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Results from a Decade-Long Research-Practice Partnership: Effects of a Two-Generation Education Program on Parents and Adolescents after 6 and 10 Years

by **Lauren A. Tighe**, **Teresa Eckrich Sommer**, **Terri J. Sabol**, and **P. Lindsay Chase-Lansdale**

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Career*Advance*: A Two-Generation Education Program

Two-generation programs offer high-quality, intensive, and intentional coordinated education services to parents (e.g., workforce training) and children (e.g., early education) in the same family (Chase-Lansdale & Brooks-Gunn, 2014; Sabol et al., 2021; Sommer et al., 2024). In the United States, parents' education level is linked to economic security and mobility (Chetty et al., 2017; U.S. Bureau of Labor Statistics, 2023). Beyond financial measures, parental education is one of the strongest predictors of children's developmental outcomes and family dynamics (Duncan et al., 2014; Magnuson, 2007). Given that almost half (42%) of children live in households in which no adult has attained a college education, and 10 million children live in poverty (NCES, 2024, Shrider, 2024), two-generation programs offer a novel approach to improving the lives and wellbeing of families.

One such two-generation education program is Career*Advance*, which was operated in Tulsa, Oklahoma by the Community Action Project of Tulsa (CAP Tulsa). Career*Advance* offered tuition-free healthcare training to low-income parents in addition to coordinated parent-child schedules, coaching support, peer meetings, and financial incentives. These supportive services were paired with Head Start, a full-time, evidence-based early education program for young children (Gormley et al., 2008).

We began our relationship with CAP Tulsa in the early 2010s, developing a long-lasting research-practice partnership evaluating the impact of Career*Advance* on a racially diverse sample of parents (mostly mothers) and their children. Using quasi-experimental

methods, we found that parents in Career*Advance* demonstrated significantly higher rates of certification and employment in the healthcare field, but not higher income, compared to parents who did not participate in the program after one year (Chase-Lansdale et al., 2019). Career*Advance* parents also reported significantly higher levels of career identity, self-efficacy, and optimism. The gains in certification and healthcare employment for parents in the program persisted two and three years later (Chor et al., 2023). The other psychological benefits faded by the end of the third year.

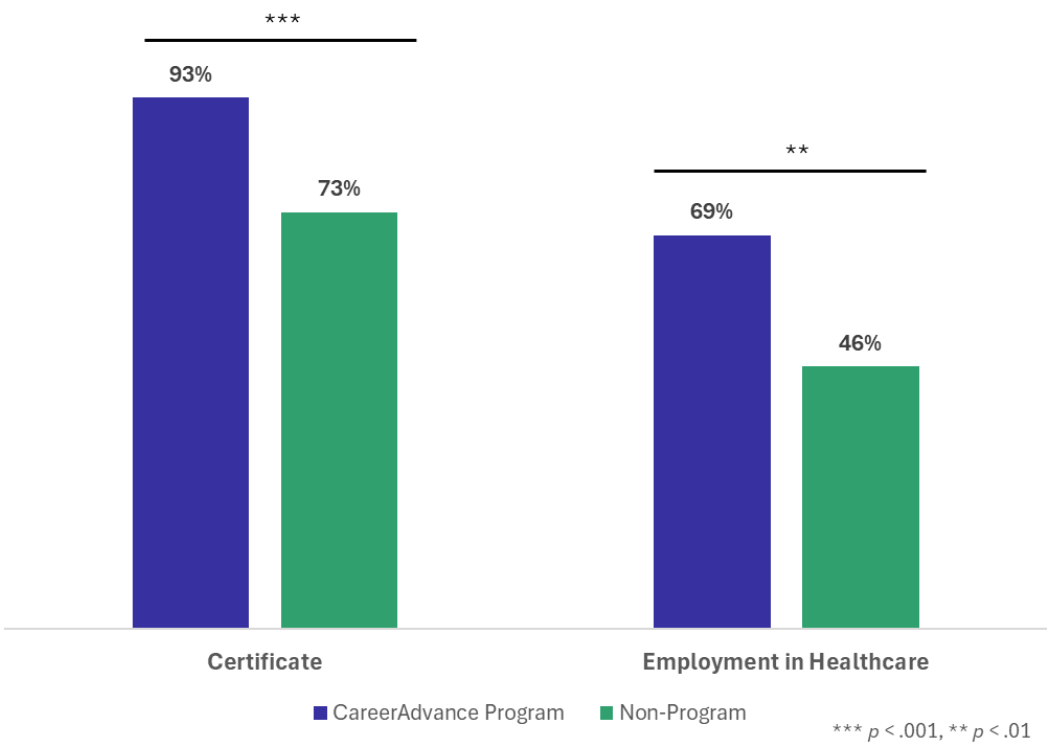
Subgroup analyses in the short and intermediate term suggest some differing benefits to parents based on education level at study entry. For Career*Advance* parents with postsecondary credentials at baseline, the initial increases in optimism persisted at a marginally significant level through the third year. Further, program parents with higher baseline education demonstrated significantly less material hardship at years one, two, and three than parents who did not participate in Career*Advance* (Chor et al., 2023). For parents in the program without postsecondary credentials, there were marginally significant improvements in overall employment rates and career identity at the end of the third year. After three years, Career*Advance* parents with lower baseline education also reported significantly higher rates of full-time employment than non-program parents (Chor et al., 2023).

Parents' Career*Advance* participation also led to increased child attendance and less chronic absence in Head Start (Sommer et al., 2020). However, there were no effects on young children's developmental outcomes one, two, and three years after baseline (Sabol et al., 2024).

In this study, we examine the long-term impacts of Career*Advance* participation on parents and adolescents approximately 6 and 10 years after baseline. It is not yet known whether participation in Career*Advance* when children were young translates to longer-term benefits in adolescence, particularly for important outcomes such as income which may take longer to change. We focus on four outcome domains for parents and adolescents: education, employment, psychological wellbeing, and parent-child dynamics.

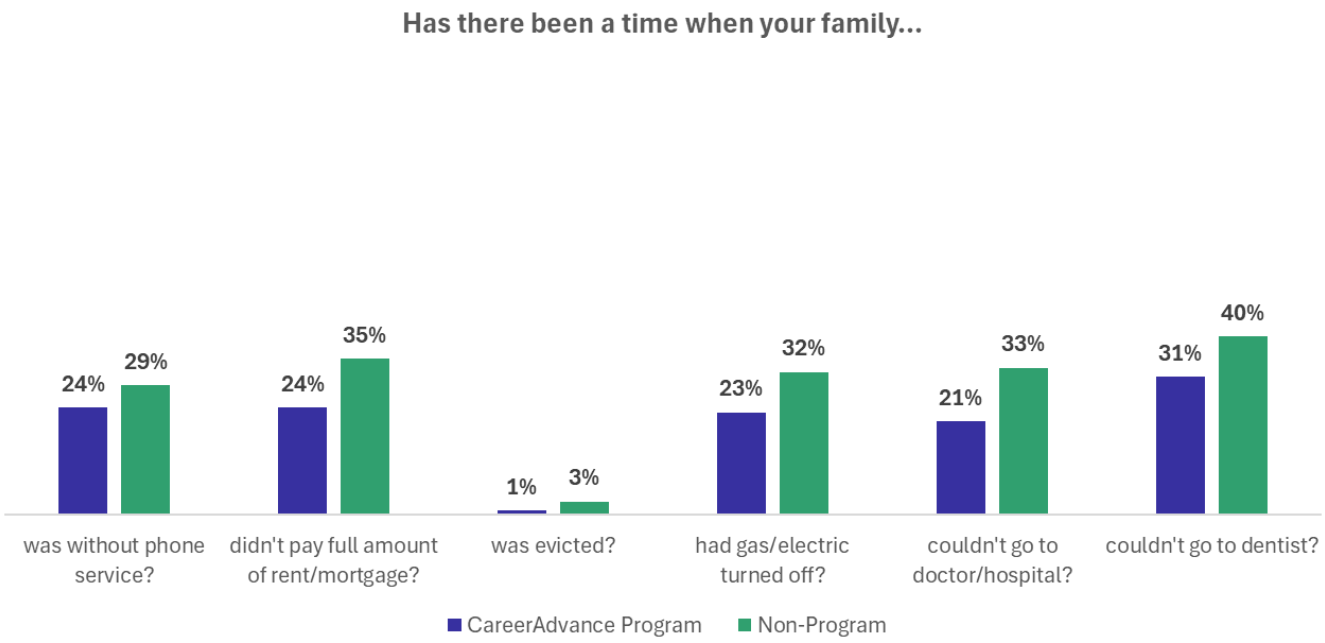
Career*Advance* Parents Reported Higher Levels of Education and Healthcare Employment and Less Material Hardship

Figure 1. Rates of Certification and Healthcare Employment after 6 Years



Approximately 6 years after study entry, Career*Advance* parents were significantly more likely to hold a certificate, particularly a certificate in the healthcare field, than parents who did not participate in the program. For example, 93% of program parents obtained a certificate since program start compared to 73% of parents who did not participate. Similarly, parents enrolled in the two-generation education program were significantly more likely to be employed in the healthcare field: 69% of Career*Advance* parents were employed in healthcare compared to 46% of non-program parents. These differences in education and employment persisted 10 years after the program began (see Appendix B, Table 1).

Figure 2. Indicators of Material Hardship after 6 Years



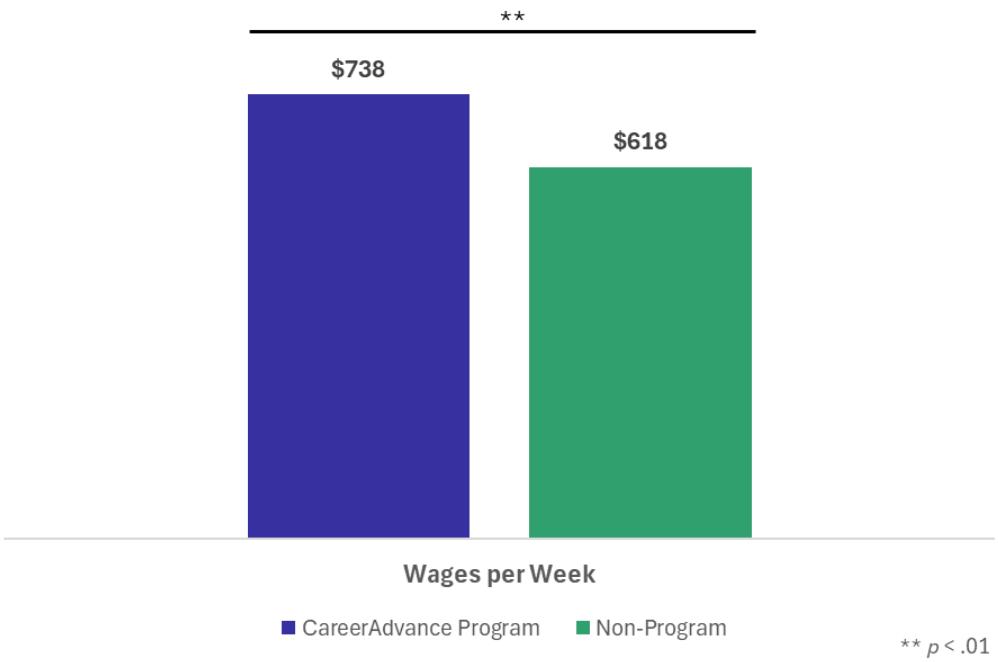
After 6 and 10 years, parents in Career*Advance* reported significantly less material hardship. This measure asked participants to respond *yes* or *no* as to whether they or their family had experienced different events that indicate material hardship over the past 6 months. As descriptively shown in Figure 2, parents in the program were less likely to report issues of material hardship around phone service, rent and mortgage payments, eviction, gas and electric services, doctor and hospital visits, and dentist visits compared to parents not in the program. The average of these six indicators created a mean score of material hardship, which was significantly lower for Career*Advance* parents than it was for their counterparts at both time points (see Appendix B, Table 1).

However, several outcomes did not significantly differ between parents who participated in the program and those who did not. There were no significant differences regarding overall employment rates, full-time work status, career identity, and wages. For example, 82% of Career*Advance* parents were employed as were 79% of non-program parents after 6 years.

Further, outcomes related to psychological wellbeing (i.e., psychological distress, optimism, self-efficacy, emotional support) and parent-child relationship quality did not differ between Career*Advance* parents and their counterparts. For instance, on a scale of 0 (*low*) to 4 (*high*), program parents scored a 0.96 and non-program parents scored a 0.99 on the measure of psychological distress after 6 years. Likewise, both groups of parents rated their relationship quality with their child similarly after 10 years. On a scale of 1 (*low*) to 5 (*high*), program parents scored a 4.31 and non-program parents scored a 4.15.

Benefits for Career*Advance* Parents with Higher Education at Baseline

Figure 3. Wages Per Week after 6 Years Among Parents with Baseline Postsecondary Credentials



Although there were no effects on income in the full sample, parents who began the program with postsecondary credentials reported significantly higher wages per week 6 years after study entry (B = 0.41, SE = 0.17, p = .020). On average, this difference translates to $120 per week, $480 per month, or $5,760 per year. At baseline, the average weekly wages for study participants were $292 (Chase-Lansdale et al., 2019). Both program and

non-program parents increased their wages over the years, but Career*Advance* parents outearned parents who did not participate. For Career*Advance* parents, this change translates to a 153% increase in average weekly wages from baseline to 6 years later compared to a 112% increase for non-program parents. This subgroup finding was marginally significant after 10 years (B = 0.61, SE = 0.30, p = .051), which may be a result of a smaller sample size.

No Differences Among Adolescents

There were no significant differences between adolescents whose parents participated in Career*Advance* and adolescents of non-program parents after 10 years (see Appendix B, Table 2). For instance, adolescents rated their perception of their academic self-efficacy and effort in school. On a scale of 1 (*low*) to 4 (*high*), Career*Advance* adolescents scored a 3.05 on the measure whereas non-program adolescents scored a 3.02. In another example, adolescents rated their relationship quality with their parent on a scale of 1 (*low*) to 5 (*high*). Adolescents with Career*Advance* parents scored a 3.25 and adolescents with non-program parents scored a 3.26. Adolescents did not participate in the 6-year follow-up study.

Conclusions

In the long term, Career*Advance* significantly improved education levels, certification in the healthcare field, and employment in the healthcare sector and decreased material hardship. These outcomes have persisted since the study began a decade ago (Chase-Lansdale et al., 2019) and are replicated in similar models of Career*Advance* with different cohorts of parents (Tighe et al., 2024). There were also benefits to wages for parents who entered the program with postsecondary credentials. Indeed, these benefits to income are modest and emerged for only one subgroup of parents but they are an important contribution to two-generation education and workforce policy research.

Like a previous study on the short- and intermediate-term effects of Career*Advance* on children (Sabol et al., 2024), there were no significant differences between adolescents with program parents and those with non-program parents over the longer term. It is an open question as to whether adolescents with parents in the program performed better in school as we were unable to access administrative academic records.

One limitation of the extant two-generation literature is the lack of innovative and culturally sensitive measurement around family dynamics, which is a critical avenue for future research. The current study is one of the first to examine the longer-term effects of a two-generation education and career program on parent and adolescent outcomes. Findings suggest a family-centered approach to education offers a promising avenue for future policy investment given its benefits to parents' education and employment.

References

Chase-Lansdale, P. 2014. Two-generation programs in the twenty-first century. *The Future of Children* 24(1): 13–39.

Chase-Lansdale, P., T. Sabol, T. Sommer, E. Chor, A. Cooperman, J. Brooks-Gunn, H. Yoshikawa, C. King, and A. Morris. 2019. Effects of a two-generation human capital program on low-income parents' education, employment, and psychological wellbeing. *Journal of Family Psychology* 33(4): 433–43.

Chetty, R., J. Friedman, E. Saez, N. Turner, and D. Yagan. 2017. Mobility report cards: The role of colleges in intergenerational mobility. *NBER Working Paper Series*. National Bureau of Economic Research.

Chor, E., P. Chase-Lansdale, T. Sommer, T. Sabol, L. Tighe, J. Brooks-Gunn, H. Yoshikawa, A. Morris, and C. King. 2024. Three-year outcomes for low-income parents of young children in a two-generation education program. *Journal of Research on Educational Effectiveness* 17(4): 936–77.

Duncan, G., K. Magnuson, and E. Votruba-Drzal. 2014. Boosting family income to promote child development. *The Future of Children* 24(1): 99–120.

Gormley, W., D. Phillips, and T. Gayer. 2008. Preschool programs can boost school readiness. *Science* 320(5884): 1723–24.

Magnuson, K. 2007. Maternal education and children's academic achievement during middle childhood. *Developmental Psychology* 43(6): 1497–1512.

National Center for Education Statistics. 2024. Characteristics of children's families. *Condition of Education*. U.S. Department of Education, Institute of Education Sciences.

Sabol, T., A. Busby, and M. Hernandez. 2021. A critical gap in early childhood policies: Children's meaning making. *Translational Issues in Psychological Science* 7(1): 9–20.

Sabol, T., E. Chor, T. Sommer, L. Tighe, P. Chase-Lansdale, A. Morris, J. Brooks-Gunn, H. Yoshikawa, and C. King. 2024. Does adding parent education and workforce training to Head Start promote or interfere with children's development? *Child Development* 95(6): 2102–18.

Shrider, E. 2024. Poverty in the United States: 2023 (Nos. P60-283; Current Population Reports). *U.S. Census Bureau*.

Sommer, T., E. Franchett, H. Yoshikawa, and J. Lombardi. 2024. A global call for two-generation approaches to child development and caregivers' livelihoods. *Child Development Perspectives* 18(4): 204–14.

Sommer, T., W. Schneider, E. Chor, T. Sabol, P. Chase-Lansdale, J. Brooks-Gunn, H. Yoshikawa, A. Morris, and C. King. 2020. A two-generation education intervention and children's attendance in Head Start. *Child Development* 91(6): 1916–33.

Tighe, L., T. Sommer, T. Sabol, P. Chase-Lansdale, H. Yoshikawa, J. Brooks-Gunn, A. Morris, and C. King. 2024. A family-centered approach to learning English as a Second Language: A mixed-methods experimental evaluation. *Educational Evaluation and Policy Analysis*.

U.S. Bureau of Labor Statistics. 2023. Education pays, 2022. *Career Outlook*.

APPENDIX A

Methods

Within CAP Tulsa, the agency that ran the Head Start program, 162 families enrolled in Career*Advance* and another 176 parents formed a comparison group that was similar to participant parents on a range of demographics. The Career*Advance* program used a staggered cohort model so a group of families entered the study each fall and spring semester (first cohort in fall 2011, last cohort in fall 2014). In the original short- and intermediate-term studies, parents completed surveys and their young children were administered direct assessments.

Of these 338 families, 227 parents (Career*Advance*/program *n* = 122; matched comparison/non-program *n* = 105) participated in a follow-up study by completing an online survey. Data collection began in fall 2019 and concluded in winter 2020 (before the onset of COVID-19 pandemic in the U.S.). Given the cohort model, the length of time since study entry differed among participants when they were contacted for the follow-up study. On average, parents were contacted 6 years after baseline. Data were not collected from children for this first follow-up study.

Approximately 4 years later, 158 parents (Career*Advance* *n* = 83; matched comparison *n* = 75) participated in a second follow-up survey. Their children, 140 adolescents (Career*Advance* parents *n* = 72; matched comparison parents *n* = 68), also completed the survey. Parents could complete the survey without their child's participation but not vice versa. For the second follow-up survey, we collected data from parents and children at two different time points to maximize children's age and understanding of the study instruments. Parents in the earliest study cohorts, who now had the oldest adolescents, were contacted from fall 2022 to winter 2023. Likewise, parents in the later cohorts, who now had the youngest adolescents, were contacted from fall 2023 to winter 2024.

Sample

Parents who participated in the 6-year follow-up study were mostly mothers (98%), aged 36 years on average (*SD* = 6.19). The sample was racially and ethnically diverse: 37% Black,

27% White, 12% Latino/a/x, 6% American Indian/Indigenous, 3% Asian/Pacific Islander, and 21% identified as another race or multiracial.

The 10-year follow-up parent sample was very similar to the first in terms of gender and racial/ethnic composition. On average, the parents were 39 years old (*SD* = 5.93).

Adolescents were 14 years old (*SD* = 1.02), on average, when they participated in this second follow-up. The adolescent sample was 49% girls and 51% boys. Like the parent sample, the adolescent sample was racially and ethnically diverse: 37% Black, 16% White, 14% Hispanic/Latino/a/x, 4% American Indian/Indigenous, 1% Asian/Pacific Islander, and 28% identified as another race or multiracial.

Survey Measures

Parent Survey: 6 and 10 years after Baseline

Category	Construct	Measure & Reference
Education	Certification	NU2Gen Research Team
	Healthcare certification	NU2Gen Research Team
Employment	Employed	NYU Birth Cohort Study; Fragile Families Study; Current Population Survey; NU2Gen Research Team
	Employed in healthcare	NYU Birth Cohort Study; Fragile Families Study; Current Population Survey; NU2Gen Research Team
	Full-time status	NYU Birth Cohort Study; Fragile Families Study; Current Population Survey; NU2Gen Research Team
	Career identity	Work Role Salience Questionnaire (Greenhaus, 1971)
Income	Wages	Fragile Families Study; NU2Gen Research Team
	Material hardship	New Hope Study
Psychological Wellbeing	Psychological distress	Kessler 6 (Kessler et al., 2002)

	Optimism	Revised Life Orientation Test (LOT-R; Scheier, Carver, & Bridges, 1994)
	Self-efficacy	State Hope Scale (Snyder et al., 1996)
	Emotional support	Emotion Batter (NIH Toolbox)
Family Dynamics	Parent-child relationship	Parent-Child Relationship Scale (Pianta, 1992)

Adolescent Survey: 10 years after Baseline

Category	Construct	Measure & Reference
Education	Academic self-efficacy	Academic Self-Efficacy, Effort Subscale (Jinks & Morgan, 1999)
	College identity	Identity Salience Subscale (Sabol et al., 2020)
Employment	Child work role salience	Adapted from the Work Role Salience Questionnaire (Greenhaus, 1971) by the NU2Gen Research Team
Psychological Wellbeing	Stress reactions	Shift-and-Persist Scale (Chin et al., 2015)
	Self-efficacy	State Hope Scale (Snyder et al., 1996)
	Emotional support	Emotion Battery (NIH Toolbox)
Family Dynamics	Parent-child relationship	Parent-Child Communication (CPPRG, 1994)

Analyses

We used propensity score matching, a quasi-experimental method, to examine differences between parents who participated in Career*Advance* and those who did not participate in the program. There were two stages of propensity score estimation: 1) study recruitment and 2) measurement of program effects.

The first stage used nearest-neighbor matching from CAP Tulsa's full population of families served by their Head Start program. Using Head Start administrative data, parents with

similar characteristics to parents in Career*Advance* were asked to participate in the study. Matching variables include baseline characteristics such as parent gender, race, age, English language proficiency, education, relationship to child, single parent status, foster parent status, and motivation for healthcare training and employment.

In the second stage, inverse probability weighting was used to address selection into the program on observable characteristics while comparing the outcomes of Career*Advance* parents to matched comparison parents. We used logistic regression to estimate the likelihood that a parent participated in Career*Advance* as predicted by a set of indicator matching variables at study entry: gender, age in years, race, English as primary language, highest level of education, single parent status, number of individuals in the household, number of children in the household, neighborhood of residence, annual income, timing of program and study entry (cohort), and motivation to participate in a healthcare training program. For the second follow-up regression models (i.e., 10 years post baseline), we also included an indicator for which time point data was collected from the families (fall 2022-winter 2023 or fall 2023-winter 2024).

We then conducted a series of ordinary least squares regressions to examine the effect of Career*Advance* participation (1 = *Career*Advance*/program*, 0 = *matched comparison/non-program*) on parent and adolescent outcomes after approximately 6 and 10 years. Regressions included all described matching variables as covariates and were weighted using inverse probability weights. We also examined whether Career*Advance* would be more, or less, effective for certain groups of families based on parents' initial level of education at study entry: parents with postsecondary credentials (*higher education*) or parents without postsecondary credentials (*lower education*). To conduct the subgroup analyses, we included a binary interaction term between treatment status and subgroup membership in separate regression models for parent and adolescent outcomes. We then separately measured the effect of the program restricting only to families with higher baseline education and then again for families with lower baseline education. These subgroup models also included the matching variables and inverse probability weights. All outcome measures were standardized so coefficient estimates can be interpreted as effect sizes.

APPENDIX B

Table 1: Longer-Term Effects of CareerAdvance on Parents' Outcomes

	6 years after baseline			10 years after baseline		
Domain and Outcome	*B*	*SE*	*p*	*B*	*SE*	*p*
Education						
At least certificate level (y/n)	0.51	0.11	***	0.49	0.14	***
Certificate in healthcare (y/n)	0.62	0.17	***	0.83	0.16	***
Employment						
Employed (y/n)	0.09	0.13		0.32	0.14	
Employed in healthcare (y/n)	0.46	0.14	**	0.51	0.17	*
Full-time (y/n)	0.12	0.13		0.33	0.15	
Career identity	0.21	0.13		0.05	0.15	
Income						
Wages (per week)	-0.06	0.16		0.15	0.17	
Material hardship	-0.31	0.14	*	-0.38	0.16	*
Psychological Wellbeing						
Psychological distress	-0.03	0.13		-0.17	0.16	
Optimism	0.06	0.14		0.17	0.17	
Self-efficacy	0.21	0.14		0.16	0.16	
Emotional support	--	--	--	0.32	0.16	
Parent-Child Dynamics						
Relationship quality	--	--	--	0.24	0.16	

Note. Results of inverse probability weighted regressions of outcomes 6 and 10 years after program entry on parent treatment status, matching parent covariates (motivation score, gender, age, English as primary language, status as single parent, race, education, neighborhood of residence, household size, number of children in household, household income, fall/winter semester study entry, year of study entry), and time of survey follow-up from baseline. All coefficient values can be interpreted as effect sizes as outcomes were standardized. All p-values presented are adjusted after correcting for multiple comparisons using the Holm-Bonferonni procedure. Questions about emotional support and relationship quality were not asked in the 6 years post-baseline survey.

*† p < .10, * p < .05, ** p < .01, *** p < .001*

Table 2: Longer-Term Effects of CareerAdvance on Adolescents' Outcomes

	10 years after baseline		
Domain and Outcome	*B*	*SE*	*p*
Education			
Academic self-efficacy	0.05	0.17	
College identity	0.09	0.16	
Employment			
Career identity	-0.07	0.17	
Psychological Wellbeing			
Stress reactions	-0.01	0.17	
Self-efficacy	-0.08	0.17	
Emotional support	0.18	0.22	
Parent-Child Dynamics			
Relationship quality	-0.02	0.16	

Note. Results of inverse probability weighted regressions of outcomes 10 years after program entry on parent treatment status, matching parent covariates (motivation score, gender, age, English as primary language, status as single parent, race, education, neighborhood of residence, household size, number of children in household, household income, fall/winter semester study entry, year of study entry), and time of survey follow-up from baseline. All values can be interpreted as effect sizes as outcomes were standardized. All p-values presented remain after correcting for multiple comparisons using the Holm-Bonferonni procedure. Children did not complete a survey at the 6 years post-baseline timepoint.
*† p < .10, * p < .05, ** p < .01, *** p < .001*

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