

Children's Savings Accounts and Rural Children's College Expectations: The Case of Kickstart Newaygo County

William Elliott¹, Haotian Zheng², Megan O'Brien¹, Taewhan Choi¹

¹School of Social Work, University of Michigan, Ann Arbor, USA ²Brown School of Social Work, Washington University in St. Louis, St. Louis, USA Email: willelli@umich.edu

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Abstract

Young children's educational expectations for themselves, conceptualized as a college-bound identity (CBI), is theorized as an important and, fortunately, malleable self-concept predictive of educational attainment. Children's Savings Accounts (CSAs) are emerging as an important intervention for shaping these expectations but have remained understudied among rural populations. This study utilizes survey data from a measure of CBI collected from N = 161rural second graders and academic performance perceptions survey data from their parents. Findings support better performance of a global second-order factor describing CBI compared to a single-item measure of child educational expectations. Participation in the CSA is associated with greater levels of CBI and CBI was found to be positively associated with parent perceptions of child academic performance. These findings are among the first that examine CBI in young children in a rural context. Further research is needed to understand the causal sequence of these associations and how the dynamic between CSA programming and CBI manifests across age groups.

Keywords

Children's Savings Accounts (CSAs), Identity-Based Motivation, Rural, Children, Educational Expectations

1. Introduction

Much of the focus on educational disparities has centered on children living in urban areas, yet over 9 million children (1:5 urban:rural ratio) attend a rural school in the U.S. (Showalter et al., 2019). The educational outlook for these children may be even more bleak in some instances than for their urban counterparts. For example, poverty is inextricably linked to educational outcomes, and rural children are more likely to be poor. In 2019 the poverty rate for urban areas was about 12% while it was about 15% for rural areas and the majority of persistently high or extreme poverty counties were rural (Dobis, Krumel, Cromartie et al., 2021; Farrigan, 2020). Furthermore, in 2019 the poverty rate was 21% for children in rural areas and 16% for children in urban areas (USDA, Economic Research Service, 2022). In the year 2000, about 26% of urban children had attained a bachelor's degree, but only about 15% of children from rural communities had done the same (USDA Economic Research Service, 2021). We are not trying to make the case here that rural children are worse off than urban children, as clearly each group faces unique and complex issues. Instead, what we contend is that rural children, particularly those living in persistently impoverished areas, also face stiff challenges-population decline, limited access to broadband internet and other resources, unemployment-that are often overlooked and understudied (Dobis, Krumel, Cromartie et al., 2021).

In this study we focus specifically on rural children's educational expectations and whether participating in a Children's Savings Account (CSA) program strengthens these expectations, or what might be called a *college-bound identity*. CSAs are a financial instrument (state 529s or savings accounts) that connects children and their families to financial institutions typically starting at birth or in kindergarten for the purpose of building assets. They have been initiated by foundations, city governments, state governments, as well as local community organizations. Michael Sherraden (1991) originally proposed that these accounts be used to build assets among children for starting a business, buying a home, retiring, or paying for college. However, at this point, in practice they have largely been used for helping families pay for their children's postsecondary education. These programs have been growing exponentially over the last several years with an increasing number of communities adopting CSAs as a strategy for reducing disparities in postsecondary attendance. By 2021, there were 123 active programs in the US spanning across 39 States and DC with over 1.2 million children possessing a CSA (Prosperity Now, 2022).

2. Rural Communities, CSAs, and Children's Educational Expectations: Theory and Research

Children's own educational expectations have long been shown to be important predictors of their academic success, and that they are malleable andresponsive toearly parent and teacher interventions (Entwisle & Hayduk, 1981). Status attainment theory has often been used toexplain the relationship between children's educational expectations and their academic success (Reynolds & Pemberton, 2001). From a status attainment perspective, educational expectations are defined as children's perceptions about the likelihood they will attend postsecondary school when considering the obstacles, support, or strategies their so-

cial and economic circumstances currentlyprovide (e.g., Reynolds & Pemberton, 2001). In support of status attainment theory, researchers have found that growing up with a higher socioeconomic status is associated with children having stronger educational expectations (Alexander & Eckland, 1975; Chevalier, Gibbons, Thorpe, Snell, & Hoskins, 2009; Kao & Tienda, 1998; Qian & Blair, 1999; Sewell & Shah, 1968). This suggests that children's educational expectations are likely to be responsive to changes in social and economic circumstances and/or access to strategies that allow children to overcome obstacles (Cook et al., 1996; Mickelson, 1990) such as a CSA program.

Here we think of educational expectations as being reflected both in the current self and the future self. With this in mind, we suggest the primary utility of status attainment theoryisto attempt to explain how assets in a CSA account (i.e., the money itself) influence children's educational expectations when reflecting on their current self. From this perspective, greater importance is given to the amount of assets stored in CSAs. It is not about the amount of assets they will be able to build (i.e., future money), but more about what they currently have. When there is discussion about the need to increase the amount of an initial deposit in a CSA, status attainment theory may be best suited for explaining why amount is important. Simply put, status attainment theory is a theory largely meant to explain how the child's socioeconomic status influences perceptions of the current self and in turn future outcomes. The focus is less on individual actions or more accurately (their "action readiness") and more on a child's position in society or class and how that influences their outcomes (Oyserman & Destin, 2010: p. 1003). It's focus on children's circumstances is not surprising given its roots in sociology (Blau & Duncan, 1967). Things like the amount of money they have in a savings account then are seen as having a direct influence on the child's position in society or their class.

Different then status attainment theory, identity-based motivation theorists (IBM) focus on identities (e.g., college-bound identity) instead of educational expectations (Oyserman & Markus, 1998). The concept college-bound identity comes out of the work developed and rigorously tested by Daphna Oyserman, a social psychologist, and her team (Oyserman & Markus, 1990; Oyserman, 2001, 2007; Oyserman, Bybee, & Terry, 2006; Oyserman, Elmore, & Smith, 2012; Oyserman & Fryberg, 2006; Oyserman & James, 2008, 2011)¹. IBM suggests that three principal elements underscore the formation of various identities, including a college-bound identity. These three components explain when and under what circumstances a child's college-bound identity will position them to be ready to act in accordance with their goals: (a) identity salience, (b) congruence with group identity, and (c) interpretation of difficulty (Oyserman & Destin, 2010). Oyserman and Destin (2010) hypothesized that these principal components are dis-

¹Dr. Daphna Oyserman is a prolific scholar and writer. It is impossible to reference all of her work on this topic and the authors would strongly encourage the reader to visit her web page for additional information on Identity-Based Motivation Theory at https://dornsife.usc.edu/daphna-oyserman.

tinct but correlated with one another. In addition to these three principal components of IBM, similar to status attainment theory, IBM theorists also pay significant attention to how the environment (social and cultural) drives the formation of identities (Oyserman & Destin, 2010; Oyserman & Fryberg, 2006; Oyserman, Gant, & Ager, 1995; Oyserman, Kemmelmeier, Fryberg, Brosh, & Hart-Johnson, 2003; Oyserman & Lee, 2008). IBM tries to explain how the future self (which may be totally detached from the realities of the current self) influences whether the child is ready to act today in congruence with their future self's interests (e.g., Oyserman & Destin, 2010).

Given this focus, rather than attempting to predict long-term outcomes, the focus is on predicting readiness foractionnow as a way to understand why some children achieve certain outcomes and others do not. IBM is a theory that allows CSA researchers to explain how the future self can influence whether a child is ready to act or not. This may be extremely important for poor children because the current self might suggest to them that performing actions, for example, commensurate with attending college in the future, does not make sense given their current socioeconomic status. In some real sense, society wants and asks of poor children to act not based on their current economic situation but on a promise of what tomorrow may bring. Given this, we suggest that IBM is a better theory for explaining effects of small-dollar CSAs (also see Oyserman, 2013). Small-dollar CSAs are CSAs that provide a one-time \$5 to \$1000 initial deposit². They help connect children to their future selves by providing them with an institutional structure that makes having more money in the future more likely, even if small-dollar CSAs do not substantially change (i.e., cannot spend the money today) their current circumstances.

It is important to point out, we suggest, most often there needs to be some overlap between who I see myself as today (current self) and who I perceive I can become years from now (future self),to make the future self, appear tangible, something I can and should act on today³. This is in line with IBM's focus on the influence of social and cultural circumstances on future identities (Oyserman & Destin, 2010; Oyserman & Fryberg, 2006; Oyserman, Gant, & Ager, 1995; Oyserman, Kemmelmeier, Fryberg, Brosh, & Hart-Johnson, 2003; Oyserman & Lee, 2008). It suggests the current self is shaped by current environmental circumstances and that the future self that the child is most ready to act on (people have many identities) is the future self that most clearly overlaps (i.e., best aligns) with the child's current self.

To give this area of overlapa name, we call it the zone for rational action. The zone for rational action is where the current and future selves overlap. The big-

²It is important note, while we do not go into here, CSAs are more than an account. CSAs help connect very young children to their future selves by providing an environment that cues an identity—so the institutional structure of a CSA includes all those other things in addition to the account that make it a *program* (e.g., trips to the local bank, trips to colleges, etc.).

³You could also talk about past-identities but focus here on current and future to not over complicate it.

ger this zone, the more reasonable acting becomes to a person. The wealthy child's current identity provides them with strong grounds for believing they will have the money to pay for college in the future. And so, seeing themselves as college-bound is rational and does not require them to ignore or delude themselves about their current social and cultural circumstances. In contrast, the more unalike the future self is from the current self's realities, the more delusional a child must be to act in congruence with the future self. Despite providing very little assets at the outset, small-dollar CSAs help to make the future self, feel more tangible by providing an institutional structure that is known to build wealth along with some initial assets that have been designated for college going. Thus, creating a larger area of overlap between the child's future college-bound self and their current college-saver self.

2.1. Note on Measuring Educational Expectations

Previous studies that adopted a status attainment framework for explaining the relationship between CSAs and children's educational expectations have typically used a dichotomous (yes/no) variableto capturechildren's educational expectations (e.g., Elliott, 2009). This makes some sense if we understand that status attainment is focused on explaining the relationship between status and outcomes rather than individual actions. The problem with using a dichotomous variable, however, is that often there is very little variability between children who expect to go to college and children who do not. That is, most children when asked directly, 'will they or will they not attend college' will give the culturally desirable answer, yes (Oyserman & Destin, 2010; Oyserman, 2013). Children understand that society expects them to go to college and in turn see their current self as college bound even though they might not see their future self as being in college (Oyserman & Destin, 2010; Oyserman, 2013). When children are asked to simply think about the outcome of being in college or not, it might be that it is easier to see themselves as college bound. However, when they are asked to think about the actions required to get there in a multi-question scale, they find it difficult to see themselves performing the actions required to get there given their current circumstances. Or even if they performed these actions, they are less sure these actions would be able to bridge the chasm between their current self and their college-bound self, again making action less likely.

2.2. CSAs and Rural Children's Educational Expectations

According to the U.S. Census (2010), for a community to be designated as rural, it must have fewer than 50,000 people living in the county. In this study we examine the relationship between CSAs and children's educational expectations in Newaygo County, MI, a rural community with a population of 48,980 and designated as "non-metro" by the United States Department of Agriculture's Economic Research Services Rural-Urban Continuum codes (USDA, 2013). This coding specifies a county with fewer than 50,000 inhabitants that is adjacent to a

metro area of 2500 to 19,999 people. There is little research specifically on rural children's educational expectations. There is even less research on the relationships between rural children's educational expectations and CSAs. In the next sections, we discuss what research exists on CSAs and children's educational expectations.

Research indicates that there are differences in educational expectations between rural and urban youth with rural youth having lower educational expectations. McCracken & Barcinas (1991) found that 84% of urban students and 74% of rural students in Ohio planned to continue education beyond high school and numerous studies have found that rural students are less likely to attend college. However, to date, we could locate only one study that looks at the relationship between CSA participation and children's educational expectations among children living in rural communities (Elliott, Zheng, Sabol, & O'Brien, 2021). Elliott, Zheng, and colleagues (2021) use data from Wabash County, IN. Wabash County, like Newaygo County, is a non-urban area with a population of 32,888 inhabitants located adjacent to Wabash City with a population of about 10,000 people. Wabash County has a population density of about 80 people per square mile (compared to about 60 people per square mile in Newaygo County).

Elliott, Zheng, and colleagues (2021) used a 22-item scale to measure children's college-bound identity. In support of IBM theory, they found some evidence to suggest that a college-bound identity is multidimensional and hierarchical. Further, they find some evidence that participating in a CSA program is associated with a higher college-bound identity score. However, Elliott, Zheng, and colleagues (2021) used data from children in 5th - 9th grade. Here we investigate the relationship between CSAs and college-bound identity among 2nd graders. Atance and Metzhoff (2005) provide evidence that children as early as age 3 by age four or five begin to understand that the current self might have different interests than their future self. Further, because Elliott, Zheng, and colleagues (2021) study used older children, they modified the Childhood Assessment Tool-Electronic (CHAT-E) items in consultation with the developers to be taken online or by paper-and-pencil, a more traditional survey format⁴. In this study, the survey was delivered on a tablet application showing two identical animated figures who made different statements on the same topic as originally intended by the developers and described in more detail below in the student survey section of the Methods.

3. Program Description

Given the importance of tailoring interventions to specific populations, this paper seeks to add to the budding work in this area through study of data from the rural *Kickstart to Career Newaygo County* CSA program. Launched in September 2018 through a partnership between Fremont Area Community Foundation and ChoiceOne Bank, *Kickstart to Career Newaygo County* has brought together

⁴For more information on the CHAT-E see Sabol, Busby, & Hernandez (2021).

school systems, communities, and families to build expectations, encourage savings, increase financial education, and assist with career preparation, training, or college expenses.

Kickstart to CareerNewaygo County is an opt-out (i.e., everyone is automatically enrolled, and families must ask not to be in the program) children's savings program available to students who enter kindergarten fall 2018-2027. All eligible students receive a savings account and an initial seed deposit of \$50, annual financial literacy lessons, and opportunities to earn an additional \$50 each year through the 12th grade (for maximum \$650 per student). Students must attend a participating school in the Newaygo Regional Educational Service Agency (NCRESA) school district, which includes public, private, parochial, or home schools. Students must also reside in the NCRESA school district, or a township immediately adjacent to it to be eligible. It is designed as a 10-year cohort program scheduled to enroll students through 2027. The program will conclude upon the graduation of the last cohort, class of 2041. The 2018-2019 initial cohort includes kindergarteners from eight schools (approximately 700 students). Six Newaygo County public school districts and two private Christian schools are participating in the program and by 2027, approximately 7,000 students will have received accounts and financial literacy lessons.

4. Methods

4.1. Data Collection

4.1.1. Parent Data

Surveys were distributed to parents through a combination of online and hard copy modalities. Email addresses were obtained from Fremont Area Community Foundation. An online version of the survey was created in Qualtrics and distributed by email via Qualtrics with periodic reminder emails. Email addresses were randomly sorted to avoid all surveys for parents of one grade arriving before the surveys for parents of other grades, of particular concern for families with multiple eligible siblings receiving multiple email invitations.

A comprehensive consent form was presented along with a separate document explaining and seeking consent for the child survey. Families with multiple children in the eligible sample received a separate email and unique survey link for each child. Parents entered contact information at the end of the survey which was directed to a separate database not linked to the survey responses.

The parent survey consisted of 83 items and covered a range of topics including: parent engagement in current academic activities, academic support, and discussion of post-secondary goals; educational expectations, planning/saving for post-secondary education; parent and child health history, socio-emotional development, academic performance, child's saving, financial security, knowledge of savings programs and discussion with child about savings; select demographics about primary and secondary caregiver including race/ethnicity, education, employment, household finances, and parent understanding of program components and engagement with the program.

4.1.2. Student Survey

Child data were collected using the Child Assessment Tool-Electronic (CHAT-E) developed by a research group at Northwestern University (for more information see Sabol, Busby, & Hernandez, 2021). CHAT-E contains 36 statement items and 2 open-ended questions on children's perception of themselves, school, college, and experience with money and savings. CHAT-E is a game application designed to be a developmentally informed tool to assess how young children make meaning of school and college. Informed by the Berkeley puppet interview, CHAT-E contains a puppet-like exchange on a tablet showing two identical animated figures who make different statements on topics such as school, college, and money. Interviewees were prompted to select puppets whose statement they agree with.

A team of five research staff completed training on interviewing with children and the tablet-based CHAT-E application. All interviews occurred in the school setting in a quiet room where each interviewer guided two to four children at a time. Children were asked to use headphones during the data collection to avoid distraction. Every interview started with the researcher introducing CHAT-E to the children, reviewing assent, then the children practiced by answering two pilot questions on the CHAT-E tool. If the child responded to the practice questions effectively, the interviewer then guided the children to proceed through the rest of the questions. All interviews ended with researchers asking children two open-ended questions. A small book was offered as a thank you gift for participation. The entire process averaged 20-30 minutes.

4.2. Sample

The analytic sample for this study included students who were in second grade at the times of student survey. Students in the study varied developmentally because the grade of students ranged from kindergarten to fourth grade. Therefore, the current study constructed a pooled sample of students in the same grade with 72 from the year of 2020 and 89 from 2022 survey. The sample was not weighted for comparison purposes.

4.3. Measures

4.3.1. Outcome Variables

College-Bound Identity. College-bound identity was measured with three subscales (i.e., salience, difficulty as normal, and group congruence). The three subscales consist of 18 items altogether: identity salience with 4 items, group congruence with 9 items, and interpretation of difficulty as normal with 5 items (Elliott et al., 2021; see Appendix A for a description of measurement items). The total score of college-bound identity ranges from 0 to 18, with a higher score indicating a more positive college-bound identity. The Cronbach's Alpha of the first-order scale was 0.76, which was considered good. However, with all items under one construct, the first-order model failed to consider that the collegebound identity scale consists of three distinct but correlated subscales, each formed by different items (Marsh & Hocevar, 1988). To reflect the theoretical distinction among subscales in the measurement model, a second-order measurement model of college-bound identity (Model 1) was constructed (see Figure 1). Model fit indices are described in stage one of the results section.

Single Item College Expectation. A common measurement of students' college expectations was a single item with the statement "I will go to college". Responses were coded 1 if students reported yes and 0 otherwise.

Parents' perceptions of students' overall academic performance. Parents' perceptions of students' overall academic performance were recoded to be a dichotomous variable where 0 = Average or below average performance and 1 = Above average academic performance.

4.3.2. Variables of Interest

The Kickstart Newaygo County program status is the key variable of interest in this study. The administrative program data is used to create a dichotomous program status variable, where 1 indicates enrollment in the program and 0 if not.

4.4. Analytic Strategy

Three stages of analyses were performed in this study. All modes in this study were evaluated using structural equation modeling with the Mplus computer program (version 8.3; Muthén & Muthén, 2017). Parameters were estimated and tested using Weighted Least Square Mean and Variance adjusted estimator (option WLSMV in Mplus) with the THETA parameterization for non-normality data with missing data. Global model fit was evaluated with the traditional χ^2 fit statistic, the comparative fit index (CFI), the root mean square error of approximation (RMSEA), the p value for close fit associated with the RMSEA, and the standardized root mean residual (SRMR). Localized tests of fit examined modification indices, normalized residuals, and significance tests of differences between predicted and observed covariances.

In stage one of the analyses, we examine whether second-grade students have a college-bound identity, which is defined by three subconstructs: identity salience, interpretation of difficulty, and group congruence. A second-order factorial measurement model is specified following practices in prior studies (Elliott et al., 2021).

In stage two of the analyses, we evaluate the association between enrollment in the Kickstart Newaygo County program and students' college expectations using different measurements. This study first evaluated the association between enrolling in the Kickstart Newaygo County program and the single item of students' college expectation. Wealso examined the association between enrolling in the Kickstart Newaygo County program and college-bound identity latent that is tested in stage one.



Figure 1. Measurement Model of College-bound Identity.

In the last stage of the analyses, we examine the mediation effect of college-bound identity on parents perception of children's academic performance. The effects of enrolling in the Kickstart Newaygo County programon parental perceptions of students' overall academic performance were evaluated using the joint significance test (JST) for the product of coefficients in the mediation chain as implemented in Mplus (MacKinnon & Luecken, 2008).

5. Results

5.1. Descriptive Statistics

Table 1 presents descriptive statistics for key variables in the model. The sample consisted of mostly married (65%) parents with some college experience or an associate degree (73%). Over a half (54%) of the children were female and 52% of their parents reported having above average overall academic performance. About half (49%) of the households made more than \$55,000 last year, considered higher income families. **Table 1** also shows the sample characteristics by Kickstart Newaygo County status and results of χ^2 tests to examine group differences on key variables. The comparison group was not significantly different from the Kickstart Newaygo County group on all key variables.

5.2. Stage 1: Measurement Model

The global fit of the second-order factor model was acceptable (see **Table 2**). The χ^2 statistic was 153.968 (df = 131, p > 0.05). The Comparative Fit Index (CFI) was 0.933. The Root Mean Square Error of Approximation (RMSEA) was smaller than 0.05 (estimate = 0.035 with 90% confidence interval = 0 to 0.056).

Variables	Pooled Sample	Kickstart (n = 89)	Comparison (n = 72)	γ^2 test
=	Count (%)	Count (%)	Count (%)	λ
Child sex				
Male	74 (46)	42 (47)	32 (45)	$w^2 = 0.07$
Female	86 (54)	47 (53)	39 (55)	$\chi_1 = 0.07$
Respondent's educati	ion			
<some college<="" td=""><td>42 (27)</td><td>17 (20)</td><td>25 (36)</td><td></td></some>	42 (27)	17 (20)	25 (36)	
Some college	51 (33)	33 (38)	18 (26)	$\chi^2_2 = 5.75$
Associate's degree or higher	62 (40)	36 (42)	26 (38)	
Marital status				
Not married	55 (35)	31 (36)	24 (34)	2 0.00
Married	102 (65)	55 (64)	47 (66)	$\chi_1 = 0.09$
Household income				
<= \$55,000	78 (51)	40 (48)	38 (55)	2 0.04
\$55,001 or more	75 (49)	44 (52)	31 (45)	$\chi_1 = 0.84$
Net worth				
<= \$10,000	54 (36)	32 (38)	22 (33)	w ² 0.26
\$10,001 or more	96 (64)	52 (62)	44 (67)	$\chi_1^2 = 0.36$
Student's college expectation				
I will not go to college	26 (19)	15 (21)	11 (18)	2 0.12
I will go to college	108 (81)	58 (79)	50 (82)	$\chi_1^2 = 0.13$
Overall school perform	ance			
Average or below	77 (48)	42 (48)	35 (49)	2 0.04
Above average	82 (52)	46 (52)	36 (51)	$\chi_1 = 0.04$
Treatment status	Treatment status			
Kickstart Newaygo County	89 (55)	-	-	
Comparison	72 (45)	-	-	-

Table 1. Descriptive statistics of the pooled sample, by treatment status.

Note. Missing values are included to calculate percentages. *p < 0.05, **p < 0.01, ***p < 0.001.

Table 2. Model fit information.

Models	χ^2 , d.f.	RMSEA [95% CI]	CFI	SRMR
Measurement Model	153.968, 131	0.035 [<0.001, 0.056]	0.933	0.17
Difficulty	2.877, 5	<0.001 [<0.001, 0.086]	1.000	0.07
Salience	0.650, 2	<0.001 [<0.001, 0.119]	1.000	0.02
Congruence	27.185, 26	0.018 [<0.001, 0.070]	0.991	0.11
Structural Model	198.253, 148	0.049 [0.029, 0.066]	0.886	0.16
Mediation Model	210.451, 166	0.041 [0.021, 0.057]	0.9	0.154

The p value for close fit was 0.866. The Standardized Root Mean Residual (SRMR) was 0.170. Inspection of z tests of the difference between predicted and observed covariances and modification indices revealed no theoretically meaningful and significant points of ill-fit at a localized level. **Table 3** contains information on factor loadings (unstandardized and standardized) on latent constructs.

5.3. Stage 2: Structural Model

In Stage 2, this study examined the association between enrollment in the Kickstart Newaygo County program and students' college expectations (see Table 4).

	Factor Loading	Standardized Factor Loading	
_	Est. (S.E.)	Est. (S.E.)	
Difficulty			
PUPSE1	_a	0.60*** (0.12)	
PUPSE2	1.70*** (0.35)	1.02*** (0.14)	
PUPSE5	0.89* (0.38)	0.53** (0.16)	
PUPSE3	1.47*** (0.40)	0.88*** (0.15)	
PUPIS3	1.08** (0.37)	0.65*** (0.12)	
Salience			
PUPIS5	-	0.82*** (0.08)	
PUPCG6	1.15*** (0.14)	0.94*** (0.08)	
PUPID5	0.85*** (0.17)	0.70*** (0.12)	
PUPID7	0.87*** (0.17)	0.71*** (0.13)	
Congruence			
PUPCG5	-	0.75*** (0.15)	
PUPEX1	1.02*** (0.25)	0.77*** (0.12)	
PUPEX3	1.01*** (0.23)	0.75*** (0.10)	
PUPCG3	0.38 (0.22)	0.29* (0.15)	
PUPCG10	0.39* (0.19)	0.29* (0.14)	
PUPEX4	0.50 (0.26)	0.37* (0.16)	
PUPCG2	0.66*** (0.18)	0.50*** (0.11)	
PUPCG4	1.28*** (0.27)	0.96*** (0.06)	
PUPCG8	0.96*** (0.22)	0.72*** (0.11)	
College-Bound Identity			
Congruence	-	-	
Difficulty	0.60*** (0.16)	0.75*** (0.11)	
Salience	0.91*** (0.19)	0.83*** (0.09)	

 Table 3. Factor loadings of the measurement model.

^aThe first item of each construct is used for metric. *p < 0.05, **p < 0.01, ***p < 0.001.

Rffe ste	Path Coef.	Standardized Path Coef.
Effects	Est. (S.E.)	Est. (S.E.)
Structural Model		
Kickstart \rightarrow College-Bound Identity	0.30 (0.17)	0.19 (0.11)
Mediation Model		
Kickstart \rightarrow College-Bound Identity	0.29+ (0.17)	0.19+ (0.11)
College-Bound Identity → Academic perfor- mance	0.39* (0.17)	0.30** (0.10)
Kickstart → College-Bound Identity → Aca- demic performance	0.11 (0.08)	0.06 (0.04)

Table 4. Estimated effects of the structural model and the mediation model.

 $^{+}p < 0.1, *p < 0.05, **p < 0.01, ***p < 0.001.$

In the model that treated the single college expectation variable as the dependent variable, no statistically significant relationship was detected between enrolling in Kickstart Newaygo County and college expectations. However, in the structural model where the college-bound identity was treated as the dependent variable, the association between enrolling in the Kickstart Newaygo County program and college-bound identity was significant at 0.1 level (standardized $\beta = 0.193^+$). That is, students who were enrolled in the Kickstart Newaygo County program had on average 0.193 standard deviation higher scores on college-bound identity, other things being equal.

5.4. Stage 3: Mediation Model

In Stage 3 of the analyses, the current study assessed whether college-bound identity was a mediator of being in the Kickstart Newaygo County program on parental perceptions of students' academic performance (see **Table 4**). The global fit of the second-order factor model was acceptable. The χ^2 statistic was 210.451 (df = 166, p = 0.01). The Comparative Fit Index (CFI) was 0.90. The Root Mean Square Error of Approximation (RMSEA) was 0.041 (90% confidence interval = 0.021 to 0.057). The p value for close fit was 0.818. The Standardized Root Mean Residual (SRMR) was 0.154.

The indirect effect of Kickstart Newaygo County program was positive but short of being statistically significant at 0.05 level. The association between enrolling in the Kickstart Newaygo County program and college-bound identity was significant at 0.1 level (standardized $\beta = 0.190+$) and the association between college-bound identity and parental perceptions of overall academic performance was significant at 0.01 level (standardized $\beta = 0.299^{**}$). However, the indirect effect (the product of the two associations) of enrolling in Kickstart Newaygo County program and perceptions of academic performance was not statistically significant.

6. Discussion

A second-order factorial structure of college-bound identity was constructed us-

ing data collected from the Child Assessment Tool-Electronic (CHAT-E) developed by Dr. Terri Sabol and her team at Northwestern (see, Sabol, Busby, & Hernandez, 2021). The CHAT-E is designed to assess if children have formed a college-bound identity (CBI). In line with findings from Elliott, Zheng, and colleagues (2021), findings from this study support the proposition that college-bound identity is a multifaceted and hierarchical construct composed of three first order IBM factors of salience, interpretation of difficulty as normal, and group congruence. This is important because previous research has shown that IBM, the overarching theoretical construct from which CBI is derived, is a strong predictor of whether children perform activities associated with doing well in school (Oyserman & Destin, 2010; Oyserman, Brickman, Bybee, & Celious, 2006; Oyserman, Terry, & Bybee, 2002).

Next the authors tested whether participating in Kickstart Newaygo County, a CSA program located in a rural county in Michigan, is associated with college-bound identity. Using secondary data from the Panel Study of Income Dynamics, Elliott (2009) finds evidence that having savings for college is associated with children's educational expectations. However, his research used a dichotomous measure of educational expectations. As discussed in the research and theory section of this paper, a problem with using a dichotomous variable is that most children when asked directly, reply they expect to attend college (Oyserman & Destin, 2010; Oyserman, 2013). We find evidence of this in this study as well, with 80 percent of children reporting they expect to attend college and only 20 percent reporting they did not expect to attend college. Not surprisingly then, when we tested whether there was a statistically significant relationship between participating in Kickstart and the dichotomous college expectation variable, there was not enough variability to detect significance among a relatively small sample. However, when we examined program participation in relation to CBI as measured by the second order factor, like Elliott, Zheng, and colleagues (2021), we also find evidence that participating in a children's savings account program is associated with children's CBI. Although their study also used a version of the CHAT-E designed to assess if children living in a rural community have a college-bound identity, their sample was limited to older students in 5th to 9th grade. Our study builds on this study by providing evidence that CSAs are associated with children's CBI as early as second grade. This is important because many CSA programs start at birth or Kindergarten. Therefore, finding early effects that indicate these programs are on course becomes critical (Elliott & Harrington, 2015).

We also hypothesized that children's CBI would be positively associated with their academic performance. We used parents' perception of their child's performance in school as a proxy for academic performance because school administrative data were not available. Our findings provide some evidence to suggest that college-bound identity is associated with children's academic performance. This is in line with what has been found by IBM researchers examining children's academic performance (e.g., Oyserman, Bybee, & Terry, 2006). It is also like evidence found in the CSA field regarding children's educational expectations (Elliott, 2009). We also find in this study limited evidence that participating in a CSA program might be associated with parents' perception of children's academic performance. However, these cited studies used different measures of children's academic performance and not parents' perception of performance.

7. Limitations

Findings from the present study need to be qualified by the study limitations. First, the study sample consisted of more educated, married, and higher income respondents than residents typically found in Newaygo County, MI. As a result, the ability to generalize findings from this study is limited. Another limitation of this study is that the measures used in this investigation depended on participants' self-reports requiring perceptions by the child about salience, difficulty, and group congruence. Given this, the internal and external validity of the measures used are restricted to this study's sample. Further, the data from this study were not experimental or longitudinal. Therefore, the authors are not able to determine cause-and-effect. Another limitation is sample size. Small sample size might make it hard to detect effects of CSAs. The fewer participants in a study, the bigger the difference or effect must be to find statistical significance.

8. Implications

This study provides evidence that Kickstart Newaygo County, a CSA program, may be positively impacting children's college-bound identities as early as second grade and that college-bound identity is associated with parents' perceptions of their children's academic performance. Given this, intervention that strengthens rural children's college-bound identities may positively influence parents' perceptions of their children's academic performance. Further, little evidence todate exists on the college-bound identities of children living in rural communities. Rural children are among the poorest children in America. Further, generally, little evidence on the impact of CSAs on children's college-bound identity exists on children younger than fourth grade. Findings among younger children are critically important for programs like CSAs. CSA programs have a longtime horizon with many programs starting as early as birth or kindergarten but whose primarily goal is to increase college enrollment and graduation.

As noted by Entwisle and Haydul (1981), children's expectations about their own educational possibilities as young as first grade are malleable and still open to influence by parents and teachers. One of the things that makes CSAs so promising is that, regardless of the tailored details of each program, they all possess the common factor of communicating hope and establishing a concrete, tangible mechanism (via the account) that can impact future outcomes by means of enhanced expectations. For rural communities that often are unable to bring to scale or maintain with fidelity, interventions developed with the resources of an urban community in mind, this feature of flexibility while retaining impact is worth attention.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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Construct	Description		
Interpretation of Difficulty			
pupse1	School is fun	School is not fun	
pupse2	I like my class	I do not like my class	
pupse3	My teacher is nice	My teacher is not nice	
pupse5	I learn a lot in school	I do not learn a lot in school	
pupis3	What I learn in school is important	What I learn in school is not important	
Identity Salience			
pupis5	I will go to college	I will not go to college	
pupcg6	My teacher thinks I will go to college	My teacher does not think I will go to college	
pupid5	Saving money will help me pay for college	Saving money will not help me pay for college	
pupid7	My family will help me go to college	My family will not help me to go to college	
Congruence with Group			
pupcg5	My friends are smart	My friends are not smart	
pupex1	My [parent] thinks I am smart	My [parent] thinks I am not smart	
pupex3	My [parent] thinks I will go to college	My [parent] does not think I will go to college	
pupex4	My [parent] thinks I will do great things when I grow up	My [parent] does not think I will do great things when I grow up	
pupcg3	People in my family go to college	People in my family do not go to college	
pupcg10	Kids like me save money	Kids like me do not save money	
pupcg2	I know someone that went to college	I do not know anyone that went to college	
pupcg4	My friends will go to college	My friends will not go to college	
pupcg8	Kids like me go to college	Kids like me do not go to college	

Appendix A. Measurement items by subscales.

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