Initial Elementary Education Findings From Promise Indiana's Children's Saving Account Program

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Abstract

The study conducts an initial examination of school data and their associations with participation and saving in the Promise Indiana Children's Savings Account (CSA) program. Data on savings were obtained from the onset of the program through February 2016 from Promise Indiana via the Indiana CollegeChoice 529 plan manager (Ascensus College Savings) and merged with administrative data on student outcomes for the 2014-2015 school year. The primary research questions guiding this analysis is whether or not simply having a CSA, being a saver, or the amount saved is associated with lower absenteeism and/or higher reading and math scores. Given the importance of family income to both savings behaviors and academic achievement, we looked at these questions for the sample of students overall, and, separately, for the sample of low-income students (defined as free/reduced lunch participants). In this study, there is no evidence to suggest that having a CSA, being a saver (i.e., having at least one family or champion contribution), or the amount deposited are related to children's absences. However, among the subsample receiving free/reduced lunch, having a CSA is positively associated with both children's reading and math scores; however, this association is not found in the aggregate sample. In contrast, amount contributed has a positive association with the aggregate sample's math and reading scores but not with the scores of children receiving free/reduced lunch. Further, being a saver is associated with reading scores for both the aggregate and free/reduced lunch samples. While more research is needed before policy conclusions can be drawn, these findings suggest that CSA programs may complement schools' academic objectives.

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INTRODUCTION

Children's Savings Accounts (CSA) are long-term, incentivized savings or investment accounts for postsecondary education typically established for children at birth or when they enter kindergarten, and allowed to grow until children reach college age. Many CSA programs provide an initial seed deposit to start accounts and accelerate asset accumulation. Savings are built by contributions from family, friends, and/or the children themselves, along with savings matches from public funds, community supporters, or philanthropic institutions. CSA programs represent long-range investments that do not come fully to fruition until a child reaches college age. An important way that CSAs are distinguished from other types of financial aid, then, is the dimension of time. In sharp contrast to the "just-in-time" approach of student loans and even most merit- and need-based grant aid, CSAs are designed to influence not only college access but also early education, college completion, and post-college financial well-being outcomes. In this study we focus on early education outcomes, specifically those in the primary elementary grades.

In the arena of educational attainment, there is real value in early initiation. Failure to plan for college enrollment from an early point in K–12 schooling is detrimental because the academic pathways to college, especially four-year colleges, are structured and sequential (e.g., Cabrera & La Nasa, 2000; Hallinan, 1996; Klasik, 2012). For example, the track to college-level math begins in middle school, but fewer students from low-income families are likely to engage in college-preparatory activities at that time because they do not *expect* to attend college even if they *aspire* to doing so (Long, Conger, & Iatarola, 2012; Lucas & Berends, 2002; Rees, Argys, & Brewer, 1996). Thus, to foster a sense that postsecondary education is a viable option for one's future, low-income students and their families may need to have a strategy for paying for college as early as possible.

Given the long-term nature of CSA programs and the importance of these early influences, Elliott and Harrington (2016) attempt to identify interim measures for assessing CSA programs' progress toward reaching the long-term goal of improved college attainment outcomes, before the point where those outcomes can be observed directly. Of course, other factors may intervene during the course of a child's educational trajectory. As Elliott and Harrington (2016) state, "Here, it is important to point out that interim metrics will not tell you whether a program is effective. Rather, they only convey whether the data is trending in a certain direction" (p. 5). Toward this aim, they identify, among other variables, math and reading achievement as potential interim measures for studying and evaluating CSA programs' effects on children's initial outcomes in K-12 education. While there is some existing evidence on the relationship between children's assets and math and reading achievement, no data have been captured from actual CSA programs to test this relationship.

As context for this examination, in CSA Program Interventions such as Promise Indiana, in addition to the account itself, children also partake in such things as college visits and college and career planning. This could create a problem for separating out the effects of having a CSA from participating in these other program components, which are not necessarily dependent on the provision of the Children's Savings Account. However, because Promise Indiana provides these other program components to all students regardless of whether they have an account or not, we are able to tease out the independent relationship that having a CSA has with children's educational outcomes, distinct from participating in these other program components. In the following section we provide a description of the Promise Indiana CSA Program Intervention.

PROMISE INDIANA CSA PROGRAM OVERVIEW

Promise Indiana is a community-driven Children's Savings Account intervention designed to equip young children and their families with the financial resources, college-saver identities, community support, and savings behaviors associated with positive outcomes. Promise Indiana began as the Wabash County Promise, the shared vision of the Wabash County YMCA and local school leaders in response to disparities in educational attainment, a perceived bias against higher education, and low participation in the state's 529 college savings plan (CollegeChoice)[1]. The Promise Indiana model was informed by the YMCA's experience helping individuals to change behaviors and conceived as part of its summer learning-loss prevention efforts, as a complement to other investments in the educational progress of area children. Buoyed by strong interest from allies—local philanthropists, businesses, county and city leaders, educators—what is now Promise Indiana endeavored to activate not only families of young children but entire communities for the task of preparing children for college.

Today operating in 14 communities in both rural and urban Indiana counties, Promise Indiana's goals include: (1) reinforcing parents' expectations for their children's futures (see Rauscher, et al., 2016), (2) fostering a community-wide culture of saving (see Lewis et al., 2016), (3) incorporating college and career discovery into the school experience early, and (4) providing tangible resources to help families confront the challenge of financing higher education. Promise Indiana's CSA includes a $25 seed deposit for all families in participating communities who open an Indiana CollegeChoice 529 account, as well as savings matches and additional 'champion' deposits that encourage family investment. Beginning this year, students in Wabash County who have CollegeChoice 529 accounts through Promise Indiana can receive additional deposits for completing academic and savings milestones, funds provided by the Wabash County Community Foundation in an early-disbursement scholarship pilot. As part of Promise Indiana, families receive assistance in opening CollegeChoice 529 accounts, including at kindergarten enrollment, with a simplified application, and, in some cases, acceptance of cash deposits onsite at children's schools. In addition to the features associated with the accounts, all students in Promise Indiana, whether or not they have an account, participate in College Go Week activities in their classrooms including curriculum for college and career discovery. The week culminates with the "Walk Into My Future" event, which is a dynamic experience on a nearby college campus, with age-appropriate hands-on activity stations led by students and faculty from a variety of departments designed to expose students to what one can study in college.

[Insert Table 1 Here]

REVIEW OF RESEARCH

Why Examine Absences and Math/Reading Scores?

Correlations of reading and math proficiency and school attendance to enrollment in and completion of college make these useful measures of the extent to which students may be said to be 'on track' for subsequent higher educational attainment. This makes these measures potential barometers of the effects of a CSA program on these trajectories.

[1] For a more detailed description of the origins of Promise Indiana, see Elliott & Lewis (2015).
[2] We also created a similar variable that did not include children with no account. However, it creates a certain amount of confusion distinguishing between the two for the reader and the results were similar to the CSA Saver variable reported on here that included children with no CSA in the non-saver category. There is one notable difference; with regard to reading scores in the aggregate sample only, the variable that did not include children without an account was not significant whereas the CSA Saver variable is.

Absences. School absenteeism may be an important predictor of children's trajectory for academic success (Gottfried, 2010). There is evidence that excessive or chronic absences are associated with poorer school outcomes, findings consistent with the reasonable assumption that not being present in school to receive instruction will hinder children's ability to learn and progress academically. From kindergarten through high school, students who are frequently absent have lower achievement scores (Applied Survey Research, 2011; Chang & Romero, 2008; Romero & Lee, 2007), even controlling for factors that contribute to both absences and low achievement (Gottfried, 2011). These students have also been found to be overrepresented among those not graduating from high school (Hickman, Bartholomew, & Mathwig, 2007; Allensworth & Easton, 2005), a crucial precursor to postsecondary attainment. Specifically, analysis has found gaps of 50 points on third-grade reading assessments and 76 points on third-grade math assessments between those with substantial absences in kindergarten/first grades and those with regular attendance (Applied Survey Research, 2011). Some research further suggests that these effects may be particularly strong for students comparatively well-prepared, who may lose this advantage through chronic absenteeism (Applied Survey Research, 2011).

Further, students potentially at risk for other reasons may experience greater consequences from the same number of missed days, compared to those whose performance may not be as vulnerable. For example, a review of national data suggests that reading scores for chronically-absent Latino kindergartners were significantly lower than for their peers, even though they had missed similar amounts of school, while, among poor children, chronic absence in kindergarten predicted the lowest levels of educational achievement at the end of fifth grade (Chang & Romero, 2008). Further, while unexcused absences are particularly problematic for student achievement (Gottfried, 2009), aggregate absences may constrain academic progress regardless of the motivation (Ginsburg, Jordan, & Chang, 2014).

Moreover, to the extent to which self-regulating to achieve regular attendance reflects important emotional competencies, attendance may serve as a measure of social and emotional well-being, itself a predictor of school success (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011). While it is not entirely clear whether school absences for children as young as those studied here are good measures of the social and emotional health of the child, increasing interest in such evaluation has led school districts to turn to attendance and other administrative records—such as behavioral referrals—as proxies for these competencies (see Rennie Center for Education Research and Policy, 2015). Additionally, as children age and presumably assume more responsibility for their own school attendance, such measures may be increasingly useful indicators of social and emotional competencies such as productive use of time, motivation, and initiative (Bronte-Tinkew, Moore, & Shwalb, 2006).

Math and Reading Scores. Math and reading scores, particularly beginning around third grade, are understood as important precursors to later academic achievement (Feister, 2013). Reading proficiency at third grade, in particular, appears highly determinant of academic success across the curriculum. Children who cannot read well in third grade cannot use reading as a tool to engage with school, do their homework, or prepare for exams (Lloyd, 1978). These deficiencies can compromise later educational attainment, including preparation for college. For example, in a longitudinal study of nearly 4,000 students, Hernandez (2011) found that those who do not read proficiently by third grade are four times more likely to not graduate from high school than proficient readers. Children who have not at least mastered basic reading skills by third grade are nearly six times less likely to graduate high school than proficient readers (Hernandez, 2011), with effects particularly strong for low-income and minority students. Other research indicates that third grade reading is a positive predictor of college attendance (Lesnick, Goerge, Smithgall & Gwynne, 2010). Additionally, as school districts put increasing weight on standardized achievement measures—using them for academic tracking, for example—these performance effects may become more pronounced. While math skills do not appear as substantial a driver of future academic achievement,

triangulating across national data sets, Lee (2012) demonstrates the effects of early math performance on eighth grade math achievement and on college enrollment and completion. Further, as described by Elliott & Harrington (2016), math and reading scores may have multiplier effects on children's academic progress, as they signal to school personnel a given child's academic potential in ways that may later affect expectations and interactions between teacher and student (Jussim, Eccles & Madon, 1996; Madon, Jussim & Eccles, 1997; Rist, 1977), potentially leading independently to greater achievement. Given the mutual nature of children's achievement and parents' expectations (Seginer, 1983), children's performance on these academic assessments may also encourage or sustain high parental expectations, which in turn support children's further educational attainment, including toward college enrollment (Davis-Kean, 2005; Hossler & Stage, 1992; Pearce, 2006; Peng & Wright, 1994; Vartanian, et al., 2007).

PREDICTORS OF ABSENCES AND MATH/READING SCORES

Many factors are understood to contribute to children's school absences and to their scores on standardized math and reading assessments. Some—family socioeconomic status, race/ethnicity, disability status—are significant predictors of all three measures. There are likely overlapping relationships, as well, dynamics that, while complicating analysis, also suggest the potential for multiplier effects from interventions that work simultaneously on multiple fronts to improve children's outcomes. For example, Romero and Lee (2007), in a review of extensive national data on early absenteeism, found that children judged by their teachers to be more socially and emotionally competent, or 'mature', had more regular attendance and, then, were more likely to perform highly, as well, raising the possibility that intervening to increase children's demonstration of these emotional skills may pay dividends in multiple measures associated with future achievement.

Absences. Despite the popular image of the truant teenager, chronic absenteeism may be a particularly acute problem for very young children. Some analysis has found that chronic absences decline sharply—by as much as half—between kindergarten and third grade (Applied Survey Research, 2011), findings that some see as reflecting parents' lack of understanding that these early years are important for later success (Chang & Romero, 2008). For the most part, child and family characteristics commonly associated with academic achievement also correlate with attendance. For example, there is evidence that chronic absences are more pervasive in low-performing schools and among children from low-income households (Applied Survey Research, 2011); specifically, poor kindergarteners are four times more likely to be chronically absent than their higher-income peers, a disparity that dips slightly in later primary grades and then begins to climb again around fifth grade (Chang & Romero, 2008). Some scholars assert that as much as one quarter of the achievement gap by income can be explained by differences in attendance rates (Goodman, 2014). The inverse relationship between family income and attendance is likely due to many factors, including inadequate transportation, clothing, and hygiene, which can make getting a child to school regularly difficult (Chang & Romero, 2008), as well as frequent residential mobility, also correlated with family poverty (General Accounting Office, 1994). Notably, while there are only modest effects on attendance from the presence of one risk factor—such as low maternal educational attainment—researchers have found dramatic jumps in chronic absenteeism when families contend with multiple obstacles, such as unemployment, poverty, single motherhood, and food insecurity (Romero & Lee, 2008). In addition to these family and student characteristics, there are school- and community-level variables that may influence attendance rates, as well. For example, Epstein and Sheldon (2002) find that clear communication with families—particularly those from marginalized communities—can increase regular attendance, including among students otherwise at risk of chronic absenteeism. Similarly, school efforts to reach out to parents, while perhaps initiated for motivations other than improving attendance, may nonetheless have these effects (Henderson & Mapp, 2007), while, conversely, communities with greater levels of violence see higher absenteeism (Chang & Romero, 2008).

Math and Reading Scores. As described above, absences themselves can have significant effects on math and reading achievement (Ready, 2010; Sanchez, 2012), including as expressed in third-grade standardized assessments. Other factors, many of which are similarly associated with family socioeconomic status, also contribute to the widening income gap in math and reading achievement (Reardon, 2014; Reardon, 2011). Importantly, this includes parental expectations of children's educational attainment, shown to alter engagement and subsequent achievement in school (Hess, Holloway, Dickson, & Price, 1984). School readiness indicators, including early math skills, emerging literacy, and attention/self-regulation capabilities are strongly associated in the literature with academic achievement, including in reading and math (Duncan, et al., 2007). On this front, there is a substantial gap in school readiness between those in the highest and lowest socioeconomic statuses (Fernald, Marchman, & Weisleder, 2013), fueled by differences in parenting practices and resources (Halle, 2009; Rodriguez & Tamis-LeMonda, 2011), exposure to stress (National Scientific Council on the Developing Child, 2010; Noble, et al., 2015), and participation in high-quality preschool programs, the latter of which can help to close gaps in achievement (Duncan & Sojourner, 2012). Family demographics such as parental education and marital status exert effects on school readiness, as can factors more intrinsic to the child (but still associated with socioeconomic status), such as birthweight (Isaacs & Magnuson, 2011). However, reading and math achievement are not entirely predestined when children arrive at school. Students interact with the educational opportunities presented in different ways, some of which may have implications for later achievement. For example, some research suggests that children's orientation to learning, including how they rise to new challenges and commit themselves to their studies, may help to explain achievement as they progress through school (Bodovski & Youn, 2011). Additionally, some research has found that gaps in achievement widen with years of school (Farkas, 2003; McNamara, Scissons, & Gutknecth, 2011). To some extent, this may reflect advantaged students' continual climbs, while low-income and otherwise disadvantaged students lose ground, for example, during the summer (Feister, 2013). In other cases, elements of the school environment itself, including poor students' inequitable access to high-quality teaching and concentration in low-performing schools, may help to explain the gaps (Rothwell, 2012). As a result of these compounding factors, fourth graders display a more than two-grade gap in reading by poverty status (Kainz, 2015).

Evidence Connecting Absences and Math/Reading Scores to Children's Assets

Since Children's Savings Account programs are relatively new interventions, this is among the first research to directly examine the relationship between participation in a CSA—by having an account created for the express purpose of financing college and/or actively saving in that account—and children's academic progress. However, an existing body of evidence has considered the effects of asset-holding, including, in some cases, educational assets specifically, on children's outcomes. While this early research in the assets and education field helped to build momentum for the CSA programs now proliferating around the country, there are questions about the extent to which these findings translate to evaluation of CSA interventions. Among the potential points of divergence: (1) earlier studies employed national secondary datasets and proxies for participation in a CSA, mostly using cross-sectional data to assess whether children who save tend to be higher achievers than children who do not save; (2) secondary datasets are populated largely by children older than the children studied here and older than most children in CSAs today; and (3) unlike children in some CSAs, children in these datasets are not necessarily part of a college-saving culture, the absence of which could blunt some of the effects of assets on educational outcomes. Additionally, as the Children's Savings Account field continues to evolve, innovating new models and experimenting with different approaches, there is a potential for CSAs to exert shifting effects on children's outcomes. For example, when CSAs are administered in the context of educational institutions, the existence of the CSA may shape teachers' evaluations of children's effort, prompting teacher intervention that may also positively affect achievement. Additionally, through the provision of financial incentives and other

mechanisms, certain CSAs are designed to explicitly encourage behaviors associated with achievement and school attendance. For example, some CSAs provide benchmark deposits to children with regular attendance, while others encourage parent participation in school activities, enrollment in early childhood education and/or enrichment, and/or collaborative goal-setting with parents, teachers, and students.

As research catches up with CSA practice, the field seeks to synthesize findings, particularly those from the SEED for Oklahoma Kids social experiment, that CSAs may affect children and families on dimensions that separately help to explain educational outcomes. Among the factors that research suggests may help to predict academic achievement and attendance, as described briefly above, are several that empirical evidence suggests that CSAs positively affect: motivational and self-regulatory behaviors (Huang, Sherraden, Kim, & Clancy, 2014), parental educational expectations (Kim, Sherraden, Huang, & Clancy, 2015), family stress (Huang, Kim, & Sherraden, 2016 re: material hardship; Huang, Sherraden, & Purnell, 2014 re: maternal depression) and children's commitment to academic effort.

Elliott (2009) used bank savings as a proxy for having a CSA to examine the association that children's savings have with math scores of children, ages 12 to 18. Findings indicated that children with savings designated for school have significantly higher math scores than their peers who lack education-designated savings. This study helped establish that savings designated for school may be associated with improved children's math scores, even among children from households of similar income levels. Moreover, findings have suggested that this relationship can partly be explained by the effects of children's savings on children's college expectations, which subsequently encourage behavior associated with greater achievement. Findings from secondary data also suggest that family asset holdings may influence how the presence of a children's savings account correlates to academic achievement. For example, Elliott, Jung, and Friedline (2010) examined how a child having any type of savings correlates with higher math scores. Findings from this study revealed that savings set aside for a child are positively associated with higher math scores. However, while such savings are positively related to higher achievement for children regardless of family wealth, the presence of savings for a child is a stronger predictor of better math scores for children living in middle-wealth families than for children from low-wealth families and stronger still for children living in high-wealth families than in middle-wealth families. Subsequently, the same authors examined the effect on math scores of a child having savings designated specifically for college (Elliott et al., 2011). They found that having savings designated for school is associated with higher children's math scores and, further, that the effect does not vary according to family wealth as when children have savings not designated for college. This finding contributed to the sense that having savings designated for college—as in most CSA programs—may be a better solution to promote improved academic achievement than just having savings, particularly because disadvantaged children appear to benefit from having savings designated for school as much as high-wealth children do.

RESEARCH QUESTIONS

The primary research question guiding our analysis is whether or not having a CSA, being a saver, or the amount saved is associated with better school outcomes in the form of lower absenteeism and higher reading and math scores. Given importance of family income to both savings behaviors and academic achievement, we looked at these questions for the sample overall, and, separately, for the sample of low-income students.

METHODS

Procedure

The Promise Indiana CSA program began in four public schools and two private schools in 2013, targeted toward Kindergarten through 3rd grades. Enrollment in the CSA component occurred during school registration prior to the fall semester. Upon signing up for an Indiana CollegeChoice 529 account, each child received an enrollment certificate with his or her name and a statement from the community sponsor of their commitment to make the first $25 investment into the child's account. Data on savings activities from onset of the program through February 2016 were obtained from Promise Indiana via the Indiana CollegeChoice 529 plan manager (Ascensus College Savings) for the target grade cohorts K-3 at the six pilot elementary schools. Next, we merged records of Promise Indiana account holders with administrative data provided for all pilot school students from the 2014-2015 school year, resulting in a comparison group of students with and without accounts.

Data

Savings Data. After closed, frozen, or otherwise not activated accounts (n = 193), duplicate cases (n = 3), and cases outside the target grade cohorts (n = 16), were removed, the final savings data set included account data for 1,424 children (account beneficiaries) and 1,149 account owners (generally a parent or legal guardian). Since 67% of all accounts were opened in 2013, the average length of time since account opening was 24 months (ranging from 3 to 36 months). The majority of account owners (79%) were the owner of only one account; 19% owned two accounts; and 2% were account owners for 3 or more children.

School Data. Data on student race/ethnicity, gender, math and reading (covers reading and writing) proficiency, free and reduced lunch status, special education status (SPED), English Language Learner (ELL) status, and absenteeism for the 2014-2015 school year were obtained directly from each school for students who were in 3rd and 4th grades. Because these school data are not available for the students attending private schools, the current analyses are limited to 3rd and 4th grade students attending a public school. Although the savings data presented here represent students who enrolled in Promise Indiana while attending one of four public elementary schools, two of these public elementary schools promote students between 3rd and 4th grade to an intermediate school, for a total of six public schools represented in the school data.

Variables

Has CSA. Dichotomous variable used to indicate whether or not a student has a CSA (0 = No CSA, 1 = Has CSA).

CSA Saver. Dichotomous variable used to indicate whether or not a student has a CSA and has contributed money towards the account above and beyond the initial seed deposit or match. For

this variable, those with no account are included as non-savers (0 = No CSA/not a saver, 1 = Has CSA and a saver).[2]

Amount Contributed. A continuous variable that measured the amount of family or champion contributions made into the CSA. This does not include incentive or match provided by the Promise Indiana CSA program.

Free/Reduced Lunch Status. Socioeconomic status was operationalized by whether or not a student receives a free or reduced-price lunch at school. This resulted in a dichotomous variable (0 = Free/Reduced Lunch, 1 = Paid Lunch). Students who pay full price for lunch have a higher socioeconomic status than their peers that receive lunch for free or at a reduced price.

Total Absences from School. Self-regulatory behavior in school was operationalized continuously as total absences (the sum of excused and unexcused absences).

Student Achievement. Student achievement was assessed for students in Grades 3-4 (~ages 8-9) using English/Language Arts and Mathematics scores from the Indiana Statewide Testing for Educational Progress Plus (ISTEP+), implemented beginning in the 2014-15 school year. ISTEP+ measures student achievement in English/Language Arts (referred to in this paper as reading proficiency) and Mathematics for grades 3 through 8 during the Spring semester. Here, in order to not obscure potential relationships between reading and math scores with outcomes of interest, we use the ISTEP score as a continuous variable.[3]

Controls

In addition to the variables of focus for answering the research questions, race (0 = Other, 1 = White), gender (0 = Female, 1 = Male), special education status (SPED) (0 = Not enrolled, 1 = Enrolled), grade (3rd or 4th), and school attended during the 2014-2015 school year were evaluated as control variables in all regression models. With only 3% of the sample meeting English Language Learner status, it was excluded from all analyses.

ANALYSIS

[2] We also created a similar variable that did not include children with no account. However, it creates a certain amount of confusion distinguishing between the two for the reader and the results were similar to the CSA Saver variable reported on here that included children with no CSA in the non-saver category. There is one notable difference; with regard to reading scores in the aggregate sample only, the variable that did not include children without an account was not significant whereas the CSA Saver variable is. Both are significant in the case of free/reduced lunch children's reading scores.

[3] We do not standardize scores; instead we control for grade. Standardizing would set the means and standard deviations (SD) to be similar across grades; however, the means are accounted for by controlling for grade. Further, reading and math score means are quite similar. For reading scores, 3rd Grade has a mean of 463.14 and a SD of 49.72, whereas 4th Grade has a mean of 482.61 and a SD of 52.27. For math scores, 3rd Grade has a mean of 446.58 and a SD of 51.34, whereas 4th Grade has a mean of 472.00 and a SD of 52.45.

Although savings data for each account are available over time, here we focus on the cross-sectional examination of final savings amounts through May 2015, to align with school data from the 2014-2015 school year.

All analyses were conducted using the R Statistical Package (R Core Team, 2015). First we summarize the overall sample and relevant subgroups with descriptives (e.g., mean, median, standard deviation) and frequencies (counts and percentages). Chi square and t-tests were used to investigate bivariate relationships (not reported in the text) before building subsequent multiple regression models used to test the relationship between key covariates (race, lunch status, SPED, ELL, grade level, and school) and outcomes of interest (total absences, math scores, and reading scores).

Separate multiple regression models were used to examine the three outcomes of interest 1) total absences, 2) ISTEP Reading scores, and 3) ISTEP Math scores, and three predictors of interest 1) Having a CSA, 2) CSA Saver, and 3) Amount Contributed, with Race, Lunch Status, Special Education Status, School, and Grade serving as control variables. These models were then repeated, but on a sample limited to students with free/reduced lunch status.

Limitations

An important limitation of this study is that it uses cross-sectional data (i.e., data all from the same year). As a result, findings from this study only can test the association between variables, not causality. This also means things like prior academic achievement cannot be controlled for, leaving open important questions about the potential for associations to be spurious. That is, we cannot rule out in this study that an unobserved factor may explain the relationship between, for example, CSAs and reading scores. Similarly, there is the potential for selection bias. It might not be that CSAs are associated with higher reading scores, but instead, that the kinds of people who enroll in a CSA program also have children who are more likely to be good readers or also take other, unobserved actions that influence their children's reading scores. Moreover, these findings should be considered specific to Promise Indiana; they are not generalizable.

RESULTS

Descriptive characteristics are presented for the entire sample (N = 738) and by free/reduced lunch status in Table 2. Among children in this sample, a majority (55%) had a Promise Indiana CSA. The sample was predominantly white (91%) and there were slightly more males (54%) than females. Slightly more children received free/reduced lunch than paid (51% vs 49%). A majority of children (83%) did not receive special education services and most spoke (97%) spoke English as their first language. Grade levels were represented evenly, with around half in third and fourth grades, respectively.

Socio-demographic characteristics were similar when examined by lunch status. The main differences in characteristics between these two groups were special education status and school of attendance. For example, 11% of children with free/reduced lunch received special education services whereas only 6% of children with paid lunch did. And, the proportion of children attending OJ Neighbours and Manchester Intermediate with free/reduced lunch status was higher than the other schools (18% and 11%, respectively, compared to 7% or less at the other schools).

[Insert Table 2 Here]

Table 3 presents information on the absences, test scores, and CSA account information for the whole sample as well as by lunch status. Children in the whole sample had, on average, 5.41 absences (SD=5.08). The mean reading test score was 472.83 (SD=51.89) and the mean math test score was 459.15 (SD=53.39). Average number of deposits made into the Promise Indiana CSA was 2.71 (SD=5.99), and the mean total amount contributed to accounts was $70.83 (SD=$382.94)

Differences by lunch status are also illustrated in Table 3. Children receiving paid lunch had, on average, approximately two fewer total absences than those receiving free/reduced lunches (6.28 vs 4.57). Additionally, children with paid lunch had average reading and math scores that were nearly 25 points higher than children receiving free/reduced lunch. Finally, both the average number of deposits into the CSA and average total deposit amounts were higher for children with paid lunch status.

[Insert Table 3 Here]

REGRESSION RESULTS

Results of regression analyses are organized by the three key predictors of interest: having a CSA, CSA Saver, and Amount Contributed. First we present findings for the overall sample, then for separate models limited to the Free/Reduced lunch subgroup.

Aggregate Results

Have CSA. Three regression models were run using the full sample of children (N = 738), and those results are illustrated in Table 4. All models included race, lunch status, special education, school, and grade as covariates, and the variable of interest was having a CSA. Having a CSA was not associated with any of the dependent variables within these three models. Model 1 examined predictors of total absences; the variables included in this model accounted for 5% of the variance in total absences. Paid lunch status, being a special education student, and attending Southwood Elementary school all had statistically significant associations with total absences. Children whose families paid for lunch had 1.68 fewer total absences (B = -1.68, $p < .01$), whereas children who attended Southwood Elementary had 1.62 more total absences (B = 1.51, $p < .05$) and children receiving special education had .99 more absences (B = .99, $p < .10$).

Model 2 included the same variables and used reading scores as the dependent variable; the variables included in this model accounted for 27% of the variance in reading scores. Paid lunch and being in fourth grade were positively associated with reading scores, whereas being a special education student and school were both negatively associated with reading scores. Having paid lunch was related to having a 19.96 unit increase in reading scores ($p < .01$) and being in fourth grade was related to a 25.41 unit increase in reading scores ($p < .01$). Being a special education student was associated with a 55.30 unit decrease in reading scores ($p < .01$). Likewise, Metro North (B = -11.40, $p <. 10$), OJ Neighbours (B = -14.44, $p < .05$), Sharp Creek (B = -25.75, $p <.01$), and Southwood Elementary (B = -17.13, $p < .05$) schools were associated with lower Reading scores compared to Manchester Elementary.

Model 3 accounted for 23% of the variance in math scores. The same variables that predicted reading scores – paid lunch, being special education student, being in fourth grade, and school– had a statistically significantly association with math scores. Having paid lunch was associated with a 20.80 unit increase in math scores ($p < .01$) and being in fourth grade predicted a 27.12 unit increase in math scores ($p < .01$).

Conversely, being a special education student was related to a 45.11 unit decrease in math scores ($p < .01$). Additionally, attending OJ Neighbours ($B = -11.05$, $p < .10$), Sharp Creek ($B = -15.83$, $p < .10$), and Southwood Elementary ($B = -17.71$, $p < .05$) was related to lower math scores.

[Insert Table 4 Here]

CSA Saver

Table 5 presents the results from three regression models that included CSA Saver as the variable of interest. CSA Saver was significantly associated with reading scores but not total absences or math scores. The variables included in Model 1 accounted for 5% of the variance in total absences. When holding all other variables constant, paid lunch, special education, and school were statistically significantly related to total absences. That is, children who were in special education had 1.01 more total absences ($p < .10$) than those not in special education, and children at Southwood Elementary had 1.65 more total absences ($p < .05$). Children with paid lunch had 1.54 fewer total absences than those receiving free/reduced lunch ($p < .01$).

Model 2 regressed reading scores on the same predictors. The combination of variables used in this model accounted for 28% of the variance in reading scores. In Model 2, CSA Saver, paid lunch, and being in fourth grade were positively related to reading scores. In other words, compared to students with no account or who were not saving in their CSA, the group of students saving in their CSA was associated with a 12.20 unit increase in reading scores ($p < .01$), and being in fourth grade ($B = 24.74$, $p < .01$) and having paid lunch ($B = 17.81$, $p < .01$) were also related to increased reading scores. Conversely, being a special education student was related to a 55.67 unit decrease in reading scores ($p < .01$) and four schools were also associated with a decrease in reading scores: Metro North Elementary ($B = -12.41$, $p < .10$); OJ Neighbours Elementary ($B = -14.7$, $p < .05$); Sharp Creek Elementary ($B = -28.34$, $p < .01$); and Southwood Elementary ($B = -18.32$, $p < .01$), compared to Manchester Elementary.

In Model 3, where math scores were the dependent variable, the results were similar to Model 2; however, being a CSA Saver was not a statistically significant predictor of math scores and attending Metro North was not statistically significantly associated with math scores in this model.

[Insert Table 5 Here]

REGRESSION RESULTS FOR THE FREE/REDUCED LUNCH ONLY SAMPLE

The sample was then restricted to students with free/reduced lunch status. Table 6 presents the results from regression models using having a CSA as the variable of interest. Having a CSA had a positive, statistically-significant relationship with both reading and math scores for those in this sample. Model 1, which examined the relationship between the covariates and total absences, accounted for about 3% of the variance in total absences. Being a special education student was positively, statistically significantly associated with total absences ($B = 1.55$, $p < .10$). The combination of variables in Model 2 accounted for nearly 29% of the variance in reading scores. In Model 2, being a special education student had a negative association with reading scores ($B = -54.52$, $p < .01$), whereas, having a CSA ($B = 8.94$, $p < .10$), being in fourth grade ($B = 22.24$, $p < .01$), and attending Manchester Intermediate ($B = 20.39$, $p < .10$) all had a positive association with children's reading scores. Model 3, which accounted for 23% of the variance in math scores, produced similar results. Again, being a special education student had a negative relationship with math scores ($B = -42.51$, $p < .01$). Having a CSA was associated with an 8.65 unit increase in math scores ($p < .10$); while attending Manchester Intermediate ($B = 18.74$, $p < .10$) and being in fourth grade (B

= 25.67, p < .01) were positively associated with an increase in math scores for children receiving free/reduced lunch.

[Insert Table 6 Here]

The results presented in Table 7 illustrate models where the three dependent variables were regressed on the same covariates and included CSA Saver as the variable of interest. CSA Saver had a positive association with reading scores but not total absences or math scores. Among this sample of students with free/reduced lunch status, being a special education student had a positive relationship to total absences and a negative association with reading and math scores. The combination of variables in Model 1 accounted for 3% of the variance in total absences. In Model 1, the only statistically-significant association with total absences was being a special education student (B = 1.57, p < .10). Model 2 regressed reading scores on the same variables and this combination accounted for 29% of the variance in reading scores. Children who were CSA savers had a 15.17 unit increase (p < .05) in reading scores. Additionally, attending Manchester Intermediate (B = 21.66, p < .05) and being in fourth grade (B = 20.67, p < .01) were positively related to reading scores. Model 3 produced similar results, although being a CSA saver did not have a statistically significant association with math scores. Model 3 accounted for around 22% of the variance in math scores. Attending Manchester Intermediate (B = 18.73, p < .10) and being in fourth grade (B = 24.41, p < .01) were positively associated with math scores and being in special education (B -43.01, p < .01) had a negative association with math scores.

[Insert Table 7 Here]

ACCOUNT HOLDERS ONLY FINDINGS

Aggregate Results - Excluding Students with No CSA

Table 8 presents results from the amount contributed as the variable of interest. The sample was restricted only to students who had a CSA. The same dependent variables were examined: total absences, reading scores, and math scores. In Model 1, the only statistically significant association with total absences was paid lunch (B = -2.00, p < .01). When the same variables were regressed on reading scores and math scores in Models 2 and 3, the amount contributed had a positive relationship with reading scores and math scores. For instance, for every additional $100 contributed, reading scores increased by 2.08 units (p < .01). Similarly, for each additional $100 contributed, there was a 2.02 unit increase in math scores (p < .01). Other factors that had a statistically-significant relationship with reading and math scores in Models 2 and 3 were paid lunch, being a special education student, and being in fourth grade.

[Insert Table 8 Here]

Free/Reduced Lunch Only Sample - Results Excluding Students with No CSA

Table 9 displays results from three regression models that include amount contributed to the CSA as the variable of interest. There were no statistically significant associations with total absences in Model 1. As seen in Table 9, amount contributed to the CSA was significantly related to increased reading scores among students with a CSA who received free/reduced lunch. Each additional $100 in contributed was associated with a 21.43 unit increase in reading scores (p < .01). In Models 2 and 3, being a special education student was negatively associated with reading and math scores and being in fourth grade had a positive, statistically significant relationship with reading and math scores.

[Insert Table 9 Here]

SUMMARY

Table 10 provides a summary of study findings. Several things stand out. First, there is no evidence in this study that CSAs are related to children's absences. Second, findings around CSAs' effects on children's academic achievement appear stronger among children in free/reduced lunch program. For example, having a CSA is positively associated with reading and math scores among children in the free/reduced lunch program but not in the aggregate sample. Third, in the Promise Indiana CSA, initial findings appear strongest in the case of reading, as demonstrated in scores on standardized assessment of English/language arts skills.

[Insert Table 10 Here]

DISCUSSION

Children's Savings Account (CSA) programs such as Promise Indiana are long-range investments. Most often they have the goal of increasing college attainment. As a result, even though they often start at birth or in kindergarten, they do not come fully to fruition until a child reaches college age. Without clear indications of interim progress over such a long time span, maintaining support—financial and political—for CSAs may be difficult. Elliott and Harrington (2016) identify some potential interim metrics that can be used to evaluate whether a program is on track to improve CSA participants' educational outcomes, including math and reading scores. However, there are currently no studies on the relationship between CSAs and children's early academic achievement in these areas that do not use secondary data sets (e.g., Elliott, 2009; Elliott, Jung, & Friedline, 2010, 2011). Furthermore, of the secondary data studies that do exist, most focus on older children (12 – 18 years old), which still leave a period of several years between CSA initiation and these findings. We build on previous research by using data from Promise Indiana, a CSA program. Further, we focus on children's absences and math and reading scores in grades three and four, earlier than many begin to systematically consider children's progress toward higher education.

When examining educational outcomes of all children in this study (i.e., aggregate sample), there is some evidence to suggest that the Promise Indiana CSA program has a positive relationship with children's third and fourth grade reading and math scores. However, findings suggest that saving in the CSA, not just having an account, may be most important for these educational outcomes. When the sample is restricted to children in the free/reduced lunch program in an effort to assess effects specifically for those economically disadvantaged, findings suggest that simply having a CSA is associated with having higher math and reading scores. For these students, being a CSA saver appears to matter for reading scores, but not math. The finding that simply having an account is strongest among low-income children is consistent with other research on children's savings accounts where effects have been observed independent of household savings behavior (e.g., Huang, Sherraden, Kim, & Clancy, 2014). In this study, we find no evidence to suggest that having an account or being a CSA saver is associated with student absences. However, findings from this study should not be seen as definitive but, rather, suggestive. As stated in the introduction, these are initial findings. As new waves of data are available, we will be able to use more advanced methods to test this relationship and to examine whether it holds up over time.

Future Research

Additional research is needed to clearly identify whether CSAs have an association with children's absences and reading and math scores. A good next step in this direction would be to use longitudinal data to examine students' performance over time. In addition, researchers might attempt to use methods such as propensity score matching or instrumental variables to address the concerns related to selection bias described in the limitations section of the paper. There is also a need to examine findings among different populations in different locations throughout the country and in CSA programs using different design features.

Conclusion

In sharp contrast to typical financial aid tools, which are designed without consideration of their influence on early education outcomes of children, importantly, CSAs are designed to influence children's educational outcomes all along the trajectory, from early education, college access, college completion, and post-college financial well-being. In this study we focus on the relationship between CSAs and children's early education outcomes. Findings provide some evidence that CSAs are associated with children's early education outcomes. Given the preliminary nature of these findings, it is premature to draw policy implications without additional research. However, since research indicates that third grade reading is an important factor in predicting children's future academic success (Hernandez, 2011), conservatively, findings from this study warrant additional analysis of the relationship between CSAs and children's early education outcomes, including academic achievement in these crucial domains. Further, these findings add to existing findings and provide us with a first look at the relationship between CSAs and children's academic outcomes in an actual CSA program.

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Table 1. Promise Indiana's CSA At-A-Glance

PROMISE INDIANA'S CSA AT-A-GLANCE		
PROGRAM ELEMENTS	FUNDING	ADMINISTRATION
• Streamlined enrollment in CollegeChoice 529 • College and career readiness activities, integrated into school day • Recruitment of community champions to support development of college-going culture • $25 initial account seed • Additional match, if children secure at least $25 in support from champions	• $25 initial seed deposit from Promise Indiana (mostly from philanthropic grants) • Up to $100 in additional match if children raise $25 from champions • Early scholarship disbursement into Promise Indiana accounts from the Wabash County Community Foundation, for students in that community • Administrative support mostly in-kind from sponsoring organizations in each host community	• Implemented in each community by a local team with support from Promise Indiana • Accounts held in CollegeChoice Direct 529, Indiana's 529 plan (offered by Ascensus College Savings) • Operational support for Promise Indiana from fundraising and contributions to convening organizations, the Indiana Education Savings Authority, and private donors

Table 2. Sample Descriptive Statistics

Variable	Value	Aggregate (n = 738)	Paid (n = 358)	Free/Reduced (n = 380)
		Frequency (%)	Frequency (%)	Frequency (%)
Has CSA	No	332 (45)	157 (21)	175 (24)
	Yes	406 (55)	201 (27)	205 (28)
Race	Other	66 (9)	23 (3)	43 (6)
	White	672 (91)	335 (45)	337 (46)
Gender	Female	339 (46)	155 (21)	184 (25)
	Male	399 (54)	203 (28)	196 (27)
Special Ed Student	No	615 (83)	313 (42)	302 (41)
	Yes	123 (17)	45 (6)	78 (11)
English Language Learner	No	713 (97)	352 (48)	361 (49)
	Yes	25 (3)	6 (1)	19 (3)
School	Manchester Elementary	119 (16)	67 (9)	52 (7)
	Manchester Intermediate	132 (18)	51 (7)	81 (11)
	Metro North Elementary	84 (11)	45 (6)	39 (5)
	OJ Neighbours Elementary	204 (28)	75 (10)	129 (18)
	Sharp Creek Elementary	76 (10)	49 (7)	27 (4)
	Southwood Elementary	119 (16)	70 (10)	49 (7)
Grade	3rd Grade	374 (51)	189 (26)	185 (25)
	4th Grade	364 (49)	169 (23)	195 (26)

Table 3. Absences, Test Scores, and CSA Account Information

Aggregate	**Mean**	**SD**	**Minimum**	**Maximum**
Total Absences	5.41	5.08	0	38
Reading scores	472.83	51.89	268	639
3rd Grade	463.14	49.72		
4th Grade	482.61	52.27		
Math Scores	459.15	53.39	240	690
3rd Grade	446.58	51.34		
4th Grade	472.00	52.45		
Number of Deposits	2.71	5.99	1	56
Total Deposit Amount	$70.83	$382.94	$0	$5050
Paid	**Mean**	**SD**	**Minimum**	**Maximum**
Total Absences	4.57	3.98	0	20.5
Reading scores	484.96	49.57	299	635.0
Math Scores	470.99	52.69	289	690.0
Number of Deposits	3.99	8.19	1	56.0
Total Deposit Amount	$132.50	$537.49	$0	$5050
Free/Reduced Lunch	**Mean**	**SD**	**Minimum**	**Maximum**
Total Absences	6.28	5.88	0	38.00
Reading scores	461.47	51.51	268	639.00
Math Scores	448.02	51.69	240	605.00
Number of Deposits	1.46	1.47	1	19.00
Total Deposit Amount	$10.67	$35.14	$0	$389.81

Aggregate Tables – Including all Children (With Account/Without Account)

Table 4. Regression Models for the Aggregate Sample by Dependent Variable

	Model 1: DV = Total Absences		**Model 2: DV = Reading scores**		**Model 3: DV = Math Scores**	
	B	**SE**	**B**	**SE**	**B**	**SE**
Intercept	4.65	0.84***	462.6	7.03***	441.33	7.39***
Having a CSA	0.27	0.42	5.31	3.47	5.09	3.66
White	0.76	0.8	6.51	6.21	7.69	6.5
Paid Lunch	-1.68	0.42***	19.96	3.5***	20.8	3.68***
Special Ed. Student	0.99	0.55*	-55.3	4.54***	-45.11	4.82***
School: Manchester Intermediate	-	-	-3.02	7.81	4.85	8.24
School: Metro North Elementary	0.57	0.72	-11.4	6.64*	-8.71	7
School: OJ Neighbours Elementary	0.39	0.65	-14.44	5.99**	-11.05	6.29*
School: Sharp Creek Elementary	-0.15	0.92	-25.75	8.45***	-15.83	8.91*
School: Southwood Elementary	1.62	0.7**	-17.13	6.43**	-17.71	6.79**
Grade: 4th Grade	0.18	0.56	25.41	5.06***	27.12	5.32***
R-squared		0.05		0.269		0.228
N		602		705		708

Note. * $p < .10$, ** $p < .05$, *** $p < .01$; CSA-PI = Children's Savings Account Program Intervention

Table 5. Regression Models for the Aggregate Sample by Dependent Variable, CSA Saver (including students with no CSA)

	Model 1: DV = Total Absences		Model 2: DV = Reading scores		Model 3: DV = Math Scores	
	B	**SE**	**B**	**SE**	**B**	**SE**
Intercept	4.71	0.82***	464.81	6.84***	443.47	7.24***
CSA Saver	-0.59	0.49	12.2	4.16***	5.57	4.4
White	0.92	0.79	6.37	6.14	8.31	6.46
Paid Lunch	-1.54	0.43***	17.81	3.57***	19.9	3.77***
Special Ed. Student	1.01	0.55*	-55.67	4.52***	-45.35	4.82***
School: Manchester Intermediate	-	-	-2.31	7.78	4.95	8.25
School: Metro North Elementary	0.58	0.72	-12.42	6.6*	-9.45	6.99
School: OJ Neighbours Elementary	0.44	0.65	-14.7	5.96**	-11.24	6.29*
School: Sharp Creek Elementary	-0.05	0.93	-28.34	8.43***	-17.38	8.94*
School: Southwood Elementary	1.65	0.7**	-18.32	6.39***	-18.59	6.79**
Grade: 4th Grade	0.16	0.56	24.74	5.03***	26.63	5.31***
R-squared		.052		.275		.228
N		602		705		708

Note. * $p < .10$, ** $p < .05$, *** $p < .01$.

Free/Reduced Lunch Only Tables – Including all Children (With Account/Without Account)

Table 6. Regression Models for the Free/Reduced Lunch Only Sample by Dependent Variable

	Model 1: DV = Total Absences		Model 2: DV = Reading scores		Model 3: DV = Math Scores	
	B	**SE**	**B**	**SE**	**B**	**SE**
Intercept	3.9	1.31***	453.63	9.05***	435.04	9.43***
Having a CSA	0.63	0.7	8.94	4.78*	8.65	4.97*
White	1.14	1.19	-3	7.44	0.82	7.73
Special Ed. Student	1.55	0.84*	-54.52	5.67***	-42.51	5.96***
School: Manchester Intermediate	-	-	20.39	10.59*	18.74	11.02*
School: Metro North Elementary	0.99	1.26	8.85	9.66	7.98	10.09
School: OJ Neighbours Elementary	0.42	1.07	1.29	8.3	-1.52	8.61
School: Sharp Creek Elementary	-1.44	1.66	-4.16	12.64	-4.62	13.16
School: Southwood Elementary	1.39	1.22	3.97	9.37	-4	9.78
Grade: 4th Grade	0.67	0.9	22.24	6.83***	25.67	7.07***
R-squared		.033		.287		.229
N		296		363		364

Note. * $p < .10$, ** $p < .05$, *** $p < .01$; CSA-PI = Children's Savings Account Program Intervention

Table 7. Regression Models for Free/Reduced Lunch Only Sample by Dependent Variable, CSA Saver (including students with no CSA)

	Model 1: DV = Total Absences		Model 2: DV = Reading scores		Model 3: DV = Math Scores	
	B	**SE**	**B**	**SE**	**B**	**SE**
Intercept	4.22	1.27***	457.15	8.71***	439.49	9.12***
CSA Saver	-0.43	1	15.17	7.04**	0.05	7.27
White	1.32	1.19	-2.57	7.39	2.61	7.73
Special Ed. Student	1.57	0.84*	-55.78	5.68***	-43.01	5.99***
School: Manchester Intermediate	-	-	21.66	10.59**	18.73	11.07*
School: Metro North Elementary	0.9	1.26	8.47	9.63	6.66	10.11
School: OJ Neighbours Elementary	0.39	1.08	2.02	8.3	-1.82	8.65
School: Sharp Creek Elementary	-1.38	1.67	-7.91	12.67	-5.56	13.29
School: Southwood Elementary	1.26	1.22	2.72	9.29	-5.97	9.76
Grade: 4th Grade	0.57	0.89	20.67	6.79***	24.41	7.06***
R-squared		.031		.289		.223
N		296		363		364

Note. * $p < .10$, ** $p < .05$, *** $p < .01$.

Aggregate Tables - Excluding Students with No CSA

Table 8. Regression Models for the Aggregate Sample by Dependent Variable, Amount Contributed (excluding students with no CSA)

	Model 1: DV = Total Absences		Model 2: DV = Reading scores		Model 3: DV = Math Scores	
	B	**SE**	**B**	**SE**	**B**	**SE**
Intercept	5.72	1.34***	466.34	10.59***	449.34	11.43***
Total Amount Contributed	-0.10	0.06	2.08	0.58***	2.02	0.62***
White	0.91	1.31	-1.6	9.96	-3.01	10.74
Paid Lunch	-2	0.56***	16.49	4.63***	17.1	4.97***
Special Ed. Student	0.51	0.72	-46.53	5.98***	-39.97	6.52***
School: Manchester Intermediate	-	-	-0.98	10.15	5.01	10.94
School: Metro North Elementary	-0.12	0.93	-2.45	8.43	-0.04	9.08
School: OJ Neighbours Elementary	-0.58	0.81	-6.98	7.27	-0.7	7.82
School: Sharp Creek Elementary	-0.85	1.24	-20.91	11.14*	-10.54	12.01
Grade: 4th Grade	0.06	0.72	30.81	6.47***	28.72	6.94***
R-squared		0.07		0.269		0.215
N		339		394		397

Note. * $p < .10$, ** $p < .05$, *** $p < .01$.

Free/Reduced Lunch Only Tables - Excluding Students with No CSA

Table 9. Regression Models for the Free/Reduced Lunch Only Sample by Dependent Variable, Amount Contributed (excluding students with no CSA)

	Model 1: DV = Total Absences		Model 2: DV = Reading scores		Model 3: DV = Math Scores	
	B	**SE**	**B**	**SE**	**B**	**SE**
Intercept	3.76	1.95*	462.12	12.62***	450.46	13.07***
Total Amount Contributed	-0.70	1.22	21.43	8.86**	6.33	9.13
White	2.16	1.87	-10.51	11.43	-10.97	11.83
Special Ed. Student	1.35	1.16	-44.93	7.7***	-42.73	8.11***
School: Manchester Intermediate	-	-	24.87	13.87*	22.47	14.3
School: Metro North Elementary	1.57	1.63	10.58	12.11	12.09	12.62
School: OJ Neighbours Elementary	0.03	1.36	9.28	10.04	8.94	10.32
School: Sharp Creek Elementary	-1.62	2.36	-13.39	17.33	-8.27	17.9
School: Southwood Elementary	2.04	1.75	9.26	12.81	5.81	13.31
Grade: 4th Grade	0.57	1.25	20.45	9.27**	20.34	9.47**
R-squared		.041		.282		.224
N		161		197		199

Note. * $p < .10$, ** $p < .05$, *** $p < .01$.

Table 10. Summary of Findings

Aggregate Sample			
	Total Absences	**Reading scores**	**Math Scores**
Has CSA	--	--	--
CSA Saver	--	X	
Amount Contributed	--	X	X
Free/Reduced Lunch Only Sample			
	Total Absences	**Reading scores**	**Math Scores**
Has CSA	--	X	X
CSA Saver	--	X	--
Amount Contributed	--	X	--

Note. For Amount Contributed the sample consisted of children with a CSA only. X = statistically significant at p. < .10.