Descriptive Statistics:

Alpha	Mean	Standard Deviation	Minimum	25th Percentile	75th Percentile	Maximum
0.80	3.20	0.66	1	2.80	3.80	4



Sense of Belonging

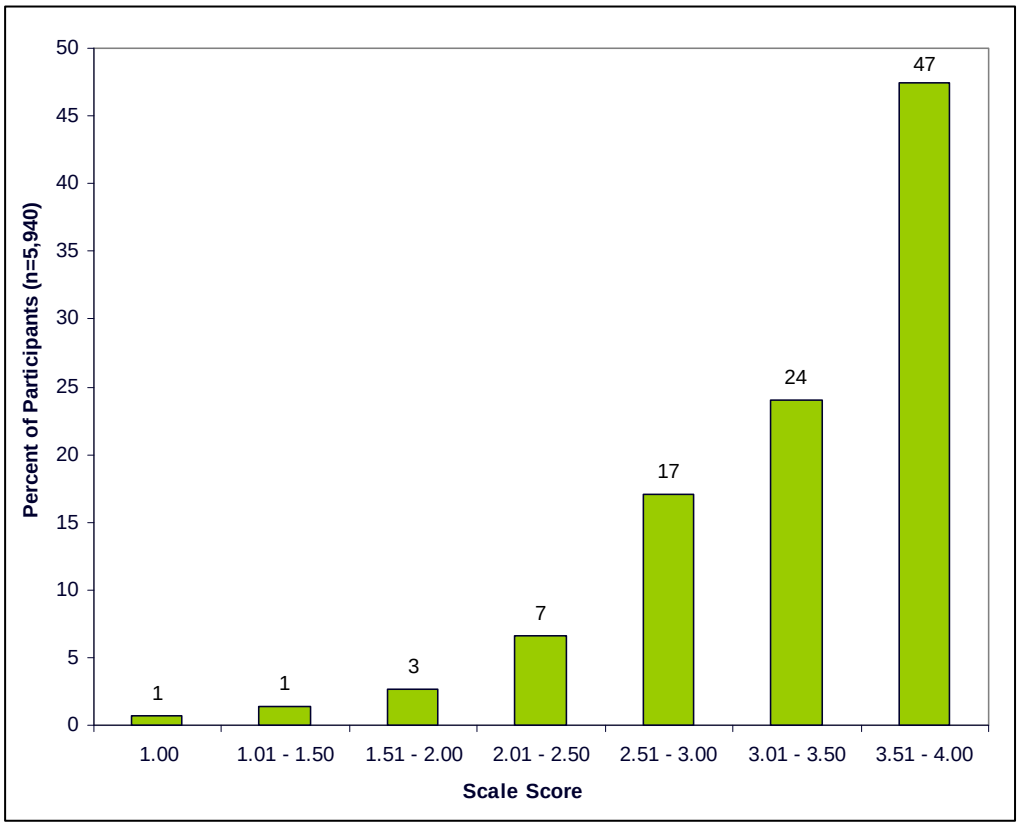
The Sense of Belonging scale was computed to range from one to four, with four indicating that on average participants strongly agreed with the following statements:

In this program I feel like…

- I belong
- My ideas count
- I am successful
- This is a good place to hang out
- I matter
- I am safe

Descriptive Statistics:

Alpha	Mean	Standard Deviation	Minimum	25th Percentile	75th Percentile	Maximum
0.86	3.38	0.64	1	3.00	4.00	4



Interactions with Peers

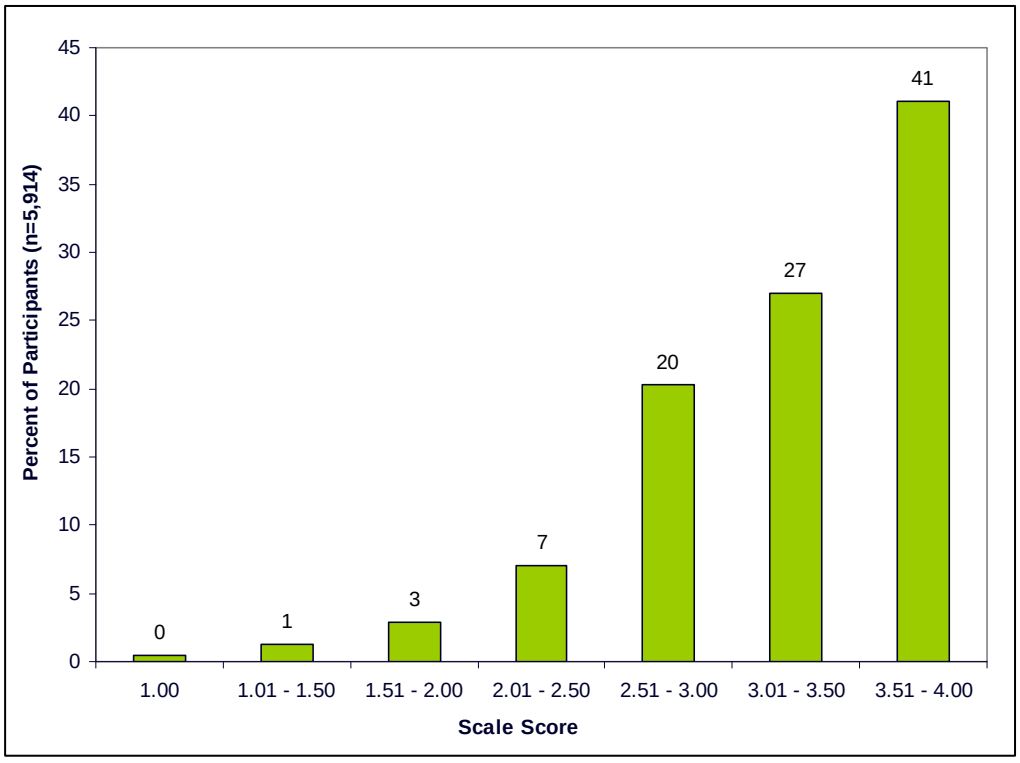
The Interactions with Peers scale was computed to range from one to four, with four indicating that on average participants strongly agreed with the following statements:

In this program I…

- Get to know other kids really well
- Can really trust the other kids
- Have a lot of friends
- Like the other kids
- Have a good time playing with other kids
- Get along with other kids

Descriptive Statistics:

Alpha	Mean	Standard Deviation	Minimum	25th Percentile	75th Percentile	Maximum
0.84	3.33	0.61	1	3.00	3.83	4



Pro-social Behavior

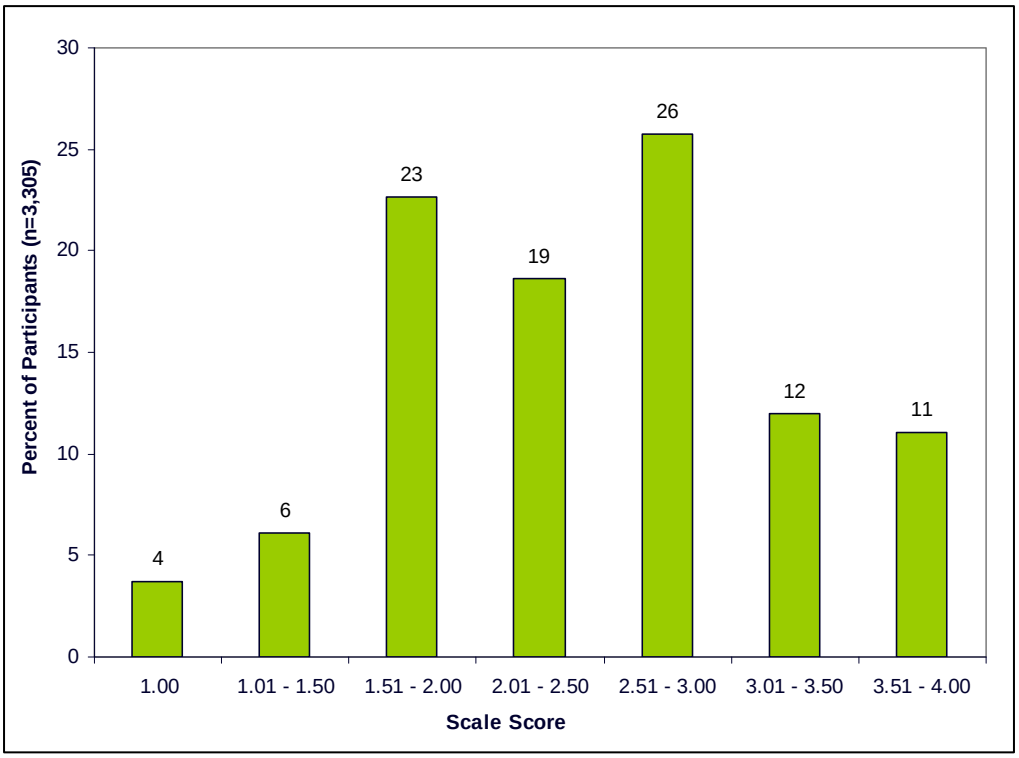
The Pro-social Behavior scale was computed to range from one to four, with four indicating that a participant engaged in the behavior at least six times over the past month, and one indicating that they never engaged in the behavior. The survey asked middle and high school participants to report on the following behaviors:

In this program I…

- Helped someone stay out of a fight
- Told other students how I felt when they did something I liked
- Cooperated with others in completing a task
- Told other students how I felt when they upset me
- Protected someone from a bully
- Gave someone a compliment
- Helped other students solve a problem

Descriptive Statistics:

Alpha	Mean	Standard Deviation	Minimum	25th Percentile	75th Percentile	Maximum
0.85	2.50	0.76	1	2.00	3.00	4



Appendix D

Technical Properties of Observation Scales

In Year 3, evaluators used PSA's OST Observation Instrument to conduct an average of 12 structured 15 minute observations in each of the 12 elementary- and middle-grades programs in the evaluation's in-depth sample. (In Year 3, the evaluation used different methods for qualitative data collection in the three high school OST programs in the in-depth sample.) In total, 141 independent observations and 10 activity co-observations were conducted, with an average inter-rater reliability of 0.76. Each observation indicator was rated from one to seven, with seven meaning that the indicator was highly evident and consistent throughout the observation.

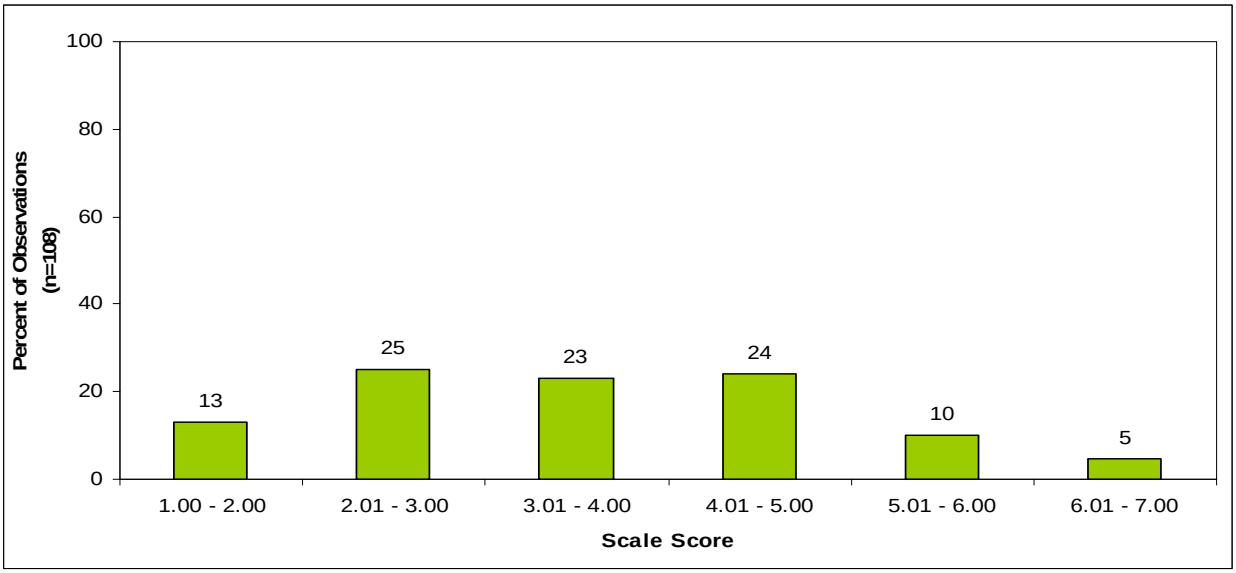
Skill-Building: The activity builds on and expands skills and content learned to increase youth knowledge and understanding.

The Skill-Building scale combines ratings from the following indicators:

- Activity involves the practice or a progression of skills
- Staff challenges youth to move beyond their current level of competency
- Activity requires analytical thinking
- Staff employs varied teaching strategies
- Activity challenges students intellectually, creatively, developmentally, and/or physically
- Staff assists youth without taking control
- Staff verbally recognizes youth efforts and accomplishments

Descriptive Statistics:

Alpha	Mean	Standard Deviation	Minimum	25th Percentile	75th Percentile	Maximum
0.88	3.60	1.41	1.00	2.42	4.57	6.71



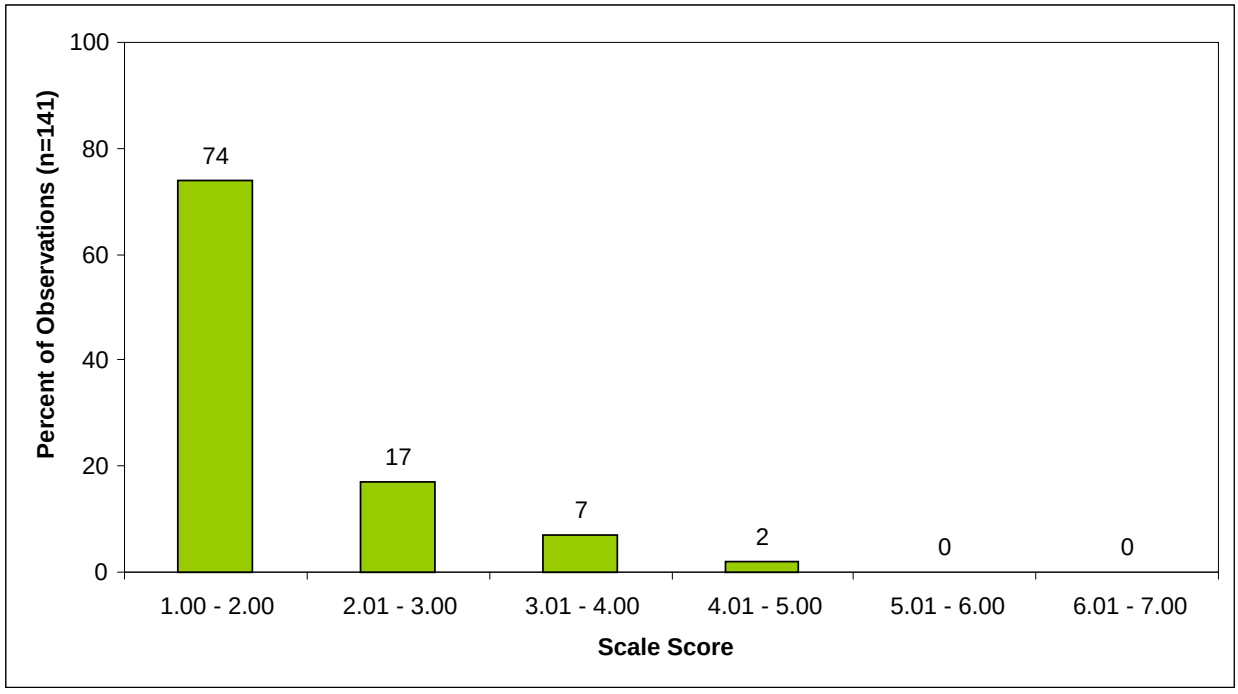
Active Learning: The activity offers youth opportunities to actively participate in learning.

The Active Learning scale combines ratings from the following indicators:

- Staff plan for and ask youth to work together
- Youth are collaborative
- Youth take leadership responsibilities and roles.
- Youth have opportunities to make meaningful choices
- Youth assist one another
- Youth contribute opinions, ideas and concerns to discussions
- Staff encourages youth to share their ideas, opinions and concerns
- Staff asks youth to expand upon their answers and ideas

Descriptive Statistics:

Alpha	Mean	Standard Deviation	Minimum	25th Percentile	75th Percentile	Maximum
0.67	1.75	0.80	1.00	1.12	2.12	5.00



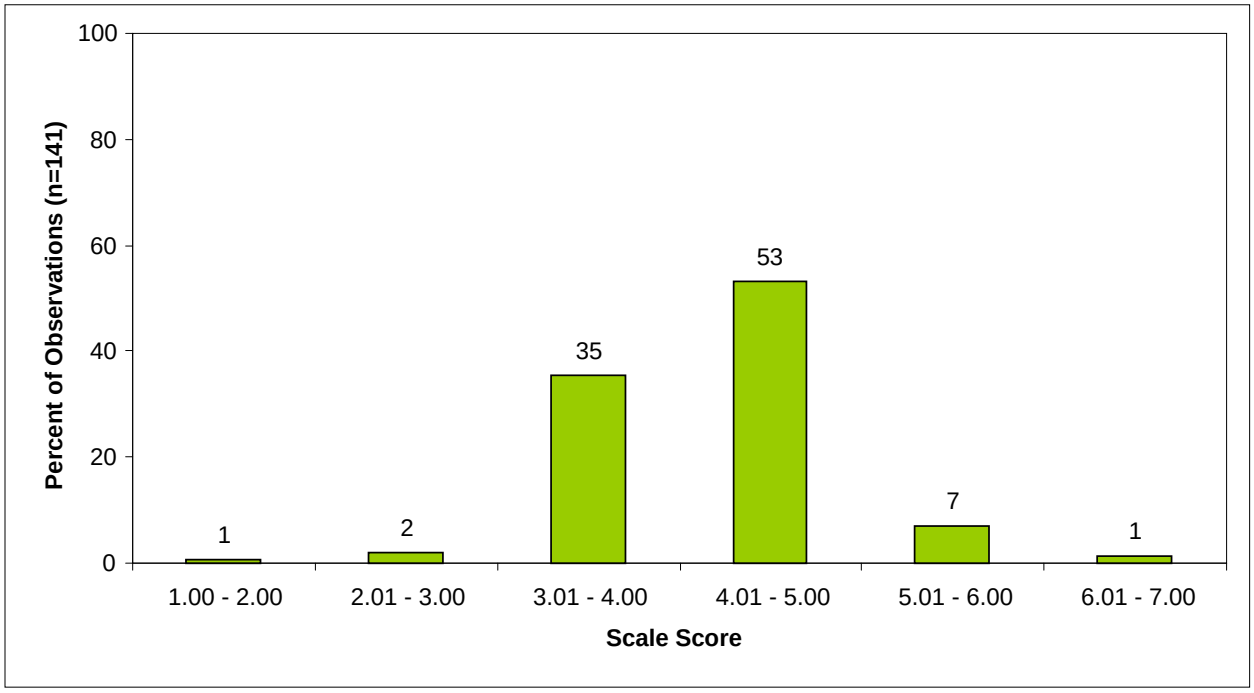
Relationship-Focused: The activity focuses on developing positive relationships among youth and with staff.

The Relationship-Focused scale combines ratings from the following indicators:

- Youth show positive affect to staff
- Youth are friendly and relaxed with one another
- Youth respect one another
- Staff shows positive affect toward youth
- Staff guides for positive peer interactions
- Staff uses positive behavior management techniques
- Staff is equitable and inclusive

Descriptive Statistics:

Alpha	Mean	Standard Deviation	Minimum	25th Percentile	75th Percentile	Maximum
0.77	4.21	0.64	2.00	3.81	4.50	6.38



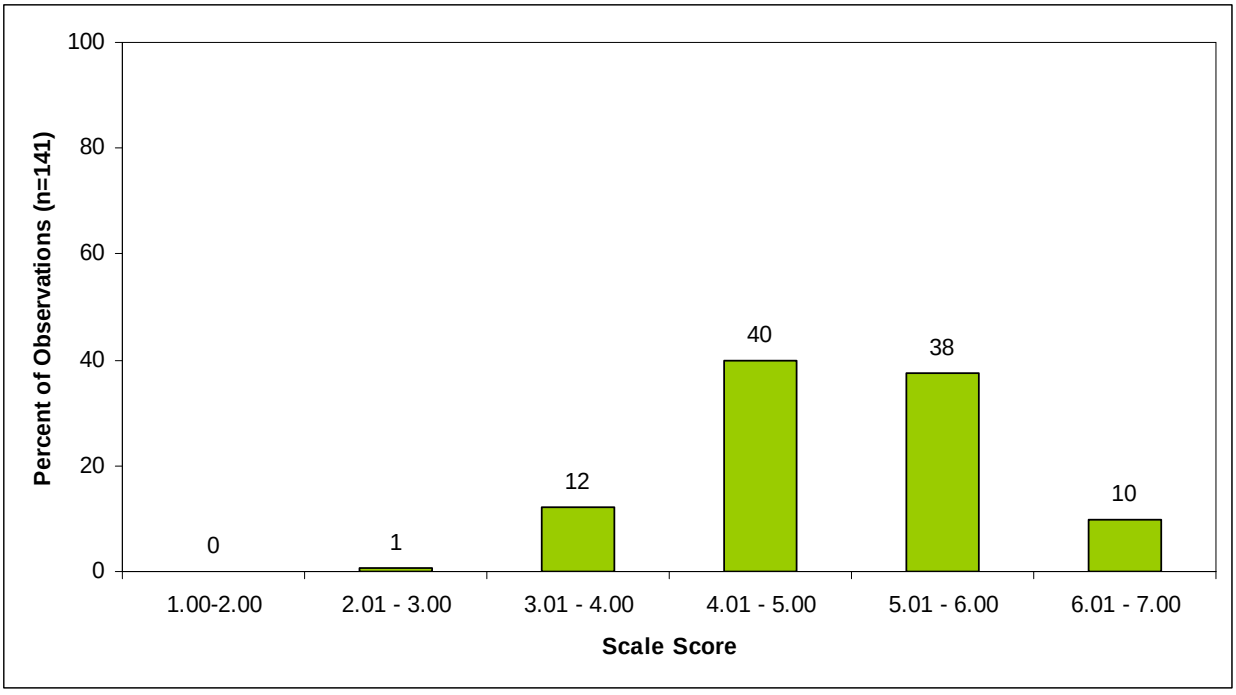
Task-Oriented: The activity is organized with clear goals, and youth and staff are engaged and attentive.

The Task-Oriented scale combines ratings from the following indicators:

- Activity is well organized
- Youth are on task
- Staff communicates goals, purposes, and expectations
- Youth listen actively and attentively to peers and staff
- Staff attentively listens to and observes youth

Descriptive Statistics:

Alpha	Mean	Standard Deviation	Minimum	25th Percentile	75th Percentile	Maximum
0.81	5.07	0.82	2.40	4.60	5.60	6.80



Appendix E

Comparison Groups for DOE Data Analyses

To analyze the impact of OST participation on academic achievement and school engagement, the Year 3 evaluation employed a quasi-experimental design to compare participants with similar students who did not participate in an OST program. In creating a group of nonparticipants who were similar to participants along observable characteristics, the study attempted to separate the impact of OST participation on student outcomes from confounding factors such as gender, race, and family income.

For each OST program, the evaluation identified a primary feeder school. Characteristics of the primary feeder school (e.g., proportion of ELL students and ELA/math results) were used to identify similar schools without OST or other city youth programs from which to select nonparticipants. The evaluation then matched a sample of students from the comparison schools with OST participants, based on the following demographic traits: grade in school, gender, race, free or reduced-price lunch eligibility, and ELL status. For two high school programs that attracted participants from across the city, similar nonparticipants were selected from schools in the same district without OST programs. Exhibit E-1 indicates that the matching process produced a nonparticipant group similar to the OST participants on most observable characteristics.

Exhibit E-1
Characteristics of OST Participants and Matched Nonparticipants, in Percents

Student Characteristics	Participants (n=3,093)	Nonparticipants (n=3,093)	Difference	P-value
Gender (female)	53.0	52.1	0.9	0.47
English Language Learner	17.7	20.2	2.5	0.01
Free or Reduced-Price Lunch	83.4	86.6	3.2	0.00
Special Education / Related Services	16.6	17.0	6.4	0.74
Race				
African-American	32.9	30.5	22.4	0.05
Asian	16.6	17.9	1.3	0.20
Latino	43.0	44.6	1.6	0.21
White	6.9	6.8	0.1	0.75
Grade				
K to 4	41.7	39.4	2.3	0.08
5 to 8	36.1	34.5	1.6	0.21
9 to 12	18.0	17.2	0.8	0.44
Other	4.1	8.8	4.7	0.00

Exhibit reads: Fifty-three percent of OST participants in the sample were female, compared to 52 percent of nonparticipants. The difference was not statistically significant at the 0.05 level.

Appendix F

Technical Properties of Correlations Between Program Quality and Youth Outcomes

Information about the specific source and technical properties of each variable measuring program quality and youth outcomes is presented in Appendix G. In general, youth outcome variables are derived from participant survey data and from educational data from the New York City Department of Education (DOE). Program quality variables are generated from program director surveys, DYCD Online activity data, and aggregate participant survey data.

Exhibit F-1
Correlations between Range of Program Content and Youth Outcomes After 1 Year of OST Participation

Youth Outcomes	Spearman R Correlation	p	*n*
Program Participation	0.00	0.94	*2761*
Sense of Belonging	-0.21	0.00	*1291*
Prosocial Behavior[1]	0.01	0.78	*750*
School Attendance	-0.09	0.00	*2857*
Academic Motivation	-0.14	0.01	*1295*
Academic Benefits	-0.20	0.00	*1273*
ELA Gains[2]	-0.04	0.21	*799*
Math Gains[2]	0.00	0.92	*901*
Total Credits Earned[3]	0.25	0.00	*438*

[1] Middle and high school participants only
[2] Elementary and middle school participants only
[3] High school participants only

Exhibit F-2
Correlations between Exposure to New Experiences and Youth Outcomes After 1 Year of OST Participation

Youth Outcomes	Spearman R Correlation	p	*n*
Program Participation	-0.31	0.00	*2865*
Sense of Belonging	0.24	0.00	*1354*
Prosocial Behavior[1]	0.00	0.89	*812*
School Attendance	0.00	0.74	*2958*
Academic Motivation	0.08	0.01	*1357*
Academic Benefits	0.17	0.00	*1336*
ELA Gains[2]	0.03	0.35	*808*
Math Gains[2]	0.04	0.27	*910*
Total Credits Earned[3]	-0.03	0.46	*529*

[1] Middle and high school participants only
[2] Elementary and middle school participants only
[3] High school participants only

Exhibit F-3
Correlations between Youth Interactions with Peers and Youth Outcomes After 1 Year of OST Participation

Youth Outcomes	Spearman R Correlation	p	*n*
Program Participation	-0.29	0.00	*2865*
Sense of Belonging	0.26	0.00	*1354*
Prosocial Behavior[1]	0.06	0.10	*812*
School Attendance	-0.08	0.00	*2958*
Academic Motivation	0.09	0.00	*1357*
Academic Benefits	0.18	0.00	*1336*
ELA Gains[2]	0.03	0.34	*808*
Math Gains[2]	0.00	0.97	*901*
Total Credits Earned[3]	-0.26	0.00	*529*

[1] Middle and high school participants only
[2] Elementary and middle school participants only
[3] High school participants only

Exhibit F-4
Correlations between Youth Interactions with Staff and Youth Outcomes After 1 Year of OST Participation

Youth Outcomes	Spearman R Correlation	p	*n*
Program Participation	-0.29	0.00	*2865*
Sense of Belonging	0.29	0.00	*1354*
Prosocial Behavior[1]	0.07	0.06	*812*
School Attendance	-0.16	0.00	*2958*
Academic Motivation	0.07	0.00	*1357*
Academic Benefits	0.19	0.00	*1336*
ELA Gains[2]	0.00	0.99	*808*
Math Gains[2]	-0.04	0.29	*910*
Total Credits Earned[3]	-0.03	0.46	*529*

[1] Middle and high school participants only
[2] Elementary and middle school participants only
[3] High school participants only

Exhibit F-5
Correlations between Mix of Staff and Youth Outcomes After 1 Year of OST Participation

Youth Outcomes	Spearman R Correlation	p	*n*
Program Participation	0.01	0.57	*2741*
Sense of Belonging	0.11	0.00	*1291*
Prosocial Behavior[1]	0.10	0.01	*812*
School Attendance	-0.13	0.00	*2839*
Academic Motivation	0.07	0.01	*1296*
Academic Benefits	0.19	0.00	*1275*
ELA Gains[2]	0.05	0.20	*793*
Math Gains[2]	0.11	0.00	*893*
Total Credits Earned[3]	0.27	0.00	*529*

[1] Middle and high school participants only
[2] Elementary and middle school participants only
[3] High school participants only

Exhibit F-6
Correlations between Staff Participation in Professional Development and Youth Outcomes After 1 Year of OST Participation

Youth Outcomes	Spearman R Correlation	p	*n*
Program Participation	-0.26	0.00	*2520*
Sense of Belonging	-0.10	0.00	*1252*
Prosocial Behavior[1]	0.00	0.98	*812*
School Attendance	0.00	0.88	*2619*
Academic Motivation	-0.13	0.01	*1259*
Academic Benefits	-0.08	0.00	*1238*
ELA Gains[2]	0.01	0.86	*749*
Math Gains[2]	-0.01	0.75	*848*
Total Credits Earned[3]	0.27	0.00	*529*

[1] Middle and high school participants only
[2] Elementary and Middle school participants only
[3] High school participants only

Exhibit F-7
Correlations between Communication with Schools and Youth Outcomes After 1 Year of OST Participation

Youth Outcomes	Spearman R Correlation	p	*n*
Program Participation	0.26	0.00	*2741*
Sense of Belonging	-0.10	0.00	*1291*
Prosocial Behavior[1]	-0.08	0.02	*812*
School Attendance	-0.08	0.00	*2839*
Academic Motivation	-0.07	0.02	*1296*
Academic Benefits	0.07	0.01	*1275*
ELA Gains[2]	-0.02	0.66	*793*
Math Gains[2]	0.00	0.99	*893*
Total Credits Earned[3]	-0.27	0.00	*529*

[1] Middle and high school participants only
[2] Elementary and middle school participants only
[3] High school participants only

Exhibit F-8
Correlations between Master Teacher and Youth Outcomes After 1 Year of OST Participation

Youth Outcomes	Point-Biserial Correlation	p	*n*
Program Participation	-0.17	0.00	*2520*
Sense of Belonging	0.22	0.00	*1252*
Prosocial Behavior[1]	0.09	0.02	*812*
School Attendance	-0.18	0.00	*2619*
Academic Motivation	0.08	0.01	*1259*
Academic Benefits	0.19	0.00	*1238*
ELA Gains[2]	0.03	0.46	*749*
Math Gains[2]	0.10	0.00	*848*
Total Credits Earned[3]	0.13	0.00	*529*

[1] Middle and high school participants only
[2] Elementary and middle school participants only
[3] High school participants only

Exhibit F-9
Correlations between Communication with Parents and Youth Outcomes After 1 Year of OST Participation

Youth Outcomes	Spearman R Correlation	p	*n*
Program Participation	0.26	0.00	*2741*
Sense of Belonging	-0.14	0.00	*1291*
Prosocial Behavior[1]	-0.01	0.73	*812*
School Attendance	-0.11	0.00	*2839*
Academic Motivation	-0.10	0.00	*1296*
Academic Benefits	0.09	0.00	*1275*
ELA Gains[2]	0.01	0.89	*793*
Math Gains[2]	0.08	0.02	*893*
Total Credits Earned[3]	0.13	0.00	*529*

[1] Middle and high school participants only
[2] Elementary and middle school participants only
[3] High school participants only

Exhibit F-10
Correlations between Parent Liaison and Youth Outcomes After 1 Year of OST Participation

Youth Outcomes	Point-Biserial Correlation	p	*n*
Program Participation	0.24	0.00	*2741*
Sense of Belonging	-0.07	0.02	*1291*
Prosocial Behavior[1]	0.03	0.40	*812*
School Attendance	-0.11	0.00	*2839*
Academic Motivation	0.00	0.95	*1296*
Academic Benefits	0.19	0.00	*1275*
ELA Gains[2]	0.04	0.31	*793*
Math Gains[2]	0.01	0.67	*893*
Total Credits Earned[3]	-	-	*529*

[1] Middle and high school participants only
[2] Elementary and middle school participants only
[3] High school participants only

Exhibit F-11
Correlations between Program Participation and Youth Outcomes After 1 Year of OST Participation

Youth Outcomes	Spearman R Correlation	p	*n*
Program Participation	-	-	-
Sense of Belonging	-0.05	0.07	*1237*
Prosocial Behavior[1]	0.04	0.29	*738*
School Attendance	0.17	0.00	*2829*
Academic Motivation	0.12	0.00	*1239*
Academic Benefits	0.04	0.17	*1220*
ELA Gains[2]	0.00	0.95	*773*
Math Gains[2]	0.05	0.16	*869*
Total Credits Earned[3]	0.12	0.00	*529*

[1] Middle and high school participants only
[2] Elementary and middle school participants only
[3] High school participants only

Exhibit F-12
Correlations between Range of Program Content and Youth Outcomes After 2 Years of OST Participation

Youth Outcomes	Spearman R Correlation	p	*n*
Program Participation	0.16	0.00	*903*
Sense of Belonging	-0.24	0.00	*433*
School Attendance	0.05	0.11	*892*
Prosocial Behavior[1]	0.01	0.92	*183*
Academic Motivation	-0.20	0.01	*428*
Academic Benefits	-0.23	0.00	*420*
ELA Gains[2]	-0.06	0.46	*181*
Math Gains[2]	0.00	0.99	*208*
Total Credits[3]	0.24	0.02	*103*

[1] Middle and high school participants only
[2] Elementary and middle school participants only
[3] High school participants only

Exhibit F-13
Correlations between Exposure to New Experiences and Youth Outcomes After 2 Years of OST Participation

Youth Outcomes	Spearman R Correlation	p	*n*
Program Participation	-0.43	0.00	*929*
Sense of Belonging	0.24	0.00	*433*
Prosocial Behavior[1]	-0.02	0.84	*183*
School Attendance	0.11	0.00	*918*
Academic Motivation	0.15	0.00	*428*
Academic Benefits	0.23	0.00	*420*
ELA Gains[2]	-0.13	0.08	*184*
Math Gains[2]	-0.07	0.28	*211*
Total Credits[3]	0.08	0.41	*125*

[1] Middle and high school participants only
[2] Elementary and middle school participants only
[3] High school participants only

Exhibit F-14
Correlations between Youth Interactions with Peers and Youth Outcomes After 2 Years of OST Participation

Youth Outcomes	Spearman R Correlation	p	*n*
Program Participation	-0.48	0.00	*929*
Sense of Belonging	0.31	0.00	*433*
Prosocial Behavior[1]	-0.01	0.87	*183*
School Attendance	-0.02	0.50	*918*
Academic Motivation	0.18	0.00	*428*
Academic Benefits	0.24	0.00	*420*
ELA Gains[2]	-0.35	0.00	*184*
Math Gains[2]	-0.13	0.07	*211*
Total Credits[3]	-0.11	0.24	*125*

[1] Middle and high school participants only
[2] Elementary and middle school participants only
[3] High school participants only

Exhibit F-15
Correlations between Youth Interactions with Staff and Youth Outcomes After 2 Years of OST Participation

Youth Outcomes	Spearman R Correlation	p	*n*
Program Participation	-0.43	0.00	*929*
Sense of Belonging	0.35	0.00	*433*
Prosocial Behavior[1]	-0.01	0.90	*183*
School Attendance	-0.12	0.00	*918*
Academic Motivation	0.17	0.00	*428*
Academic Benefits	0.26	0.00	*420*
ELA Gains[2]	-0.22	0.00	*184*
Math Gains[2]	-0.04	0.58	*211*
Total Credits[3]	-0.08	0.41	*125*

[1] Middle and high school participants only
[2] Elementary and middle school participants only
[3] High school participants only

Exhibit F-16
Correlations between Mix of Staff and Youth Outcomes After 2 Years of OST Participation

Youth Outcomes	Spearman R Correlation	p	*n*
Program Participation	-0.15	0.00	*879*
Sense of Belonging	0.14	0.04	*415*
Prosocial Behavior[1]	0.07	0.33	*183*
School Attendance	-0.16	0.00	*870*
Academic Motivation	0.11	0.03	*413*
Academic Benefits	0.09	0.08	*404*
ELA Gains[2]	-0.28	0.00	*184*
Math Gains[2]	0.03	0.66	*210*
Total Credits3[3]	0.11	0.23	*125*

[1] Middle and high school participants only
[2] Elementary and middle school participants only
[3] High school participants only

Exhibit F-17
Correlations between Staff Participation in Professional Development and Youth Outcomes After 2 Years of OST Participation

Youth Outcomes	Spearman R Correlation	p	*n*
Program Participation	-0.18	0.00	*802*
Sense of Belonging	-0.18	0.00	*395*
Prosocial Behavior[1]	0.05	0.50	*183*
School Attendance	-0.12	0.00	*793*
Academic Motivation	0.12	0.02	*394*
Academic Benefits	-0.22	0.00	*386*
ELA Gains[2]	0.11	0.16	*168*
Math Gains[2]	0.02	0.76	*194*
Total Credits[3]	0.11	0.23	*125*

[1] Middle and high school participants only
[2] Elementary and middle school participants only
[3] High school participants only

Exhibit F-18
Correlations between Communication with Schools and Youth Outcomes After 2 Years of OST Participation

Youth Outcomes	Spearman R Correlation	p	*n*
Program Participation	0.33	0.00	*879*
Sense of Belonging	-0.08	0.11	*415*
Prosocial Behavior[1]	0.02	0.77	*183*
School Attendance	-0.17	0.00	*870*
Academic Motivation	-0.06	0.25	*413*
Academic Benefits	-0.01	0.84	*404*
ELA Gains[2]	-0.14	0.06	*184*
Math Gains[2]	-0.06	0.35	*210*
Total Credits[3]	-0.11	0.24	*125*

[1] Middle and high school participants only
[2] Elementary and middle school participants only
[3] High school participants only

Exhibit F-19
Correlations between Master Teacher and Youth Outcomes After 2 Years of OST Participation

Youth Outcomes	Point-Biserial Correlation	p	*n*
Program Participation	-0.29	0.00	*802*
Sense of Belonging	0.22	0.00	*395*
Prosocial Behavior$_1$	0.01	0.94	*183*
School Attendance	-0.11	0.00	*793*
Academic Motivation	-0.00	0.98	*394*
Academic Benefits	0.17	0.00	*386*
ELA Gains$_2$	-0.25	0.00	*168*
Math Gains$_2$	-0.08	0.30	*194*
Total Credits$_3$	0.00	0.99	*125*

$_1$ Middle and high school participants only
$_2$ Elementary and middle school participants only
$_3$ High school participants only

Exhibit F-20
Correlations between Communication with Parents and Youth Outcomes After 2 Years of OST Participation

Youth Outcomes	Spearman R Correlation	p	*n*
Program Participation	0.37	0.00	*879*
Sense of Belonging	-0.21	0.00	*415*
Prosocial Behavior$_1$	-0.05	0.47	*183*
School Attendance	-0.17	0.00	*870*
Academic Motivation	-0.16	0.00	*413*
Academic Benefits	-0.13	0.01	*404*
ELA Gains$_2$	-0.29	0.00	*184*
Math Gains$_2$	-0.06	0.43	*210*
Total Credits$_3$	0.00	0.99	*125*

$_1$ Middle and high school participants only
$_2$ Elementary and middle school participants only
$_3$ High school participants only

Exhibit F-21
Correlations between Parent Liaison and Youth Outcomes After 2 Years of OST Participation

Youth Outcomes	Point-Biserial Correlation	p	*n*
Program Participation	0.25	0.00	*879*
Sense of Belonging	-0.16	0.00	*415*
Prosocial Behavior[1]	0.03	0.72	*183*
School Attendance	-0.07	0.04	*870*
Academic Motivation	-0.22	0.00	*413*
Academic Benefits	-0.06	0.25	*404*
ELA Gains[2]	-0.31	0.00	*184*
Math Gains[2]	0.01	0.90	*210*
Total Credits[3]	-	-	*125*

[1] Middle and high school participants only
[2] Elementary and middle school participants only
[3] High school participants only

Exhibit F-22
Correlations between Program Participation and Youth Outcomes After 2 Years of OST Participation

Youth Outcomes	Spearman R Correlation	p	*n*
Program Participation	-	-	-
Sense of Belonging	-0.12	0.02	*433*
Prosocial Behavior[1]	0.03	0.74	*183*
School Attendance	0.13	0.00	*916*
Academic Motivation	-0.03	0.50	*428*
Academic Benefits	-0.04	0.39	*420*
ELA Gains[2]	0.20	0.01	*182*
Math Gains[2]	0.07	0.32	*209*
Total Credits[3]	0.04	0.70	*125*

[1] Middle and high school participants only
[2] Elementary and middle school participants only
[3] High school participants only

Exhibit F-23
Correlations between Range of Program Content and Youth Outcomes After 3 Years of OST Participation

Youth Outcomes	Spearman R Correlation	p	*n*
Program Participation	0.32	0.00	*215*
Sense of Belonging	-0.10	0.27	*116*
School Attendance	-0.07	0.33	*212*
Academic Motivation	-0.05	0.60	*119*
Academic Benefits	-0.11	0.24	*114*
ELA Gains$_2$	0.07	0.75	*24*
Math Gains$_2$	-0.15	0.45	*28*
$_2$ Elementary and middle school participants only			

Exhibit F-24
Correlations between Exposure to New Experiences and Youth Outcomes After 3 Years of OST Participation

Youth Outcomes	Spearman R Correlation	p	*n*
Program Participation	-0.18	0.01	*217*
Sense of Belonging	0.26	0.01	*116*
School Attendance	0.22	0.00	*214*
Academic Motivation	0.02	0.88	*119*
Academic Benefits	0.12	0.21	*114*
ELA Gains$_2$	0.26	0.22	*24*
Math Gains$_2$	-0.23	0.24	*28*
$_2$ Elementary and middle school participants only			

Exhibit F-25
Correlations between Youth Interactions with Peers and Youth Outcomes After 3 Years of OST Participation

Youth Outcomes	Spearman R Correlation	p	*n*
Program Participation	-0.45	0.00	*217*
Sense of Belonging	0.22	0.02	*116*
School Attendance	0.01	0.93	*214*
Academic Motivation	0.03	0.71	*119*
Academic Benefits	0.07	0.49	*114*
ELA Gains$_2$	-0.09	0.69	*24*
Math Gains$_2$	-0.19	0.34	*28*
$_2$ Elementary and middle school participants only			

Exhibit F-26
Correlations between Youth Interactions with Staff and Youth Outcomes After 3 Years of OST Participation

Youth Outcomes	Spearman R Correlation	p	*n*
Program Participation	-0.21	0.00	*217*
Sense of Belonging	0.29	0.00	*116*
School Attendance	-0.09	0.21	*214*
Academic Motivation	-0.07	0.46	*119*
Academic Benefits	0.15	0.12	*114*
ELA Gains$_2$	0.18	0.41	*24*
Math Gains$_2$	-0.19	0.34	*28*
$_2$ Elementary and middle school participants only			

Exhibit F-27
Correlations between Mix of Staff and Youth Outcomes After 3 Years of OST Participation

Youth Outcomes	Spearman R Correlation	p	*n*
Program Participation	0.16	0.03	*198*
Sense of Belonging	0.01	0.95	*31*
School Attendance	-0.19	0.01	*197*
Academic Motivation	-0.06	0.54	*111*
Academic Benefits	0.11	0.27	*106*
ELA Gains$_2$	0.11	0.62	*24*
Math Gains$_2$	0.06	0.75	*28*
$_2$ Elementary and middle school participants only			

Exhibit F-28
Correlations between Staff Participation in Professional Development and Youth Outcomes After 3 Years of OST Participation

Youth Outcomes	Spearman R Correlation	p	*n*
Program Participation	-0.13	0.08	*185*
Sense of Belonging	-0.21	0.03	*105*
School Attendance	-0.29	0.00	*184*
Academic Motivation	-0.06	0.57	*108*
Academic Benefits	-0.10	0.34	*103*
ELA Gains$_2$	0.24	0.25	*24*
Math Gains$_2$	-0.28	0.14	*28*
$_2$ Elementary and middle school participants only			

Exhibit F-29
Correlations between Communication with Schools and Youth Outcomes After 3 Years of OST Participation

Youth Outcomes	Spearman R Correlation	p	*n*
Program Participation	0.32	0.00	*198*
Sense of Belonging	0.00	0.99	*108*
School Attendance	-0.24	0.00	*197*
Academic Motivation	0.01	0.95	*111*
Academic Benefits	0.07	0.47	*106*
ELA Gains$_2$	0.22	0.30	*24*
Math Gains$_2$	-0.34	0.08	*28*
$_2$ Elementary and middle school participants only			

Exhibit F-30
Correlations between Master Teacher and Youth Outcomes After 3 Years of OST Participation

Youth Outcomes	Point-Biserial Correlation	p	*n*
Program Participation	-0.14	0.06	*185*
Sense of Belonging	0.25	0.01	*105*
School Attendance	-0.09	0.22	*184*
Academic Motivation	-0.16	0.09	*108*
Academic Benefits	0.15	0.14	*103*
ELA Gains$_2$	-0.08	0.70	*24*
Math Gains$_2$	0.18	0.36	*28*
$_2$ Elementary and middle school participants only			

Exhibit F-31
Correlations between Communication with Parents and Youth Outcomes After 3 Years of OST Participation

Youth Outcomes	Spearman R Correlation	p	*n*
Program Participation	0.36	0.00	*198*
Sense of Belonging	-0.16	0.09	*108*
School Attendance	-0.27	0.00	*197*
Academic Motivation	-0.07	0.49	*111*
Academic Benefits	-0.02	0.85	*106*
ELA Gains$_2$	0.21	0.33	*24*
Math Gains$_2$	-0.22	0.27	*28*
$_2$ Elementary and middle school participants only			

Exhibit F-32
Correlations between Parent Liaison and Youth Outcomes After 3 Years of OST Participation

Youth Outcomes	Point-Biserial Correlation	p	*n*
Program Participation	0.54	0.00	*198*
Sense of Belonging	-0.09	0.35	*108*
School Attendance	-0.00	0.96	*197*
Academic Motivation	-0.12	0.19	*111*
Academic Benefits	-0.03	0.76	*106*
ELA Gains$_2$	0.10	0.64	*24*
Math Gains$_2$	-0.21	0.29	*28*
$_2$ Elementary and middle school participants only			

Exhibit F-33
Correlations between Program Participation and Youth Outcomes After 3 Years of OST Participation

Youth Outcomes	Spearman R Correlation	p	*n*
Program Participation	-	-	-
Sense of Belonging	-0.10	0.28	*116*
School Attendance	0.14	0.04	*214*
Academic Motivation	0.09	0.31	*119*
Academic Benefits	0.02	0.81	*114*
ELA Gains$_2$	0.27	0.20	*24*
Math Gains$_2$	0.09	0.66	*28*
$_2$ Elementary and middle school participants only			

Appendix G

Technical Properties of Measures of Program Quality

Variable Name	Description
From Participant Survey	
Exposure to New Experiences	A continuous scale variable, computed by averaging responses to the following items: In this program… I get a chance to do a lot of new things I get to do things that I don't usually get to do anywhere else I get to work on projects that really make me think There is a lot for me to choose to do The activities really get me interested Response categories were: agree a lot (4), agree a little (3), disagree a little (2), and disagree a lot (1). Scale scores were averaged to compute an aggregated scale score for each program. *M=3.21, SD=0.29, Range=1-4, n=87*
Interactions with Staff	A continuous scale variable, computed by averaging responses to the following items: In this program… Staff treat me with respect I feel that I can talk to staff about things that are bothering me Staff really care about me Staff always keep their promises Staff care what I think Staff always try to be fair Staff think I can do things well Staff help me to try new things Staff think I can learn new things Response categories were: agree a lot (4), agree a little (3), disagree a little (2), and disagree a lot (1). Scale scores were averaged to compute an aggregated scale score for each program. *M=3.38, SD=0.33, Range=1-4, n=87*
Interactions with Peers	A continuous scale variable, computed by averaging responses to the following items: In this program I… Get to know other kids really well Can really trust the other kids Have a lot of friends Like the other kids Have a good time playing with other kids Get along with other kids Response categories were: agree a lot (4), agree a little (3), disagree a little (2), and disagree a lot (1). Scale scores were averaged to compute an aggregated scale score for each program. *M=3.32, SD=0.21, Range=1-4, n=87*

From Program Director Survey	
School Communication	A continuous scale variable, computed by averaging directors' responses to the following items: How often do you discuss the following topics with the principal(s), teachers, or other key staff from the school(s) that your participants attend? Planning OST program content Curriculum concepts currently being taught in school Homework assignments The needs or progress of individual students Issues related to classrooms/sharing space Student discipline policies OST program staffing OST recruiting/ enrollment policies (e.g., targeting students) State and local standards in reading, math, and/or science Response categories were: "at least 2 to 3 times a month" (5), "once a month" (4), "1 to 2 times a semester" (3), "1 to 2 times a year" (2), "never" (1). *M=3.05, SD=1.12, Range=1 – 5, n=87*
Partnership with Families	A dichotomous variable indicating whether or not a program has a parent liaison. *M=0.45, SD=0.50, Range=0 – 1, n=87*
Communication with Parents	A continuous scale variable, computed by averaging directors' responses to the following items: How often do you. . . Send materials about the program home to parents Hold events or meetings to which parents are invited Hold events or meetings to which community members are invited Have conversations with parents over the phone Meet with one or more parents Response categories were: "at least 4 to 5 days a week" (4), "about 1 to 3 days a week" (3), "a few times a month" (2), "less than once a month" (1). *M=1.91, SD=0.49, Range=1 – 4, n=87*
Professional Development Opportunities for Staff	An index computed by totaling the number of technical assistance tools or professional development opportunities that a program's staff used or participated in. In the current year (2007-08), what technical assistance tools or professional development opportunities have YOUR STAFF used or participated in? NYSAN Quality Self-Assessment tool Internal staff orientation Staff meetings at the program Staff meetings at the provider organization Coaching/mentoring opportunities Off-site workshops Institutes or conferences On-site consultations by PASE or other TA providers Other trainings not directly related to OST *M=3.85, SD=1.79, Range=1 – 9, n=87*
Master Teacher	A dichotomous variable indicating whether or not a program has a master teacher. *M=0.51, SD=0.50, Range=0 – 1, n=87*
Mix of Staff	An index computed by counting the number of types of staff a program employs. Types of staff include: School administrators Certified teachers College students Teen staff Specialists Other adults with a college degree Other adults without a college degree *M=4.52, SD=1.61, Range=1 – 7, n=87*

From DYCD Online	
Program Content Diversity	An index computed by counting the number of activity categories in which a program offered 10 or more hours of programming. The six collapsed categories include: *Academic enhancement*: academic enhancement, homework help, computer instruction, literacy, and numeracy *Arts and culture:* arts and culture *Recreation*: recreation, unstructured physical recreation, and structured physical recreation *Career and work*: career awareness and school to work *Community building*: community building *Life skills*: life skills and financial literacy *M=4.10, SD=1.12, Range=1 – 6, n=87*