

## ECONOMIC MOBILITY MEMO 3: INTERGENERATIONAL UPWARD ECONOMIC MOBILITY

This memo is the third in a series of three memos on economic mobility produced by the Institute for Research on Poverty. The first memo discusses definitions of economic mobility and U.S. trends for several metrics. The second memo describes the research that focuses on mobility over an individual's prime working years (intragenerational mobility). This memo discusses the research findings from studies of mobility across generations (intergenerational mobility).

### Introduction

Intergenerational upward economic mobility refers to increases in earnings and economic status across generations between parents and their adult children. Often research on intergenerational economic mobility is particularly concerned with children born in the bottom income quintile and the extent to which they experience upward relative mobility by moving to a higher income quintile in adulthood. Upward intergenerational mobility is also measured in absolute terms by calculating the rate at which children have incomes that are higher than their parents, controlling for inflation, even when that higher income does not put the adult child in a different income bracket.

While about half of Americans outearn their parents, studies suggest that this rate is a decline from prior decades. The decline in intergenerational absolute mobility is due in part to slow wage growth at the bottom of the wage distribution (Danziger, 2019; Rose, 2018). Rates of relative intergenerational mobility are typically low, especially at the top and bottom of the distribution. Although the United States has similar rates of overall relative intergenerational mobility as other wealthy democratic nations (Corak, Lindquist, & Mazumder, 2014; Winship, 2016), upward mobility from the bottom of the income distribution is significantly lower in the United States (Jäntti et al., 2006; Isaacs, Sawhill, & Haskins, 2008). Children born to parents whose income is in the bottom quintile have the highest likelihood of staying in the same quintile as an adult (42 percent) compared to other income quintiles (Isaacs et al., 2008). See the first memo in this series for more on intergenerational mobility trends. Although labor market factors like wage growth may affect intergenerational mobility, this memo focuses on individual-level factors associated with intergenerational upward mobility, including educational attainment, neighborhood quality, and financial assistance as well as nutrition and healthcare assistance.

### Research on Mobility

Very little empirical evidence exists on what factors promote intergenerational upward relative mobility. Few data sources follow families across the multiple generations needed to measure intergenerational mobility. In

### Key Findings:

- Of children who grow up poor, those that lived in a socioeconomically integrated neighborhood and graduated from college are most likely to experience upward intergenerational mobility.
- Barriers to upward intergenerational mobility include spending time in poverty as a child, growing up in a socioeconomically segregated neighborhood, not having access to enrichment activities, and having divorced or never-married parents.

addition, there are limited methodological strategies to isolate any single factor as being responsible for intergenerational economic mobility. As a result, we cannot assert that any particular factor can cause—or prevent—upward intergenerational mobility.

For this reason, this memo highlights the factors that are discussed in the academic literature as being associated with upward relative intergenerational mobility. The accompanying appendix identifies programs and policy interventions that have been shown to boost the factors associated with upward mobility. While such program evaluations do not measure intergenerational mobility as an outcome, they do produce effects, such as completing a college degree, that make upward mobility more likely.

## **Factors Associated with Upward Mobility across Generations**

Research on the factors associated with upward intergenerational mobility is limited, as few studies are able to prospectively follow parents and their children into their adult working years. As a result, this section focuses on programs shown to increase the educational attainment or earnings of low-income children during their adult years. Some factors or programmatic approaches target the parent and only indirectly affect the child by improving his or her family life, while others are intended to directly affect the child. Interventions that serve children or youth are included in this memo, but approaches that focus on an individual's prime working years (ages 25 to 64) are included in the intragenerational memo.

### ***Education and Skills***

#### *Postsecondary Education*

Numerous studies have shown that attaining a college degree promotes upward mobility for children from low-income families (Beller & Hout, 2006; Chetty, Friedman, Saez, Turner, & Yagan, 2017; Ellwood & Patel, 2018; Grannis & Reeves, 2014; Greenstone, Looney, Patashnik, & Yu, 2013; Haskins, 2008; Isaacs et al., 2008; Ratcliffe, 2015). A college graduate born in the bottom income quintile is three times more likely to rise to the top quintile than a non-college graduate (Urahn et al., 2012). Across all income quintiles, a larger percentage of adult children with college degrees exceed their parents' income compared to those without college degrees (Haskins, 2008). However, students' rates of upward mobility vary across colleges,<sup>1</sup> suggesting that not all postsecondary education has the same effect on mobility (Chetty et al., 2017).

Parental education affects the educational attainment of children. Poor children with higher-educated parents have higher educational attainment than do poor children with less-educated parents. Among adults who were ever poor in childhood, those whose parents had more than a high school education are 30 percent more likely to complete high school and five times more likely to complete college than those whose parents did not complete high school (Ratcliffe, 2015).<sup>2</sup>

While the research on career and technical education for high schoolers and young adults from low-income families does not measure intergenerational mobility directly, there is evidence that participation in these programs may increase educational attainment and income (Lerman, 2013; Lippman, Ryberg, Carney, & Moore et al., 2015; Ross & Kasiz, 2016; Schwartz & Hoffman, 2015). For example, one study of poor adolescents' participation in career and technical training found increases in educational attainment and short-term earnings

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<sup>1</sup>Chetty et al. (2017) found that Ivy League colleges (plus Duke, MIT, Stanford, and the University of Chicago) had the highest rates of bottom-to-top mobility, but certain mid-tier public universities, like City University of New York, had comparable rates of upward mobility and much higher access among low-income students.

<sup>2</sup>“Ever poor” is defined as living below the federal poverty level for at least one year, but for less than half the child's years from birth through age 17. Almost 39 percent of adults included in the analysis were “ever poor” in their childhood.

(Schochet, Burghardt, & McConnell, 2008), though only older students (ages 20 to 24) experienced sustained employment and earnings gains (Schochet, 2018).

### *K-12 Education*

Research points to some dimensions of K-12 education as another potential driver of upward mobility (Chetty, Friedman, Hilger, et al., 2011; Duncan & Murnane, 2011; Greenstone et al., 2013). Some elementary school attributes have been shown to be associated with adult earnings later in life. One experimental study found that students in smaller classes from kindergarten through third grade were more likely to attend college and have higher earnings compared to students assigned to larger classrooms (Chetty, Friedman, Hilger, et al., 2011). Higher per-pupil spending and school desegregation are also related to more years of completed education, higher wages, and a reduction in the annual incidence of adult poverty, especially for low-income and African American students (Jackson, Johnson, & Persico, 2016; Johnson, 2016). The field of education research has considered many other factors that might influence student achievement and attainment, but as of yet there is not robust and rigorous research linking these factors to low-income children's later educational attainment or earnings.

### *Early Childhood*

While there is no direct evidence that early childhood education leads to upward mobility, there is evidence that participation in high quality programs can affect future educational attainment and earnings for children from low-income families (Karoly, Kilburn, & Cannon, 2005). Research finds increased rates of high school graduation and college attendance among Head Start participants, compared to siblings who did not attend Head Start (Barnett & Belfield, 2006; Barr & Gibbs, 2017; Deming, 2009; Garces, Thomas, & Currie, 2002; Ludwig & Miller, 2007). Similarly, a randomized controlled trial of the High/Scope Perry Preschool program found higher earnings and educational attainment among the treatment group (Belfield, Nores, Barnett, & Schweinhart, 2006). Studies of the Abecedarian program found increased educational attainment as well as increased lifetime earnings among participants compared to the control group (Campbell et. al., 2012; Barnett & Masse, 2007). Finally, participants in the Chicago Child-Parent Center, a program from preschool till third grade, had increased high school completion rates compared to children attending school in similarly poor neighborhoods without the intervention (Temple, Reynolds, & Miedel, 2000; Reynolds, Temple, Roberston, & Mann, 2002). This evidence suggests that high quality early childhood education is likely to influence upward mobility for children from low-income families.

It is not as clear whether other types of programs provided to low-income parents and their young children are also likely to increase intergenerational mobility. Some evidence points to the possibility that high quality home visiting might increase upward mobility for low-income children. For example, a simulation<sup>3</sup> of the Nurse-Family Partnership estimated higher earnings among adults who received the program as children (Sandstrom & White, 2018).

### *Neighborhoods*

Research identifies neighborhood quality as an important factor associated with upward mobility (Chetty, Friedman, Hendren, Jones, & Porter, 2018; Chetty & Hendren, 2018; Chetty, Hendren, Jones, & Porter, 2018; Chetty, Hendren, & Katz, 2016; Ellwood & Patel, 2018; Ewing, Hamidi, Grace, & Wei, 2016; Freeman, Han, Madland, & Duke, 2015; Manduca & Sampson, 2019; Mitnik, Bryant, & Grusky, 2018; Oishi, Koo, & Buttrick, 2019; Sharkey, 2009). Neighborhood economic segregation is negatively linked to economic mobility, meaning

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<sup>3</sup>This study used the social genome model, which estimates outcomes from interventions or policies depending on an array of assumptions.

that areas with pockets of concentrated wealth and concentrated poverty have lower economic mobility<sup>4</sup> than places that are more integrated<sup>5</sup> (Sharkey & Graham, 2013). Additionally, each year spent living in a neighborhood with a low poverty rate increases a child's earnings in adulthood, although gains from living in a neighborhood with less poverty decline as the child's age at the time of the move increases (Chetty et al., 2016).

### ***Financial, Medical, and Nutrition Assistance***

A number of reports include financial support, along with education and neighborhood, as one of three main drivers associated with upward intergenerational mobility (Bogle, Acs, Loprest, Mikelson, & Popkin, 2016; Butler, Beach, & Winfree, 2008; Ellwood, Bogle, Acs, & Mikelson, 2016; Mitnik et al., 2018; Stuhler, 2018). However the evidence that financial assistance, and near-financial assistance increase intergenerational mobility is limited. Tax systems and savings programs that provide modest benefits to low-income families may support upward mobility through increased educational attainment among children (Chetty, Hendren, Kline, & Saez, 2015; Cramer, O'Brien, Cooper, & Luengo-Prado, 2009; Ellwood & Patel, 2018; Mitnik et al., 2018; Sherman, Trisi, & Parrott, 2013). For example, receipt of the Earned Income Tax Credit (EITC) and Child Tax Credit (CTC) are associated with higher student test scores for children (Chetty, Friedman, & Rockoff, 2011), increased household savings (Jones & Michels, 2018), and higher parent employment (Eissa & Hoynes, 2005). Similarly, children of mothers who received payments from the Mothers Pension Program in the early 1900s experienced higher earnings as adults than children of mothers who were rejected from the program (Aizer, Eli, Ferrie, & Lleras-Muney, 2016).

Medicaid coverage may also support upward mobility for low-income children. Higher rates of high school graduation were found among children whose mothers received prenatal coverage under Medicaid expansions that occurred in the 1980s and early 1990s (Miller & Wherry, 2019). In addition, an analysis of cohorts born before and after State Child Health Insurance Plans (SCHIP) were implemented found that, among school age children, experiencing public health insurance expansions led to higher levels of educational attainment, specifically increased rates of high school and college completion (Cohodes, Grossman, Kleiner, & Lovenheim, 2016). Further, children who had longer periods of Medicaid eligibility due to changes in SCHIP policies were more likely to enroll in college than those with shorter periods of eligibility, and females in this group had higher earnings as young adults (Brown, Kowalski, & Lurie, 2020). These three studies suggest that expanded Medicaid eligibility early in life and throughout childhood is associated with increased academic achievement and selective employment outcomes.

Receiving nutrition assistance in childhood has also been linked with better educational and economic outcomes in adulthood. Research measuring the impacts of receipt of Supplemental Nutrition Assistance Program (SNAP) or Food Stamps in childhood found that women who received SNAP as children had improved chances of graduating from high school (Frongillo, Jyoti, & Jones, 2006) and higher economic self-sufficiency<sup>6</sup> than otherwise similar women who had not received Food Stamps as young children (Hoynes, Schanzenbach, & Almond, 2016).

### **Barriers to Upward Intergenerational Mobility**

Children may not experience upward mobility for a wide variety of reasons. Researchers have identified factors like financial instability, socioeconomic segregation, access to enrichment activities, and family structure.

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<sup>4</sup>Such as Atlanta, Cleveland, New York City, Tampa, and Washington, D.C.

<sup>5</sup>Such as Boston, Denver, Minneapolis, Norfolk, Riverside, and San Diego.

<sup>6</sup>The index included seven measures: high school graduate, employed, poverty status, earnings, family income, Temporary Assistance for Needy Families (TANF) receipt, and SNAP receipt.

Among children raised in low-income families, those who are persistently poor—living below the federal poverty level for at least half of their childhood—are less likely to complete high school or college than children who experience poverty, but not persistently (Ratcliffe, 2015). Family income instability<sup>7</sup> during childhood has negative impacts on educational attainment, which affects upward mobility (Hardy, 2014). Neighborhood economic segregation is also associated with lower rates of mobility (Chetty & Hendren, 2018; Chetty et al., 2016; Manduca & Sampson, 2019; Sharkey, 2009; Sharkey & Graham, 2013). For example, living in a high-poverty neighborhood is associated with a 52 percent risk of downward mobility for children in the top three income quintiles (Sharkey, 2009).

Poor children are also less likely to have access to enrichment activities, which build human capital, help youth develop social skills and self-regulation, and lead to better education outcomes (Nagaoka et al., 2015). For example, parents in the richest 20 percent of the income distribution spend more than seven times as much as parents in the poorest 20 percent on educational enrichment expenditures like private tutors, computers, and recreational lessons (Duncan & Murnane, 2011; Greenstone et al., 2013).

Finally, family structure may affect the mobility of children as well. Among children born in the bottom third of the income distribution, children with divorced or unmarried parents are less likely to move up to the middle or top third compared to those with continuously married parents (DeLeire & Lopoo, 2010). Regardless of parental income, children raised outside two-parent homes are more likely than children raised in two-parent homes to have low incomes as adults (Bloome, 2017; DeLeire & Lopoo, 2010).

## Conclusion

Increasing intergenerational upward mobility is a complicated challenge, especially given the lack of causal evidence about which factors most affect mobility. Research has identified factors related to education attainment, integrated neighborhoods, and financial capital that may support upward mobility. The program table in the appendix highlights programs with demonstrated effects on these factors.

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<sup>7</sup>Instability is measured by squared deviations around a family-specific mean and as a percentage change of 25 percent over three- and nine-year averages.

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## Appendix A: Intergenerational economic Mobility Program Review

The tables below list rigorously evaluated programs related to intergenerational economic mobility, presented by mobility-driver category. The tables include the relevant evaluation for each program and its results. Programs were included if they were subject to evaluation with outcomes proximal to mobility, such as high school completion, labor market participation, and neighborhood attributes. As a result, this list is not an exhaustive inventory of interventions around each of the program categories. In the interest of brevity, the program descriptions are not exhaustive. For more information on program design, refer to the hyperlinked program sites and evaluations.

Some important caveats should be taken into consideration when reviewing this list. Research suggests that a range of drivers affect intergenerational mobility. In addition, many programs can be high-cost and require complex implementation efforts. Further, program-evaluation research has identified a range of common challenges that result from “scaling up” tested programs (extending a small-scale trial program to a larger group of participants), such that many programs no longer produce positive results. Short-term impacts may also fade over the long-term.

**Note:** Additional programs are listed below the tables but are not expounded upon because either they have not yet been evaluated or they have not been rigorously evaluated. As such, they represent an incomplete list of programs that are either completed or currently working to improve upward economic mobility.

### Education and Skills: Postsecondary Education

Program name	Status	Evaluation citation	Program and cost	Participants	Evaluation and results
CUNY ASAP (Accelerated Study in Associate Program)	Ongoing	Scrivener, S., Weiss, M., Ratledge, A., Rudd, T. Sommo, C., & Freques, H. (2015). <a href="#">Doubling graduation rates: Three-year effects of CUNY's Accelerated Study in Associate Programs (ASAP) for developmental education students</a> . Washington, D.C.: MDRC.	<p><b>Program:</b> Students must attend college full time during the fall and spring semesters. Students receive an ASAP-dedicated advisor for academic support, an ASAP-dedicated career and employment services staff member, and ASAP-dedicated tutoring services. Students enroll in their regular course of study as well as an ASAP seminar during their first 3 to 4 semesters in ASAP. This seminar covers goal-setting, study skills, and academic planning. Students receive a tuition waiver that fills gaps between financial aid and tuition/fees as well as a free MetroCard for use on public transportation and free use of textbooks contingent on program participation.</p> <p><b>Cost:</b> The program's services and benefits cost approximately \$14,000 more per student than usual college services. While ASAP's total cost (\$16,300 vs. \$2,300) was higher, the cost per degree was lower because ASAP generated so many more</p>	The evaluation targeted students that met the following criteria: family income below 200% of the federal poverty line or eligible for Pell Grant (or both); in need of one or two developmental courses; a new student or continuing student with less than 12 credits and a 2.0 GPA (at least); NYC resident; willing to attend college full time; and in an ASAP-eligible major (some majors that could not easily graduate in 3 years were excluded). 62% of the evaluation sample was women and a student's average age was 21.5 when they entered the study. 1/4 of the sample was 23 or older when they entered the study. 44% of the sample was Hispanic, 34% was African American, 10% was white, and 8% was Asian or Pacific Islander. 60% needed developmental instruction in at least one subject (reading, writing, and math), and 27% needed developmental instruction in two subjects.	<p><b>Outcome level:</b> Individual</p> <p><b>Evaluation notes:</b> A randomized control trial design was used to examine students that needed remedial education. The evaluation examined the program's impact on progress, completion, persistence, credit accumulation, degree receipt, and transfer to 4-year universities.</p> <p><b>Results notes:</b> This study estimated the largest impacts on credit accumulation and graduation rates of the higher education programs that MDRC has evaluated, a near doubling of graduation rates after 3 years.</p> <p><b>General education attainment results:</b> Evaluation of 1st-year and 2nd-year impacts indicate that the program had positive impacts on credits earned, developmental course completion, likelihood of enrolling each semester, and increased graduation rates by 6 percentage points after 2 years. In the 3rd year, the program finds increasingly large impacts on credit accumulation and graduation.</p> <p><b>Persistence results:</b> ASAP increased students' likelihood of persisting in school. Treatment group members reported enrolling in 1.2 more sessions than control group members. This resulted in a 22% increase over the control group base of 5.4 sessions enrolled.</p> <p><b>Credit accumulation results:</b> ASAP had large positive effects on total credit accumulation. After 3 years, treatment group students earned an average of 47.7 total credits. The difference of 8.7 credits represents a 22% increase in credit accumulation over 3 years. Enrollment and credit accumulation during intersessions (short period between academic terms) accounted for 28% of the overall effect on credit accumulation.</p>

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			graduates over the 3-year period than usual college services.		<p><b>Graduation rate results:</b> ASAP increased student likelihood of graduating within 3 years. 40% of treatment group participants graduated compared with 22% of control group members.</p> <p>Further education impact: ASAP increased student likelihood of enrolling at a 4-year college within 3 years of entering the program.</p> <p><b>Notes:</b> ASAP was replicated in 2014 at three community colleges in Ohio and found that graduation rates more than doubled when implemented in Ohio, similar to results in New York. Graduation rates increased with those in the treatment group graduating within 2 years at 19% while only 8% of those in the control group graduated within 2 years. There was a significant difference in enrollment between the treatment and control groups across all 4 semesters. There was a significant difference in credit accumulation as the treatment group earned approximately 2 credits more than the treatment group per semester over the course of the intervention, for a total gain of 8.1 credits on average. The program also increased the number of degrees earned, with the treatment group increasing the graduation rate by 11 percentage points.</p>
<a href="#">Latin American Youth Center's (LAYC) Promotor Pathway</a>	Ongoing	Theodos, B., Pergamit, M., Derian, A., Edelsetin, S., & Stotlie, A. (2016). <a href="#">Solutions for youth: An evaluation of the Latin American Youth Center's Promotor Pathway Program</a> . Washington, D.C.: Urban Institute.	<p><b>Program:</b> At-risk youth receive intensive case management, mentorship, and advocacy for 4–6 years. The program aims to improve education and employment outcomes, boost life skills, prevent delinquency, and reduce unhealthy behaviors.</p> <p><b>Cost:</b> Total operating expenses for the LAYC in 2016 = \$16,154,769. Includes other programs and services.</p>	Low-income youth, age 14–24 (average age = 18; most youth were 18 or older), in predominantly Latino and African American communities in Maryland and D.C. who exhibit high-risk behavior. (N = 476)	<p><b>Outcome level:</b> Individual</p> <p><b>Evaluation notes:</b> Randomized control trial. Collected data on education, employment, birth rates, residential stability, and risk-taking behaviors at 18-month follow-up.</p> <p><b>Education results:</b> The treatment group saw a 4% increase in school enrollment from baseline; the control group saw a 7% decline.</p> <p><b>Housing results:</b> The treatment group was 60% less likely than the control group to have slept in a shelter in the past 6 months.</p> <p><b>Pregnancy results:</b> The treatment group was 33% less likely to have a child than the control group.</p>
<a href="#">Summer Jobs Connect (SJC)</a>	Ongoing	Cities for Financial Empowerment. (2017). <a href="#">Summer Jobs Connect: Where strong financial futures begin</a> .	<p><b>Program:</b> Add-on to Summer Youth Employment Programs (SYEP) connecting young workers to bank/credit union accounts and financial education. Piloted in 5 cities; expanded to 13 cities by 2017. Differences by site detailed on pp. 10–11 of report.</p> <p><b>Cost:</b> Funded by Citi Foundation and the Cities for Financial Empowerment Fund. Program costs are unknown.</p>	SYEP participants, ages 14–24, in 13 cities (in 2017: direct deposits = 40,000 youths; financial education = 115,000 youths). Breakdown by site on p. 10 of report.	<p><b>Outcome level:</b> Individual</p> <p><b>Evaluation notes:</b> Research conducted by Public Works Partners. Data comes from focus groups (14 groups across 8 cities in 2015) and electronic surveys (stratified random sample and convenience sample from 4 cities in 2016), both conducted toward the end of the summer employment program. All data appear to be self-reported.</p> <p><b>Financial security results:</b> 64% of respondents under age 18 with checking accounts said they opened their account because of their summer job (52% of respondents over age 18 opened a checking account independently). Participants for whom SYEP was their first paying job were twice as likely to open a new account for the summer. Over 86% of respondents planned to keep their checking account and nearly 90% planned to keep their savings account after their job ended. Over 1/3 of participants were paid via direct deposit. SYEP participants in SJC cities are more likely to have bank accounts than the U.S. average for their age group, even though they come from households that are less likely to be banked. Youth from unbanked households, however, were less likely to open their own accounts than youth from banked households.</p>

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Year Up	Ongoing	Fein, D., & Hamadyk, J. (2018). <a href="#">Bridging the opportunity divide for low-income youth: Implementation and early impacts of the Year Up program</a> , OPRE Report #2018-65, Washington, D.C.: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.	<p><b>Program:</b> Sector-based training strategies (demand-driven training). Year Up provides 6 months of full-time training in the IT and financial service sectors followed by 6-month internships at major firms. The program provides support including weekly stipends and emphasizes development of professional and technical skills.</p> <p><b>Cost:</b> More than half of the program's cost, \$28,290 per participant, is funded by employer payment for interns (employers financed 59% of the per-participant cost). Nearly all of the revenue (39%) needed to operate Year Up comes from foundations and other private-sector donors, and only 2% comes from public agencies.</p>	<p>Economically disadvantaged urban young adults between ages 18 and 24. Findings describe participants in 8 metropolitan areas, from 2013–2014.</p> <p><math>N = 1,669</math> in treatment; 875 in control.</p>	<p><b>Outcome level:</b> Individual</p> <p><b>Evaluation notes:</b> Evaluation is based on an RCT conducted in eight cities from 2013–2014.</p> <p><b>Results notes:</b> Year Up's earnings gains are the largest to date for a workforce program evaluated using a randomized control trial (RCT) design.</p> <p><b>Earnings results:</b> Young adults in the program had higher average quarterly earnings in the 6<sup>th</sup> and 7<sup>th</sup> quarters after assignment than the previous five quarters. Average quarterly earnings were \$1,895 higher for the treatment group (\$5,454) than for the control group (\$3,559), a 53% impact. Over a 3-year follow-up period, Year Up's positive impacts diminished but remained large (40%). The program also appeared to have a positive impact on other indicators of early career success (working at \$15/hour or more, working in a job requiring at least mid-level skills, and working in a Year Up target occupation); however, the program's effect on college persistence was mixed.</p> <p><b>Sector employment results:</b> Substantially more treatment than control members were working in information technology and computer-related fields and business and financial services (Year Up target sectors) and fewer treatment than control group members were in sales, food preparation and service, and transportation and material moving.</p> <p><b>Postsecondary enrollment results:</b> 60% of treatment group members were enrolled in college after random assignment compared to 18% of control members, but college enrollment in treatment group fell sharply as members left Year Up. Between quarters 4–7, the control group had a greater proportion of members enrolled in postsecondary education.</p> <p><b>Financial strain results:</b> Year Up generated an 8-percentage point reduction in the proportions of students experiencing financial hardship, a 5-point reduction in public assistance receipt, and a 4-point increase in the percentage with health insurance.</p>

#### Promising practices targeting secondary education (lacking rigorous evaluation):

- [Wisconsin Youth Apprenticeship](#) program: this program provides youth employment opportunities in in-demand sectors and provides pathways for them to move into entry-level careers.
- [Reinvention Initiative](#) City Colleges of Chicago (2010–2017): this program aimed to increase the number of students earning economically relevant college credentials, increase the rate of transfers to bachelor's degrees, improve outcomes for students needing remediation, and increase the share of ABE/GED/ESL students who succeed in college courses. Program showed promising outcomes, but there is some controversy over the [reliability of the data](#).

## K–12 Education

A large number of programs seek to improve long-term economic outcomes for youth, including the entire K-12 educational system. The programs listed below were selected because their evaluation used a randomized design and included economic and/or workforce outcomes. Even so, we recognize that this list is not exhaustive.

Program name	Status	Evaluation citation	Program and cost	Participants	Evaluation and results
<a href="#">After School Matters</a> (ASM)	Ongoing	Hirsch, B. J., et al. (2011). <a href="#">After-school programs for high school students: An evaluation of After School Matters.</a>	<p><b>Program:</b> Evaluation reviews 13 paid apprenticeship afterschool programs from 10 Chicago high schools. The full program began in 2000 and includes 305 apprenticeships with 7,400 youth across 65 high schools, as of 2009. The apprenticeship lasts 10 weeks in the fall and 10 weeks in the spring. Apprentices meet with instructors for 9 hours/week, 180 hours/year. Instructors have professional experience in the field and provide feedback and guidance on site to youths. The program emphasized skill development.</p> <p><b>Cost:</b> Total cost not available. Apprentices received \$5/hour (\$900 total).</p>	<p>Youths from 10 Chicago high schools randomly assigned to ASM or the control group. Most control youth (91%) were in another afterschool program or paid work. The majority of participants were African American (77%) and low income (92%).</p> <p><math>N = 355</math></p>	<p><b>Outcomes level:</b> Individual</p> <p><b>Evaluation notes:</b> 3-year RCT. Youth assessed pre- and post-apprenticeship. Data analyzed using a hierarchical linear model, controlling for demographic variables. Analysts evaluated “intent-to-treat” impacts, comparing outcomes for students assigned to treatment and control regardless of attendance, and evaluated “treatment-on-the-treated” impacts, defining “treated” as attending at least 73% of sessions.</p> <p><b>Results notes:</b> ASM had a high attrition rate.</p> <p><b>Social-emotional results:</b> Both treatment and control youths reported declining self-regulation over time, but treatment youths exhibited a smaller decline than control youths. This was true for both intent-to-treat and treatment-on-the-treated comparisons.</p> <p><b>Behavioral results:</b> Both treatment and control youths reported increasing problem behaviors over time, but treatment youths exhibited a smaller increase than control youths. In particular, they were significantly less likely to sell drugs and participate in gang activity. This was true for the intent-to-treat comparison, but not the treatment-on-the-treated comparison.</p> <p><b>Job skill results:</b> With treatment-on-the-treated comparison, treatment youths did better than control youths on mock job interviews, but were not more likely to be hired and did not exhibit any other job skill-related advantages. No significant effects in the intent-to-treat comparison.</p> <p><b>Education results:</b> Treated youths identified more strongly with their schools than control youths in both comparison conditions, but there were no other educational benefits to treatment.</p>
Career Academies	Ongoing	Kemple, J. & Willner, C. (June 2008). <a href="#">Career Academies: Long-term impacts on labor market outcomes, educational attainment, and transitions to adulthood.</a> <a href="#">Washington, D.C.: MDRC.</a>	<p><b>Program:</b> Career Academies are organized as small learning communities that combine academic and technical curricula around a career theme and establish partnerships with local employers to provide work-based learning opportunities. Career Academies typically serve between 150 and 200 students from grades 9 or 10–12.</p> <p><b>Cost:</b> The cost for this program was not found.</p>	<p>Participants who were evaluated had applied to Career Academies in their respective high schools. Applicants were randomly selected to enroll in the program. Those that were not selected served as the control group.</p> <p>More than 80% of the sample was either African American or Hispanic. The participating Career Academies were located in medium and large school districts in or around urban centers with a higher percentage of African American students than the national average and in schools/areas that had higher</p>	<p><b>Outcome level:</b> Individual</p> <p><b>Evaluation notes:</b> The criteria for a high school to become a certified “Career Academy” is unclear, and that is in part by design. The developers of the “Career Academy” model are reticent to define each of the individual components because it is unclear that these components would achieve similar levels of success when implemented in other contexts. The evaluation is the culmination of a 15-year random assignment study of Career Academies in nine urban high schools around the country that followed students from when they entered high school until 8 years after their expected graduation.</p> <p><b>Earnings results:</b> Career Academies produced an average increase in earnings among the treatment group of \$132 per month during the first 4 years of the follow-up period and \$216 per month in the final 4 years compared to the control group. Both these results are statistically significant. The academies produced an average earnings gain of 11% (about \$2,088) per year for the treatment group</p>

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				dropout rates, higher unemployment rates, and a higher percentage of low-income families.	<p>over the control group in the 8 years of follow-up. The cumulative gain was \$16,704 (in 2006 dollars).</p> <p><b>Education impacts:</b> Career Academies did not appear to increase high school graduation rates or postsecondary education.</p> <p><b>Other impacts:</b> Career Academies did increase the percentage of young people living independently with children and a spouse or partner. Young men experienced positive impacts on marriage and being custodial parents.</p> <p><b>Differential impacts:</b> Gains were felt most by young men in the treatment group, whose earnings increased by an average of \$3,731 (17%) per year or nearly \$30,000 over the 8-year period.</p>
<a href="#">Citizen Schools 8<sup>th</sup> Grade Academy Program</a>	Ongoing	Arcaira, E., Vile, J.D., & Reisner, E.R. (2010). <a href="#">Citizen Schools: Achieving high school graduation: Citizen Schools' youth outcomes in Boston.</a> Washington, D.C.: Policy Studies Associates.	<p><b>Program:</b> Citizen Schools is an enriched afterschool program for low-income middle school youth that began in 2001. The program includes career exposure, high school and college prep, and academic enrichment. The Citizen Schools 8<sup>th</sup> Grade Academy program offers apprenticeships with adult volunteers and community enrichment experiences, as well as information and resources about high-quality high schools in Boston and the high school application process. Participants go on college and job site visits, and learn leadership and decision-making skills. Alumni are provided additional resources on college, career, enrichment, and networking opportunities throughout high school.</p> <p><b>Cost:</b> Total expenses were \$20.6 million in 2016 and \$24.0 million in 2010. Net costs were \$2.3 million in 2016 and -\$0.9 million in 2010 (revenue exceeded costs). Net assets were \$5.7 million in 2016 and \$13.8 million in 2010. Figures not adjusted for inflation.</p>	<p>Low-income youths in grades 6–8. Analysis follows youths from the 2001–2006 cohorts through the 2007–2008 school year.</p> <p><i>N</i> = 448 (from 2001–2006)</p>	<p><b>Outcome level:</b> Individual</p> <p><b>Evaluation notes:</b> Quasi-experimental matched comparison design. The researchers matched participants with demographically and academically equivalent nonparticipants at baseline in the Boston Public School (BPS) system. Matched youths were statistically similar to treatment youths in all regards except for free and reduced-price lunch (FRPL)-eligibility in Grade 10, where nonparticipants were more likely to qualify for FRPL. The researchers recorded many outcomes as binary variables (e.g., passing a test = 1; failing a test = 0), and used odds-ratios to estimate effect sizes.</p> <p><b>Results notes:</b> Students select into Citizen Schools may have unobserved differences from comparison youths. This might upwardly bias observed effects attributed to the intervention. Additionally, attrition may inflate outcomes in both groups, and underestimate the effects of the intervention, as rates of attrition were higher in the BPS system than in Citizen Schools.</p> <p>The listed citation is one of several impact analyses of Citizen Schools. Findings from the earlier reports are discussed here as well. <a href="#">Subsequent analysis</a> reviewed a STEM apprenticeship grant add-on to Citizen Schools and found minimal impacts.</p> <p><b>Education results:</b> Citizen Schools participants exhibited higher levels of school engagement and greater academic gains in middle and high school relative to a matched comparison group. Citizen Schools participants achieved higher English Language Arts scores and higher attendance rates than matched comparison youths. Citizen Schools 8<sup>th</sup> Grade Academy students enrolled in high-quality high schools at twice the rate of matched comparison students. Citizen Schools participants were also more likely to graduate from high school in 4 years than Boston Public School students overall, and more likely to stay in a high-quality high school through 11th grade than nonparticipants who entered the same schools in 9th grade. Graduates of 8th Grade Academies were more likely to graduate high school than matched youths and district youths overall, regardless of high school quality.</p>

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Dual enrollment programs	Multiple programs ongoing	U.S. Department of Education, Institute of Education Sciences, What Works Clearinghouse. (2017, February). <a href="#">Transition to college intervention report: Dual enrollment programs.</a>	<p><b>Program:</b> Dual enrollment programs allow high school students to take college classes and earn college credits while still in high school. Many programs offer discounted or free tuition.</p> <p><b>Cost:</b> Program costs varied by program. The Bill and Melinda Gates Foundation and 13 partner organizations provided \$806 million in grants to support early college high schools (ECHS).</p>	<p><i>Berger et al., 2014:</i> High school students randomly assigned to ECHSs via lottery. <math>N = 1,044</math> students in 10 ECHSs (treatment); 1,414 students in 272 high schools (control).</p> <p><i>Edmunds et al., 2015:</i> NC students who applied to an ECHS in Grade 8 randomly assigned to treatment. The schools targeted students from groups traditionally underrepresented in college. <math>N = 1,651</math> students (400 in 19 ECHSs)</p> <p>Full citation reviews three quasi-experimental studies as well.</p>	<p><b>Outcome level:</b> Individual</p> <p><b>Evaluation notes:</b> This citation systematically reviewed 35 rigorous studies of dual enrollment programs. Two studies (Berger et al., 2014; Edmunds et al., 2015) randomly assigned applicants to ECHSs. Three additional studies reviewed (An, 2013; Giani et al., 2014; and Struhl &amp; Vargas, 2012) used quasi-experimental designs (QED).</p> <p><b>Results notes:</b> The outcome domains varied by study.</p> <p><b>Education results:</b> Both RCTs found medium to large effects from treatment on high school completion and academic performance. Edmunds et al., 2015, found a small positive effect on high school retention and attendance.</p> <p><b>Postsecondary results:</b> All five studies reviewed found medium to large positive effects in college degree completion for treatment youth. Four studies (excluding An, 2013) measured the program's effect on college attendance and found positive outcomes in this domain as well. Two QED studies found positive effects on credit accumulation. Edmunds et al., 2015, found a small positive effect on college readiness. Berger et al., 2014, found small positive effects on general academic achievement.</p>
<a href="#">Job Corps</a>	Ongoing	Schochet, P. Z. (2018). <a href="#">National Job Corps study: 20-year follow-up study using tax data.</a> Princeton, NJ: Mathematica Policy Research.	<p><b>Program:</b> U.S. Department of Labor technical training and education program for at-risk youth. They provide vocational, academic, health, and support services in residential settings at Job Corps centers.</p> <p><b>Cost:</b> \$1.5 billion/year (2015 USD)</p>	<p>At-risk youths, ages 16–24. The program as a whole serves about 60,000 youths each year, and served over 2.5 million youths from 1964–2018.</p> <p>The cited study examined 23 centers.</p>	<p><b>Outcome level:</b> Individual</p> <p><b>Evaluation notes:</b> Participants were screened for eligibility and randomly assigned to the group. The researchers compared the mean outcomes for both groups in 2001–2015, measured with W-2 forms (wage and salary), 1099-MISC forms (contractor employment), and Schedule C forms (self-employment), differentiated by age. All earnings and income measured were adjusted to 2015 USD.</p> <p><b>Education results:</b> Participants attained 1 year more of schooling than control youths on average, and were more likely to receive GED or vocational certificate and less likely to get arrested and convicted than control youths.</p> <p><b>Earnings results:</b> Participants earned more in the 2 years following program exit than control youths. Older participants (ages 20–24) continued to earn more than their control equivalents in Years 5–9 following the program. Earnings differences were not significant in the 20-year follow-up timeframe.</p> <p><b>Employment results:</b> Older participants</p> <p><b>Other economic results:</b> Older participants filed taxes at a rate 10% higher than equivalent control youths and received 40% fewer SSDI benefits in 2013–2015.</p> <p><b>Cost benefit results:</b> Social benefits do not exceed program costs for the full sample, but they do for older students. Participant benefits exceeded costs.</p>



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Project STAR	1985–1989	<a href="#">Schanzenbach, D. W. (2006). What have researchers learned from Project STAR?</a> Brookings Papers on Education Policy, (9), 205–228.	<p><b>Program:</b> Kindergarteners and teachers in 79 schools were randomly assigned to class sizes of 13–17 (treatment) vs. 22–25 (control) through Grade 3.</p> <p><b>Cost:</b> \$12 million. Funded by the TN legislature.</p>	<p><b>Students:</b> 11,600 Kindergarteners. Students were disproportionately economically disadvantaged and African American relative to TN overall.</p> <p><b>Teachers:</b> 1,330. Average teacher education levels are lower in TN than in the U.S. overall.</p> <p><b>Schools:</b> 79. Participating schools were 25% larger than the TN average, and disproportionately inner-city. Average school spending in TN is lower than in the U.S. overall.</p>	<p><b>Outcome level:</b> Individual</p> <p><b>Evaluation notes:</b> Due to high levels of disruption in the student sample (see Results notes), researchers compared the “intent-to-treat” group to the control group, rather than the current-year class. Researchers estimate this understates the impact of small classrooms by 10%. Researchers use a probit model to estimate criminal justice outcomes.</p> <p><b>Results notes:</b> Children moved in and out of treatment schools over the project life. About 45% of participants exited over the course of the experiment. African American, male, or FRPL-eligible students were more likely to enter or exit the experiment. Later entrants were more likely to be low-income and older than the rest of the sample. About 10% of students moved from one type of classroom to another due to student misbehavior. Additionally, due to parental concerns about fairness, students in the control group were re-randomized in Year 2.</p> <p><b>Education results:</b> Small class assignment had a small positive effect on test scores through Grade 8. This impact was stronger for African American and FRPL-eligible students (see below). Treatment students took college entrance exams at a rate 2 percentage points higher than the control group (5 points for African American students; insignificant for white students). Small class assignment reduced the black-white gap in college entrance test-taking by 60%.</p> <p><b>Criminal justice results:</b> Treatment male students were 2.2 percentage points less likely to be arrested than control males. Effects were strongest for violent and property crimes (55% and 57% reductions, respectively).</p> <p><b>Differential impacts:</b> Students in predominantly African American schools saw larger impacts than students in predominantly white schools. African American students in general saw slightly stronger positive effects than white students. FRPL-eligible students saw slightly stronger positive effects than non-FRPL students as well. Students with more experienced teachers saw large positive effects while students with less experienced teachers (less than 5 years) saw small and often insignificant effects. Students who had teachers of their own race performed better than those who did not by 3 to 5 percentile rank points for both black and white students. Students received higher math test scores if randomly assigned to a teacher who received merit pay. Students randomly assigned to a classroom with average peer test scores in the 75<sup>th</sup> percentile saw a 1.1 standard deviation increase in test scores; test scores decreased by 0.9 standard deviations for students in classrooms with peer test scores in the 25<sup>th</sup> percentile. Students who were older than their peers had higher test scores on average than their peers.</p>
Summer Youth Employment Program (SYEPs)	Ongoing	<i>Boston:</i> Modestino, A. S. & Paulsen, R. J. (2019). <a href="#">Reducing inequality summer by summer: Lessons from an evaluation of the Boston Summer Youth Employment Program.</a>	<p><b>Program:</b> Several cities have SYEPs, and their models and enrollment rates vary substantially. SYEPs typically employ youths for up to 25-hours per work, for 6 years from July to August, at minimum wage. Youths may be placed in a subsidized position with a local nonprofit, community-based organization, or government</p>	<p>Youths ages 14–24 (most are 16–19). Number of youths varies by site.</p> <p><i>Boston:</i> Applicants in 2015–2017 through Action for Boston Community Development. Randomized to treatment (1,186 in 2015, 83.6% of whom participated) and control (3,049 in 2015). Over</p>	<p><b>Outcome level:</b> Individual</p> <p><b>Evaluation notes:</b> <i>Boston:</i> Youth Violence Prevention Collaborative youth violence survey, with added questions about community engagement, job readiness, post-secondary aspirations, and financial capability. Surveyed pre-/post-program, 2015–2017. Pre-survey not administered to the control group. <i>Chicago:</i> Matched study youths to administrative school and arrest data. The 2014 study included only 2011–2012 outcomes, while the 2017 study examines outcomes through 2015. <i>New York:</i> Matched study youths with education administrative data. Schwartz, 2015, looked at data from 2005–2008 and measured academic</p>

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		<p>Modestino, A. S. (2019). <a href="#">How do summer youth employment programs improve criminal justice outcomes, and for whom?</a></p> <p><i>Chicago:</i> Davis, J. M. V. &amp; Heller, S. B. (2017). <a href="#">Rethinking the benefits of youth employment programs: The heterogeneous effects of summer jobs.</a></p> <p>Heller, S. B. (2014). <a href="#">Summer jobs reduce violence among disadvantaged youth.</a></p> <p><i>New York:</i> Gelber, A., Isen, A., &amp; Kessler, J.B. (2015). <a href="#">The effects of youth employment: Evidence from New York City lotteries.</a></p> <p>Leos-Urbel, J. (2014). <a href="#">What is a summer job worth? The impact of summer youth employment on academic outcomes.</a></p> <p>Schwartz, A. E., Leos-Urbel, J., &amp; Wiswall, M. (2015). <a href="#">Making summer matter: The impact of youth employment on academic performance.</a></p> <p>Valentine, E. J. &amp; Hossain, F. (2017). <a href="#">An introduction to the world of work: A study of the implementation and impacts of New York City's Summer</a></p>	<p>agency, or paid directly in a private sector position. Several SYEPs provide job-readiness training (e.g., Boston) or social-emotional training (e.g., Chicago). Other cities with SYEPs include Santa Clara County, CA, Broward County, FL, Los Angeles, CA, Philadelphia, PA, Charlotte, NC, and more.</p> <p><b>Cost:</b> Costs come out to about \$2,000 per participant.</p>	<p>50% African American; about 1/3 were non-white, non-Asian, non-African American, or mixed race.</p> <p><i>Chicago:</i> 8<sup>th</sup>–12<sup>th</sup> grade male students (ages 14–21) at 13 high-violence schools in 2011–2013 (treatment = 730; control = 904). Average age = 16.79. Vast majority were African American.</p> <p><i>New York:</i> SYEP applicants enrolled in public school, 2005–2008 (<math>N = 95,948</math>). 40% of applicants applied in 9<sup>th</sup> grade, 25% in 10<sup>th</sup>. Applicants are more likely to be female, African American, and poor. About 73% to 83% of applicants participated in the program. For summer 2007, total selected = 24,179; not selected = 23,274.</p>	<p>performance in the year following participation. Leos-Urbel, 2014, did the same for 2006–2008. Gelber, 2015, used tax records, incarceration data, and cause of death data for 2005–2008 SYEP cohort.</p> <p><b>Earnings results:</b> <i>Chicago:</i> Employment improvements for younger, Hispanic, female participants who are enrolled in school and less likely to have an arrest record. <i>New York:</i> Initial gains in average earnings and probability of employment, but effects fade over time.</p> <p><b>Employment results:</b> <i>Boston:</i> Treatment group participants worked more hours per week than control group participants during the program.</p> <p><b>Education results:</b> <i>New York:</i> Small but significant increased likelihood to take and pass statewide high school exams and school attendance was 1% to 2% higher for the treatment group than the control in the year following participation. No long-term effects on high school graduation or college enrollment.</p> <p><b>Criminal justice results:</b> <i>Boston:</i> 35% fewer arraignments for violent crime and 29% fewer arraignments for property crime in the treatment group than control group in the 17 months following the program. Evaluation attributes to social skill training, rather than job readiness or academic training. <i>Chicago:</i> 43% decline in violent crime in the treatment group relative to the control group in the year after the program. Reduction in crime was largest for youths who did not experience long-term increases in employment from the program; <i>New York:</i> Reduced probability of incarceration and mortality.</p> <p><b>Social-emotional results:</b> <i>Boston:</i> Participants reported higher increases in community engagement and social skills, job readiness, and college aspirations than the control group. They were no more likely to plan to attend post-secondary education or training, but they were more likely to want to pursue a 4-year degree. Largest gains for non-white youths.</p>

Program name	Status	Evaluation citation	Program and cost	Participants	Evaluation and results
		<a href="#">Youth Employment Program.</a>			

**Promising practices targeting secondary education (lacking rigorous evaluation):**

- [Wisconsin Youth Apprenticeship](#) program: This program provides youth employment opportunities in in-demand sectors and provides pathways for them to move into entry-level careers.
- [Science Club](#): This afterschool science program is from Northwestern University and the Chicago Public Schools. The website references an impact report, but the report was not located.

## Early Childhood Education

Program name	Status	Evaluation citation	Program and cost	Participants	Evaluation and results	
<a href="#">Abecedarian</a> Childhood Intervention	Early	1972–1977	<p>Barnett, W. S., &amp; Masse, L. N. (2007). <a href="#">Comparative benefit–cost analysis of the Abecedarian program and its policy implications</a>. <i>Economics of Education Review</i>, 26(1), 113–125.</p> <p>Campbell et al. (2012). <a href="#">Adult outcomes as a function of an early childhood educational program: An Abecedarian Project follow-up</a>. <i>Developmental Psychology</i>, 48(4), 1033.</p> <p>Barnett &amp; Masse compare Abecedarian outcomes to Perry outcomes as well.</p>	<p><b>Program:</b> Early childhood program with learning “games” to support language, cognitive, social/emotional, and gross and fine motor skill development.</p> <p><b>Cost:</b> Estimated cost was \$11,000 in Year 1, \$16,000 in Years 2 &amp; 3, and \$12,000 in Years 4 &amp; 5 (total = \$67,000). Average net yearly cost = \$8,849 (2002 USD)</p>	<p>Low-income children with high scores on the High-Risk Index, birth-Kindergarten entry. The High-Risk Index assesses socioeconomic risk factors, and weighs parent education and family income more heavily than parental marital status, learning problems in family members, parent IQ, and welfare use. Of the 120 families screened into the study, eight declined to participate, one child was replaced for medical reasons, and two children were assigned administratively to the childcare condition. None of these youths were considered in analysis.</p> <p>Mean entry age = 4.4. Most children (98%) were African American.</p> <p>N = 109 families (treatment = 57 infants; control = 54). By age 5, the sample size reduced to 105 due to child mortality and medical considerations.</p> <p>Groups were re-randomized at age 5, and half of the original treatment group continued the intervention through Grade 2.</p>	<p><b>Outcome level:</b> Individual.</p> <p><b>Evaluation notes:</b> Randomized control design with follow-up assessments at ages 21 and 30.</p> <p><b>Earnings results:</b> Income-to-needs ratios did not differ significantly between groups, but the treatment group reported modestly higher earned income. This was largely inflated by a single outlier, but the effect remained when the outlier was removed.</p> <p><b>Employment results:</b> The odds of having been employed full time for at least 2/3 of the preceding 24 months at age 30 were more than doubled for the treatment group (73% vs. 53% worked full time). The treatment group also had slightly more prestigious jobs.</p> <p><b>Education results:</b> Treatment group scored higher on intellectual tests and academic reading and math tests, and achieved more years of education by age 21 than the control. They were also more likely to attend a 4-year college (35% vs. 14%). By age 30, the treatment group was more likely to graduate college than the control (23% vs. 6%), and had a higher average number of years of education (13.46 years vs. 12.31 years).</p> <p><b>Parenthood results:</b> Treatment group had nearly twice the odds of becoming the head of their household by 30. They were also, however, more likely to have children outside of a marriage, but their mean age at the birth of their first child was about 2 years older.</p> <p><b>Social service use results:</b> Treatment group was 6 times less likely to have received benefits for 8–9 months or more of the previous 8–9 months.</p> <p><b>Health results:</b> Treatment group was less likely to be a teen parent, smoke marijuana, or report depressive symptoms than the control group. They were also somewhat more likely to rate their health as Excellent or Very Good at age 30 (69% vs. 59%).</p> <p><b>Cost/benefit results:</b> Program effect on lifetime earnings after age 21 = \$37,500 (2002 USD, 3% discount rate). Program effect on gross earnings of future generations = \$5,700 (2002 USD, discounted at 3%). Overall rates of return estimated to exceed 7%. Benefit-cost ratio = 2.1:1.</p>
<a href="#">CAP Tulsa</a> (Head Start and community college)	Ongoing	Phillips, D., Gormley, W., & Anderson, S. (2016). <a href="#">The effects of Tulsa’s CAP Head Start program on middle-school academic outcomes and progress</a> . <i>Developmental Psychology</i> , 52(8), 1247	<p><b>Program:</b> Head Start (comparison group = Tulsa Public School (TPS) universal pre-k program)</p> <p><b>Cost:</b> CAP Tulsa 2018 audit available <a href="#">here</a>. Program activities budget = \$44,821,044, about \$40M of which is for early childhood education.</p>	<p>CAP Head Start requires enrollees live at 100% of the FPL.</p> <p>N = 1,278 (277 CAP Head Start; 1,001 comparison)</p>	<p><b>Outcome level:</b> Individual.</p> <p><b>Evaluation notes:</b> Parents of low-income children could choose the TPS pre-k program or Head Start (HS). Nearly two-thirds chose the TPS program. This study compares middle school outcomes for Head Start-eligible youth who participated in CAP Head Start vs. the TPS pre-k program.</p> <p><b>Education results:</b> By middle school, CAP HS students performed better on math exams and were more likely to enroll in honors courses than TPS pre-k students. These results were limited to white, Hispanic, and free and reduced price lunch (FRPL)-qualifying students. Female CAP HS students saw strong impacts on grade retention and chronic absences. Hispanic CAP HS students had significantly lower rates of chronic absence than their control group equivalents as well. CAP HS saw</p>	

		Oklahoma's universal pre-k program, Tulsa Public School (TPS), discussed below.			no academic achievement effects for African American or male students. Low-income CAP HS students were significantly less likely to repeat a grade than their control group equivalents.
<a href="#">Head Start</a>	Ongoing	Johnson, R. (2013). <a href="#">School quality and the long-run effects of Head Start</a> . Manuscript in preparation, 159–208.	<b>Program:</b> Head Start was introduced in 1964 to provide education, health, and support to low-income children. <b>Cost:</b> Average of \$10,000/child in 2017 ( <a href="#">total costs</a> = \$9B in 2017)	Children born from 1956–1976 who were in Head Start ( $N = 5,771$ )	<b>Evaluation notes:</b> Difference in differences (DID) model using Panel Study of Income Dynamics (PSID) data (1968–2007) and administrative Head Start (HS) data. Analyzed life trajectories of children born between 1956–1976 through 2007. Compared HS children to their siblings who were not in HS. <b>Earnings results:</b> HS increased adult earnings and wages for men when HS spending was higher and when children subsequently attended schools with higher per-pupil spending as adolescents (ages 12–17). <b>Education results:</b> HS had positive effects on educational attainment and grade retention. HS had larger impacts on educational attainment when HS spending was higher and when children subsequently attended schools with higher per-pupil spending as adolescents (ages 12–17). <b>Criminal justice results:</b> HS participation reduced annual incarceration from ages 18–29 by 5 percentage points for African American males.
<a href="#">High/Scope</a> Perry Preschool	1962–1967	Schweinhart et al. (2005). <a href="#">Lifetime effects: The High/Scope Perry Preschool study through age 40</a> . Ypsilanti, MI: High/Scope Press.	<b>Program:</b> High-quality preschool program in MI that ran from 1962–1967 using the High/Scope education model, which emphasized self-initiated learning in small and large groups. Teachers had bachelor's degrees and teaching certificates, and each served 5–6 children for 2.5 hours/day. Program included home visits. <b>Cost:</b> \$15,166/participant (2000 USD)	58 "high-risk" low-income African American children, ages 3–4, were randomly assignment to the treatment condition; the control group ( $N = 65$ ) received no preschool.	<b>Outcome level:</b> Individual. <b>Evaluation notes:</b> RCT with several decades of follow-up data collection. <b>Employment results:</b> Treatment group participants were more likely to be employed at age 27 (69% vs. 56%) and at age 40 (76% vs. 62%) than the control group. Males were much more likely to be employed at age 40 (70% vs. 50%), and females were more likely to be employed at age 27 (80% vs. 55%). <b>Earnings results:</b> Treatment participants had a higher median wage at ages 27 and 40 than control participants (Age 27: \$12,000 vs. \$10,000; Age 40: \$20,800 vs. \$15,300). <b>Education results:</b> Program group was significantly more likely to graduate high school (77% vs 60%), especially female participants (88% vs. 46%). Female participants were also less likely to experience grade retention (21% vs. 41%). The treatment group outperformed the control group on school achievement tests at ages 9, 10, and 14, and on literacy tests at ages 19 and 27. The treatment group also had more positive attitudes about school at ages 15 and 19, as did their parents at age 15. <b>Criminal justice results:</b> Perry grads had significantly fewer lifetime arrests than the control group (36% vs. 55% arrested 5+ times by age 40), especially for violent crime (32% vs. 48% ever arrested), property crime (36% vs. 58% ever arrested), and drug crime (14% vs. 34% ever arrested). Also differences for particular crime types at particular stages of life. Perry participants, for example, experienced fewer total arrests in early adulthood than the control group (7% vs. 29% arrested 5+ times), and were less likely to have been arrested for a violent felony from ages 28–40 (2% vs. 12%). For a full list of differences, please refer to the cited study. <b>Housing and asset results:</b> The treatment group was more likely to own a home at ages 27 and 40 than the control (age 27: 27% vs. 5%; age 40: 37% vs. 28%). By age 40, program males paid a higher cost/month for their housing than control males. Perry grads were more likely to own a car by age 40 (82% vs. 60%) and a

					<p>second car by age 27 (30% vs. 13%), especially men (car at age 40: 80% vs. 50%; second car at age 27: 36% vs. 15%). Men were also more likely to own a car at age 27 (73% vs. 59%).</p> <p><b>Parenthood results:</b> Male Perry grads were more likely to raise their own children (57% vs. 30%) and marry twice (29% vs. 8%) by age 40. Perry grads as a whole were more likely to report positive relationships with their families (75% vs. 64%). Note that the two oldest children raised by either group did not differ significantly from each other in terms of education, employment, arrests, or social service use.</p> <p><b>Social service use results:</b> Perry grads were less likely to have used social services in the past 10 years by age 27 (59% vs. 80%). Differences in lifetime use by age 40 were not significant. Treatment group was significantly less likely to use family counseling from 34–40 (13% vs. 24%) and General Assistance from ages 23–27 (10% vs. 23%).</p> <p><b>Health results:</b> Female participants were less likely to receive treatment for mental impairment (8% vs. 36%) in early results. Male Perry grads were less likely to report using sleeping aids (17% vs. 43%), marijuana (48% vs. 71%), or heroin (0% vs. 9%) than control males at age 40.</p> <p><b>Cost/benefit results:</b> Authors estimate an overall return of \$16.14/dollar spent to society (benefits = \$244,812/participant in 2000 USD, discounted at 3%). The general public saw a return of \$12.90/dollar by age 40 (it was \$7.16/dollar at age 27); the participants saw a return of \$3.24/dollar. The majority of returns to the general public came from crime savings (88%), and, relatedly, from males (93%). This is also partially because greater educational attainment had a smaller impact on lifetime earnings for female participants than expected. Unlike female participants, male participants did not see statistically significant differences in high school graduation rates, but their return to society for earnings was only 21% lower than for females. As a whole, Perry grads earned 14% more per person than they otherwise would have, which is \$156,490 (2000 USD) over their lifetimes.</p>
<p><a href="#">Tulsa Public Schools (TPS) Pre-K Program</a></p>	<p>Ongoing</p>	<p>Gormley Jr, W. T., Phillips, D., &amp; Anderson, S. (2017). <a href="#">The effects of Tulsa's pre-k program on middle school student performance</a>. <i>Journal of Policy Analysis and Management</i>, 37(1), 63–87.</p>	<p><b>Program:</b> Oklahoma universal pre-kindergarten</p> <p><b>Cost:</b> Pre-k is funded according to the same formula used for K-12 education.</p>	<p>Children who enrolled in kindergarten in TPS in Fall 2006 and for whom middle school data was available (<math>N = 2,656</math>). Head Start alumni excluded from analysis (see above).</p>	<p><b>Outcome level:</b> Individual.</p> <p><b>Evaluation notes:</b> Propensity score weighted regression discontinuity comparing children in TPS Kindergarten who graduated from TPS pre-k to those who did not.</p> <p><b>Education results:</b> Pre-k graduates had statistically higher math test scores in middle school, were more likely to enroll in honors courses, and were less likely to experience grade retention. Honors enrollment effects were much more significant for male students than female students. African American students did not experience statistically significant effects of pre-k enrollment on education outcomes in middle school.</p> <p><b>Cost/benefit analysis:</b> Estimates that the state gets \$4 for every \$1 spent on pre-k.</p>
<p><a href="#">Chicago Longitudinal Study</a></p>	<p>Ongoing (evaluation cohort in Pre-K 1983-1985)</p>	<p>Reynolds AJ, Temple JA, White BA, Ou SR, Robertson DL. Age 26 cost-benefit analysis of the child-parent center early education</p>	<p><b>Program:</b> Pre-K through kindergarten programing children living in disadvantaged neighborhoods in Chicago. Programs lasted either through 2nd or 3rd grade, depending on site.</p>	<p>Evaluation cohort includes children who enrolled in Child-Parent Centers with pre-K and kindergarten programs in the fall of 1983 (<math>N = 1,150</math>). Comparison group (control) consisted of 389 children who</p>	<p><b>Outcome level:</b> Individual</p> <p><b>Education results:</b> CPC children had more years of education (11.33 vs. 10.93) and higher rates of high school or GED completion (66.9% vs. 55.3%). (<i>Abstract only results</i>)</p> <p><b>Cost/benefit analysis:</b> Age 26 results show a return to society of \$10.83 (2007 dollars) for each dollar invested. Factors included in the analysis include remedial school services, labor market earnings and tax revenue, criminal justice</p>

		<p>program. Child Dev. 2011;82(1):379-404.</p> <p>Suh-Ruu Ou &amp; Arthur J. Reynolds (2006) Early Childhood Intervention and Educational Attainment: Age 22 Findings from the Chicago Longitudinal Study, Journal of Education for Students Placed at Risk (JESPAR) <i>Abstract Only</i></p>	<p><b>Cost:</b> \$3,000 for 2 years and \$4,500 for 3 years (1996 dollars), not including costs for children's meals.</p>	<p>completed public kindergarten in Chicago Public Schools.</p>	<p>involvement, child maltreatment and child welfare system involvement, and mental health/substance use.</p>
Nurse Family Partnership	Ongoing	<p>Kitzman, H., Olds, D. L., Knudtson, M. D., Cole, R., Anson, E., Smith, J. A., ... Conti, G. (2019). Prenatal and Infancy Nurse Home Visiting and 18-Year Outcomes of a Randomized Trial. <i>Pediatrics</i>, 144(6). doi: 10.1542/peds.2018-3876</p>	<p><b>Program:</b> Prenatal and infant home visits from nurses plus transportation to prenatal care and child development screenings.</p>	<p>742 pregnant, low-income first-time mothers. Randomly assigned to control (free transportation to prenatal care with child development screening and referrals; N = 514) or treatment (N = 228)</p> <p>Follow-up study includes their 629 children at age 18</p>	<p><b>Outcomes-level:</b> Individual</p> <p><b>Evaluation notes:</b> The cited study is the most recent in a series of follow-up studies on NFP.</p> <p><b>Cognitive results:</b> At age 18, children of NFP mothers had better receptive language and math achievement than control youth.</p> <p><b>Criminal justice results:</b> At age 18, daughters of NFP mothers had fewer convictions than control daughters.</p>
Parents and Children Making Connections—Highlighting Attention (PCMC-A)	Ongoing	<p>N Neville, H. J., Stevens, C., Pakulak, E., Bell, T. A., Fanning, J., Klein, S., &amp; Isbell, E. (2013). <a href="#">Family-based training program improves brain function, cognition, and behavior in lower socioeconomic status preschoolers</a>. <i>Proceedings of the National Academy of Sciences</i>, 110(29), 12138–12143. doi: 10.1073/pnas.1304437110</p>	<p><b>Program:</b> Parents attend weekly two-hour, small-group classes while children attend small-group training activities. Parent training focuses on reducing family stress; child training focuses on attention and self-regulation. Program length is 8 weeks.</p> <p><b>Cost:</b> \$800/child</p>	<p>141 Head Start children and their parents. Control group received Head Start only; additional comparison group received Attention Boost for Children (ABC), an active training program that lacks a parent component</p>	<p><b>Outcomes-level:</b> Individual</p> <p><b>Evaluation notes:</b> Long-term outcome data is unavailable, but the authors have longitudinal data collection plans.</p> <p><b>Child development results:</b> PCMC-A children showed greater progress in neural responses to attended stimuli, nonverbal IQ, receptive language, and preliteracy skills than children in the control group and the ABC group.</p> <p><b>Child behavioral results:</b> PCMC-A parents reported greater improvements in child social skills and behavioral problems than comparison groups.</p> <p><b>Parenting results:</b> PCMC-A parents reported larger reductions in parenting stress and more favorable language and interaction pattern results than comparison parents.</p>

**Other programs focused on early childhood education (lacking rigorous evaluation):**

- 3K programs in [New York City](#), [Washington, D.C.](#), [San Francisco](#), and [Saint Paul](#) integrate 3-year-olds into pre-kindergarten infrastructure. The program in New York City targets low-income neighborhoods and includes home-based childcare centers.
- The National Institute for Early Education Research releases a report on the [State of Preschool](#) every year, which provides a state-by-state overview of preschool policies, programs, and funding and enrollment levels.
- An overview of preschool program effectiveness is available at the [Learning Policy Institute](#).
- [AVANCE Parent-Child Education Program](#): Two-gen program for Hispanic families in Texas that has found some positive parenting results. Economic outcomes and child outcomes not discussed.



## Neighborhoods

Program name	Status	Evaluation citation	Program and cost	Participants	Evaluation and results
<a href="#">Gautreaux housing program</a> (Section 8 vouchers)	1976–1998	<p>Rosenbaum, J. E.; Deluca, S. (2008). <a href="#">What kinds of neighborhoods change lives the Chicago Gautreaux housing program and recent mobility programs</a>. Indiana Law Review, 41(3), 653–662.</p> <p>(Summarizes Rosenbaum, J. E. (1995). <a href="#">Changing the geography of opportunity by expanding residential choice: Lessons from the Gautreaux Program</a> and DeLuca, S. &amp; Rosenbaum, J. E. (2003). <a href="#">If low-income African Americans are given a chance to live in white neighborhoods, will they stay? Examining mobility patterns in a quasi-experimental program with administrative data</a>).</p>	<p><b>Program:</b> In 1976, Chicago launched the Gautreaux program, which allowed low-income African American public housing residents to use Section 8 housing vouchers to move to private-sector apartments in the city or suburbs. The program did not include employment or transportation assistance.</p>	<p>7,000 families (half moved to 115 suburbs in six counties around Chicago)</p> <p>The 2003 study discusses long-term outcomes from a random sample of mothers who moved before 1990 (<math>N = 1,504</math>).</p>	<p><b>Outcome level:</b> Individual.</p> <p><b>Evaluation notes:</b> Quasi-experimental design. Research from 2003 used administrative data to track long-term residential and economic outcomes for mothers, and regressions accounted for more pre-program characteristics than earlier research. Also analyzed interview data with 150 mothers.</p> <p><b>Results notes:</b> Authors acknowledge that the Moving to Opportunity (MTO) program had a stronger evaluation design because it used RCT.</p> <p><b>Employment results:</b> Mothers who moved to the suburbs saw higher employment gains than mothers who stayed in cities, but not higher earnings. The employment differences were largest for adults who were unemployed at the time of the move. Children who moved to the suburbs who did not go to college were more likely than city kids to be employed by the 1990s, and had jobs with better pay and benefits.</p> <p><b>Education results:</b> Children who moved to the suburbs were more likely to graduate from high school, attend college, and attend a 4-year college.</p> <p><b>Criminal justice results:</b> Suburban boys were less likely to get involved in the criminal justice system than city boys, but suburban girls were more likely to be convicted of a criminal offense than city girls.</p> <p><b>Housing results:</b> 66% of suburban families stayed in the suburbs for an average of 15 years post-placement. Mothers continued to live in areas with lower poverty rates and higher household incomes.</p> <p><b>Desegregation results:</b> Suburban children were more likely to interact with students of other races.</p>
Inclusionary zoning (IZ)	Ongoing	<p>Schwartz, H. L., Ecola, L., Leuschner, K.J., &amp; Kofner, A. (2012). <a href="#">Is inclusionary zoning inclusionary?</a>: A guide for practitioners. Santa Monica, CA: RAND Corporation.</p> <p>Schwartz, H. (2012). <a href="#">Housing policy is school policy: Economically integrative housing promotes academic success in Montgomery County</a>.</p>	<p><b>Program:</b> IZ policies typically require developers to reserve affordable units in market-rate residential developments for lower-income households in exchange for development rights or zoning variances. Full breakdown of Montgomery model on p. 55 of Schwartz et al.</p> <p><b>Cost:</b> IZ policies frequently allow the city to waive certain fees for developers (in Chicago, up to \$10,000 per unit created), and/or for developers to request reimbursement for third-party costs, such as permit reviews (in</p>	<p>Montgomery has produced 13,000 IZ homes, as of 2011. Most IZs produce fewer housing units.</p> <p>Montgomery study follows 850 students who were randomly assigned to IZ housing and compares them to them to equivalent students in the same region not in IZ housing.</p>	<p><b>Outcome level:</b> Individual and structural.</p> <p><b>Evaluation notes:</b> Montgomery County, MD, randomly assigned 850 low-income households to IZ housing. The authors follow results over 5–7 years (2001–2007). The authors describe the study as a randomized control trial, but the evaluation is quasi-experimental, since the comparison group was not randomly assigned.</p> <p>Schwartz et al. reviews outcomes across 11 IZ programs.</p> <p><b>Education results:</b> Families also were able to live near better performing schools. Students who lived in an affordable home through inclusionary zoning and attended low-poverty elementary schools did significantly better than their public housing peers who attended moderate-poverty schools. By the end of elementary school, the children living in inclusionary zoning units had reduced the achievement gap with their nonpoor classmates by half for math and 1/3 for reading.</p>

Program name	Status	Evaluation citation	Program and cost	Participants	Evaluation and results
		<a href="#">Maryland</a> . New York, NY: Century Foundation.	Chicago, up to \$3,000 per unit, or \$50,000 total).		<b>Housing results:</b> Three-fourths of the IZ homes were in low-poverty neighborhoods (10% or fewer households living in poverty), compared with 8% to 34% of homes in low-poverty neighborhoods accessed through other affordable housing programs.
<a href="#">Moving to Opportunity (MTO)</a>	1994–1998	Chetty, R., Hendren, N., & Katz, L. (2016). <a href="#">The effects of exposure to better neighborhoods on children: New evidence from the Moving to Opportunity Project</a> . <i>American Economic Review</i> 106(4): 855–902.	<b>Program:</b> MTO families had to use their housing vouchers to move to a census tract with a poverty rate below 10%.  <b>Cost:</b> Not available.	4,600 families were randomized to one of three conditions: MTO group; a group that received regular Section 8 vouchers; control group (no voucher; continued access to public housing).	<b>Outcome level:</b> Individual.  <b>Evaluation notes:</b> Original analysis found only positive health effects for adults, but no other impacts. Follow-up research from 2016 identified longer term effects using a quasi-experimental design.  <b>Adult economic results:</b> MTO had little to no effect on adult economic outcomes.  <b>Younger child economic results:</b> MTO increased the earnings of children who moved to low-poverty areas before age 13 by 31%. For children who were about age 8 at the time of move, MTO increased total lifetime earnings by about \$302,000 (or \$99,000 per child in present value at age 8, with a 3% discount).  <b>Older child economic results:</b> MTO had no to slightly negative effects on adult economic outcomes. Gains from moves decline with age of child at time of move.
<a href="#">Neighborhoods in Bloom</a> (NIB)	1999–2004	Galster, G., Tatian, P., & Accordino, J. 2006. <a href="#">Targeting investments for neighborhood revitalization</a> . <i>Journal of the American Planning Association</i> 72(4): 457–74.  Accordino, J., Galster, G., & Tatian, P. (2005). <a href="#">The impacts of targeted public and nonprofit investment on neighborhood development</a> .  Rossi-Hansberg, E., Pierre-Daniel, S., & Owens, R. (2008). <a href="#">Housing externalities: Evidence from spatially concentrated urban revitalization programs</a> .	<b>Program:</b> Concentrated residential urban revitalization program in Richmond, VA, using federal funds, focused code enforcement, and accelerated vacant and abandoned property disposition on seven neighborhoods. LISC and Richmond CDCs simultaneously targeted housing investment subsidies to the same neighborhoods.  <b>Cost:</b> This program used CDBG and HOME funds, capital improvement funds, and municipal funds. Total cost value not available.	Seven neighborhoods in Richmond, VA.	<b>Outcome level:</b> System.  <b>Evaluation notes:</b> Measure changes in land value in and near NIB neighborhoods. Additional data from interviews with key players.  <b>Results notes:</b> Qualitative data suggest some of these changes may have happened independent of the intervention.  <b>Property value outcomes:</b> Land prices in NIB neighborhoods rose by 2–5% annually, higher than the control neighborhood. This translates to \$2–\$5 land value gains per dollar invested over 6 years. Neighborhoods near the NIB neighborhoods also increased in land value. In 1990–91, home prices in the target areas averaged less than half of the citywide average; by FY2003–04, they were about 70% of the citywide average. When city investments exceeded \$20,100, the average home sales price increased by over 50% and continued increasing.
<a href="#">Rental vouchers</a>	Ongoing	Fischer, W. (2015). <a href="#">Research shows housing vouchers reduce hardship and provide platform for long-term gains among children</a> .	<b>Program:</b> Housing Choice vouchers are the largest rental assistance program in the U.S. Low-income families receive vouchers to rent modest units of choice on the private market.	10.4 million people in 5.2 million households (about 1/4 of those eligible). 68% are seniors, children, or people with disability.	<b>Outcome level:</b> Systems and individual.  <b>Evaluation notes:</b> Fischer 2015 summarizes results from a 2000–2004 RCT and 20-month outcomes from an ongoing RCT (Acs & Johnson 2015) that considers other housing assistance alternatives.

Program name	Status	Evaluation citation	Program and cost	Participants	Evaluation and results
		Center on Budget and Policy Priorities.  Acs, G., & Johnson, P. (2015). <a href="#">Housing tax and transfer programs decrease inequality.</a>	<b>Cost:</b> \$22 billion in 2018 USD.		<p><b>Employment and earnings results:</b> Mixed evidence. One study found no effects over a 3.5 period. Another study found earnings reductions for voucher families in Chicago.</p> <p><b>Crime results:</b> No evidence of increased crime in destination neighborhoods.</p> <p><b>Housing results:</b> Reduced the share of families experiencing homelessness (both street and couch) relative to control group. Reduced the share of families living in overcrowded conditions from 46% to 22%, relative to control. Reduced the number of times that families moved over 5 years by nearly 40%. Also more effective than other housing assistance programs (transitional housing or short-term rapid rehousing assistance) on these measures.</p> <p><b>Financial security results:</b> Rental assistance allows families to spend more of their income on other necessities.</p> <p><b>Inequality results:</b> Housing subsidies decrease income inequality, on net, more than mortgage interest and real property deductions increase them. African American and Hispanic voucher children are more likely to live in neighborhoods with lower rates of poverty than low-income African American and Hispanic children generally.</p> <p>Note that HUD expanded vouchers to include Small Area Fair Market Rents in 24 metropolitan areas starting in 2018. This means that voucher values are set based on neighborhoods, not full metropolitan areas, which has promising implications for housing equity. Other metropolitan areas can use SAFMRs in high-rent zip codes or request full adoption of SAFMRs.</p>

#### Other housing support and neighborhood equity programs (lacking rigorous evaluation):

- [Cecil B. Moore Homeownership Zone Project](#): Successfully revitalized a vacant neighborhood in Philadelphia, PA. The project increased home ownership rates among low- and moderate-income households in the area.
- [Choice Neighborhoods](#): A public/private partnership program to support distressed communities. Local stakeholders work together to plan neighborhood revitalization.
- [Community Land Trusts](#): Nonprofit, community-based housing development organizations that provide shared equity to homeowners as a means of preserving affordable housing stock. Some promising results, but not rigorously evaluated.
- [Community Watershed Stewardship Program](#): Portland, OR, university-city partnership to improve watershed health and enable greater community equity. [Case study](#) available, but program has not been rigorously evaluated.
- Exclusionary zoning bans: [Oregon prohibited exclusionary zoning in the 1970s](#) and saw decreases to housing prices and increases to housing units.
- [Harlem Children's Zone \(HCZ\)](#): There is no evidence that the HCZ schools do better than other charter schools serving similar populations, but they did reduce the African American-white mathematics achievement gap. No class has yet graduated from their cradle to college pipeline program, so those results are unknown. Mathematica has a forthcoming full impact evaluation of HCZ, which should be released within the next year or so.
- [HOST Initiative](#): An Urban Institute technical assistance initiative for 2Gen housing programs in Portland, OR, Chicago, IL, and Washington, D.C., from 2010–2015. The full impact and cost/benefit analyses are forthcoming.
- [Housing Trust Funds](#): A HUD affordable housing program.

- [Jeremiah Program](#): Provides affordable housing and support services to single mothers in Saint Paul, MN, including early childhood education. Reported results are promising but not rigorously evaluated.
- [Low-equity housing cooperatives](#): Residential development managed by a nonprofit cooperative corporation (e.g., a tenants' union). Not rigorously evaluated.
- [Neighborhood preservation initiative \(NPI\)](#): Pew Trusts created NPI to support communities in 10 working-class neighborhoods across 9 mid-sized cities. Consistent rigorous evaluations were not available, but the existing evidence is summarized [here](#).
- [Promise Neighborhoods](#): A national cradle-to-career neighborhood revitalization program. Program elements and results vary across sites. A rigorous evaluation of Promise Neighborhoods overall was not identified. A list of programs identified by Promise Neighborhood as evidence-based is available [here](#).
- [Successful Small Cities Initiative](#): The Mid-America Regional Council Creating Quality Places project ran the Successful Small Cities Initiative in three cities to engage communities and local stakeholders in their economic development.
- [Section 8 Homeownership Program](#): Housing choice vouchers allow qualifying low-income families to use federal support for homeownership payments, rather than rental assistance payments. It is not offered everywhere in the country.
- [Tacoma Housing Authority Education Project](#): The Education Project promotes improved education outcomes for low-income children in Tacoma, WA, by providing rental assistance, support services, and CSAs to homeless families and requires parents to stay engaged in their child's education, among other education interventions. [Analysis](#) of outcomes from 2011–2016 showed promising results, but the analysis did not use a rigorous comparison design.

## Financial Assistance

Enabling low-income families to build capital can facilitate stability, with positive long-term effects on children's economic outcomes. Programs that predominantly address financial capital outcomes for low-income adults are reviewed in the program table on intragenerational mobility, but program evaluations that also examined outcomes for children or related to parenting behavior are discussed here.

Program name	Status	Evaluation citation	Program and cost	Participants	Evaluation and results
Family Rewards 2.0	Ongoing	Miller, C. Miller, R. Verma, N., Dechausau, N. Yang, E. Rudd, T. Rodriguez, J. & Honig, S. (2016). <a href="#">Effects of a modified conditional cash transfer program. MDRC.</a>	<p><b>Program:</b> The program offers cash assistance to poor families to avoid material hardship contingent on family efforts to improve health, child's education, and parent's work and earnings. The program was launched in 2011 in the Bronx, New York, and in Memphis, Tennessee. The program offers rewards in areas of children's education, family health, and parent's work. The program provided personalized family guidance, the largest change in the model from the original initiative.</p> <p><b>Cost:</b> Matching funds were provided by private organizations. Approximately \$6,200 was transferred, an average of \$2,000 each year.</p>	<p>Majority of families enrolled in the study in the Bronx and Memphis were single-parent families (91% in Memphis; 77% in the Bronx). Nearly all participants in Memphis were African American (98%).</p> <p>Majority of families in the Bronx were Hispanic (74%). Half of adults in the Bronx did not have a high school diploma or equivalency certificate while 1/3 of parents in Memphis did not.</p> <p>Adults in the Bronx, however, were more likely to be working (57%) than adults in the Bronx (44%).</p>	<p><b>Outcome level:</b> Individual.</p> <p><b>Evaluation notes:</b> Approximately 1,200 were evaluated in each city, half of whom were randomly assigned to the program group and the other half were placed in the control group. This report investigates the program's impacts in the first 4 years.</p> <p><b>Results:</b> The program increased income and reduced poverty but had few effects on student's progress in school, even for higher-performing students. Nearly all families earned rewards from the program, with average earnings of just over \$2,000 per full program year. The program led to improvements in parents' reported life satisfaction.</p> <p><b>Education rewards:</b> High attendance, good grades, satisfactory performance or better on state exams, and taking college entrance exams.</p> <p><b>Health rewards:</b> Obtaining medical and dental check-ups for each family member.</p> <p><b>Work and training rewards:</b> Payments for full-time work and for earning GED certificates (General Educational Development).</p>
<p><a href="#">SEED for Oklahoma Kids (SEEK OK)</a></p> <p>(Child Development Account Program)</p> <p>Related: <a href="#">Harold Alford College Challenge</a>; <a href="#">CDA/CSA programs in CT, RI, NV, CO, MI, and OH</a></p>	Ongoing	<p><a href="#">Beverly, S. G., Clancy, M. M., &amp; Sherraden, M.</a> (2016, March). <a href="#">Universal accounts at birth: Results from SEED for Oklahoma Kids</a> (CSD Research Summary No. 16-07). St. Louis, MO: Washington University, Center for Social Development.</p> <p>A third survey is planned for 2020, when children will be age 12.</p>	<p><b>Program:</b> Oklahoma 529 College Savings Plans (OK 529) automatically opened for families with a \$1,000 deposit, including an optional OK 529 accounts with a \$100 opening incentive, savings match, and educational materials.</p> <p><b>Cost:</b> The program relies on foundation funding. Total cost information was not available.</p>	<p>Randomly assigned children born in OK during certain periods in 2007 to treatment group after their mother completed a baseline survey. Treatment = 1,358; control = 1,346. Children were 7–8 years-old.</p>	<p><b>Outcome level:</b> Individual.</p> <p><b>Evaluation notes:</b> Citation reviews multiple studies on SEEK OK. SEED OK was implemented as a randomized control trial. Infants were randomly selected from OK birth records, their mothers completed a baseline survey, and were then randomly assigned to SEED OK or a control group. Data from TIAA-CREF (the OK 529 College Savings Plan program manager) and extended interviews with treatment mothers. Data available from the first 7 years of the program.</p> <p><b>Savings results:</b> 7 years after the intervention, 99.9% of treatment children had college accounts and assets. They were 30x more likely than control children to have an OK 529 account and assets. Average value of assets for treatment children = \$1,851 (vs. \$323 for control). Much of this is from investment growth. Assets accumulated total = \$2,556,873 for treatment (\$403,400 for control). Treatment children earned \$569 on average (median = \$426). Mothers in the treatment condition were 15 times more likely to open an OK 529 account for their children, and eight times more likely to open an individual OK 529 account. Individual OK 529 savings averaged \$261 for the treatment and \$59 for the control. Among children with individual savings, the average savings was \$3,112 (median = \$939). Very few mothers (less than 2%) withdrew the \$100 SEED OK account-opening</p>

					<p>deposit. Most children in the treatment group, though, still do not have OK 529 accounts or savings.</p> <p><b>Equity results:</b> The CDA in SEEK OK eliminated variation in savings and assets by income, race, and other socioeconomic variables. Absent the CDA, advantaged children were much more likely to have accounts and assets. Within certain disadvantaged groups, account- and asset-ownership rates went from 0–100%. Even within the treatment group, though, the families of advantaged children were more likely to open OK 529 accounts and deposit 529 savings for them. The average value of their savings was higher as well. The value of their assets, therefore, were also higher (though smaller variation among treatment than control).</p> <p><b>Social-emotional results:</b> Low-income children saw positive effects on social-emotional development at age 4. Similar effects to Head Start.</p> <p><b>Health results:</b> Treatment mothers reported fewer depressive symptoms than control mothers 3 years into the intervention. Effects were particularly strong for disadvantaged mothers.</p> <p><b>Perception of program:</b> Participants generally held positive feelings about the program, though had mixed feelings about direct deposit due to seasonal employment trends, and often viewed financial education components as boring and repetitive.</p>
<p>Financial Justice Project – Child support debt relief pilot</p>	<p>Ongoing</p>	<p>Hahn, H., Kuehn, D., Hassani, H., &amp; Edin, K. (2019). <a href="#">Relief from government-owned child support debt and its effects on parents and children</a>. Washington, D.C.: Urban Institute.</p>	<p><b>Program:</b> In 2016, San Francisco launched the Financial Justice Project, which provided several forms of debt and fine relief to low-income residents, including child support debt relief. Rather than going to the government, child support would now go to children. Pilot participants attended a 4-hour financial coaching workshop and had to stay on current child support payments for at least 1 year. Prior to the pilot, parents could receive debt relief through the Compromise of Arrears Program (COAP), which lets parents eliminate their debt if they make partial payments. It has a lengthy application process.</p> <p><b>Cost:</b> The Walter &amp; Elise Haas Fund paid down the portion of participants’ public assistance debt they needed to reach COAP requirements. COAP covered the rest of the debt. Total cost value not available.</p>	<p><b>Pilot:</b> 32 non-custodial parents (NCPs) (30 fathers and 2 mothers) of 55 dependent children. 34% were paying support for at least one child &lt;= age 5, and 9% had a youngest dependent &lt;= age 1. Half the parents had only one dependent.</p> <p><b>Criteria:</b> Owed \$500–\$50,000 in government-owned child support debt; making some effort to meet debt obligations; current child support obligation to the family; custodial parent (CP) formerly but no longer received cash assistance.</p>	<p><b>Outcome level:</b> Individual.</p> <p><b>Evaluation notes:</b> Quasi-experimental design. Authors compared pilot parents to statistically similar parents using child support administrative data and propensity score matching. Additional data comes from a participant survey (37.5% response rate) and follow-up focus group with 10 of the participating fathers, 1 year after debt relief. The authors compared the pilot group to COAP participant group as well (<math>N = 19</math>).</p> <p><b>Results notes:</b> Pilot participation criteria may limit the sample to a non-representative population. Additionally, pilot participation was conditional on regular payments, which likely contributed to the high payment rates in the pilot group. Further, qualitative data was only collected from about 1/3 of the participants, so the “parent results” below may not apply to the full sample. The administrative data used also only indicated the presence of a payment, not its value, so the authors cannot compare levels of contributions, just frequency.</p> <p><b>Payment results:</b> Participants made child support payments 18%–28% more frequently than matched parents each month. In the month before the pilot, 72% of participants made their payment. Over the next year, 94%–100% of them made their payments each month. Note that participants had to make regular payments in order to continue in the program, which is likely part of the reason their payment rates were so high.</p> <p><b>Parent results:</b> Participants described experiencing less stress, easier access to employment, improved relationships with their children and custodial parents, as well as the child support system, and a greater sense of control over their finances. They also described improved credit scores and housing conditions.</p>
<p><a href="#">LIFT-AppleTree Strategy</a></p>	<p>Ongoing</p>	<p>Miyazawa Frank, K. (2019). <a href="#">Two-generation strategy yields</a></p>	<p><b>Program:</b> 18-month 2-generation partnership program between LIFT and AppleTree charter</p>	<p>18 low-income families with children in AppleTree charter</p>	<p><b>Outcome level:</b> Individual.</p>

		<p><a href="#">promising results: The LIFT-AppleTree partnership pilot project</a>. Aspen Institute.</p>	<p>preschools. LIFT coaches worked with parents on-site at AppleTree schools in Washington, D.C.</p> <p><b>Cost:</b> Not available.</p>	<p>preschools received LIFT coaches. It is unclear whether comparison youths were also in AppleTree schools.</p>	<p><b>Evaluation notes:</b> For the pilot, researchers compared results for LIFT families to data for families where parents were not working with LIFT coaches at 3 months after program start. The report does not describe comparison methodology, but the pilot does not appear to be a randomized control trial. The researchers measured child social/emotional results using the Positive Behavior Rating Scale.</p> <p><b>Education results:</b> Children of parents highly engaged in LIFT had higher attendance rates than average (one extra week/year).</p> <p><b>Social-emotional results:</b> Children of parents highly engaged in LIFT scored 50% higher on social/emotional skills by mid-year relative to their peers.</p> <p><b>Household finance outcomes:</b> All of the LIFT parents who stayed in the program for 3 months made progress toward increasing household income and net savings, decreasing debt, and completing an education program.</p>
Minnesota Family Investment Program (MFIP)	Ongoing	<p>Gennetian, L., Miller, C., &amp; Smith, J. (July 2005). <a href="#">Turning welfare into a work support: Six-year impacts on parents and children from the Minnesota Family Investment Program</a>. Washington, D.C.: MDRC.</p>	<p><b>Program:</b> MFIP combined financial incentives with work requirements to reduce poverty for low-income families. The program allowed families to keep more of their welfare benefits when they worked and it required longer-term welfare recipients to work or participate in employment services.</p> <p><b>Cost:</b> The average cost per family was between \$2,500 and \$5,900 per year (2017 USD).</p>	<p>Families applying to receive or renew benefits were randomly assigned to MFIP or AFDC.</p>	<p><b>Outcome level:</b> Individual.</p> <p><b>Evaluation notes:</b> 4-year follow-up period allowed for investigation of long-term impacts.</p> <p><b>Results of 3-year evaluation:</b> The program's most consistent results were for single-parent long-term recipients. For this group, MFIP increased work, earnings, and income; decreased domestic abuse; and increased children's school performance and improved behavior. MFIP was also found to have small positive effects on marital stability among two-parent recipient families.</p> <p><b>Results of 6-year evaluation:</b> The most lasting effects were for the most disadvantaged children. The effects on parents' earnings and income faded after 6 years but children of single-parent long-term recipients continued to perform better than the control group in school.</p> <p><b>Single-parent families results:</b> MFIP increased employment, earnings, welfare receipt, and income up through the 4th year of the follow-up period; 4 years after, the economic impacts (increased employment, etc.) dissipated. The program's impacts varied across subgroups. Single-parent families were more likely to combine welfare and work. But, the program's effect on welfare benefits and income for these families ended when the program ended. MFIP's impacts persisted for the most disadvantaged single parents. The most disadvantaged single parents were unlikely to work on their own (work without the program). The continued earnings gains over the 6-year follow-up period. By the end of Year 4, welfare was no longer being used to supplement earnings. Nonetheless, these families continue to have substantially lower levels of earnings and income than their more advantaged counterparts.</p> <p><b>Marriage rates:</b> MFIP did increase marriage somewhat for some subgroups of single-parent families, those long-term recipients through Year 4 and among several other subpopulations of single-parent families through Year 6.</p> <p><b>Student achievement:</b> MFIP had positive effects for young children, children ages 2 to 5 at study entry as the program nearly doubled the proportion of those that met reading and math 5<sup>th</sup> grade expectations. MFIP had no effect on elementary school achievement of young children in two-parent families.</p> <p><b>Dual-parent results:</b> MFIP reduced employment among women in two-parent families as the reduction in earnings was offset by higher welfare benefits, resulting in no detectable overall effects on family income. Results focused on two-parent recipient rather than applicant families likely because applicants rotate off welfare fairly quickly.</p>

<a href="#">Building Wealth and Health Network</a>	Ongoing	Booshehri, L. G., Dugan, J., Patel, F., Bloom, S., & Chilton, M. (2018). <a href="#">Trauma-informed Temporary Assistance for Needy Families (TANF): A Randomized Controlled Trial with a Two-Generation Impact</a> . <i>Journal of Child and Family Studies</i> , 27(5), 1594–1604. doi: 10.1007/s10826-017-0987-y	<b>Program:</b> TANF add-on that included a 28-week curriculum on behavioral health outcomes, economic hardship, and labor force participation <b>Cost:</b> Not available	TANF recipient primary caregivers of children under age six who are required to work at least 20 hours per week to receive benefits.  N = 31 (control group); 35 (partial intervention); 37 (full intervention)	<b>Divorce rates:</b> Effects on divorce were not detectable as they varied based on prior welfare-history.  <b>Results with incentives only:</b> Incentives alone had no effect on earnings but still increased income as the incentives allowed parents to use more generous welfare benefits to make up the difference in the loss of earnings.  <b>Outcome-level:</b> Individual  <b>Evaluation notes:</b> Response rates were only 50% at months 9 and 12, and 45% at month 15. However, the authors found no significant differences in the distribution of treatment assignment over time.  <b>Results notes:</b> Increased class participation was not associated with statistically significant changes in adult depressive symptoms, child development risk, self-efficacy, economic hardship, employment, or earnings for the partial intervention group, but was associated with significant improvements in development risks for young children.  <b>Mental health results:</b> Participants in the full intervention saw significantly larger declines in depressive symptoms at month 15 than the comparison groups.  <b>Economic results:</b> Participants in the full intervention saw significantly larger declines in economic hardship and increases in earnings by month 12 relative to the comparison groups. The control group was more likely to be employed by month 12.
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#### Additional financial assistance programs (lacking rigorous evaluation):

- [EmPath Career Family Opportunity](#): Two-gen program that uses “mobility mentoring,” which focuses on partnership with clients to develop resources and skills to reach economic independence (for more see [report](#)). Pre/post analysis shows promising results, but this program has not been evaluated with a rigorous evaluation design.
- [Ways to Work](#): A community partnership program for individuals and families with poor credit.
- [Hope Enterprise Corporation](#) (no evidence directly tied to intergenerational economic mobility).
- [Baby’s First Years](#): Unconditional cash transfer program to mothers and children in the first 3 years of life. Evaluation is ongoing.