briefly STATED

RESEARCH SUMMARY
February 2020
Number: 20-01

The Impact of Summer Youth Employment (SYEP) in Cleveland on Criminal Justice and Educational Outcomes

Meghan Salas Atwell, PhD, Youngmin Cho, PhD, Claudia Coulton, PhD, and Tsui Chan,BS

Acknowledgment: *This study was made possible with support from Youth Opportunities Unlimited*

Summary

Youth jobs have the potential to disrupt cycles of youth violence and lead to better outcomes with regard to school engagement, other employment, and positive youth development. The Summer Youth Employment Program (SYEP), administered by Y.O.U. (Youth Opportunities Unlimited), serves youth living in economically distressed circumstances in the Cleveland area, providing work experiences intended to serve as building blocks for future employment opportunities and financial literacy. This analysis evaluates the impact of the SYEP by comparing youth that participate in SYEP with similar youth that were not selected for participation on a range of criminal justice and educational outcomes. Individuals applying for summer jobs through Y.O.U's SYEP from 2014 -2017 were matched to administrative data to examine juvenile justice, incarceration and educational outcomes, using propensity score matching techniques. SYEP participants were less likely to have both delinquency filings and to be incarcerated in the adult jail system 2 years after placement than were individuals in the matched comparison group. SYEP participants had better school attendance rates in the academic year following summer application and were more likely to graduate from high school than comparison youth. These results suggest that SYEP is a promising, preventative intervention for Cleveland's youth.

JACK, JOSEPH AND MORTON MANDEL SCHOOL OF APPLIED SOCIAL SCIENCES
CASE WESTERN RESERVE UNIVERSITY

Center on
Urban Poverty and
Community Development

Introduction

Y.O.U. (Youth Opportunities Unlimited) serves youth living in economically distressed circumstances in the Cleveland area and provides the Summer Youth Employment Program (SYEP). This experience is intended to serve as a building block for future employment opportunities and financial literacy. Each summer, the program places as many as 3,000 youth in summer and community partner jobs.

The present study examines whether Y.O.U's employment programming for youth in Cleveland has an impact on criminal justice and educational outcomes for participating youth. We evaluate this impact using a quasi-experimental design comparing youth that completed the program (i.e. treatment group) with a matched comparison group of youth not selected into SYEP.

The bulk of the literature on youth employment focuses upon the impacts of employment throughout the year on key youth outcomes. Research emphasis on the impact of summer youth employment is more recent. Within the last five years, a few studies have looked specifically at the impact of SYEP on key criminal justice and educational outcomes.

Studies in other American cities examining the impact of SYEP on both criminal justice (Heller, 2014; Davis and Heller, 2017; Modestino, 2019; and Gelber et al, 2015) and educational outcomes (Leos-Urbel 2014; Davis and Heller 2017; Gelber et al, 2015; and Schwartz et al, 2015) report promising but somewhat mixed results.

The present study builds upon this previous research and examines whether similar patterns are evident in Cleveland for the Y.O.U. SYEP.

Research Questions

Based on our review of the literature, we hypothesize that engagement in SYEP has the potential to improve both criminal justice and educational outcomes for participating youth. To test these hypotheses with a sample of youth in Cleveland, we measure juvenile justice, incarceration and educational outcomes in the immediate years following SYEP for the group of youth that completed the program to comparison groups of similar youth who applied for SYEP but were not selected to participate. The following research questions are addressed:

What is the effect of the Y.O.U. SYEP on:

- juvenile delinquency filings in the 1-2 years following job placement?
- county jail incarceration in the 1-2 years post placement for those who turn 18 in the post- job placement period?
- school attendance in the academic year following job placement?
- high school graduation and college matriculation?

Study Data and Sample

Y.O.U. provided the Center on Urban Poverty and Community Development (Poverty Center) with application records for the SYEP over the 2014-2018 period (n=25,880). The program typically selects as many as 3,000 applicants from the pool for placement in summer jobs each year based on available funding. Applicant records were matched to a number of relevant administrative data housed in the Child Household Integrated Longitudinal Data (CHILD) System at the Poverty Center. This secure data system, operated under Institutional Review Board protocols, contains identifiable linked records on children born in Cuyahoga County starting in 1989. Table 1 lists the study variables, data sources, and measures used for this project.

The treatment group matched sample is comprised of youth that were selected for SYEP and completed the program (n=3,184). To be classified as a "completer" an SYEP participant needed to have been present on the job for at least 2/3 of the program days. Those who were fired were not classified as "completers." The comparison group matched sample is drawn from those who applied for SYEP but were not selected to participate (n=16,150). Applicants are selected to participate through a process that is largely random (i.e. applicants are not selected based on credentials).

Despite the largely random selection process, SYEP completers were more likely to be female, African American, and older than those not selected. With respect to maternal characteristics, SYEP completers' mothers were less likely to have graduated from high school, and were more likely to have been teenagers by the time of their birth than the mothers of those not selected. SYEP completers were also more likely to receive public assistance and to experience foster care

Concept	Measure	Source
Outcomes		
Juvenile delinquency	Delinquency filings	J
Incarceration	County jail incarceration	I
Educational outcomes	Attendance rate; graduation; college matriculation	E1, E2
Y.O.U intervention	Completed SYEP program	Y
Matching variables		
Youth characteristics	Gender; race/ethnicity; age; education; Cleveland resident	E1, S, Y
Birth outcomes	Premature birth; low birth weight	S
Maternal characteristics	Teen motherhood; mothers' education at child birth	S
Poverty status	SNAP >50% of life time	C1
Child welfare	Neglect/abuse investigation; foster care placement	C2
Neighborhood	Concentrated disadvantage factor score	N

Source: J=Cuyahoga County Juvenile Court; I=Cuyahoga County Jail Inmate data; E1=CMSD and Inner ring suburban school districts in the county; E2=Ohio Department of Education; Y=Y.O.U; C1=Cuyahoga County Job and Family Services; C2=Cuyahoga County Division of Children and Family Services; N=American Community Survey (ACS); S=Ohio Department of Health

Table 1: Study variables, data sources, and measures.

placement. Finally, SYEP completers had higher rates of low birth weights and premature birth outcomes than the comparison group. Given these differences, a quasi-experimental design was necessary to be able to attribute differences in outcomes to SYEP.

Method

In the absence of a randomized design, researchers modeled selection into treatment using a propensity score technique. This powerful approach involves identifying a sub-group of non-selected applicants most similar to the treatment youth on a number of pre-treatment individual, family and neighborhood-level covariates. A propensity score is calculated based on the covariates, and individuals in the treatment groups are matched to the individuals in the comparison group with most similar propensity scores. This particular approach is referred to as "nearest neighbor" matching (Lanza, Moore, & Butera, 2013).

The pre–treatment covariates used to create the matched samples included variables such as race / ethnicity, gender, level of education, age, birth characteristics, age and education of mother, history of child welfare involvement, public assistance usage, previous delinquency filings, SYEP application year, residency, and census tract - level distress were used to calculate propensity scores. The extent to which the matched groups are balanced on these covariates was then assessed.

Following successful matching,* the researchers employed a quasi-experimental, between-groups analysis to estimate outcomes.

Results

Juvenile delinquency filings

To investigate the effect of Y.O.U. SYEP on juvenile delinquency filings in the 1-2-year period post-application, the sample was restricted to only those for whom a 2-year observation window post-placement summer was possible (matched treatment n=1,452; comparison n=1,208). The sample includes SYEP applicants during the 2014-2016 summers who were between the ages of 14 and 16 during the placement summer.

As indicated in Figure 1, participation in SYEP reduced the probability of a delinquency filing in the two years following summer employment. Among all types of delinquency filings in the one-year following employment, 7 percent of SYEP youth had a delinquency filing compared to 9 percent of similar youth applicants not selected for SYEP participation. This difference is statistically significant. When looking at the likelihood by type of filing, we find that the difference between the treatment and comparison group is statistically significant for violent, drug and "other" types of filings and the difference in the likelihood of a filing consistently favors the treatment group.

Following the same youth for another year after the application summer, we find that those SYEP participating youth are still less likely to have a delinquency filing (10 percent compared with 14 percent)—and the gap between the two groups is larger as the window of observation extends. This two-year difference in the probability of a filing is also statistically significant.

When looking at the likelihood by type of filing, we find that the difference between the treatment and comparison group is statistically significant for drug, property and "other" types of filings, and the difference

**Please contact the authors for a full description of sample balance and matching.*

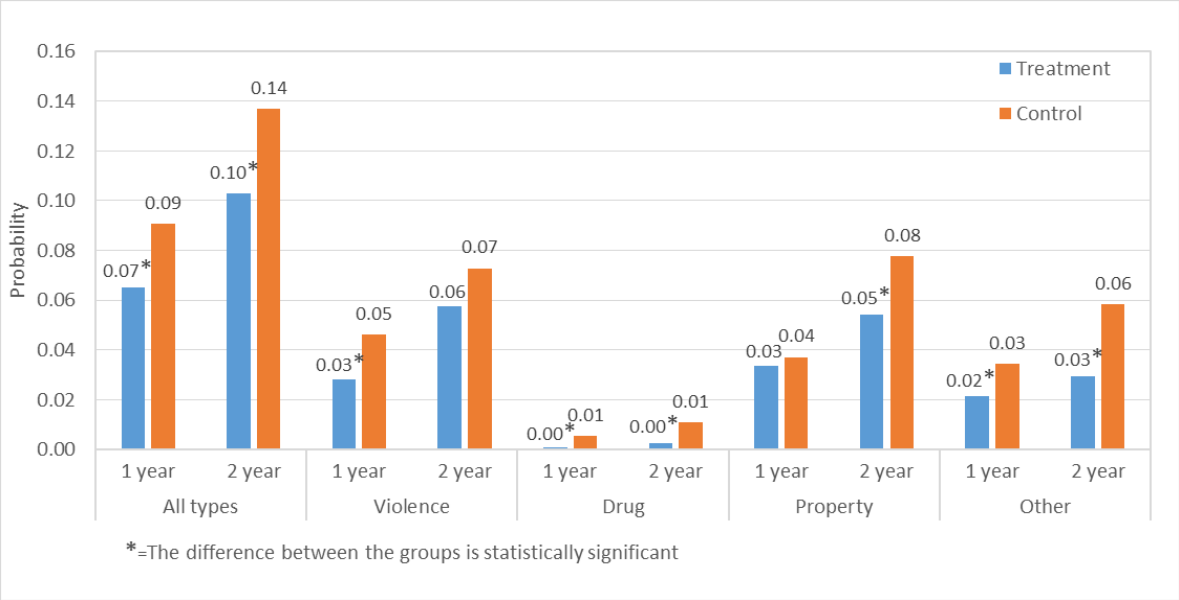

Figure 1. Probability of a delinquency filing in the 1 and 2 years following SYEP application summer, by filing type, by study group.

in the likelihood of a filing consistently favors the treatment group. The difference between groups with respect to the probability of a filing for a violent offense is no longer statistically significant in the two years following the application summer.

Incarceration

To investigate the effect of Y.O.U. SYEP on adult incarceration events in the 1-2-year period post-application, the sample was restricted to only those applicants for whom a 2-year observation window post-placement summer was possible in the administrative data. Further, the sample was restricted to include only those applicants who were 17 years of age or older during the placement summer (i.e. those who would have turned 18 during the follow-up period; matched treatment n=494; comparison n=386).

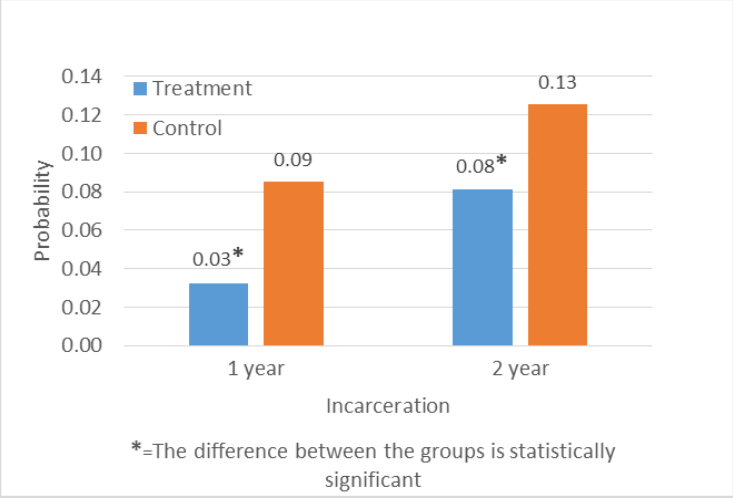

Figure 2. Probability of an incarceration event in the 1 and 2 years following SYEP application summer, by study group.

As indicated in Figure 2, treatment group participants were less likely than the comparison group to be incarcerated in the county jail system in the one and two-year period following placement. In the one-year follow-up period, 9 percent of the comparison group had been incarcerated compared to only 3 percent of the treatment group. This difference is statistically significant. The same pattern holds when looking at the 2-year follow-up period - 13 percent of the comparison group had been incarcerated com-pared to 8 percent of the treatment group.

School attendance

To investigate the effect of Y.O.U. SYEP on school attendance in the academic year following SYEP application, the matched samples included those applicants throughout 2014-2017 enrolled in public high schools (9th, 10th, and 11th graders) in the academic year prior to placement (matched treatment n=1,010; comparison n=809). Attendance rate for the academic year following assignment (days attended/total membership days) was used as the primary outcome measure.

As indicated in Figure 3, those in the treatment group had higher rates of school attendance in the academic year following their SYEP participation than did those in the matched comparison group. On average, SYEP completers attended school 87 percent of possible days compared to the comparison group who attended school an average of 85 percent of possible days. This difference is statistically significant.

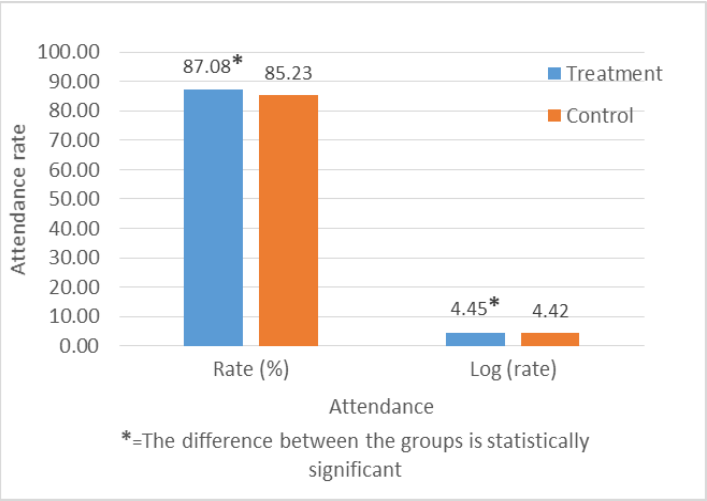

Figure 3. School attendance rate (and log) in the academic year following SYEP application summer, by study group.

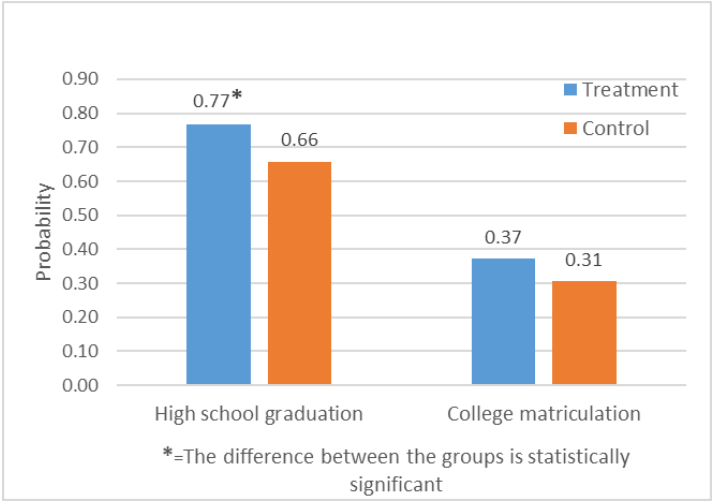

Figure 4. Probability of on-time high school graduation and college matriculation for CMSD-enrolled SYEP applicants, by study group.

To test the robustness of this finding, the log of the attendance rate was also used as the outcome variable in an effort to account for the fact that attendance rates are not normally distributed and are right-skewed. Under this more conservative estimate, the difference between groups is still statistically significant and favors the treatment group.

High school graduation and college matriculation

Graduation and college matriculation data were available for those Y.O.U. SYEP applicants who could be matched to the Cleveland Municipal School District (CMSD) administrative records. Those students who applied for SYEP during 2014 and 2015 and were eligible for graduation within the follow-up period were included (matched treatment n=301; comparison n=232).

Figure 4 displays the graduation and college matriculation findings for CMSD Y.O.U. SYEP applicants. Seventy-seven percent of the treatment group graduated from high school compared to sixty-six percent of the comparison group within the timeframe observable. This difference is statistically significant. Although the estimated difference in the share of eligible students matriculating to college is higher among the treatment group (37 percent compared to 31 percent), the difference is not statistically significant .

Discussion

In the 2 years following program assignment, SYEP completers were less likely to be charged with delinquency offenses and were less likely to be incarcerated in the adult system than are similar individuals who applied for SYEP and were not selected to participate. With respect to educational outcomes, SYEP completers had higher school attendance in the year following their summer job than those who applied for SYEP but were not selected, and CMSD-enrolled SYEP completers were more likely to graduate from high school than CMSD-enrolled SYEP applicants who were not selected to participate.

This analysis provides promising evidence that SYEP in Cleveland is generating meaningful behavioral change for participants in the years immediately following their program completion.

The evaluation team hopes to build upon the work done in the first year by further exploring the impact of different aspects and "dosages" of the Y.O.U. intervention to better understand what elements of the program are driving the differences in outcomes observed. In particular, case management to SYEP participants was added as a service in 2017 started in 2017. In collaboration with Y.O.U, we plan to investigate the impact of the case management service by comparing similar participant youth that did and did not receive case management services on criminal justice and educational outcomes. Further, there are applicants who are selected to participate in SYEP more

than once over multiple summers. We'd like to take a closer look at the effect of a longer treatment of summer employment on outcomes by comparing youth selected over multiple summers to similarly motivated youth.

References

Davis, J. M., & Heller, S. B. (2017). *Rethinking the benefits of youth employment programs: The heterogeneous effects of summer jobs.* (NBER Working Paper No. w23443). Cambridge, MA: National Bureau of Economic Research.

Gelber, A., Isen, A., & Kessler, J. B. (2015). The effects of youth employment: Evidence from New York City lotteries. *The Quarterly Journal of Economics*, *131*(1), 423-460.

Heller, S. B. (2014). Summer jobs reduce violence among disadvantaged youth. *Science*, *346*(6214), 1219-1223.

Lanza, S. T., Moore, J. E., & Butera, N. M. (2013). Drawing causal inferences using propensity scores: A practical guide for community psychologists. *American Journal of Community Psychology*, 52(3-4), 380-392.

Leos-Urbel, J. (2014). What is a summer job worth? The impact of summer youth employment on academic outcomes. *Journal of Policy Analysis and Management*, *33*(4), 891-911.

Modestino, A. S. (2019). How Do Summer Youth Employment Programs Improve Criminal Justice Outcomes, and for Whom? *Journal of Policy Analysis and Management*, *38*(3), 600-628.

Schwartz, A. E., Leos-Urbel, J., & Wiswall, M. (2015). *Making summer matter: The impact of youth employment on academic performance.* (NBER Working Paper No. w21470). Cambridge, MA: National Bureau of Economic Research.