Retrospective Analysis of COMPASS Participation, 2005-2014

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September 2015

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Prepared for: New York City Department of Youth and Community Development

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The New York City Department of Youth and Community Development (DYCD) launched the Out-of-School Time (OST) Programs for Youth initiative in September 2005, consolidating existing city-funded school-age afterschool programs and strengthening youth development programming. Together, DYCD and the city's nonprofit community, working closely with the New York City Department of Education (NYCDOE), offered afterschool services that combined academic supports and other enrichment activities free of charge to youth across the city, building on the historic commitment of DYCD and of the city's community-based organizations to providing high-quality services to New York City's youth and their families. The initiative grew from serving 32,825 elementary and middle grades participants in 2005-06 to almost 65,000 participants in 2013-14—over 405,000 youth attended more than 600 DYCD-funded elementary and middle grades programs during that time.

To highlight its contribution to the expansion and innovation of afterschool systembuilding efforts nationwide, the initiative was rebranded in 2014 as the Comprehensive After School System of New York City (COMPASS NYC). COMPASS has evolved over its first ten years while maintaining its focus on providing safe and enriching afterschool services to the youth of New York City. Through COMPASS, DYCD continues to fund and support nonprofit provider organizations in engaging youth in high-quality experiences.

As part of its ongoing commitment to evaluating and improving the initiative, DYCD asked Policy Studies Associates (PSA) to conduct a longitudinal analysis of participation and enrollment patterns, and of the associations between these patterns and the educational and demographic characteristics of youth, from 2005-06 through 2013-14, prior to the rebranding. The goal of this report is to summarize those patterns in light of the original goals of the OST/COMPASS initiative and the significant changes in the city landscape that unfolded during that time, including budget fluctuations and policy decisions that coincided with new Requests for Proposals (RFPs) that were released in 2008 and in 2011.

This report focuses on programs that were funded under Option 1 of the initiative, the main option designed to fund programs operated by community-based organizations in schooland community center- based locations across the city. Throughout this report, we refer to the COMPASS program by its new name, acknowledging the system-building goals and lessons that had always been at the core of DYCD's OST initiative.

History of COMPASS

From the start of the initiative, DYCD stipulated several policy and funding conditions for COMPASS programs, as displayed in the comprehensive timeline of key policy and budget decisions on page 4.

- **Target population**. While the intent of the initiative was to serve youth from across the city, certain zip codes were designated as target zip codes¹, to ensure that services were brought to underserved areas.
- Program goals and requirements. COMPASS was designed from the start to address a comprehensive set of goals and to support youth both developmentally and academically (Exhibit 1). Over the years, DYCD refined its requirements and support for COMPASS providers and programs. DYCD focused these efforts to improve program quality, guided, in part, by findings from evaluation of the initiative conducted by PSA. For example, DYCD's 2011 RFP increased per-slot funding, requiring programs to hire an education specialist to help design programming and to implement a continuous quality improvement process. DYCD also launched a new Program Quality Monitoring Tool to focus DYCD staffs' program oversight and improve professional development and trainings offered to program staff.

2004 RFP: COMPASS Goals	2011 RFP: Revised COMPASS Goals
 Provide a healthy, safe environment Foster high expectations for participants Foster consistent and positive relationships with adults and peers and a sense of community Support the needs of working families Support healthy behavior and physical well- being Strengthen young people's academic skills Support the exploration of interests and the development of skills and creativity Support youth leadership development Promote community engagement and respect for diversity 	 Foster social and emotional competencies and physical well-being Provide opportunities for youth to explore their interests and creativity Build skills that support academic achievement Cultivate youth leadership and community engagement Engage parents and other caretakers to support the above goals

Exhibit 1 Comparison of COMPASS goals in 2004 and 2011 RFPs

■ Level of service. DYCD contracts required programs to operate for a minimum of 36 weeks during the school year—at minimum, elementary-grades programs operated 3 hours per day, five days per week, and middle-grades programs for 8 hours per week. Elementary- and middle-grades programs with summer contracts were required to operate for 8 weeks during the summer, for a minimum of 50 hours per week. As of 2008, DYCD required all programs to operate summer programming, a policy change guided by findings from PSA's evaluation.

¹ DYCD identified target zip codes by creating an index consisting of five indicators—youth population 6-15 years old; youth poverty rate; percent of 16 to 19 year old youth not high school graduates, not enrolled in school, and not in the labor force; number of ELL students; and number of single-parent families with related children under 18— and selecting the zip codes in each NYCDOE region with the highest measured need for services.

■ **Funding.** COMPASS funds were distributed across the NYCDOE regions, with approximately 60 percent of funding allocated to elementary school programs, 30 percent to middle school programs, and 10 percent to high school programs in 2005. Year-round elementary-grades programs were initially funded at \$2,800 per participant, school-year only programs received \$2,100 per funded slot. For middle-grades, the funding levels were \$2,100 and \$1,300, respectively.

Funding for COMPASS programs has varied over time, primarily in response to changes in city finances and priorities. Through its first two fiscal years, funding for programming, and particularly elementary grade programs, expanded rapidly—growing from \$46.1 million in FY 2006 to \$105.3 in FY 2008. The mayor's preliminary budget for FY 2008 proposed increasing funding for COMPASS programs by \$44.3 million a year through 2011. Plans for expansion and increased COMPASS funding came to an abrupt halt in fall 2008, however, as the financial crisis led to a sharp decline in city revenues. Subsequent years, brought additional cuts, including a nine percent mid-year funding to prevent the most significant programming cuts in FY 2012, 2013, and 2014, though this funding was not initially guaranteed. During these years, DYCD also tapped temporary funding streams, such as federal stimulus grants (American Recovery and Reinvestment Act of 2009), to bolster COMPASS funding.

City Council discretionary funds prevented dire programming cuts, but set up a two-tiered funding system. As described in the program goals and requirements section, above, DYCD released a new RFP in 2011 for programs to start in FY 2013. The RFP increased requirements for programs (e.g., hiring an educational specialist to oversee program and curriculum design) and also increased per-slot funding. With no planned budget increase, however, the increase in per slot funding necessitated cutting approximately 30,000 elementary school slots. City Council funds (approximately \$50 million for two years) prevented these cuts, but funded slots at a lower level—approximately \$800 less per participant. Programs funded by the City Council were encouraged to adopt service enhancements required for RFP-funded programs, such as educational specialists, but were not required to do so.

2005 Bloomberg administration consolidates school-age after school programming under the new COMPASS banner, combining existing programs in ACS (school-age childcare) and DYCD (Youth Development and Delinquency Prevention and After Three, administered by TASC). DYCD COMPASS programs open and enroll students at the start of the 2005-06 school year. Funding FY 2006: \$46.4M* for 47,000 slots.	FY 2006	\$ 46.4 M 47,000 slots			
2006 COMPASS offered summer programming for the first time. Bloomberg administration increased the number of funded COMPASS slots by over 15,000. Funding FY 2007: \$77.1M* for 64,481 slots.	FY 2007	\$ 77.1 64,48	I M 1 slots		
2007 Bloomberg administration proposed COMPASS expansion and increased summer programming. Under the proposal, COMPASS budget would increase by \$32.3M in FY 2008 and \$44.3M in subsequent years through FY 2011. Funding FY 2008: \$105.3M* for 78,486 slots.	FY 2008		\$105.3 M 78,486 slo	ts	
2008 Under an elementary school COMPASS expansion initiative, Bloomberg administration again increased COMPASS fundingadding 10,000 elementary slots in FY 2009 and proposing additional expansion in the 2010 and 2011 fiscal years. In November, the administration resciended these increases and announced steep cuts in COMPASS funding. Funding FY 2009: \$117.0M* for 64,481 slots.	FY 2009		\$117.0 64,481) M I slots	
2009 Administration made further cuts to DYCD's funding, beyond those initiated in the November 2008 Financial Plan. DYCD estimated that 30 percent of COMPASS slots would be eliminated. Summer programming was cut by one week for elementary school programs and two weeks for middle school programs. Funding FY 2010: \$107.5M* for 60,515 slots.	FY 2010		\$107.5 M 60,515 slo	ts	
2010 Bloomberg administration reduced COMPASS funding by \$2M in 2010 and \$7.5 in 2011, eliminating 33 school year programs and significantly reducing summer programming for middle school students. (External funding allowed 31 summer programs to continue operating). The Mayor's mid-year financial plan cut DYCD's budget by \$13M a year for the 2011 and 2012 fiscal years. Funding FY 2011: \$97.9M* for 56,822 slots.	FY 2011	•••	\$ 97.9 M 56,822 slots		
2011 In January, to accommodate mid-year budget cuts, DYCD cut 9 percent from CBOs' COMPASS budgets, modifying their contracts to allow programs to close on more holidays DYCD issued a new RFP for COMPASS programs, requiring CBOs and programs to make changes and add staff to improve program quality and increasing per slot funding to pay for those changes. Funding FY 2012: \$91.5M* for 52,567 slots.	5. FY 2012		\$ 91.5 M 52,567 slots		
2012 Budget cuts, the end of simulus funding, and a more costly program model would have necessitated a drastic reduction in program slots in fall 2012. To save 30,000 COMPASS slots, the City Council added \$50.6M in discretionary funding for the FY 2013 budget year. City Council supported slots were funded at \$1,900 per slot, matching the prior per slot funding, but \$800 lower than the 2011 RFP per slot funding. Funding FY 2013 (with City Council funds): \$120.4M* for 56,498 slots.	FY 2013	•••	\$120. 56,49	4 M 8 slots	
2013 City Council again approved \$51M in discretionary funding for COMPASS, though at the lower per slot funding rate. The Bloomberg administration "baselined" the \$51M, ensuring some longer-term funding stability for programs. However, the appropriation funded only school-year programming, leaving summer programming without a guarantee of consistent funding. Funding FY 2013 (with City Council funds): \$150.6M* for 60,477 slots.	FY 2014			\$150.6 N 60,477 s	1 lots
* Indicates final COMPASS funding, including funds from the city and external source federal, state, or foundations).	^{s (e.g.,} \$ C)M \$ 5	OM \$`	100M	\$150N

Data and Methods

The analyses presented in this report rely on enrollment and participation data collected by COMPASS programs from September 2005 through June 2014 and maintained in DYCD Online, the agency's management information system, as well as on educational and demographic data captured in NYCDOE's student-level databases, for youth in the elementaryand middle-grades. Because the DYCD model for high school programming changed early in 2008, those students are not included in this analysis. The PSA evaluation team coordinated with the developers of DYCD Online and with the NYCDOE research office to obtain a deidentified database linking the student-level DYCD Online and NYCDOE data records, matching students on name and date of birth.

The analyses presented focus primarily on the participants in COMPASS programs and the depth with which they engaged in COMPASS programming. The NYCDOE data are used to shed light on variation in these patterns of engagement. In particular, we examined the following questions:

- 1. How many youth participated in COMPASS elementary and middle grades programs since its inception?
- 2. What are the demographic and academic characteristics of participants enrolled in COMPASS programs between 2005-06 and 2013-14?
- 3. How do attendance rates vary across participants' characteristics (e.g., demographic, academic) or program characteristics?
- 4. How many COMPASS sessions² do participants typically attend? Are there changes in enrollment and retention patterns over time?
- 5. Across the COMPASS programs and providers, did participation patterns change over time? Are certain program or provider characteristics associated with youths' participation rates?

Because of the complexity of the analyses and large number of cases included in each year of analysis, the Ns for each exhibit are presented in the appendix of this report.

Limitations

The match rates for DYCD participants to their NYCDOE data were low in the early years of the program, as shown in Exhibit 1. Across all years, 56 percent of DYCD participants were matched to their NYCDOE records. We anticipate that match rates between participants' COMPASS data and their NYCDOE school records would have been higher had DYCD

² Session refers to individual programming periods—school year or summer. DYCD-funded programs typically offer two sessions, summer and school year, during a fiscal year. For a full list of the sessions included in our analysis, see Appendix B.

programs collected OSIS numbers—the unique student identifier used by the NYCDOE consistently upon youths' enrollment. For a number of reasons, matching on name and birthdate is more complex and somewhat less accurate than matching records on OSIS number—it requires program staff to have consistently spelled participants' first and last name and to have correctly recorded birthdates over a number of years. The low match rates suggest some measure of caution when examining data provided by NYCDOE (e.g., participant race/ethnicity, performance levels on the math and ELA state assessment).

School year	Match rate	
2005-06	22.2%	
2006-07	28.9	
2007-08	41.1	
2008-09	48.6	
2009-10	62.4	
2010-11	66.8	
2011-12	70.5	
2012-13	74.7	
2013-14	79.2	
All school years	56.0	

Exhibit 2 Match rate between DYCD Online and NYCDOE data

Exhibit reads: Approximately 22 percent of DYCD schoolaged participants' records could be matched to NYCDOE 2005-06 school year records.

Initial plans for this evaluation included a more rigorous examination of the relationships between the intensity of COMPASS participation (e.g., participants' attendance rates, number of years enrolled in COMPASS programs) and participants' school academic indicators such as school-day attendance. Unfortunately, given gaps and inconsistencies in the NYCDOE data received (e.g., participants had missing or inconsistent race or ethnicity or gender data over time, records were missing school attendance data for years in which participants appeared to be enrolled in a NYC public school) and low match rates, we were unable to find a large enough sample to track students over time or to construct appropriate comparisons for cross-sectional analyses³. For example, we analyzed the relationship between COMPASS participation in elementary school (attendances rate and number of sessions in which youth enrolled) and sixth grade and eighth grade school-day attendance. The number of youth for which we had both COMPASS participation in elementary school and NYCDOE data in sixth grade was low. Not surprisingly, given sample size relative to the population, we found a less than one percent difference in school day attendance rates among participants, regardless of the intensity of participants' COMPASS engagement.

Issues with match rates, and the resulting limitations on analyses, suggest that DYCD should emphasize that programs collect participants' OSIS, NYCDOE's student identification

³ We analyzed data both by pooling data for all years and by analyzing data within each individual year. Neither method yielded significant results.

number, over other data, such as participants' race or ethnicity. Asking COMPASS programs to collect fewer data points more reliably would ultimately result in data of better quality and—with OSIS numbers—improved match rates to the demographics and performance data that the NYCDOE reliably and consistently collects.

Enrollment: Are COMPASS programs attracting youth?

Analyses of enrollment⁴ indicate that COMPASS meets a clear demand for services in New York City. As illustrated in Exhibits 3 and 4, enrollment in COMPASS programs has grown substantially over time, with over 90,000 unique elementary and middle grades participants attending school year or summer programming during FY 2014 (summer 2013 and the 2013-14 school year). In spite of this growth, program enrollment met or exceeded the number of funded slots in nearly every session. Over time, elementary grades programs consistently overenrolled by more than 5,700 participants during school year sessions and more than 700 participants during summer sessions. Middle grades programs also had enrollments that exceeded funded slots during school year sessions (by an average of 3,000 participants) and met enrollment targets for summer sessions.



Exhibit 3 Enrollment by fiscal year, unique participants⁵

Exhibit reads: Over 32,000 youth enrolled in a COMPASS program during FY 2006.

⁴ To get a more accurate picture of enrollment, the evaluation team used the following definition: a participant was only counted as enrolled if he or she attended for at least five percent of the number of days that the program was in operation during a given program period.

⁵ Unique participants: Two sessions, summer and school year, are held each fiscal year. In this exhibit, a participant is counted once per fiscal year, regardless of whether they attended summer, school year, or both sessions.



Exhibit 4 Enrollment and funded slots, by session

The exception, for middle grades programs, is for the summer 2013 session. During that session, funding instability and program re-locations weeks before the start of the session delayed programs' enrollment efforts. By the time program locations and funding were settled, it is likely that potential middle grades participants had already found alternate summer activities.

School-based programs enroll a substantial proportion of participants, as illustrated in Exhibit 5, though the patterns of expansion and contraction are similar across locations within grade levels. For instance, as school-based elementary enrollment increased over the first three school year sessions, so too did enrollments at center-based elementary programs, albeit in lower real numbers reflective of the programs' smaller size. The average number of slots across grade levels and location also reflects the smaller enrollment at center-based locations. Elementary school-based programs had an average of 136 slots for school year sessions, compared to an average of 113 at center-based programs; middle school-based programs averaged 80 school year slots, whereas center-based programs averaged 68 school year slots.

Exhibit reads: Over 30,000 participants attended COMPASS programs during the 2005-06 school year; approximately 19,000 participants attended an elementary grades program and just over 14,000 participants enrolled in a middle grades program.



Exhibit 5 Enrollment by grade level and location

Exhibit reads: Approximately 15,000 elementary grades participants attended a school-based program during the SY 2005-06 session.

Youth Characteristics: Who enrolls in COMPASS?

Two of the central goals of the original COMPASS RFP were to meet the needs of working families living in the city's highest poverty and most at-risk ZIP codes, and to serve youth formerly receiving ACS afterschool care. COMPASS programs have been enormously successful in enrolling these populations. Further, with few exceptions, school-based and center-based programs enroll similar student populations. Analysis of enrollment by participants' gender, English Language Learner (ELL) status, qualification for free or reduced price lunch, and residence in a priority ZIP code yielded few differences across program grade level served or between school-based and center-based programs. Across all years, grade levels, and locations, COMPASS programs serve populations in which female and male students are equally represented, approximately 15 percent are classified as English Language-Learners, and an overwhelming majority of youth both qualify for free- and reduced- price lunch and live in priority ZIP codes (Exhibit 6).

Gender N=300,482*	Female 50.8%	Male 49.2%
ELL status	Eligible	Not Eligible
N=298,554*	14.5	85.5
Free- or reduced- price lunch status N=298,554*	Eligible 86.5	Not Eligible 13.5
Resides in a priority ZIP code	Yes	No
N=488,030 [†]	84.5	15.5

Exhibit 6 Characteristics of COMPASS elementary and middle grades participants, across all years and locations

* Indicates these data rely on match to NYCDOE data. See above for a discussion

of match rates between DYCD participant lists and NYCDOE data.

[†] Data presented are pooled over all sessions and Ns do not represent unique participants.

We observe some differences in participants' characteristics across grade levels and program locations in terms of race and ethnicity, disability status, ACS eligibility, and performance on New York State (NYS) ELA and math end-of-year assessments⁶. For example, center-based programs, at both elementary and middle grades, enroll a slightly smaller proportion of Asian and white youth and a slightly larger proportion of Black youth than school-based programs (Exhibit 7). Also, center-based middle grades programs enroll a relatively larger proportion of youth identified as having a disability, while center-based elementary programs enroll a larger proportion of ACS-eligible participants than programs at other locations and grade levels (Exhibits 8 and 9, respectively).





Exhibit reads: Approximately 15 percent of participants attending elementary school-based programs were identified as Asian.

⁶ We caveat these findings with a reminder of the low match rates with NYCDOE data, particularly in the early years of COMPASS programming, and of the disproportionately large enrollment of youth in school-based programs.

⁷ Where graphs show no Ns, tables with those data are included in the appendix.

Exhibit 8 Disability status, percent of COMPASS participants, by grade level and location, September 2006 to June 2014*



Exhibit reads: Students with disabilities comprised just over 20 percent of the participants in elementary school-based programs.





Exhibit reads: Fifteen percent of participants attending elementary school-based programs were eligible for ACS child-care services.

For ELA and math achievement, Exhibits 10 and 11 show evidence of distinctions in enrollment patterns across grade levels and program locations. Specifically, within grade levels but across locations, center-based programs tend to enroll a larger proportion of youth performing lower on state assessments (in Levels 1 and 2) than school-based programs, suggesting that center-based programs may attract and provide resources to youth who struggle in a traditional school environment. In addition, elementary grades program participants tend to perform higher (in Levels 3 and 4) on ELA and math assessments than participants in middle grades programs. This is not surprising—generally, elementary school students perform higher than middle school students on state assessments. Differences in math performance are the most pronounced, particularly in the middle grades.

Exhibit 10 Performance on NYS ELA assessment, percent of COMPASS participants, by grade level and location, September 2006 to June 2014*



Exhibit reads: Eighteen percent of participants in elementary school-based programs performed at Level 1 on the New York state ELA assessment.

Exhibit 11 Performance level on NYS math assessment, percent of COMPASS participants, by grade level and location, September 2006 to June 2014*



Exhibit reads: Fourteen percent of participants in elementary school-based programs performed at Level 1 on the New York state math assessment.

Attendance: How engaged are youth in COMPASS?

The evaluation also examined patterns of attendance of individual participants in COMPASS program to assess level of engagement in the services offered. Although DYCD holds programs contractually accountable to a Rate of Participation (RoP) that is based on the number of funded slots rather than on individual participation rates, the level of individual dosage is an important measure to understand the effectiveness and likely impact of the program: more engagement in high-quality services is expected to yield more benefits. To determine attendance rates, the evaluation team calculated the number of days a participant attended each program session, and divided that by the number of days that program was open.

Across all years, school and summer median attendance rates followed a general pattern at both middle and elementary sites—improvement between the first and second years of COMPASS, followed by a slow but general upward trend through the 2011-12 school year, followed by small declines in the final two years. Attendance at middle school center-based sites follows a somewhat more dramatic pattern, possibly reflecting the relatively low number of participants and the vulnerability of smaller programs to even slight changes in funding. Median attendance at elementary sites is consistently higher than attendance at middle school sites, though the gap between the grade levels is smaller during summer. Summer attendance is consistently higher than school year attendance; summer programs run for a shorter time period and may attract more invested participants. (Exhibit 12). Median school year COMPASS attendance for elementary school participants was 74 percent overall, and median summer attendance was 78 percent of programming days. Middle school participants had median attendance rates of 48 percent during school year sessions and 69 percent for summer sessions.

We disaggregated and analyzed attendance rates by participants' characteristics (e.g., race or ethnicity, ACS eligibility, free and reduced price lunch status), but observed no meaningful deviations from these overall trends.



Exhibit 12 Median attendance rates, by grade level and location

Exhibit reads: During the 2006-07 school year session, elementary grades participants at school-based programs attended approximately 62 percent of programming days.

However, we did find significantly higher attendance rates for middle grades participants who had attended an elementary grade program offered by the same provider. In these analyses, we compared attendance rates for groups of participants based on their COMPASS enrollment in elementary and continued enrollment in middle school, and whether their elementary and middle grades programs were offered by the same provider. The two charts in Exhibit 13 show elementary-grades COMPASS attendance rates (left) and middle-grades COMPASS attendance rates (right). Across the two charts, only the groups represented by the gray line changes—on the left, the gray line represents the attendance rates of participants who attended an elementary program who did not eventually enroll in a middle grade program, and, on the right, the gray line shows the attendance rates participants who enrolled in a middle grades program who had not previously enrolled in an elementary program. The blue and light blue lines represent the attendance rates for the same groups in both graphs—the light blue line shows the attendance rates for elementary (left) and middle (right) COMPASS attendance rates for participants who enrolled in both elementary and middle grades programs but with different providers, while the dark blue line presents the elementary and middle grades attendance rates (again, left and right, respectively) for participants who also enrolled in both elementary and middle grades programs but whose programs were from the same provider in both grade levels.



Exhibit 13 Elementary and middle grades attendance rates,

Exhibit reads: In 2005-06, the median attendance rate for elementary school participants who would subsequently attend a COMPASS program in middle school (from a different provider than their elementary program) was approximately 67 percent.

Attendance rates among the three groups are distinct in middle grades, with participants attending elementary and middle programs with the same provider averaging 10 percent higher attendance in the middle grades compared to the other groups. Further, elementary grades attendance rates are similar across all groups, providing evidence that while participants were similarly engaged during elementary programs, youth who enrolled with the same provider in middle school—even if they moved to a new school location—remained more engaged than those who either attended with a different provider or had not been enrolled in elementary school. Although we do not have sufficient information to establish a causal relationship between this high level of participation in the middle-grades years and consistency in COMPASS provider, this suggests an interesting trend that could have implications for future funding strategies by DYCD, if youth develop relationships with staff or grow accustomed to the routines and cultures of certain organizations that can support them through transitions over time.

Retention: Do youth stay engaged in COMPASS over time?

Our analyses also examined participants' engagement with COMPASS programs across multiple sessions.⁸ Attendance rate serves as a good measure of participants' immediate engagement, whereas re-enrollment over multiple sessions captures long-term engagement with COMPASS programs. Also, whether a participant enrolls in multiple sessions is influenced both by participants' and families' preferences, but also by systemic factors such as funding cuts, programs' or providers' efforts to re-engage past enrollees first before recruiting more widely to fill slots, and DYCD policies that may explicitly or implicitly encourage or discourage programs' re-enrollment of the same participants across multiple sessions.

We defined retention as re-enrollment after enrollment in a previous session. Our data indicate that students do not typically attend contiguous COMPASS sessions, i.e., enroll during the school year, the following summer, and into the next school. Far more common, students attend one school year session, skip the next session (or sessions), and then re-enroll. During school year sessions approximately 54 percent of participants are new to COMPASS. Not surprisingly, given lower enrollment capacity during summer sessions, only about 40 percent of participants enroll for the first time for a summer session. Across years, over 47 percent of participants who enroll for the first time during a school year session re-enroll during a later session; nearly 40 percent of students who enroll for the first time during summer participate in COMPASS programming in a later program period.

Approximately 240,000, or 59 percent, of participants in COMPASS elementary and middle grades programs between 2005 and 2014 attended only one session, most often a school year session (Exhibit 14) Over 76,000 participants (19 percent), however, participated in two sessions and nearly 89,000 participants (approximately 23 percent) attended 3 or more sessions.

⁸ Session refers to individual programming periods—school year or summer. DYCD-funded programs typically offer two sessions, summer and school year, during a fiscal year. For a full list of the sessions included in our analysis, see Appendix B.

Exhibit 14 Number of sessions in which participants enrolled (N=405,834)



To understand whether retention changed over time, for each session we divided enrolled participants into four groups: 1) participants who enrolled only in that session; 2) participants who had enrolled in a previous session and would not enroll in a subsequent session; 3) participants who had not enrolled in a previous session but would enroll in a future session; and 4) participants who had previously enrolled in a COMPASS program and would enroll again in a subsequent session. Due to the budget cuts and location moves that more often impact summer sessions, enrollment and retention patterns for summer are more idiosyncratic than for school year program periods, as such, we present the results of the analysis only for school year sessions in Exhibit 15.

Retention trends followed similar patterns through school year sessions until the 2010-11 school year, at which time, prior increases in the percent of participants who had enrolled and would enroll in another COMPASS session began decreasing and the percent of participants who enrolled in a single session, with no prior or subsequent enrollment, began increasing. One interpretation might be that the raw number of slots available increased in the 2010-11 school year—more slots would allow more one-time participants to attend while proportionally decreasing the percent, but not the number, of participants enrolled in multiple sessions. In fact, slots decreased in both SY 2010-11 and SY 2011-12. However, the budget instability that occurred in January 2011 may have led providers to approach their enrollment strategies differently, leading to lower retention and higher enrollment of new participants.



Exhibit 15 Participants' previous and subsequent enrollment, percent of participants by session

Exhibit reads: During the 2006-07 school year session, approximately 40 percent of participants enrolled had not been enrolled in a COMPASS program during a previous session and would not enroll in a subsequent COMPASS session. Approximately 30 percent of participants had not been previously enrolled, but would attend a subsequent session.

How does participation vary across COMPASS?

Participants' attendance rates⁹ increased significantly over the 10 years of the COMPASS, as illustrated in Exhibit 16; while in 2005-06 the median attendance rate was less than 50 percent throughout much of the city, by 2009-10, nearly all zip codes had a median attendance rate of 50 to 75 percent, with several having a median rate of over 75 percent. Importantly, the increase in attendance rate is evident in the priority zip codes (outlined in red) as well as in other zip codes, demonstrating an equitable increase across the city.

⁹ To determine attendance rates, the PSA team calculated the number of days a participant attended each program session, and divided that by the number of days that program was open.





We also analyzed data at the program and provider levels in an attempt to identify program or provider characteristics associated with higher and lower attendance rates across the 17 sessions for which we had data. We first tagged participants within each session whose attendance rates were in the 90th and 10th percentiles among all participants enrolled at the same program grade level during the session. We then used the counts of students in top 90 percent and the bottom 10 percent to determine the percent of each programs' participants in the "high attender" and "low attender" categories. Finally, for each session, we labeled each program as "high proportion/high attendance" (e.g., 80 percent of participants attended 85 percent of program days), "high proportion/low attendance" (e.g., 50 percent of participants attended fewer

than 70 percent of program days), and "middle attendance," and counted the number of sessions for which each program was placed into each group.

We found few programs identified consistently as high proportion/high attendance or high proportion/low attendance across all years—30 programs were identified as high attendance in 5 or more sessions out of the 17 we analyzed; 12 programs were identified as low attendance in 5 or more of the 17 sessions. More frequently, programs ranked in the top or bottom one or two times, but with no consistent patterns over time. Among the programs we could identify as perennially high attendance or low attendance, we could identify few markers unique to either group (e.g., school- versus center-based, number of programs overseen by the provider, program size), and those that we could identify were likely more associated with the participants than with the programs or providers (Exhibit 17). For example, high attendance programs enroll more ACS-eligible youth, who may simply be more likely to attend more regularly because they and their families understand COMPASS as their childcare (Exhibit 18).

This inconsistency in program-wide attendance patterns over time, and weak association between program attendance patterns and program characteristics, suggest that participants' attendance may not be a good proxy for program quality. While a handful of programs had high or low participation rates in both school year and summer sessions over multiple years, the majority of programs fell in the middle, with varying rates of youth participation over time. Participation rates are most likely related to complex set of circumstances—for instance, their parents' work schedules, the availability of other afterschool options or activities—only some of which are related to quality of programming. There may also be additional data that, when used in conjunction with participation data, would signal program quality—such as staff training and background or turnover among program staff working directly with youth tracked across multiple years.

	Exhibit 17	7
Program and provider	characteristics,	by program-level attendance

	High proportion/ high attendance N=237	High proportion/ low attendance N=281
Characteristics of program / provider		
Program grade level	Elementary	Elementary
Median program slots (Range)	90 slots	86 slots
	(20 to 215 slots)	(50 to 250 slots)
Median programs overseen by provider	4	4

Exhibit reads: All programs in which a high proportion of participants had high attendance rates were elementary grades programs.

Exhibit 18 Participants' characteristics, by program-level attendance

	High proportion/ high attendance	High proportion/ low attendance
	N=237	N=281
Characteristics of participants enrolled		
Gender		
Female	50%	46%
Male	50	54
ELL status		
ELL identified	17%	8%
Not ELL	83	92
Free- or reduced- price lunch status		
Receives FRPL	95%	92%
Does not receive FRPL	5	8
Average ELA proficiency rating	3.14	2.95
(4 point scale)		
Average Math proficiency rating	3.67	3.22
(4 point scale)		
Average age	8 years old	8 years old
Priority ZIP code		
Lives in a priority ZIP	80%	75%
Does not live in a priority ZIP	20	25
ACS eligibility		
Eligible for ACS	26%	15%
Not eligible for ACS	74	85

Exhibit reads: Female participants comprised 50 percent of the participants in programs in which a large proportion of participants attended at high rates.

What are the implications of these findings for COMPASS?

Overall, the findings from this analysis suggest that COMPASS is meeting a clear demand for high-quality afterschool programming in New York City: enrollment in the program consistently meets or exceeds the number of funded slots available, and this demand has stayed strong both in years of rapid growth and scale of the initiative and the wake of instability of funding. Analyses also indicate that COMPASS programs are serving youth throughout New York City, included those in targeted areas of need, and that the level of engagement has been deepening over time. These are clear successes of a citywide system of youth programming that scaled up rapidly as a deep partnership between city agencies and nonprofit partners.

However, this analysis also points to areas for DYCD to further explore as it seeks to continue to institutionalize, strengthen, and serve the city's youth and families:

■ There was a shift in patterns of retention starting in 2010-11, potentially coinciding with budget cuts and changes in RFP requirements for COMPASS programs. Exploring more deeply with providers how these budget cuts and changes in guidance affected decisions around outreach, recruitment, and retention strategies may help DYCD to refine its own policies and guidance in

anticipation of future instability, to ensure that youth continue to benefit from sustained engagement in COMPASS programming.

- Middle-grades youth attend COMPASS programming at higher rates when they enrolled in a program operated by the same provider organization who offered them elementary services. Knowing that middle-grades youth can be difficult to engage, we recommend that DYCD consider how it might further explore and capitalize on this finding to maximize the opportunities of middle-grades youth to continue relationships with organizations whose culture, staff, and approach is familiar as they transition from elementary to middle school.
- There is some evidence that center-based programs engage a population of students who have a unique set of needs, and may be disengaged from the traditional school system, including lower performing middle-grades students, youth identified as having a disability, and ACS-eligible students. Through its COMPASS initiative, DYCD can draw on the strengths of its nonprofit partners to support these youth in a unique way and ensure that they remain connected to city systems and to school, and should consider how to best position and fund its center-based programs to maximize this potential.

Appendix A–Technical Detail

This appendix presents additional technical detail (Ns and percents) for exhibits presented in the report, by report exhibit number.

	l otal unique			
	participants	Elementary	Middle	
FY 2006	32,825	18,625	14,200	
FY 2007	49,179	30,133	19,046	
FY 2008	67,062	48,464	18,598	
FY 2009	74,892	58,642	16,250	
FY 2010	72,990	57,970	15,020	
FY 2011	70,936	56,975	13,961	
FY 2012	68,540	55,524	13,016	
FY 2013	76,309	58,842	17,467	
FY 2014	90,099	65,773	24,326	

Exhibit 3 Enrollment by fiscal year, unique participants (Ns)

Exhibit 4 Enrollment by grade level and session (Ns)

	Elementary	Middle	Total
SY 2005-06	18,625	14,200	32,825
SY 2006-07	26,704	17,320	44,024
SY 2007-08	41,325	16,628	57,953
SY 2008-09	44,927	14,254	59,181
SY 2009-10	44,497	13,772	58,269
SY 2010-11	43,557	12,697	56,254
SY 2011-12	42,700	12,026	54,726
SY 2012-13	43,461	16,507	59,968
SY 2013-14	46,193	18,642	64,835
SY 2012-13 SY 2013-14	43,461 46,193	16,507 18,642	59,968 64,835

	Elementary	Middle	Total
Summer 2006	7,302	2,553	9,855
Summer 2007	13,938	2,865	16,803
Summer 2008	25,326	2,630	27,956
Summer 2009	25,721	1,881	27,602
Summer 2010	26,200	2,130	28,330
Summer 2011	24,994	1,765	26,759
Summer 2012	24,744	1,514	26,258
Summer 2013	36,386	8,836	45,222

Exhibit 5

	Elementary School-based	Elementary Center-based	Middle School- based	Middle Center- based	Total
SY 2005-06	14,829	3,796	12,571	1,629	32,825
SY 2006-07	21,315	5,389	14,692	2,628	44,024
SY 2007-08	33,807	7,518	14,258	2,370	57,953
SY 2008-09	37,541	7,386	12,908	1,346	59,181
SY 2009-10	37,417	7,080	12,480	1,292	58,269
SY 2010-11	36,519	7,038	11,625	1,072	56,254
SY 2011-12	36,038	6,662	11,251	775	54,726
SY 2012-13	36,641	6,820	15,081	1,426	59,968
SY 2013-14	39,615	6,578	17,140	1,502	64,835

School-year enrollment by grade level and location (Ns)

Exhibit 7 Race or ethnicity, percent of COMPASS participants, by grade level and location (Ns and percents)

	Elementary School-based N=199,245	Elementary Center-based N=34,404	Middle School- based N=62,376	Middle Center- based N=4,342	Total <i>N=300,367</i>
Asian	13.4%	4.6%	9.7%	3%	11.5%
Black	32.6	49.0	39.6	49.2	36.2
Latino/Hispanic	44.8	40.0	41.3	42.0	43.5
Native American	0.5	0.6	0.5	0.4	0.5
White	8.4	5.3	8.7	5.3	8.0
2 or more races	0.3	0.4	0.2	0.2	0.3

Exhibit 8 Disability status, percent of COMPASS participants, by grade level and location (Ns and percents)

	Elementary School-based N=255,300	Elementary Center-based N=47,345	Middle School- based N=60,686	Middle Center- based N=4,338	Total <i>N</i> =367,669
Yes	22.2%	28.6%	32.3%	49.6%	25.4%
No	77.8	71.4	67.6	50.4	74.6

Exhibit 9 Disability status, percent of COMPASS participants, by grade level and location (Ns and percents)

	Elementary School-based N=293,719	Elementary Center-based N=58,266	Middle School- based N=122,005	Middle Center- based N=14,040	Total <i>N=448,030</i>
Yes	15.2%	24.2%	8.4%	10.3%	14.4%
No	84.8	75.8	91.6	89.7	85.6

Exhibit 10 Performance on NYS ELA assessment, percent of COMPASS participants, by grade level and location (Ns and percents)

	Elementary School-based N=99,493	Elementary Center-based N=17,343	Middle School- based N=60,067	Middle Center- based N=3,992	Total <i>N</i> =180,895
Level 1	17.7%	18.1%	20.7%	22.9%	18.9%
Level 2	36.9	38.5	46.2	49.0	40.4
Level 3	41.0	39.9	29.8	26.9	36.9
Level 4	4.4	3.6	3.4	1.2	3.9

Exhibit 11

Performance on NYS Math assessment, percent of COMPASS participants, by grade level and location (Ns and percents)

	Elementary School-based N=100,986	Elementary Center-based N=17,506	Middle School- based N=60,494	Middle Center- based N=3,980	Total <i>N=182,966</i>
Level 1	13.7%	14.7%	20.5%	22.8%	16.3%
Level 2	26.9	28.7	35.7	35.6	30.2
Level 3	40.3	40.7	30.7	33.2	37.0
Level 4	19.1	15.8	13.1	8.4	16.6

Exhibit 12 Median attendance rates, by grade level and location (Ns and percentages)

	N	Elementary School-based	Elementary Center-based	Middle School- based	Middle Center- based
SY 2005-06	32,825	45.2%	38.3%	11.6%	5%
SY 2006-07	44,024	48.4	33.4	12.2	6.0
SY 2007-08	57,953	58.3	24.6	13.0	4.1
SY 2008-09	59,181	63.4	21.8	12.5	2.3
SY 2009-10	58,269	64.2	21.4	12.2	2.2
SY 2010-11	56,254	64.9	20.7	12.5	1.9
SY 2011-12	54,726	65.9	20.6	12.2	1.4
SY 2012-13	59,968	61.1	25.1	11.4	2.4
SY 2013-14	64,835	61.1	26.4	10.1	2.3

_	Ν	Elementary School-based	Elementary Center-based	Middle School- based	Middle Center- based
Summer 2006	9,855	49.5%	24.6%	21.4%	4.5%
Summer 2007	16,803	58.5	24.5	13.4	3.7
Summer 2008	27,956	69.9	20.6	7.5	1.9
Summer 2009	27,602	73.6	19.6	5.8	1.0
Summer 2010	28,330	72.6	19.8	6.5	1.1
Summer 2011	26,759	73.6	19.8	5.7	0.9
Summer 2012	26,258	75.5	18.8	4.9	0.9
Summer 2013	45,222	67.3	13.2	16.9	2.6

Exhibit 13

Elementary and middle grades attendance rates, by participants' elementary and middle grades enrollment (Ns and percents)

	N	Same provider	Different provider	No Middle grades enrollment	
SY 2005-06	18,625	7.1%	3.6%	89.3%	
SY 2006-07	26,704	7.6	3.8	88.6	
SY 2007-08	41,325	6.9	4.2	88.9	
SY 2008-09	44,927	6.4	4.0	89.6	
SY 2009-10	44,497	5.5	3.6	90.8	
SY 2010-11	43,557	4.6	3.0	92.4	
SY 2011-12	42,700	3.5	2.0	94.5	
SY 2012-13	43,461	1.9	0.8	97.3	

	N	Same provider	Different provider	No Elementary grades enrollment
SY 2006-07	17,320	3.3%	1.7%	95.1%
SY 2007-08	16,628	4.4	2.4	93.2
SY 2008-09	14,254	5.6	3.9	90.5
SY 2009-10	13,772	6.8	5.3	87.9
SY 2010-11	12,697	7.4	7.6	85.0
SY 2011-12	12,026	7.7	8.5	83.8
SY 2012-13	16,507	8.0	9.9	82.1
SY 2013-14	18,642	7.4	10.1	82.5

Exhibit 15 Participants' previous and subsequent enrollment, percent of participants by session (Ns and percents)

	N	Participants enrolled previous and subsequent sessions	Participants enrolled in a previous session—did not enroll in a subsequent session	Participants enrolled in a subsequent session—did not enroll in a previous session	Percent who attended only this session
SY 2006-07	44,024	18.4%	13.0%	29.5%	39.2%
SY 2007-08	57,953	19.5	14.7	31.7	34.1
SY 2008-09	59,181	28.2	18.0	25.5	28.2
SY 2009-10	58,269	31.8	18.6	24.1	25.5
SY 2010-11	56,254	34.0	20.3	22.6	23.1
SY 2011-12	54,726	31.2	24.3	18.7	25.9
SY 2012-13	59,968	25.4	14.0	30.4	30.2

Appendix B—Data Analyzed

Sessions for which data	were available from DYCD	Online and NYCDOE
bessions for which dut		

Session	Fiscal year	Dates
School year 2005-06	FY 2006	September 2005-June 2006
Summer 2006	FY 2007	July-August 2006
School year 2006-07	FY 2007	September 2006-June 2007
Summer 2007	FY 2008	July-August 2007
School year 2007-08	FY 2008	September 2007-June 2008
Summer 2008	FY 2009	July-August 2008
School year 2008-09	FY 2009	September 2008-June 2009
Summer 2009	FY 2010	July-August 2009
School year 2009-10	FY 2010	September 2009-June 2010
Summer 2010	FY 2011	July-August 2010
School year 2010-11	FY 2011	September 2010-June 2011
Summer 2011	FY 2012	July-August 2011
School year 2011-12	FY 2012	September 2011-June 2012
Summer 2012	FY 2013	July-August 2012
School year 2012-13	FY 2013	September 2012-June 2013
Summer 2013	FY 2014	July-August 2013
School year 2013-14	FY 2014	September 2013-June 2014