

Reducing Inequality Summer by Summer

An Analysis of the Short-Term and Long-Term Effects of Boston's
Summer Youth Employment Program

December 2017



Northeastern University
*Dukakis Center for Urban
and Regional Policy*

ACKNOWLEDGEMENTS

This report was prepared by the Mayor's Office of Workforce Development from data analysis conducted by Dr. Alicia Sasser Modestino of the Dukakis Center for Urban and Regional Policy at Northeastern University and commissioned by the Mayor's Office of Workforce Development. This is a summary report based on the Dukakis Center's evaluation of both the short-term outcomes measured by survey data from the summer of 2015 as well as long-term outcomes measured by administrative records for the 12-18 months after participation in the program. The findings presented here are part of an ongoing multi-year evaluation funded by the Mayor's Office of Workforce Development, Northeastern University, and the William T. Grant Foundation.

Special thanks are due to the research assistance provided by Mark Isenburg and Jessica Rosario of Action for Boston Community Development; Joseph McLaughlin of the Boston Private Industry Council; Rashad Cope of the City of Boston's Department of Youth Employment and Engagement; and Mallory Jones of Youth Options Unlimited. We are indebted to their assistance in collecting survey data from their SYEP participants, without whom there would be no evaluation.

We'd also like to thank Lynn Sanders, Senior Research Analyst and Katie Liesener, Project and Policy Coordinator at the Mayor's Office of Workforce Development for their assistance in designing and completing the report.

TABLE OF CONTENTS

Executive Summary	1
Introduction	3
Research Focus	4
Policy Context	6
Evaluation Methodology.....	7
Findings.....	9
Conclusion & Next Phase of Evaluation	25
Endnotes	26



Dear Friends:

It is with great pleasure that I announce the release of the enclosed report: ***Reducing Inequality Summer by Summer: An Analysis of the Short-Term and Long-Term Effects of Boston's Summer Youth Employment Program***. As the report highlights, the Boston Summer Youth Employment Program (SYEP) positively impacts our young people, both in the short term and long term, and I'm proud to recognize our hard-working teens and the commitment they've made to grow each summer.

Every year, over 10,000 Boston youth participate in the Boston SYEP at hundreds of Boston businesses and nonprofit organizations, where they learn valuable and important skills that set them up for future success. As this study shows, the benefits of the SYEP can last long after the summer is over. Summer jobs provide more than just a source of income. They provide valuable work experience, mentorship opportunities, self-confidence and, most importantly, an opportunity to see a new and better future. By providing our youth with opportunities to gain valuable work experience and participate in career development, we are helping to put them on a pathway to success.

Our young people have the power to change our City, and every single young person should be able to access a summer job and connect with the City's summer job resources. Investing in youth and keeping them engaged during the summer will help us move Boston forward and provide valuable opportunities for youth leadership development. This report should be considered as another step in a multi-year effort to not only document the long-term positive impact of Boston's SYEP, but also help us better utilize our limited SYEP funds and attract new investments to grow summer job opportunities.

I am grateful for the collaborative efforts of the Mayor's Office of Workforce Development (OWD), the Dukakis Center for Urban and Regional Policy at Northeastern University, Action for Boston Community Development, Inc., the Boston Private Industry Council, City of Boston's Youth Engagement and Employment Division, Youth Options Unlimited and all the other city and state agencies and non-profits that are assisting in this effort. I hope you will join us in our work to support Boston's youth.

Sincerely,

A handwritten signature in black ink, which appears to read "Martin J. Walsh". The signature is fluid and cursive, written on a light-colored background.

Martin J. Walsh
Mayor, City of Boston

Dear Colleagues:

We are pleased to join with Professor Alicia Sasser Modestino of the Dukakis Center for Urban and Regional Policy at Northeastern University to share this report, **Reducing Inequality Summer by Summer: An Analysis of the Short-Term and Long-Term Effects of Boston's Summer Youth Employment Program**. The City of Boston's Summer Youth Employment Program (SYEP) is a critical component of Mayor Walsh's workforce development efforts, particularly when it comes to reducing inequality among City residents. While early work experience is widely believed to be a positive influence on the future employment prospects and earnings of disadvantaged youth, there has been relatively little research on the long-term effects of summer jobs. This report represents the next phase of our multi-year effort to document how the Boston SYEP contributes to economic and behavioral impacts that last long after the summer ends.



With limited resources, we need to use our SYEP funds as effectively as possible. With our evaluation study now approaching its third year, we can point not only to positive short-term outcomes such as improved job readiness, higher educational aspirations and better community engagement and social skills, but also to longer-term behavioral changes. For example, the number of violent crimes committed by youth in the treatment group was 35% lower than the number of crimes committed by youth in the control group during the 17 months after the completion of the SYEP. Participants' longer-term changes, measured by administrative records, also include higher education outcomes and better employment outcomes. While gains are seen among all demographic groups, some of the largest gains are seen among low income, non-white youth, suggesting that the SYEP may have a greater capacity to contribute to the reduction of income inequality than originally believed.

We want to express our gratitude and appreciation to all of you who contributed to this effort, and we look forward to sharing ongoing research, putting youth on a pathway to success that will help shape their future as well as the City's.

Thank you for your continued commitment,

A stylized, handwritten signature in black ink.

Trinh Nguyen, Director
Mayor's Office of Workforce Development

A handwritten signature in black ink, appearing to read 'Midori Morikawa'.

Midori Morikawa, Deputy Director
Workforce and Policy Development

EXECUTIVE SUMMARY

In cities across the nation, Summer Youth Employment Programs (SYEPs) provide early work experiences to low-income youth who may not otherwise have the opportunity. While recent studies on SYEPs have suggested such positive outcomes as higher wages and decreased crime, they have not compared impacts across demographic groups to assess programs' potential to reduce inequality nor identified the mechanisms behind long-term outcomes.

In the summer of 2015, The Mayor's Office of Workforce Development (OWD) began working with Northeastern University's Dukakis Center for Urban and Regional Policy to assess the impact of the Boston SYEP on employment, education, and criminal justice outcomes. This multiyear evaluation, now approaching its third year, captured both short-term and longer-term outcomes of the Boston SYEP. Short-term program indicators, measured by a pre-post program survey, include social skills, community engagement, job readiness, and academic aspirations. Longer-term outcomes, measured by administrative records, include criminal justice, education and employment outcomes.

SHORT-TERM OUTCOMES

Initial analysis of survey data shows that SYEP participants reported increases in community engagement and social skills, college aspirations, and job readiness skills. Many of these outcomes were significantly better than those of the control group. **In most cases, the largest gains were observed for non-white youth, suggesting that Boston's SYEP may have the capacity to reduce inequality across demographic groups.**

Community Engagement and Social Skills: After program completion, participants were far more likely to report that they felt connected to their neighborhood and had a lot to contribute to the groups they belonged to. They were also more likely to report knowing how to manage their emotions and temper, ask for help when needed, and resolve peer conflict constructively. On all of these measures, the treatment group reported significantly better outcomes than the control group. **For the community engagement measures, similar impacts were observed across all demographic groups. Improvements in social skills, however, were observed primarily among African-American males.**

Academic Aspirations: Over the course of the summer, there was no significant change in the percentage of youth reporting *any* post-secondary plans by the end of the program; however, by summer's end, participants were more likely to report wanting to go to a four-year college (as opposed to a vocational program, training program, or two-year college). This shift in college aspirations was also significant relative to the control group. **The largest impact was found for African-American and Hispanic females.**

Job Readiness Skills: The pre-post survey showed large increases in the number of SYEP participants reporting they had prepared a resume and cover letter, asked an adult for help finding job opportunities, developed answers to common job interview questions, and practiced interviewing skills with an adult. Teens in the treatment group outperformed the control group across most job readiness measures. **Among race and gender groupings, African-American males showed the most improvement across the board.**

ONE-YEAR OUTCOMES

The analysis of long-term administrative records found significantly decreased criminal activity and increased school attendance among program participants, relative to the control group. Little improvement was found in employment and wage outcomes, although this could be because participants did not feel compelled to work during the school year, having recently gained work experience over the summer. **Across most measures larger improvements in outcomes were observed only among non-white or at-risk youth.**

Criminal Justice Outcomes

- Violent crime arraignments among the treatment group decreased by 35 percent relative to the control group. Property crime arraignments dropped by 57 percent.
- The number of arraignments for the treatment group was not limited to the duration of the program but instead continued to fall relative to the control group through the end of the 17-month observation period.
- Short-term improvements in social and emotional skills – such as learning to manage one’s emotions and resolve conflicts with a peer – were correlated with larger decreases in both violent and property crimes.
- **Across subgroups, the greatest reductions in arraignments were seen among African-American and Hispanic males – for both violent and property crimes.**

Education Outcomes

- School attendance for the treatment group was significantly higher than for the control group (+2.7 percentage points) after program participation. The treatment group had 4.5 fewer days of unexcused absences on average relative to the control group.
- The impact on students with marginal baseline attendance was even greater, with 12.1 fewer days of unexcused absences relative to the control group. **Across demographic groups, improvements in attendance rates and unexcused days were larger for older youth (16+) as well as males and Hispanic students.**
- While no significant impact on GPA was found for the treatment group, the percentage of participants that failed a course following SYEP was significantly lower than that of the control group (-15.3 percentage points).

Employment Outcomes

- Although employment and wage rates were higher for SYEP participants in the academic year following the program as compared to the year before, they were not significantly different from those of the control group.
- Employment increased more rapidly among participants reporting improvement in certain job readiness skills such as preparing a resume/cover letter, practicing interviewing techniques, or feeling “more prepared” for a new job.
- **Across demographic groups, both employment and wages were higher for older African American males during the academic year after participating in SYEP relative to the control group. Given that the majority of participants were African-American, the Boston SYEP may be effective in narrowing labor market outcomes between blacks and whites.**

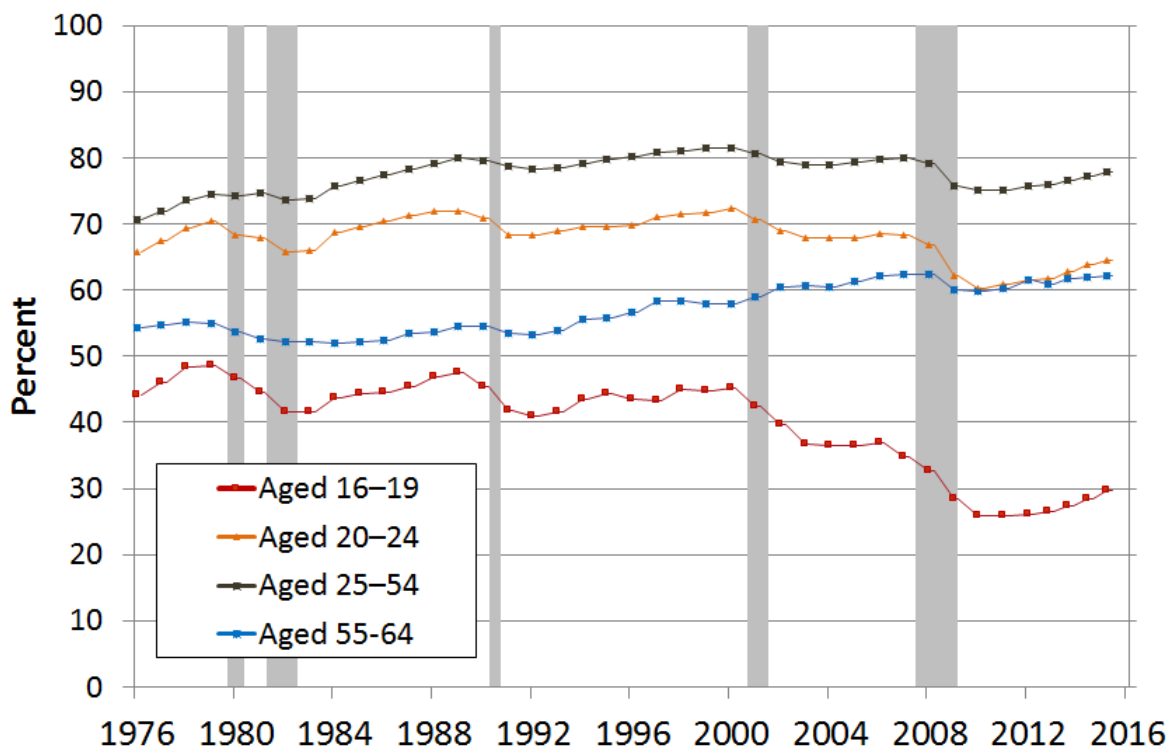
Introduction: Moving Towards a More Equitable City

Boston was recently ranked by the Brookings Institution as having the highest rate of income inequality among the 100 largest cities in the country. In response, Boston Mayor Martin Walsh has put a renewed focus on reducing inequality among City residents. Boston's Summer Youth Employment Program (SYEP) is part of this effort. SYEPs have the potential to reduce economic inequality across different racial, ethnic, and socioeconomic groups by increasing access to early employment experiences for low-income and disadvantaged youth.

Disadvantaged youth face multiple obstacles in obtaining work experiences due to being disproportionately located in neighborhoods with few job opportunities, failing schools, and high levels of crime that negatively affect their outcomes later in life.¹ African-American and Hispanic teens – especially those from low-income families in impoverished neighborhoods – often experience the greatest difficulties in finding employment.²

The need for youth employment is further underscored by the steady decline in teen employment nationwide since 2000. Figure 1 shows that less than one-third of teens aged 16-19 years are employed. In addition, over half of unemployed teens report that they are searching for their first job, suggesting that fewer pathways exist for teens to enter the labor market (see Table 1).³ This holds true for Boston as well. A recent study by the Donahue Institute showed that Boston's youth employment rate for 16-19 year olds is at 29 percent – below the statewide average of 33 percent for this group.

Figure 1: U.S. Employment-to-Population Ratio by Age Group, 1976-2016



Source: Calculations by Alicia Sasser Modestino from the U.S. Census Bureau, Current Population Survey.

Note: Gray shaded areas indicate economic recessions.

Table 1: Changes in the Reasons for Labor Market Detachment among U.S. Youth

	Teens: Aged 16-19 Years			Young Adults: Aged 20-24 Years		
	2000	2006	2012	2000	2006	2012
Share Not in the Labor Force						
Wants a job	12.6	10.8	9.5	15.4	13.1	13.7
Does not want a job	87.4	89.2	90.5	84.6	86.9	86.3
Reasons for Not Working Last Year						
Going to school	87.7	89.2	89.0	49.9	53.7	57.9
Could not find work	2.0	2.1	3.6	7.6	6.4	12.4
Taking care of home/family	5.4	4.6	3.2	26.8	25.3	16.9
Ill or disables	2.0	2.0	2.2	7.2	7.9	7.8
Other	2.9	2.1	1.9	8.5	6.7	5.1
Reasons for Unemployment						
Entering labor force	22.3	36.8	54.8	5.6	7.6	16.2
Re-entering labor force	52.3	44.4	27.9	37.8	41.0	38.6
Job loss	16.2	12.2	13.7	39.3	36.7	35.3
Left job	9.3	6.6	3.7	17.3	14.7	9.8

Source: Dennett, J. and Modestino, A.S. (2013) .Uncertain Futures? Youth Attachment to the Labor Market in the United States and New England. New England Public Policy Center, Research Report 13-3. Federal Reserve Bank of Boston.

In response to these trends, policymakers in cities such as Boston, Chicago and New York have looked to summer jobs programs to provide youth with meaningful employment experiences that can lead to alternative pathways for youth – whether those are careers or some forms of postsecondary education. Early work experience has been shown to be an important tool for enhancing the future employment prospects and earnings potential for disadvantaged youth.⁴ At the same time, employer expectations continue to increase for work readiness and other “soft” skills that are difficult for youth to practice without work experience.⁵ By providing access to employer networks, career mentoring, and skill development, SYEPs have the potential to provide youth with the tools and experience needed to navigate today’s job market on their own.

Research Focus: Improving Behavioral, Academic, and Economic Outcomes

A variety of rationales are often cited in support of summer jobs programs. Many of these encompass the potential of early work experience to improve criminal justice, academic, and employment outcomes, particularly for inner-city, low-income, and minority youth. The research presented here assesses the Boston SYEP as an intervention to improve youth outcomes related to criminal justice, education, and employment outcomes with a specific focus on reducing inequality across racial and ethnic groups. In addition, we explore how these longer-term outcomes are achieved in relation to the short-term program impacts that are observed during the summer.

Reducing delinquent or criminal behavior through social engagement

Employment provides youth with a set of socially productive activities, possibly decreasing the risk of exposure to, or participation in, violence and delinquent behavior.⁶ Youth are able

to develop a sense of agency, identity, and competency necessary for adult success from their early work experiences.⁷ Those experiences that specifically teach non-cognitive skills appear to provide disadvantaged youth with guidance and adult mentors that may be lacking at home or in school.⁸ Finally, SYEP participants are oftentimes placed with nearby community-based organizations (CBOs), providing opportunities for youth to engage with their communities in a positive way.

Raising academic achievement

Greater exposure to employment provides youth with experiences that can shape their aspirations – whether they be to complete high school, obtain career training, or attend college – potentially raising their academic achievement.⁹ Work experience may also provide an opportunity for teens to apply academic concepts, learn work-related skills, and transition from school to the labor force.

Boosting employment through job readiness

It is widely believed that through early work experiences like those gained in SYEPs, youth have the opportunity to explore potential careers, develop relationships with adult mentors, and practice both technical and soft skills. Moderate levels of teen employment during the school year (fewer than 15 or 20 hours per week) have been shown to have beneficial effects on future employment, particularly for disadvantaged youth with less access to job opportunities.¹⁰

Despite these rationales, little is known about the specific effects of summer youth jobs programs on longer-term outcomes, or how those impacts might be achieved. Previous research has demonstrated encouraging results in some cities. For example, an evaluation of the Chicago One Summer Plus program found that violent crime fell by 43 percent over the 15 months following completion of the program.¹¹ Two other studies showed improvements in school attendance and standardized test taking for participants in the New York City SYEP.¹² Yet other studies have found mixed results on employment outcomes. For example, one study found no positive impacts on long-term earnings among participants in the New York City SYEP.¹³ In addition, the District of Columbia's SYEP was found to reduce "employability" after the program ended.¹⁴

Based on prior research, it is unclear whether a summer job experience is a powerful enough intervention to measurably improve participants' longer-term outcomes. That is why in Summer of 2015, the Mayor's Office of Workforce Development launched a formal evaluation with the Dukakis Center for Urban and Regional Policy (Dukakis Center) to assess the impact of the Boston SYEP as an intervention strategy to improve long-term labor market, education, and criminal justice outcomes specifically for low-income youth.

The evaluation described in this report seeks to answer the following key research questions:

- What is the impact of the Boston SYEP on short-term program indicators?
- What is the impact on longer-term criminal justice, education, and employment outcomes?

-
- How are the short-term program indicators correlated with improvements in longer-term outcomes?
 - Are these impacts greater in magnitude for at-risk or minority youth?

Future phases of the evaluation, funded by the William T. Grant Foundation, will explore the following research questions:

- Do the impacts vary by type of jobs (e.g. subsidized jobs versus unsubsidized private sector jobs)?
- In what ways does the career readiness curriculum enhance outcomes?
- What is the correct dosage (e.g. number of summers) needed to achieve meaningful outcomes?
- Which features of the program are correlated with which outcomes?

Armed with this knowledge, policymakers and funders can aim to more effectively target program resources to reduce inequality across groups.

Policy Context: Boston's Summer Youth Employment Program

Introduced in the 1980s, the Boston SYEP has become a model program for the nation, employing over 10,000 youth each summer with over 900 local employers. Participants, ages 14-22, typically work 20-25 hours per week for six to seven weeks. Youth are paid the Massachusetts minimum wage, \$11/hour as of 2017. In addition, the Boston SYEP includes the following unique program features:

- Students may be placed in either a subsidized position (e.g. with a local non-profit, CBO, or city agency) or a non-subsidized job with a private-sector employer.
- Youth in subsidized employment through the YouthWorks grant are provided 15 hours of additional training using a hands-on, competency-based work readiness curriculum developed by Commonwealth Corporation. Topics include understanding workplace safety, practicing soft skills, and learning how to find and apply for jobs online. Electives include financial literacy (required for Summer 2015).
- Students may participate in the program over multiple summers.

The Boston SYEP relies on city, state, and private funding, with the typical cost per participant ranging anywhere from \$1,500 to \$2,400, depending on the duration of the program. Boston Mayor Martin Walsh sees these youth as a significant untapped resource of productivity and talent. As such, the goals of the Boston SYEP are two-fold:

- To increase youth labor market attachment by providing youth with the tools and experience needed to navigate today's job market on their own, and;
- To reduce the inequality of opportunity across different racial, ethnic, and socioeconomic groups by increasing access to early employment experiences for disadvantaged youth.

The Mayor's Office of Workforce Development (OWD) administers a portion of the overall Boston SYEP. OWD distributes funding from the YouthWorks grant from Commonwealth Corporation to four SYEP providers: Action for Boston Community Development (ABCD), Boston Private Industry Council (PIC), City of Boston's Youth Employment and Engagement (YEE) and Youth Options Unlimited (YOU). These providers are responsible for reviewing applications, supervising job placements, and delivering the program's career readiness curriculum. Youth typically apply to the particular organization that serves their neighborhood, and analysis in prior years has confirmed that only a handful of youth apply to more than one agency. In addition to participating in the subsidized jobs component of SYEP, the PIC serves as the private sector campaign lead for the Mayor's SYEP and brokers employer-paid opportunities for Boston Public School students. The students' wages are paid directly by employers.

Table 2: Selected Boston SYEP Providers

Summer 2015
Program Participation

Vendor	Age Group Served	Number of Applicants	Number of Participants	Percent Randomly Assigned	Percent Placed in Non-Subsidized Employment	Administer Signal Success (y/n)?
ABCD	14-21	4762	1200	100%	8%	Yes
YEE	15-18	7391	3209	60%	10%	Yes
BPIC	16-19	4500*	3142	0%	86%	Yes
YOU	14-22	200	142	0%	0%	Yes
TOTAL	14-22	16853	7693**	41%	41%	-

*This is an estimate as PIC does not have a centralized application process for all non-subsidized because students apply directly to companies.

**The total summer jobs count in 2015 was 10,360. The 7,693 presented here includes only the selected group of SYEP providers that participated in OWD's evaluation.

Evaluation Methodology

The evaluation described here seeks to measure the effect of the Boston SYEP on the employment, academic, and behavioral outcomes of participating youth. The evaluation looks not only at what types of outcomes can be expected from the Boston SYEP, but also at how these outcomes are achieved and for whom the benefits are largest.

OWD collected data from all four of its SYEP providers for use in the study. Two (ABCD and YEE) of the four providers received more applications than the number of SYEP jobs available and randomly allocated spots in the program to applicants by lottery. From an evaluation standpoint, the unselected applicants comprised robust control groups for comparison with those randomly chosen to participate. Because ABCD had the organizational capacity to collect surveys from its control group in Summer 2015, this report focuses on the comparison of ABCD's treatment and control groups.

ABCD serves youth between the ages of 14 and 21 through its summer youth employment program. Youth are hired by a variety of community-based employers, including community centers, hospitals, colleges, and museums. The organization typically runs its enrollment period for the SYEP from February to June of each year. Applicants are notified of their lottery status and job assignment in late June. ABCD uses a computerized system with a random-assignment algorithm to select applicants based on their applicant ID numbers; the number of available slots is determined by the funding ABCD receives for that year. The system effectively assigns the offer to participate in the program at random, creating a control group of youth who apply to the SYEP but are not chosen. As a result, individuals in the control group should be statistically identical to participants in both observable and unobservable characteristics.

Data collection and sample selection

The evaluation used a mixed-methods approach that combines self-reported data on short-term program effects with administrative record data on longer-term outcomes. Participants completed a pre-survey at the start of the program just after July 4th, worked through mid-August, and completed a post-survey at the end of the program. The self-reported survey covers a range of topics, including demographic characteristics, job readiness skills, academic aspirations, and social engagement.

Individuals who were randomly selected by ABCD to participate in the SYEP served as the treatment group, while participants who applied but were not randomly selected served as the control group. Using this approach, the evaluation sought to measure the following outcomes listed in Table 3:

Table 3: Short- and Long-Term Outcome Measures

Category	End-of-Program Indicators	One-Year Outcomes
Criminal Justice	<ul style="list-style-type: none"> • Learning to manage emotions • Developing conflict resolution skills • Feeling connected to their neighborhood and groups they belong to 	<ul style="list-style-type: none"> • Number of arraignments per youth • Percent of youth arraigned • Recidivism
Education	<ul style="list-style-type: none"> • Plan to enroll in education or training program after high school • Plan to enroll in 2 or 4 year college 	<ul style="list-style-type: none"> • School attendance • Course failures • GPA
Employment	<ul style="list-style-type: none"> • Creating a resume/cover letter • Practicing interview techniques • Gaining a job reference or mentor 	Non-subsidized employment during the: <ul style="list-style-type: none"> • School year • Following summer

Participants in the treatment group were surveyed both at the beginning (pre) and at the end (post) of the summer, while non-participants were surveyed only at the end of the summer (post) due to program constraints. While this did not allow for the evaluators to compare changes over time across the two groups, they could still measure 1) changes over time for the participants and 2) how participants ranked relative to the non-participants after the program ended. This data allowed evaluators to explore whether the program positively impacted the treatment group during the summer, and whether the post-measurements of these impacts were significantly different from those in the control group.

It should be noted that although nearly an identical number of youth responded from each group, the response rate was much higher among youth selected by the SYEP lottery (66.9%) versus those not selected (21.8%). Although the control group was randomly selected, those who chose to respond to the post-survey were not, exhibiting more advantageous characteristics than the treatment group (e.g. being older, non-minority, and from a two-parent household). This suggests that the data from the control group sets a relatively high bar for finding positive impacts from the Boston SYEP.

OWD worked with state and local agencies to access criminal justice, school, and wage records that allowed the Dukakis Center to evaluate the program's longer-term effects. The criminal justice records were obtained from the Massachusetts Department of Criminal Justice Information Services (DCJIS) and the Office of the Commissioner of Probation (OCP); these records provide information on all court-related activity for both juveniles and adults prior to the start of the program as well as during the 17 months after participation. School record data obtained from the Boston Public Schools provides information on attendance and course grades for the year before and the year after participation. Finally, wage record data obtained from the Massachusetts Division of Unemployment Assistance provides information on quarterly employment and wages for the year before, and the two years after, participation.

Findings

SHORT-TERM SURVEY RESULTS

The survey responses of participants indicate that in the short term, the Boston SYEP positively impacted teens in many of the ways it was designed to do. Relative to the control group, participants in the program appeared to gain additional job readiness skills, especially when it came to preparing resumes, cover letters, and interview responses. Among those indicating plans to pursue higher education, participants were more likely to raise their sights toward enrolling in a four-year college. Finally, all participants reported that they had greatly improved their attitudes towards their communities. Overall, these trends are encouraging, particularly given that the largest gains were often among minority youth.

Comparison of Outcomes Among Participants: Pre versus Post

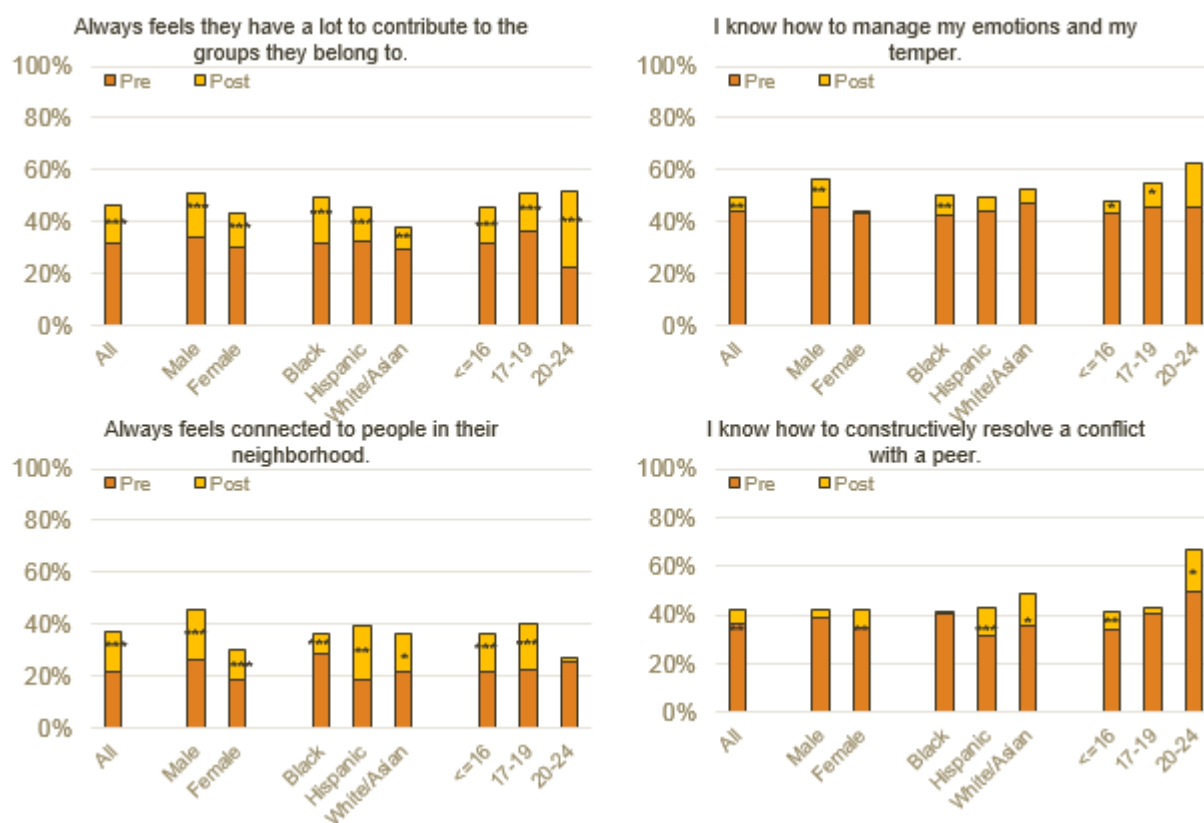
What did participants learn over the summer? Youth in the treatment group reported significant improvements during the summer in three major areas: community

engagement/social skills, academic aspirations, and job readiness. Note that outcomes could be driven by some combination of on-the-job experiences as well as the career readiness curriculum, so we cannot necessarily attribute changes in these outcomes to specific program features at this point.

Community Engagement/Social Skills: Compared to other outcomes, the impact of the Boston SYEP on participants' attitudes towards their community over the course of the summer was the most prominent. Figure 2 shows that the percent of participants reporting that, over the past 30 days, they “always had a lot to contribute” to the groups to which they belonged jumped by 15 percentage points, showing large and significant gains across all demographic groups. Similar positive improvements occurred among the share of teens that said they “always felt connected to their neighborhood.” **Strikingly, these findings on community engagement and social skills were universal across youth of all races, genders, and ages.**

Additionally, youth reported significant improvements in learning how to manage their emotions and resolve conflict with a peer. **Improvements in these social skills were more prominent among males, Hispanics, and younger teens.**

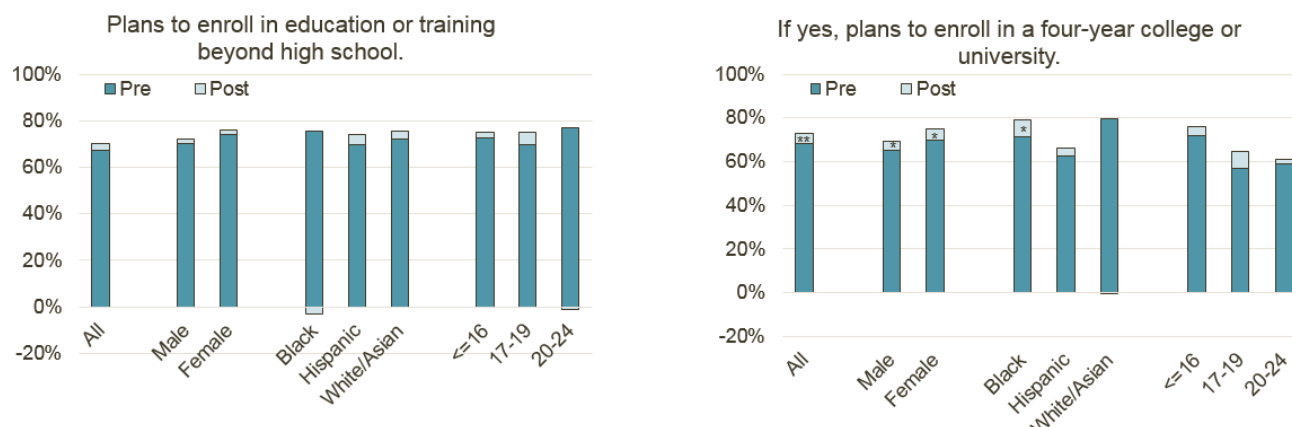
Figure 2: Pre- versus Post-Survey Results, Attitude Toward Community



Source: Calculations by Alicia Sasser Modestino based on survey data provided by the City of Boston Office of Workforce Development.
 Note: *Indicates that the difference is statistically significance at the 10 percent level, ** at the 5 percent level, and *** at the 1 percent level.

Academic Aspirations: In terms of academic aspirations, the Boston SYEP appears to affect college-going plans on the intensive margin rather than the extensive one. While there was no significant change among participants with regards to their plans to attend an education or training program after high school, Figure 3 demonstrates there was a significant shift over the summer towards wanting to pursue a four-year college degree (+4.9 percentage points). **The largest impact for higher academic aspirations was found among African-American youth and females.**

Figure 3: Pre- versus Post-Survey Results, Future Plans

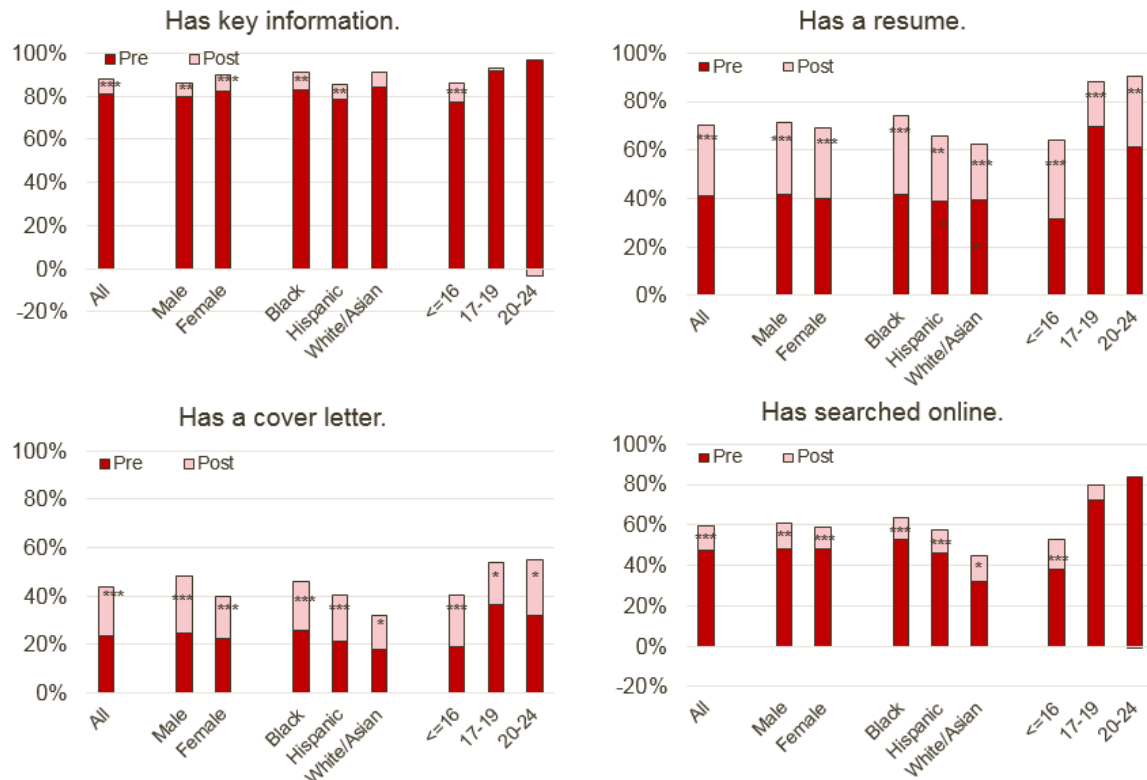


Source: Calculations by Alicia Sasser Modestino based on survey data provided by the City of Boston Office of Workforce Development.

Note: *Indicates that the difference is statistically significance at the 10 percent level, ** at the 5 percent level, and *** at the 1 percent level.

Job Readiness Skills: Over the course of the summer, participants indicated sizeable growth in job readiness skills. Figures 4 and 5 show that large improvements were observed in the percent of participants reporting they had a resume (+29 percentage points) and a cover letter (+20 percentage points) as well as a modest increase in the percent that had searched online for jobs (+12 percentage points) and practiced interviewing with an adult (+10 percentage points). Smaller but significant improvements were also observed in the percent of participants that had developed answers to typical interview questions (+ 9 percentage points), reviewed at least one job application (+8 percentage points) and assembled all the key information needed to apply to a job (+7 percentage points). Although nearly all groups saw similar improvements, **African-American and Hispanic youth showed greater improvements than white/Asian youth across most measures.**

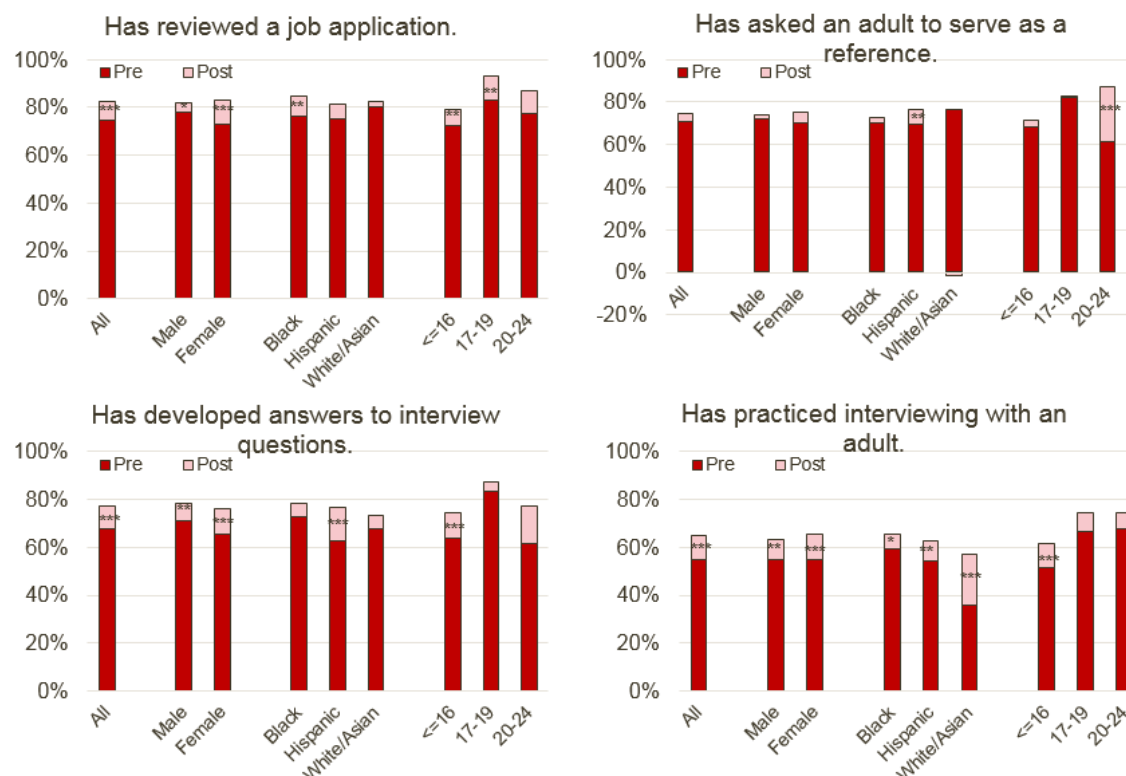
Figure 4: Pre- versus Post-Survey Results, Job Readiness Skills



Source: Calculations by Alicia Sasser Modestino based on survey data provided by the City of Boston Office of Workforce Development.

Note: *Indicates that the difference is statistically significance at the 10 percent level, ** at the 5 percent level, and *** at the 1 percent level.

Figure 5: Pre- versus Post-Survey Results, Job Readiness Skills



Source: Calculations by Alicia Sasser Modestino based on survey data provided by the City of Boston Office of Workforce Development.

Note: *Indicates that the difference is statistically significance at the 10 percent level, ** at the 5 percent level, and *** at the 1 percent level.

Comparison of Outcomes Relative to the Control Group

Although the self-reported improvements among the participants during the summer are encouraging, we need to compare these outcomes to those of the control group to determine what would have happened in the absence of the program. This is because there is likely to be some selection among youth who choose to apply to the program versus those who do not. In addition, we need to differentiate program impacts from what youth typically learn through the natural process of maturing into an adult.

First, we compare the summer employment rates and experiences among those responding to an end-of-summer survey for both the treatment group versus the control group to confirm that the Boston SYEP provides a meaningful intervention. Table 4 shows that while all of the respondents in the treatment group worked during the summer, only 26.4 percent of those responding in the control group had worked – indicating the difficulty for Boston-area youth to secure their own employment during the summer even with a relatively low unemployment rate for the City of Boston.

Youth in the control group who were able to find a job generally worked fewer hours per week than SYEP participants, but had more variation in the types of daily work they did – in comparison, over half of SYEP participants worked at a day care or day camp.

However, participants were significantly more likely than those in the control group to report that they would consider a career in the type of work that they did, had an adult to use as a reference in the future as well as someone they considered a mentor, and felt generally better prepared to enter a new job.

Table 4: Summer employment rates and experiences: Treatment v. Control Group

	Treatments	Controls
ALL RESPONDENTS:	663	664
Employment Rate		
Percent employed this summer***	100.0%	26.4%
WORKERS:		
If worked, hours worked per week		
10 or less***	3.5%	10.9%
11 to 15***	1.7%	10.9%
16 to 20	12.3%	13.3%
21 to 25**	37.1%	26.6%
26+	37.3%	32.8%
If worked, daily work involved (check all that apply)		
Arts/theater/photography/media**	8.1%	16.1%
Day care/day camp***	56.0%	15.4%
Food services**	6.5%	13.3%
Technology/computer work**	6.6%	11.9%
Office work/administrative work	16.5%	17.5%
Outdoor/maintenance/conservation*	13.5%	8.4%
Peer leader	6.8%	4.9%
Tutor***	0.7%	4.2%
If worked, have someone to use as a job reference***	85.5%	76.2%
If worked, have someone they consider a mentor***	67.7%	52.4%
If worked, feel better prepared to enter a new job***	92.5%	76.2%

Source: Calculations by Alicia Sasser Modestino based on survey data provided by the City of Boston Office of Workforce Development.

Note: *Indicates that the difference is statistically significance at the 10 percent level, ** at the 5 percent level, and *** at the 1 percent level.

Did these different experiences lead to better outcomes for the treatment group relative to the control group by the end of the summer? To test this, we compare the post-survey responses of the ABCD participants (treatment group) to those who applied to the Boston SYEP, but were not randomly selected to participate (control group).

However, as noted before, although the control group was randomly assigned not to receive the program, those who chose to respond to the survey were not randomly selected. Survey respondents from the control group had traits that indicate the sample was positively selected relative to the treatment group: they were more likely to be older, identify as white or Asian, live in a two-parent household, and speak English as their primary language. We note that the direction of this bias goes against our finding an impact, thereby setting a rather high bar for evaluating the program. To minimize selection bias due to the survey response rate, Table 5 controls for these observable characteristics using regression analysis and also make comparisons between the treatment and control groups within age/race/gender cells.

Table 5: Comparison of survey responses by demographic groups: Treatment versus Control Group

CATEGORY	All groups combined	"In-school" youth: Age 14-18 years			
		African American		Hispanic	
		Males	Females	Males	Females
Community engagement and social skills					
Have a lot to contribute to the groups I belong to	0.156 *** (0.029)	0.180 ** (0.068)	0.132 ** (0.057)	0.173 ** (0.088)	0.128 * (0.073)
Feel connected to people in my neighborhood	0.212 *** (0.025)	0.260 *** (0.059)	0.148 *** (0.050)	0.251 *** (0.084)	0.224 *** (0.065)
Know how to manage my emotions and temper	0.065 ** (0.033)	0.162 ** (0.071)	0.089 (0.062)	0.037 (0.091)	0.034 (0.081)
Know how to ask for help when I need it	0.116 *** (0.030)	0.029 (0.070)	0.090 (0.058)	0.082 (0.090)	0.080 (0.075)
Know how to resolve a conflict with a peer	0.136 *** (0.029)	0.133 ** (0.065)	0.057 (0.056)	0.151 * (0.086)	0.174 (0.070) **
Academic aspirations					
Plan to enroll in education or training program	0.003 (0.017)	-0.002 (0.040)	0.017 (0.034)	-0.007 (0.048)	0.011 (0.039)
Plan to attend a four-year college or university	0.110 *** (0.081)	0.099 (0.065)	0.171 *** (0.052)	-0.103 (0.084)	0.169 ** (0.066)
Plan to attend a two-year college	0.062 *** (0.019)	0.049 (0.041)	0.094 *** (0.033)	0.117 * (0.070)	0.018 (0.044)
Job readiness skills					
Have all key information to apply for a job	0.094 *** (0.021)	0.064 (0.053)	0.080 ** (0.042)	0.080 (0.057)	0.059 (0.055)
Have prepared a resume	0.245 *** (0.027)	0.317 *** (0.052)	0.187 *** (0.055)	0.313 *** (0.075)	0.238 *** (0.071)
Have prepared a cover letter	0.217 *** (0.028)	0.257 *** (0.061)	0.230 *** (0.055)	0.285 *** (0.085)	0.204 ** (0.071)
Have asked an adult to serve as a reference	-0.001 (0.027)	-0.016 (0.065)	-0.055 (0.052)	0.105 (0.074)	-0.056 (0.065)
Have reviewed at least one job application form	0.039 (0.024)	-0.001 (0.053)	0.027 (0.044)	0.086 (0.071)	0.025 (0.057)
Have searched for jobs online	0.025 (0.031)	0.152 ** (0.066)	-0.110 ** (0.057)	0.103 (0.090)	-0.018 (0.078)
Have asked an adult for help finding a job	0.071 *** (0.024)	0.041 (0.053)	0.026 (0.042)	0.135 ** (0.060)	0.068 (0.055)
Have developed answers for interview questions	0.069 *** (0.026)	0.111 * (0.062)	0.056 (0.051)	0.088 (0.071)	0.031 (0.062)
Have practiced interviewing with an adult	0.064 ** (0.031)	0.118 * (0.071)	0.074 (0.059)	0.069 (0.085)	0.012 (0.075)

Source: Calculations by Alicia Sasser Modestino based on survey data provided by the City of Boston Office of Workforce Development.

Notes: Each coefficient is the marginal effect from a separate probit regression of the outcome on a dummy variable for treatment controlling for age, gender, race, two parent family, and English as the primary language. Robust standard errors are in parentheses. *Indicates that the difference is statistically significance at the 10 percent level, ** at the 5 percent level, and *** at the 1 percent level.

Community Engagement/Social Skills: Table 5 demonstrates that the impact of the Boston SYEP on participants' attitudes towards their community was universal and significant relative to the control group. Youth in the treatment group were far more likely to report feeling they always had a lot to contribute to the groups they belonged to (+15.6 percentage points) and feeling connected to the people in their neighborhood (+21.2 percentage points). **These findings were strongly consistent across all race and gender groupings.**

Participants also reported significant improvements in social skills relative to the control group, including managing their emotions (+6.5 percentage points), knowing how to ask for help (+11.6 percentage points), and knowing how to resolve conflict with a peer (+13.6 percentage points). **These impacts were primarily observed among African-American males.**

Academic Aspirations: While there were no significant differences between the treatment and control group in terms of their plans to attend an education or training program after high school, youth in the treatment group were more likely to report wanting to go to a two (+6.2 percentage points) or four (+11.0 percentage points) year college. **The largest impact was found for African-American and Hispanic females and is consistent with other research that has documented an upward trend in college attendance among non-white women relative to men.**

Job Readiness Skills: Table 5 shows that teens in the treatment group outperformed those in the control group across most of our job readiness measures. In particular, those in the treatment group were 24.5 percentage points more likely to have a resume or cover letter compared to the control group and these impacts were fairly uniform across all race/gender groupings. Other significant improvements, although smaller in magnitude, were observed for youth asking for help finding a job, developing answers to typical interview questions, and practicing interviewing skills. **Among race and gender groupings, African-American males showed the most improvement across the board.**

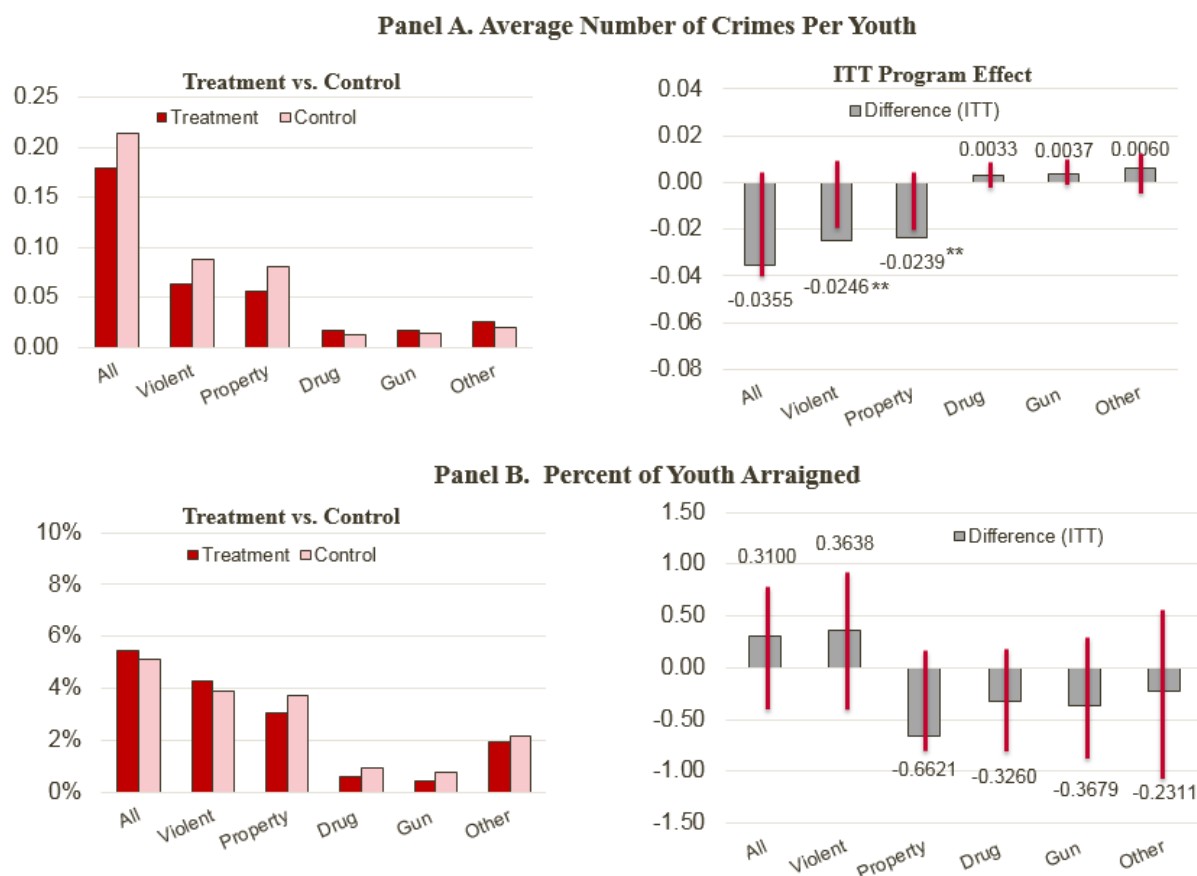
In summary, most of the areas where youth in the treatment group reported improvements during the summer were also those where they had made significant gains relative to the control group, indicating that these short-term program impacts can be attributed to the Boston SYEP. In the next section, we test whether these short-term impacts over the summer led to improvements in long-term outcomes over the course of the 12-18 months after participation in the program.

ONE-YEAR OUTCOMES FROM ADMINISTRATIVE DATA

Criminal Justice Outcomes

Using administrative data from criminal justice records, evaluators found that the Boston SYEP had a significant impact on reducing the frequency of arraignments among youth. Figure 6 shows that violent-crime arraignments among the treatment group decreased 35 percent relative to the control group, with roughly 2.5 fewer arraignments per 100 youth. The percentage decline was even greater for property crimes (-57 percent).

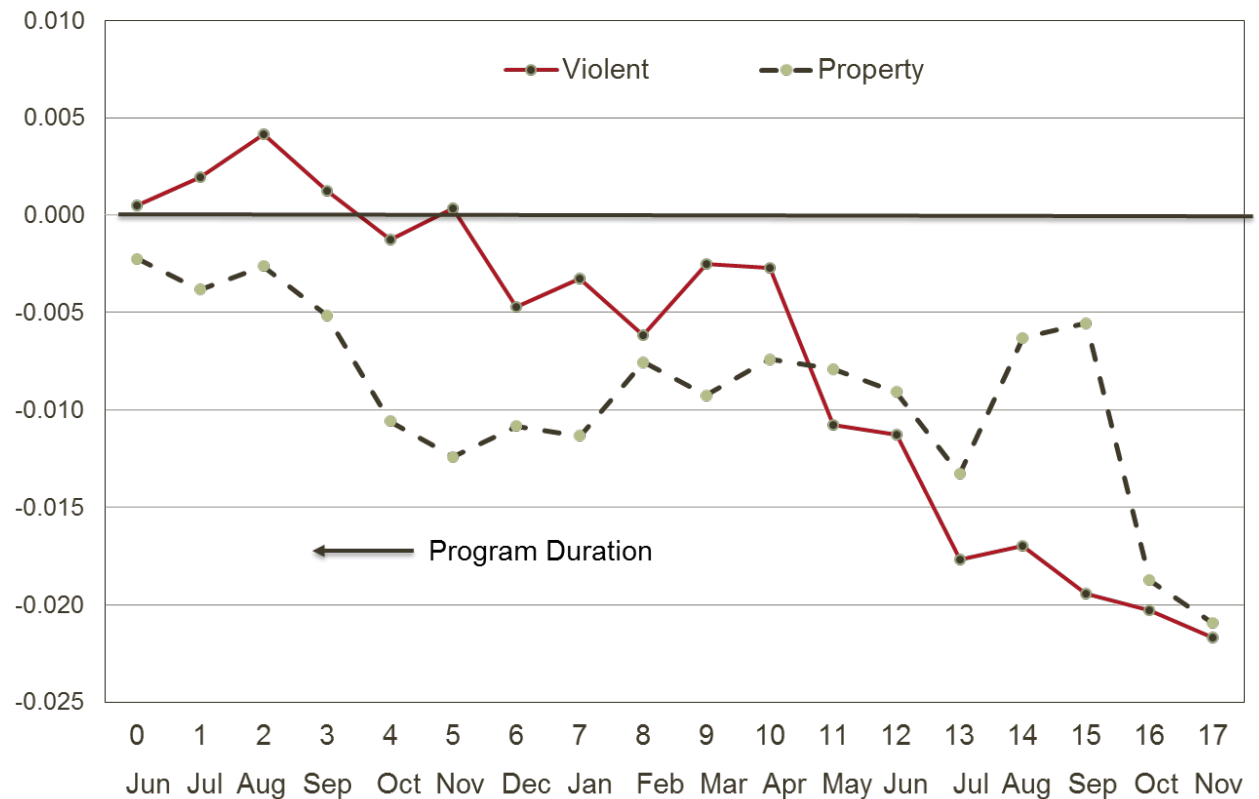
Figure 6: Estimates of the Impact of the Boston SYEP on Criminal Activity



Source: Calculations by Alicia Sasser Modestino based on administrative data provided by the Department of Criminal Justice Information Services and the Office of the Commissioner of the Probation.
 Note: *Indicates that the difference is statistically significant at the 10 percent level, ** at the 5 percent level, and *** at the 1 percent level.

Notably, the decrease in criminal activity was not limited to the duration of the program as would be expected if the program's primary mechanism was incapacitation (preventing criminal behavior during the summer by giving youth less opportunity to engage in delinquent behavior). If this were the case, the treatment group would return to their prior behavioral patterns once the program ended, yielding no significant difference between the treatment and control groups in the post-period. Instead, Figure 7 shows that the number of arraignments for the treatment group continued to fall relative to the control group through the end of the 17-month observation period.

Figure 7: Estimates of Cumulative Decrease in Arrests by Type



Source: Calculations by Alicia Sasser Modestino based on data provided by the Department of Criminal Justice Information Services and the Office of the Commissioner of the Probation.

The Dukakis Center also measured whether the one-year outcomes were linked to short-term program indicators. Evaluators found that participants who reported improvements in most of the social and community engagement measures also showed large and significant reductions in criminal activity. For example, Table 6 shows that improvements in short-term measures related to social and emotional skills – such as learning to manage one’s emotions or resolve conflicts with a peer – were correlated with larger decreases in both violent and property crimes.

Table 6: Relationship between SYEP impact on short-term program impacts and number of arraignments per youth

Short-term program outcomes	Intent-to-treat estimates			
	Violent crimes		Property crimes	
	Coefficient	Standard error	Coefficient	Standard error
Community engagement and social skills				
Contributing to the groups they belong to	-0.012	(0.011)	-0.004	(0.011)
Connecting to people in their neighborhood	-0.001	(0.012)	0.008	(0.012)
Managing emotions	-0.031	(0.011) ***	-0.017	(0.011)
Asking for help	0.004	(0.011)	-0.021	(0.011) **
Resolving conflict with a peer	-0.048	(0.023) ***	-0.025	(0.010) **
Improving conflict resolution skills (overall)	-0.106	(0.044) **	-0.037	(0.021) *
Academic aspirations				
Planning to attend a four-year college	0.006	(0.012)	0.001	(0.011)
Job readiness skills				
Having key information to apply for a job	-0.004	(0.013)	0.013	(0.013)
Preparing a resume	0.009	(0.011)	-0.008	(0.011)
Preparing a cover letter	-0.005	(0.011)	-0.005	(0.011)
Developing answers to interview questions	-0.025	(0.014) *	-0.010	(0.013)
Practicing interviewing with an adult	0.013	(0.011)	0.014	(0.010)
Improving job readiness skills (overall)	-0.015	(0.013)	-0.011	(0.012)
Number of Observations	5934		5934	

Source: Calculations by Alicia Sasser Modestino based on data provided by the Department of Criminal Justice Information Services and the Office of the Commissioner of the Probation.

Note: Each coefficient is the marginal effect from a separate probit regression of the outcome on a dummy variable for treatment controlling for age, gender, race, two parent family, and English as the primary language. Robust standard errors are in parentheses. *Indicates difference is statistically significant at the 10 percent level; ** at the 5 percent level; and*** at the 1 percent level.

Across subgroups, there were greater reductions in arraignments for both violent and property crimes among African-American and Hispanic males of varying ages than among other subgroups. Among African-American males aged 14-18 years, the total number of arraignments fell by 6.1 per 100 youth, primarily driven by a drop in violent crime. Yet the reduction in arraignments among older black males aged 19-24 years was driven primarily by a reduction in property crimes (-8.9 crimes per 100 youth). In contrast, the drop in arraignments among Hispanic males aged 19-24 years (-13.9 crimes per 100 youth) was driven by a fall in both violent and property crime.

Education Outcomes

Using administrative data from school records, the Dukakis Center found significant impacts on both attendance and course passing rate, especially for more marginal students. During the school year following program participation, the attendance rate for the treatment group was significantly higher than that of the control group (+2.7 percentage points). The higher attendance rate was the result of a considerably greater share of students in the treatment group increasing their number of days attended relative to the control group (+6.0 percentage points). As a result, the percent of students in the treatment group with average daily attendance greater than 85 percent (below which is considered marginal) increased significantly, by 7.8 percentage points relative to the control group. The largest impacts were found on the number of days of unexcused absences. Relative to the control group, the

treatment group experienced 4.5 fewer days of unexcused absences on average, driven in large part by an increase in unexcused days among the control group.

Table 7: Program Effect on Attendance by Demographic Group

All Students Matched	Treatment Group					Control Group					Treatment-Control	
	Pre (2014-15)	Post (2015-16)	Diff	Sig	N	Pre (2014-15)	Post (2015-16)	Diff	Sig	N	Pre-Post Diff	Pre-Post Sig
Attendance rate												
All	90.32	90.00	-0.32		264	90.04	87.26	-2.78	***	965	2.46	**
Age <16	92.00	91.22	-0.78		118	93.21	90.37	-2.84	***	439	2.06	*
Age >=16	88.89	88.99	0.10		143	87.25	84.60	-2.65	***	518	2.75	**
Female	88.67	89.17	0.51		141	89.71	87.06	-2.65	***	563	3.15	*
Male	92.16	90.97	-1.19		120	90.47	87.52	-2.96	***	394	1.76	*
African-American	88.41	89.01	0.60		139	89.48	86.78	-2.70	***	506	3.30	*
Hispanic	88.88	88.59	-0.29		84	88.05	84.50	-3.54	***	317	3.25	*
White	91.53	91.00	-0.53		25	92.88	91.13	-1.74		88	1.21	
Asian	97.96	96.86	-0.10		30	96.85	94.58	-2.28	***	92	1.17	**
Percent increasing their days attended												
All	NA	40.91%	NA			NA	35%	NA			NA	5.99
Age <16	NA	33.68%	NA			NA	36%	NA			NA	-0.76
Age >=16	NA	43.84%	NA			NA	34%	NA			NA	9.86
Female	NA	39.44%	NA			NA	35%	NA			NA	4.62
Male	NA	41.80%	NA			NA	35%	NA			NA	7.13
African-American	NA	43.26%	NA			NA	38%	NA			NA	5.15
Hispanic	NA	33.72%	NA			NA	33%	NA			NA	0.70
White	NA	34.62%	NA			NA	39%	NA			NA	-4.02
Asian	NA	30.00%	NA			NA	23%	NA			NA	7.17
Percent of students with ADA at or above 85%												
All	63.46%	78.79%	15.15	***		67.63%	75.00%	7.37	***		7.79	*
Age <16	71.19%	83.90%	12.71	***		74.55%	82.95%	8.41	***		4.30	
Age >=16	57.53%	74.66%	17.12	***		61.80%	68.33%	6.53	***		10.60	**
Female	59.86%	76.06%	16.20	***		67.85%	74.96%	7.10	***		9.09	**
Male	68.03%	81.97%	13.39	***		67.34%	75.13%	7.79	***		6.15	
African-American	63.83%	78.72%	14.89	***		68.17%	72.10%	3.93	*		10.96	**
Hispanic	56.98%	70.93%	13.95	***		58.18%	69.18%	11.01	***		2.95	
White	61.54%	76.92%	15.38	*		68.18%	80.68%	12.50	**		2.88	
Asian	76.67%	93.33%	16.67	**		86.96%	92.39%	5.43			11.23	
Average number of days unexcused absences												
All	11.77	13.25	1.49			12.73	17.73	5	***		-3.50	***
Age <16	8.81	12.01	3.20	**		8.49	13.11	4.61	***		-1.42	
Age >=16	14.27	14.29	0.02			16.45	21.69	5.25	***		-5.23	**
Female	13.58	14.27	0.69			13.1	17.21	4.1	***		-3.42	
Male	9.74	12.08	2.34	**		12.24	18.54	6.3	***		-3.96	**
African-American	13.25	15.19	1.94			13.31	18.72	5.41	***		-3.47	
Hispanic	15.04	16.00	0.96			15.69	20.91	5.22	***		-4.26	**
White	11.05	12.00	0.95			8.6	11.26	2.66			-1.71	
Asian	1.74	4.03	2.29	**		3.59	7.23	3.64	***		-1.35	**

Source: Calculations by Alicia Sasser Modestino based on data provided by the Boston Public Schools Office of Data and Accountability

Notes: * Indicates difference is statistically significant at the 0.10 level, ** at the 0.05 level, *** at the 0.01 level

Fewer significant improvements were able to be detected using student course grades, in part because of the slightly smaller sample size with reported grades both before and after the program. While there was no significant impact on overall GPA, a significantly lower share of students in the treatment group experienced a decrease in their GPA from the previous year after participating in the program. This was largely driven by a significant reduction in the share of students in the treatment group that failed a course during the school year following SYEP participation relative to the control group (-15.3 percentage points).

Table 8: Program Effect on Course Grades

All Students	Treatment Group			Control Group			Treatment-Control		
	Pre (2014-15)	Post (2015-16)	Diff Sig	Pre (2014-15)	Post (2015-16)	Diff Sig	Pre-Post Diff	Post Diff	Sig
Overall GPS (4.0 scale, weighted)	2.32	2.47	0.15	2.42	2.48	0.06	0.09	-0.01	
Percent increasing GPA		18.6%			18.1%			0.52	
Percent decreasing GPA		11.2%			13.7%			2.48	**
Percent of students failing a course	64.40%	59.4%	-4.99	67.5%	74.8%	7.26 **	-12.25	-15.34	*

Source: Calculations by Alicia Sasser Modestino based on data provided by the Boston Public Schools Office of Data and Accountability

Notes: * Indicates difference is statistically significant at the 0.10 level, ** at the 0.05 level, *** at the 0.01 level

Linking the one-year outcomes to short-term program indicators, it appears that students who increased aspirations to attend a 2-year college improved their attendance rate, were more likely to attend at least 85 percent of school days, and had fewer unexcused absences relative to the control group. Students starting to save for college tuition during the summer experienced similar gains in attendance rate and similar reductions in number of unexcused absences.

Table 9: Relationship Between SYEP Impact on Short-Term Program Impacts and Attendance

CATEGORY	Dependent Variables					
	Full sample					
	Attendance Rate		ADA>=85%		Unexcused days	
	Coeff	SE	Coeff	SE	Coeff	SE
Work and Academic Aspirations						
Youth increasing aspirations to work in the fall	2.256	(1.879)	0.038	(0.059)	-1.192	(2.929)
Youth increasing aspirations to attend 2 year college	6.407	(1.509) ***	0.226	(0.027) ***	-8.001	(2.210) ***
Youth increasing aspirations to attend 4 year college	3.493	(1.699) **	0.083	(0.060)	-3.837	(2.542)
Youth starting to save for college tuition	6.826	(1.544) ***	-0.010	(0.141)	-9.246	(2.094) ***
Number of observations	1220		1220		1220	

Source: Calculations by Alicia Sasser Modestino based on data provided by the Boston Public Schools Office of Data and Accountability

Notes: Regressions also include SYEP dummy and covariates for age, gender, race/ethnicity, limited English, public assistance, and homelessness.

Robust standard errors are in parentheses. * Indicates difference is statistically significant at the 0.10 level, ** at the 0.05 level, *** at the 0.01 level

Comparing outcomes across subgroups, larger improvements in attendance rates were found among older students (over age 16, the legal age for dropping out of school), as well as among male and Hispanic students. Larger reductions in the number of unexcused days were found among older students (over age 16) as well as among male and Hispanic students. The impact on students with marginal baseline attendance was even greater, with 12.1 fewer days of unexcused absences on average relative to the control group. See Table 7 (on page 22) for more in-depth data on changes in attendance rates.

Table 10: Program Effect on Attendance, by At-Risk Status

	Treatment Group				Control Group				Treatment-Control			
	Pre (2014-15) N=264	Post (2015-16) N=264	Diff	Sig	Pre (2014-15) N=965	Post (2015-16) N=965	Diff	Sig	Pre-Post Diff	Sig	Post Diff	Sig
All Students												
Attendance rate	90.32	90.00	-0.32		90.04	87.26	-2.78	***	2.46	**	2.47	**
Percent increasing days attended	NA	40.91%			NA	34.92%					5.99	*
Percent decreasing days attended	NA	38.26%			NA	46.89%					-8.63	**
Percent of students with ADA at or above 85%	63.64%	78.79%	15.15	***	67.63%	75.00%	7.37	***	7.79	*	3.79	
Average number of days attended	153.45	156.16	2.71		154.66	152.24	-2.42	*	5.13		3.92	
Average number of days unexcused absence	11.77	13.26	1.49		12.73	17.73	5.00	***	-3.50	***	-4.47	***
Marginal Students	N=50	N=50			N=186	N=186						
Attendance rate	74.46	76.08	1.62		73.08	69.35	-3.73	**	5.36		6.73	
Percent increasing days attended	NA	60.00%			NA	56.99%					3.01	
Percent decreasing days attended	NA	38.00%			NA	41.40%					-3.40	
Percent of students with ADA at or above 85%	0.00%	42.00%	42.00	***	0.00%	32.26%	32.26	***			9.74	
Average number of days attended	95.96	121.73	25.77	**	98.94	112.13	13.19	**	12.58		9.60	
Average number of days unexcused absence	29.62	29.80	0.18		32.89	41.93	9.04	***	-8.87	**	-12.13	***

Source: Calculations by Alicia Sasser Modestino based on data provided by the Boston Public Schools Office of Data and Accountability

Notes: Marginal students are defined as those who have attended less than 85% of school days in SY 2014-15 (or less than 153 out of 180 days as required by state law). * Indicates difference is statistically significant at the 0.10 level, ** at the 0.05 level, *** at the 0.01 level

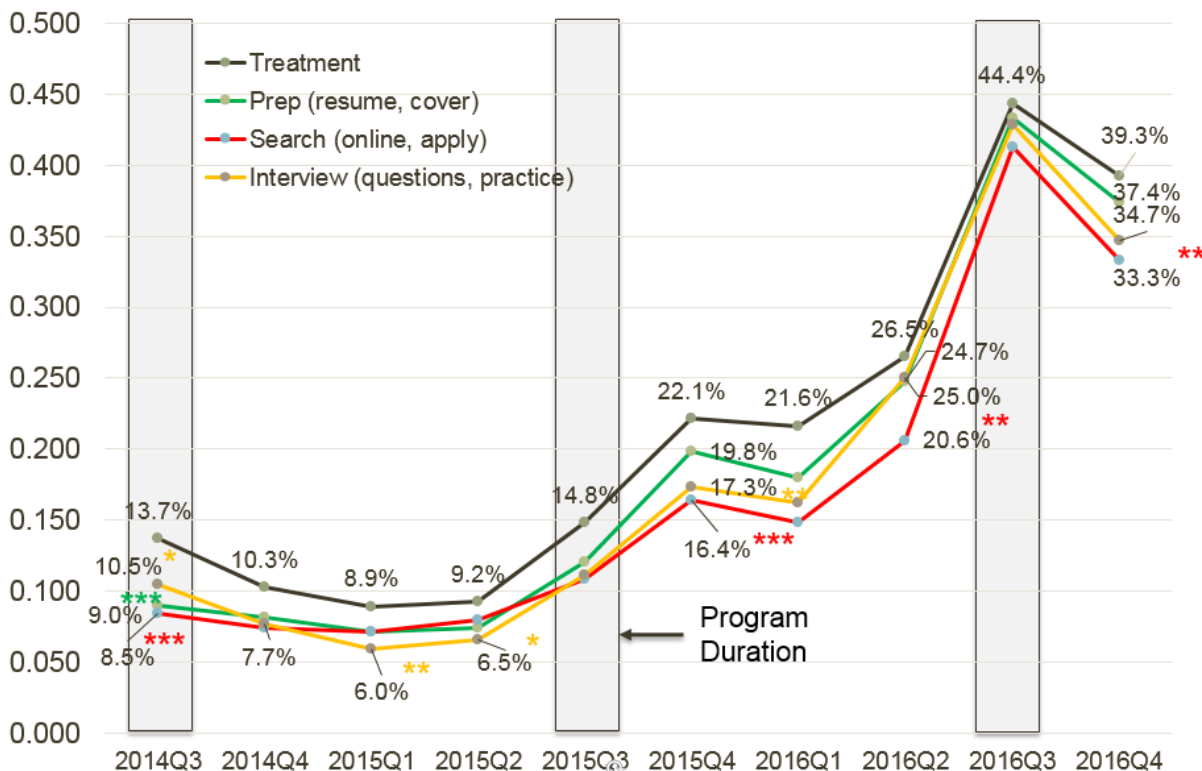
Employment Outcomes

Unlike criminal justice or school outcomes, employment outcomes proved less detectable in the year following program participation. There may be several reasons for this. First, youth may have been less apt to seek work immediately after participating; since they were able to work during the summer, they may have chosen to spend more time on school or other activities. As such, program impacts may not be observable until youth are out of school, which would necessitate following individuals over a longer period of time than one year.

Overall, employment and wage rates were higher during the academic year after participating in SYEP compared to the year before, but they were not significantly different from those of the control group. The one exception was older youth, who showed a small but statistically significant increase of two to three percentage points in employment.

Linking the one-year outcomes to short-term program indicators, it appears that employment increased more rapidly among participants reporting improvement in job readiness skills, such as preparing a resume/cover letter and practicing interviewing techniques, but not in terms of job search skills, such as looking for and applying for jobs online. Employment also increased more rapidly among those reporting they felt “more prepared” for a new job, but not among those reporting having gained a reference or a mentor.

Figure 8: Employment Rate for Treatment Group by Survey Response



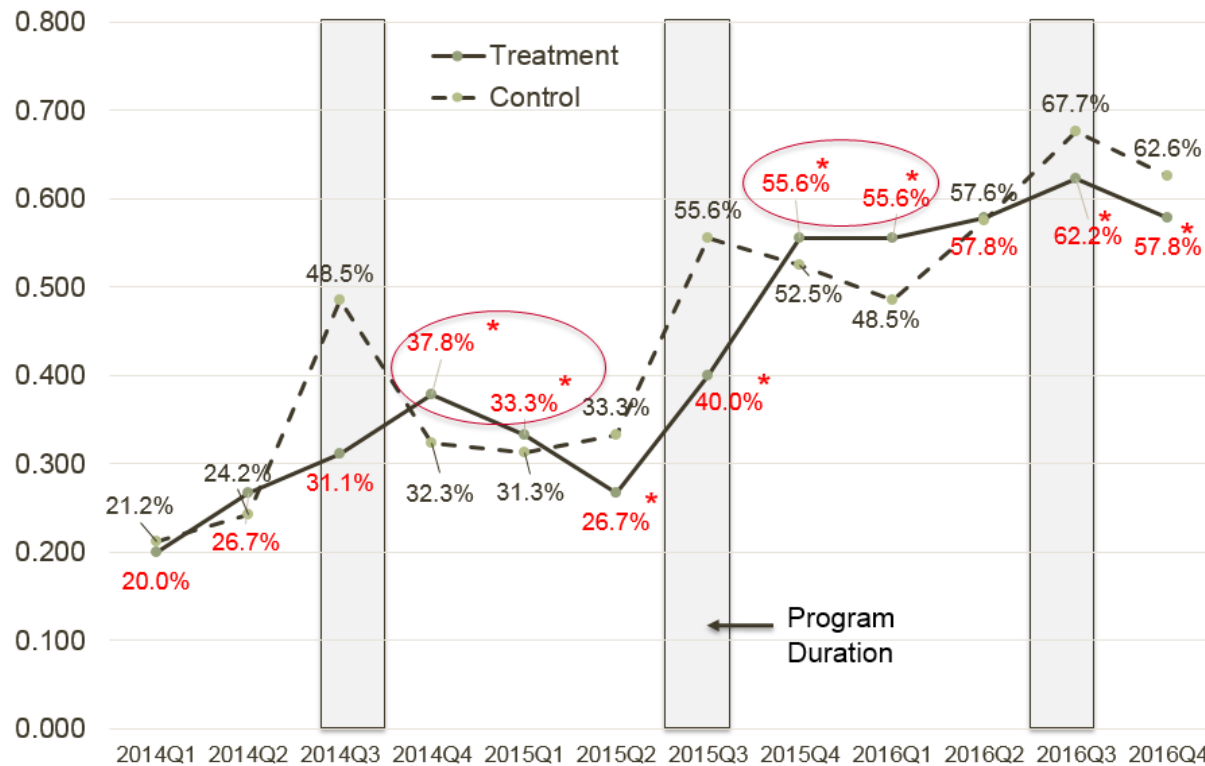
Source: Calculations by Alicia Sasser Modestino based on Massachusetts Division of Unemployment Assistance.

Note: Shading indicates the third quarter (July-August-September) which corresponds most closely to summer employment. Data excludes students working as part of a program which understates employment among treatment group during summer 2015 (and possibly summer 2016 if they applied and were selected that summer as well).

*Indicates that the difference is statistically significance at the 10 percent level, ** at the 5 percent level, and *** at the 1 percent level.

Comparing outcomes across demographic groups, employment among older minority males was higher after participating in SYEP in 2015. Among African-Americans, total quarterly wages were higher in the academic year following SYEP participation relative to their counterparts in the control group. Given that the majority of SYEP participants are African-American and live in high-poverty neighborhoods with few good job opportunities, it may be the case that the Boston SYEP is effective in narrowing the wage gap between blacks and whites.

Figure 9: Employment Rates for African American Males, 19-24 Years Old

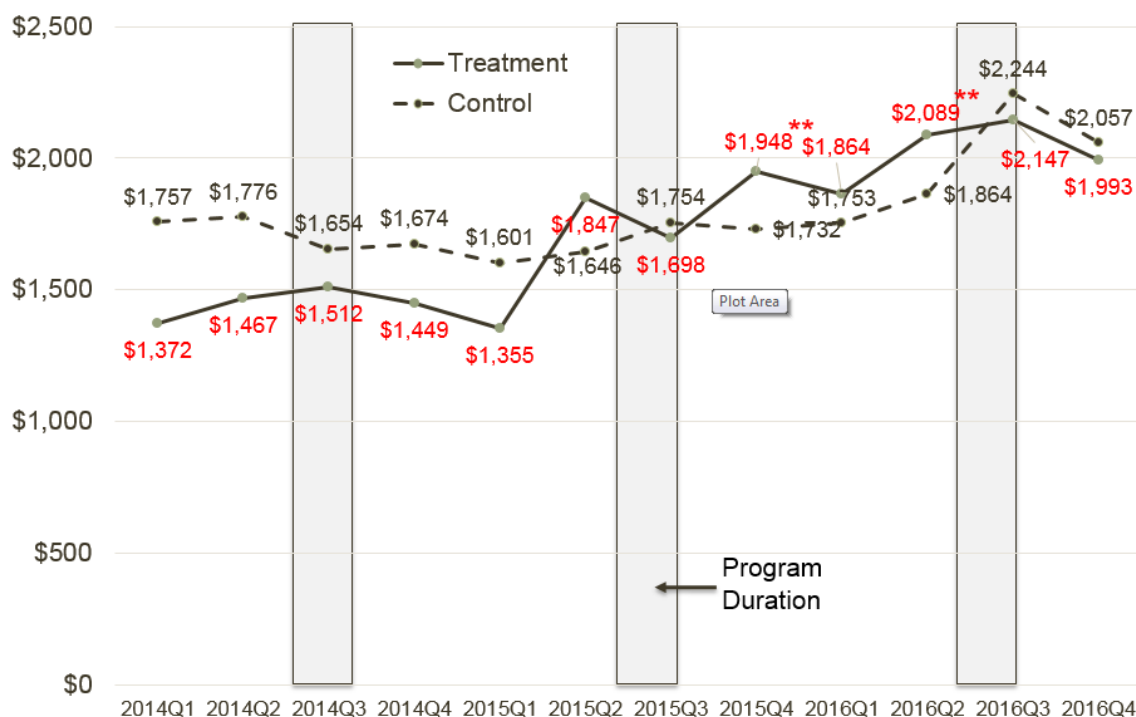


Source: Calculations by Alicia Sasser Modestino based on Massachusetts Division of Unemployment Assistance.

Note: Shading indicates the third quarter (July-August-September) which corresponds most closely to summer employment. Data excludes students working as part of a program which understates employment among treatment group during summer 2015 (and possibly summer 2016 if they applied and were selected that summer as well).

*Indicates that the difference is statistically significance at the 10 percent level, ** at the 5 percent level, and *** at the 1 percent level.

Figure 10: Total Quarterly Wages for African-Americans



Source: Calculations by Alicia Sasser Modestino based on Massachusetts Division of Unemployment Assistance.
 Note: Shading indicates the third quarter (July-August-September) which corresponds most closely to summer employment. Data excludes students working as part of a program which understates employment among treatment group during summer 2015 (and possibly summer 2016 if they applied and were selected that summer as well).
 *Indicates that the difference is statistically significance at the 10 percent level, ** at the 5 percent level, and *** at the 1 percent level.

Conclusion and Next Phase of Evaluation

In closing, this evaluation of the Boston SYEP makes considerable contributions to the City of Boston and the Commonwealth. This research has broad implications for expanding our knowledge about inequality of opportunity relative to what we know about inequality of measureable outcomes. If summer job programs provide opportunities for disadvantaged youth that lead to better economic, academic, and criminal justice outcomes, then expanding such programs can help level the playing field and reduce inequality.

Over the next three years, the Dukakis Center will use funding from the William T. Grant Foundation to assess the effectiveness of various features of the Boston SYEP that can help the city use its limited resources more effectively to help the greatest number of youth. This will include examining outcomes by dosage (e.g. number of participation summers), job type (e.g. subsidized versus private sector), and inclusion of the career readiness curriculum. In addition, the Dukakis Center is conducting a summer jobs “census” of all applicants and participants across the various CBOs as well as John Hancock’s MLK program to assess the aggregate benefit of providing summer jobs on a city-wide basis. As such, we believe that the findings from this research will have important ramifications for similar programs, policies, and practices across the Commonwealth and the nation aimed at employing youth in other cities.

Endnotes

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