The Effects of a Two-Generation Human Capital Program on Children’s Outcomes in Head Start

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EXECUTIVE SUMMARY

The current brief explores the effect of a two-generation human capital intervention, CareerAdvance®, on children’s outcomes. CareerAdvance®, developed and run by the Community Action Project of Tulsa County (CAP Tulsa), is a healthcare training program designed for parents of children enrolled in CAP’s Head Start programs. Past evaluations found that CareerAdvance® was associated with improved parent education, employment in the healthcare sector, and psychological wellbeing after one year. The central question of this brief is whether there are added (or negative) effects on children as parents advance their own educational goals, adjacent to the positive effects of a high quality Head Start program.

In our overall sample, we did not find significant benefits for children beyond the benefits of Head Start. Yet, it is important to note that all children in our sample (both CareerAdvance® and the matched-comparison group) perform well compared to national averages of Head Start children. We did find that the CareerAdvance® program was associated with positive short-term effects for two groups of children: children whose parents were more college ready and children who were less school ready. In sum, we find that CareerAdvance® maintained and in some cases exceeded the benefits to children of CAP Tulsa’s Head Start programs.

INTRODUCTION

Since its inception, Head Start has always had a two-pronged mission: offering high quality early childhood education services for children and providing direct services for parents as a means of improving outcomes for both generations together.
Despite Head Start’s focus on parent engagement, few evaluations have explicitly tested approaches to parent engagement and even fewer have focused on one important pathway to improved child development: parent human capital development.

Past education and workforce training programs for young, low-income parents were largely ineffective in promoting their human capital, and often led to increased parent stress. (Granger & Cytron, 1999; Hsueh & Farrell, 2012)

The current brief explores the effect of a two-generation human capital intervention, CareerAdvance®, which pairs an education and training program for parents with Head Start for children, on children’s outcomes.

◊ Our past work found that, after one year, CareerAdvance® was associated with positive effects on parents’ education, employment in the healthcare sector, and improved self-efficacy, optimism, and career identity. Parents also did not experience increases in stress. (Chase-Lansdale et al., 2018)

◊ The central question of this report is whether there are added (or negative) effects on children as parents advance their own educational goals, above and beyond the positive effects of a high-quality Head Start. In addition, we explore whether certain types of families are more likely to benefit from CareerAdvance®.

**CAREERADVANCE®**

CareerAdvance®, developed and run by the Community Action Project of Tulsa County (CAP Tulsa), is a healthcare training program designed for parents of children enrolled in CAP Tulsa’s Head Start programs.

CareerAdvance® recruits parents from high-quality Head Start centers and offers career certification programs in the healthcare field at no cost to families. Additional program elements include career coaching, weekly peer learning groups, financial incentives/in-kind assistance, and wraparound early care and education for children.

**MEASURES/STUDY DESIGN**

The study estimated the effects of parent CareerAdvance® participation (healthcare career pathway training for parents combined with Head Start services for children) on children’s outcomes compared to a matched-comparison group that received Head Start services alone.
Before the intervention began, the study selected a matched-comparison group of parents who were similar to the CareerAdvance® participants based on observable characteristics.

Our sample includes 273 children (141 whose parents were in CareerAdvance® and 132 whose parents were in the matched-comparison group). All study families were low-income (average income per year of $15,039) with an average household size of four. The sample was ethnically and racially diverse: 39% Black, 19% White, 10% Hispanic, and about 33% other non-Hispanic race (including Native American). Ninety percent of families identified English as their primary language. Roughly one-third of the sample were single parents at program entry.

Children’s outcomes were measured based on direct assessments which took place either in the home or at school. All children were assessed at three points in time: (i) start of the CareerAdvance® program (baseline); (ii) one year after program start, and (iii) two years after program start.

We selected a battery of assessments to assess a range of children’s academic, language and self-regulation:

◊ Basic numeracy and literacy: children’s knowledge of letters, numbers/counting, relational comparisons, and shapes (Bracken) (McGaw, 1998)

◊ Receptive language: children choose (verbally or nonverbally) which of four pictures best represents a stimulus word (PPVT) (Dunn, 2007)

◊ Math: measures early math reasoning and problem-solving abilities; requires the child to analyze and solve math problems and perform simple calculations (Woodcock Johnson Applied Problems subscale) (Woodcock, 1997)

◊ Inhibitory control: a child is asked to tap a pencil twice if the evaluator tapped once, and to tap once if the evaluator tapped twice, tests a child’s ability to resist a dominant response (e.g., tapping once) in favor of a non-dominant response (e.g., tapping twice; Pencil Tap) (Smith-Donald, 2007)

We also created two composites to test whether the effect of the intervention differed based on combinations of parent and/or child characteristics. Past evidence from Head Start found that program benefited the most when children had greater risk (e.g., low levels of education) but also when parents exhibited greater psychological wellbeing (e.g., lower levels of depression).

The composite scores were:

◊ **Parent college readiness**: defined as high on an index of parent educational attainment, age, income, and household size.

◊ **Child school readiness**: defined as children who scored below the national mean on a standardized test of basic literacy and numeracy (see study description section at the end for further details).
KEY FINDINGS

■ Overall, there were almost no significant differences on average in children’s outcomes—including basic numeracy and literacy (Bracken), receptive language (PPVT), math (WJ-Applied Problems) or inhibitory control (Pencil Tap)—between children whose parents were enrolled in CareerAdvance® and those in the matched-comparison group one and two years after baseline. We do see a marginally significant difference on Pencil Tap scores after one year, but the magnitude of the coefficient is quite small (0.07).

■ There were positive effects of CareerAdvance® for children whose parents were more college ready, particularly one year after baseline.

■ There were also positive effects of CareerAdvance® for children who were less school ready, particularly two years after baseline.

On average CareerAdvance® did not have positive (or negative) effects above and beyond CAP Tulsa Head Start:

■ It is important to note that all children in our sample are performing well above national averages for Head Start children and are on par with national averages that include children from a range of socioeconomic backgrounds.

◊ As presented in the figures below, children are about a half of a standard deviation above Head Start children on receptive language and math skills (represented in the dotted red line) and nearly at the national averages (represented in the solid black line).
Figure 1. Effect of Career Advance® on Children’s Receptive Language and Math Skills After One Year and Two Years, Full Sample

Career Advance® had a positive effect on children whose parents were more college ready:

- One year after baseline, Career Advance® had a positive effect on children’s receptive language (effect size=.98) and inhibitory control (effect size=.16) among children whose parents were more college-ready.

- Two years after baseline, Career Advance® had a positive effect on children’s inhibitory control (effect size=.09) among children whose parents were more college-ready. There were no significant effects on literacy and numeracy, receptive language, or math skills.
CareerAdvance® had a positive effect on children who were less school ready:

- One year after baseline, CareerAdvance® had a positive effect on children’s inhibitory control (effect size=.15) among children who were less school ready.

- After two years, CareerAdvance® had a positive effect on children’s math skills (effect size=.38), and inhibitory control (effect size=.10) among children who were less school ready. There were no significant effects on children’s literacy and numeracy or receptive language.
**CONCLUSION**

- Our past research found that all parents on average benefited from CareerAdvance® in terms of their education, employment in the healthcare sector, and psychological wellbeing.2 The current study tested if CareerAdvance® also led to improved outcomes for all children as parents progressed through the program.

- We did not find significant benefits for children on average, above and beyond the positive effects children already received while in CAP Tulsa’s Head Start programs. This was not entirely surprising, given the well-documented effectiveness of CAP Tulsa’s Head Start programs.

- In fact, children in both the matched-comparison and CareerAdvance® group perform above children in a nationally representative sample of Head Start programs, and perform on par with national averages of children from a range of socioeconomic backgrounds. Thus, all children in CAP Tulsa’s Head Start programs are doing comparatively well.
Due to improvements in parents’ self-efficacy and optimism, and no net effects of the program on stress, we hypothesize that there were no negative effects on children’s outcomes (as parents balanced work, family and school).

Notably, we found that participation in the CareerAdvance® program was associated with positive short-term effects for two groups of children: children whose parents were more college ready and children who were less school ready.

Together, our evaluations of the short-term effects of CareerAdvance® on parents and children suggest that parents experience substantial positive benefits from CAP Tulsa’s two-generation program. In addition, CareerAdvance® maintained and in some cases exceeded the benefits to children of CAP Tulsa’s Head Start programs.

STUDY DESCRIPTION

The evaluation included multiple cohorts of parents who entered the study in either the fall or winter of the children’s Head Start year (fall 2011 through fall 2014).

To select the matched-comparison group, we used propensity score matching, which adjusts for differences between groups in demographics and interest in pursuing educational and career activities. The CareerAdvance® and matched-comparison groups were balanced across all parent characteristics at program start.

The parent college readiness composite included 4 variables: parent has a high school degree or more, parent age is over the median (28), household income is above the median ($20,000-$24,999), and there was more than one adult in the household. Each variable was dummy coded (1=yes) and summed, where a higher composite score indicates that the parent had more college readiness. We then divided the sample into 2 groups: low/mid parent college readiness (meaning the parent had 0 to 3 of the college readiness variables; e.g., only had household income over the median, but nothing else) versus high parent college readiness (parent had all 4 college readiness variables). The low/mid parent college ready group contained 161 children (72%); the high parent college ready group contained 64 children (28%).

The child school readiness score included 1 variable: performance at baseline on basic numeracy and literacy skills (measured by the Bracken assessment4). A child was deemed to have low school readiness if they scored below the national mean of 100 on the Bracken assessment at baseline. The low school readiness group contained 68 children (40%); the mid/high school readiness group contained 100 children (60%).

The correlation between the college readiness composite and the child risk subgroup was quite low (-0.06). This means that there was very little overlap between parents who were low on college readiness and children who exhibited low school readiness.