

*Trina R. Williams Shanks, Lewis Mandell, and
Deborah Adams*

Financial Education and Financial Access

Lessons Learned from Child Development Account Research

In the mid-1990s, a small group of academics and financial executives sat around a conference table trying to understand why, in a period of rapid economic growth, personal bankruptcies continued to escalate. Someone suggested that recent financial deregulation had engendered the proliferation of increasingly complex financial products, making it difficult for consumers to understand exactly what they were buying. This led to the hypothesis that the increase in consumer distress during good economic times probably resulted from consumers' lack of financial literacy.

From this meeting emerged the Jump\$tart Coalition, a group of academics, government officials, financial institutions, and NGOs with a shared interest in promoting financial literacy. Since several of us were educators, we naturally felt that the problem of financial illiteracy could be overcome through financial education. The most logical place to begin this type of education would be the high school, where students presumably were old enough to be concerned with this type of problem and also logistically reachable.

The consensus was that financial education, focused on older high school students, could solve the national problem of financial illiteracy in 10 years. We decid-

Trina R. Williams Shanks is Associate Professor in the School of Social Work at the University of Michigan.

Lewis Mandell is Emeritus Professor of Finance and Managerial Economics and Former Dean of Business at SUNY-Buffalo.

Deborah Adams is Associate Professor in the School of Social Welfare at the University of Kansas.

All authors are associated with Child and Youth Finance International, an Amsterdam-based NGO whose mission includes both financial education and access to financial services for young people throughout the world.

ed to document the magnitude of the current problem and monitor progress toward our goal through a national study of the financial literacy of high school seniors. We developed an age-appropriate test of financial literacy that had 31 questions and decided to administer it every other year for the 10 years we thought it would take to significantly reduce the problem of financial illiteracy.

During the 1997-1998 school year, we completed our first national survey of high school seniors and were not surprised to find that students answered only 57 percent of the questions correctly. Here is an example of the age-appropriate questions we used:

Kelly and Pete just had a baby. They received money as baby gifts and want to put it away for the baby's education. Which of the following tends to have the highest growth over periods of time as long as 18 years?

- a) A U.S. Govt. savings bond
- b) A savings account
- c) A checking account
- d) Stocks

Only 14.2 percent of students chose the correct answer—that stocks tend to have a higher growth rate than savings accounts, checking accounts, or savings bonds over periods as long as 18 years. In fact, there never has been an 18-year period over the past hundred years when this was not true.

Our dismal findings about the financial literacy of young American adults attracted a great deal of press coverage and resulted (as we had hoped) in promises from educators and politicians to do something about this problem. A number of school systems added courses in personal finance to their high school curriculum, and others that had been offering such a course considered expanding it and making it mandatory.

Unfortunately, successive biennial surveys did not show that we were making any progress and the problem did not go away.¹ Average financial literacy scores fell to 51.9 percent in the 2000 study; in 2008, the last year of the Jump\$tart surveys, average scores fell to 47.5 percent. Clearly we had not solved the problem in the allotted 10-year timeframe.

To make matters worse, we were not able to show that semester-long high school courses in personal finance or money management made students more financially literate. Beginning in 2000, we asked the students taking the Jump\$tart test whether they had taken such a course in high school. After conducting five national surveys, we found that students who took such a course (about 20 percent of all high school students) were no more financially literate than other students.

Other studies soon began to find similar results. Despite a growing body of evidence that we had not yet found a way to make high school finance courses effective, eager lawmakers and regulators mandated that the ineffective courses be taught in an increasing number of schools. By 2009, 15 states required personal finance to be offered by all high schools and 13 required students to take such a

course as a requirement for graduation. This was more than double the number of states with such mandates in 2004.

Why is this type of financial education so ineffective? It turned out that the material was just not sticking. Even though pre- and post-tests showed that students learned something in the course, tests administered some time after the course was completed showed that students retained little of what they had learned. In thinking through these unanticipated results, we began to ask ourselves how we could make such a course “stick.” We recognized that young teenagers would not need to deal with most financial decisions for many years and that a high school course in personal finance is not unlike a high school course in trigonometry, which most of us have taken but few remember because it is not reinforced and it doesn’t relate to problems we ordinarily encounter.

The quantitative portion of the ACT college aptitude test was an excellent predictor of financial literacy scores. It showed that numeracy, if not outright intelligence, matters most, which has been supported by other important studies.² A national study of college students carried out in 2008 showed that college-level courses in personal finance enhanced neither financial literacy nor demonstrable financial behavior.³ In fact, financial literacy scores appeared to be more closely related to the quantitative nature of a student’s major than to its relevance to personal finance. Students of science, social science, and engineering turned out to be the most financially literate, even though they were unlikely to have taken any finance or accounting courses. On average, financial literacy also increased monotonically with the number of years of college completed, and general education, experience, and maturity seem to matter far more than specific classes.

While those who attend college have significantly higher financial literacy scores than high school seniors, the percentage gain from attending college is much higher for African American and Hispanic American students than for White and Asian students. In 2008, high school seniors averaged a 48.3 percent score on the standard Jump\$tart test of financial literacy while college students averaged 62.2 percent, a gain of 28.8 percent. This gain was 33.9 percent for African American students and 32.6 percent for Hispanic American students. For White students the gain was just 20.6 percent. This indicates that a college education has intrinsic value beyond increasing income-enhancing human capital and may help to equip students to use their income more productively throughout life. College also appears to increase the financial literacy of women more than men. In 2008, male high school seniors did about 2 percent better on the financial literacy test than females, but among college students that same year, females did about 5 percent better than males.

If providing financial education in high school and college is not effective, is it possible to remedy the situation by educating (presumably more interested) adults in the workplace? Lusardi and the Kellers did find that workplace financial education can be useful if it is mandatory and focused on a single imminent decision.⁴ For example, new employees who must choose a 401k investment can benefit from need-based financial education on that specific subject at the time they make the

decision. Unfortunately, pre-need financial education delivered at the workplace tends not to attract those who need it most; in fact, it often attracts “fine-tuners”—well-educated employees who enjoy learning about finance but who least need to. The employees who most need financial education are often those who chose not to pursue higher education.

Studies of the completion rates of noncompulsory adult financial education programs found them to be dismal, even among the highly educated. An excellent online program on investments that I evaluated had a completion rate of only about 5 percent among the thousands of college graduates who signed up. No matter how interested they are at the start of a class and how well-equipped they are to learn the materials, few adults ultimately are willing to put in the work required. This, again, is not surprising when we see the low percentage of adults who complete self-directed online language courses, even after paying the fee up front. Recently, the completion rate of those signing up for free Massive Online Open Courses, which are taught by some of the world’s leading professors, has averaged less than 7 percent.⁵

Thus, it is not surprising to learn that financial literacy and beneficial financial behavior among people of all ages are most strongly related to numeracy, level of education, motivation, and self-control. These are factors that also tend to be positively related to career success and the concomitant generation of higher levels of income and wealth. Financial education that is successful tends to be among people who understand well why it is important to them and to their future. Those who own assets have “skin in the game,” which makes financial education less theoretical.

If effective financial education disproportionately benefits the “haves,” we must question its social value in a period of increasingly unequal distribution of financial resources, since living standards are a function of having financial resources and the ability to use them most effectively. Should we be using scarce educational resources to further enhance the living standards of those who are already well off? I think not: financial education is worthy of social support only if it achieves worthy social goals, but we have not yet learned how to deliver it to those who need it most.

As studies have revealed the lack of effectiveness of high school financial education courses, some have suggested providing them to younger students, who may have unformed ideas about the value of savings and may not yet have developed habits of consumption and immediate gratification.⁶ Patterns of behavior tend to be formed early in life, including punctuality, reliability, and even financial responsibility. My own studies of pre-high school students show some support for these theories. Interventions designed to show why saving money is practical have changed attitudes toward spending much more dramatically among younger students.⁷ An experiment that rewarded students for not spending money given to them for a period of time showed that a thrift-oriented educational intervention appeared to affect behavior in the right direction.⁸

There is now some movement toward incorporating financial education into

the school curriculum at all levels. Standards have been created, based partly on young children's ability to understand certain concepts and partly on the real-life relevance of financial subjects taught to students at various ages. While certainly laudable, there are practical problems with this approach, including the cost of developing teaching materials for all grade levels and in many subject areas, and the cost of training (and persuading) teachers to use them effectively. An oft-cited suggestion is to use finance examples in math when teaching fractions, decimals, compounding, and even algebra. While this will probably do no harm, it remains to be seen how effective and enduring this will be, if it can be brought to scale.

Another approach that holds promise for young students from less affluent families is to enable them to own assets, which would make financial education more personal and less theoretical. Instead of "Johnnie has \$25 in the bank which earns 2 percent interest," teachers can work on examples showing the growth of the students' own funds. Moreover, rather than talking about the theoretical relationship between higher education and income, the teacher can focus on how the growth of students' savings will make it possible for them to attend college.

Recent research has shown that children from low- and moderate-income families who had school savings were at least three times more likely than those without such savings to be on course to attend and complete college.⁹ A Federal Reserve study of the impact of financial education on members of the military, which found that it resulted in limited behavioral changes, also found that many soldiers benefited from having had a high school savings account, including increased likelihood of shopping for major purchases, a lower propensity to pay overdraft fees, and a lower likelihood of never paying off their credit card balances.¹⁰

There are several ways for children to own assets. The most basic involves having a secure place to store the students' savings. In some developing countries, for example, a safe in the school principal's office is used, and the teacher keeps a ledger book of deposits. Children also may have an account in the formal banking sector or, to take it a step further, a government program or charitable entity may "seed" student accounts with money and/or may match funds the students save on their own (see next section).

Based on what we've learned so far, it is fair to suggest that any large-scale policy that addresses children's financial literacy/capability should be grounded in empirically tested intervention models. As the next section will show, this work is worthwhile but not easy to do.

COMMUNITY-BASED PROGRAMS IN THE SEED INITIATIVE

One innovative strategy for making financial education need-based for children and youth is Child Development Accounts (CDAs), an asset-building approach originally introduced by Michael Sherraden and researched by a growing number of scholars since that time.¹¹ With CDAs, rather than teaching financial education material before they need it to students who may not be motivated to learn the

concepts, motivation is built simultaneously with assets. When CDAs are opened for children early in life, young people grow up knowing that there is money being set aside for them. There will be a natural interest in understanding and managing one's own financial resources.

CDAs provide children and youth (in some programs up to age 24) with a safe way to save money for the future, including for postsecondary education and training. CDAs also may help children and their parents learn how to create and use a budget and develop strategies for freeing up money to save for desired goals.

Financial education is also thought to become more effective with CDAs, perhaps because financial knowledge becomes more salient with asset ownership.¹² For example, for those who have an account, compound interest is no longer an abstract financial idea but the mechanism through which the child can build savings to help pay for postsecondary education or some other future goal. Having access to a real financial product makes any learning associated with the account experiential and, therefore, personally relevant.

CDAs have been implemented in countries throughout the world in the last two decades.¹³ They have been offered to diverse groups of children and youth starting as early as at birth. Many CDAs are school based but they also are offered to out-of-school children and youth. The CDAs studied most extensively to date are those opened in the U.S. through an initiative called Saving for Education, Entrepreneurship, and Downpayment (SEED). The remainder of this article discusses SEED and findings from selected SEED studies.

WHAT IS THE SEED INITIATIVE?

SEED is a demonstration to test various approaches to implementing CDAs in the U.S. that involves 12 community-based organizations and one state.¹⁴ The community-based organizations in SEED were part of a national initiative that had practice, policy, and research components; a state SEED initiative is underway in Oklahoma at this writing.¹⁵ Funded by a consortium of foundations, the community-based component of the SEED initiative offered CDAs to targeted groups of children and youth of diverse age, race, ethnicity, and region of origin. They were typically provided with an initial deposit and then given matching dollars for subsequent savings. Table 1 presents the location of community-based SEED programs, the number of children and youth with CDAs at each program, and their ages/school grades.

WHAT ARE CHILD DEVELOPMENT ACCOUNTS?

CDAs are savings or investment accounts designed to help children reach their future developmental goals. The accounts can be opened as early as at birth, and are a safe and productive financial tool for children, youth, and parents to accumulate assets to help pay for postsecondary education or training, a first home, or a business enterprise. Many CDAs are opened with an initial deposit from a public

State	City	Urban-Rural	Grade Level / Age Group	Number of Participants	
Arkansas	Helena/West Helena	Rural	Pre-School	75	
Michigan	Pontiac	Urban-Suburban	Pre-School	495*	
New York	New York	Urban	Pre- and Primary School	75	Age Group Sub-Total 645
Missouri	St. Louis	Urban-Suburban	Kindergarten; First Grade	73	
Illinois	Chicago	Urban	Primary School	82	
Puerto Rico	Vega Baja	Rural	Primary School	81	
Texas	Austin	Urban	Primary School	67	Age Group Sub-Total 303
Delaware	Wilmington	Urban-Suburban	6 th -8 th Grades	71	
Pennsylvania	Philadelphia	Urban	6 th -8 th Grades	75	Age Group Sub-Total 146
California	San Francisco	Urban	Secondary School (14-18)	81	
Colorado	Denver	Urban	Secondary School (14-23)	75	
Oklahoma	Tahlequah	Rural	Secondary School	74	Age Group Sub-Total 230
*Michigan SEED Pre-School Demonstration and Impact Assessment					TOTAL 1,324

Table 1. Community-based Children’s Development Account Programs in the SEED Initiative

and/or private entity. Once established, children, parents, and others are encouraged to make deposits to the account; these deposits are matched by private and/or public funds.

To date, two approaches to CDAs are being studied: (1) the universal progressive CDA in concert with state and national government entities in the U.S. and other countries; and (2) the targeted CDA administered by community-based organizations (i.e., NGOs) in partnership with a financial services provider. In this article, we focus solely on CDAs that were established for low- to moderate-income

Age Group	Study Method	Authors	Key Findings
Pre-School	Descriptive Analysis	Adams & Beverly (2013)	At baseline, low-income parents of pre-school children lacked financial knowledge, but very few attended financial education. Most wanted to save, but financial practices fell short of desired outcomes. Most were only modestly integrated into financial mainstream, meaning that CDAs represented the first real access to a means to accumulate assets for future developmental uses.
	Quasi-Experimental	Marks, et al. (2009)	Few differences between CDA and comparison groups four years after program start. However, parents with pre-school children who had CDAs attached more importance to a college education. Despite financial circumstances, few parents withdrew funds from their children's SEED accounts which were for post-secondary education and training. (See, also, findings reported in this article about asset outcomes from a related study.)
	Qualitative Methods	Shanks Williams, et al. (2009)	Most non-enrollees had heard about SEED and understood the basic details of the program, but did not enroll for a variety of reasons. Many reasons had to do with perceived complexity of signing up for program and opening CDAs in the form of 529s.
Kindergarten/ First Grade	Mixed Methods	Sherraden, M. S., et al. (2007)	This study in a public primary school provided CDAs for college savings to young children. School administrative staff, teachers, children, and parents responded positively to the program. Saving patterns indicated that families can save, but structures that facilitate regular saving and increase saving rates would likely help. Financial education was successful through an after-school club, but incorporating it into the classroom was challenging.

Table 2a. Selected studies at community-based CDA programs in the SEED Initiative

children and youth by community-based organizations that were part of the SEED initiative.¹⁶

THE RESEARCH

What research was conducted on CDAs offered by community-based programs in the SEED initiative?

The research described here involved multiple methods applied over a number of years with children, youth, and parents at community-based SEED programs across the country. The research design was developed by researchers at the Center

Age Group	Study Method	Authors	Key Findings
Primary School	Concept Mapping	Johnson, Adams & Kim (2010)	Low-income parents with young children who have CDAs can readily identify effective institutional as well as interpersonal aspects of asset-building programs. About two-thirds of statements from parents regarding effective CDAs focused on institutional mechanisms that may enhance the ability of low-income families to build assets for their children.
	Focus Groups	Wheeler-Brooks (2011)	SEED parents rely on program staff, and appreciate the help. This is mostly positive, but may have the unintended impact of participants feeling more comfortable making deposits via CDA staff than at the bank. Parents who use direct deposit to make CDA deposits were happy with this asset building strategy, but most parents did not use direct deposit and some had inaccurate information about such arrangements. Many parents reported struggling to find money to deposit, and said the matching funds were important. Institutional structures such as accounts that are not easy to access and electronic deposits and transfers, and commitments to save a certain amount each month helped.
Secondary School	In-Depth Interviews	Scanlon & Adams (2009)	Perceived positive effects on fiscal prudence, future orientation, sense of security, financial knowledge. Perceived positive effect on self-image for savers, but negative effect on self-image for non-savers. Little perceived effect on familial relationships or community involvement.
	In-Depth Interviews	Scanlon, Buford & Dawn (2009)	Findings suggest the importance of trusted NGOs with strong ties to the targeted group for administering community-based CDAs, teaching youth to make deposits in different ways (i.e. in person and direct deposit), delivering financial education that is relevant, dynamic and compelling for youth.

Table 2b. Selected studies at community-based CDA programs in the SEED Initiative (continued)

for Social Development and the University of Kansas, and each method used in SEED had a distinct purpose. The methods we used in studying the community-based SEED programs included account monitoring, a quasi-experiment at a pre-school program, in-depth interviews with youth and the parents of young children, and a process study conducted in concert with parent focus groups. We detail selected SEED studies below, and summarize key findings in Tables 2a and 2b.

What do we know from SEED research about CDAs across age groups?

Two studies, an overall process study and an account monitoring study, were conducted at SEED programs across the country, without regard to the ages of the children and youth who opened CDAs. The process study findings from interviews with NGO administrators and SEED program staff members, and from focus groups involving parents of children who had CDAs, included the fact that SEED staff members spent much more time and effort than expected to enroll children, youth, and parents into the programs. Almost all of the SEED programs found it necessary to expand their target groups in order to reach full enrollment.¹⁷

Relationships between community-based organizations and financial services partners were helpful in implementing CDAs, and most SEED programs developed effective relationships with banking partners. However, some programs faced a number of unexpected banking issues that required extensive communication between program staff and their banking partners, and staff members reported having to train bank personnel about CDAs, especially when there was frequent turnover.

As in any organization, some SEED staff members were better equipped to carry out their complex roles than others. The researchers called those who felt particularly competent in their SEED positions “charismatic outreach workers.”¹⁸ They were able to effectively explain details about program operations to participants and parents while building rapport and trust with the target population.

Focus groups were conducted with SEED parents from a number of community-based programs in concert with the process study. The parents’ comments led us to understand that the responsibility for CDA outreach and enrollment is probably best assigned to well-established and trusted community groups and organizations. Parents who participated in the focus groups did not express much enthusiasm for the financial education classes they were offered by SEED.

While there was a pervasive sense that CDAs represented a “good deal” that parents wanted to take advantage of, many of them were frustrated that they had not been able to maximize the amount in their children’s SEED accounts. Focus group parents who did report having saved successfully said that three institutional factors about CDAs were central to their success—direct deposit, matching funds, and restricted access to their children’s accounts.

The account monitoring SEED study involved all age groups and included demographic information from 10 community-based SEED programs across the U.S. and in Puerto Rico.¹⁹ SEED participants are primarily children and youth of color from low-income families, who self-selected to participate in the program. Each program had its own target population, incentive structure, and organizational context—variation deliberately built into the overall SEED initiative, which made it possible to approximate what could be achieved under diverse circumstances from a child’s infancy to young adulthood.

The youth participants ranged in age from one to twenty-three, with a median of five. About 40 percent of participants' caregivers were married, a quarter had some postsecondary degree or credential, and 64 percent were employed. About half the participants' families had gross incomes below the federal poverty guidelines, and 48 percent received some form of government assistance. Almost three-fourths of the families had a checking or savings account, or both, and almost 40 percent owned their own homes.

As of December 31, 2007, the 1,171 participants had accumulated almost \$1.8 million, with an average savings of \$1,518 (median of \$1,093) per participant. It is important to note, however, that the initial deposit provided by the SEED program represented about half of each participant's total. The average quarterly net savings contributed by the participant or caregiver was \$30. About 57 percent of participants had positive net contributions to their accounts, that is, deposits other than the initial deposit and benchmarks deposited directly by programs. For participants who did deposit private savings, mean net contributions per quarter was \$43.

The SEED guidelines for the three programs with older participants permitted matched withdrawals, which allowed youth to access their funds for approved purposes, such as postsecondary education, vehicles, computers, housing, and medical expenses. Fifty-six participants made matched withdrawals totaling \$128,195, with an average of \$2,289 per participant (median of \$1,683)

Seven percent of participants made unmatched withdrawals—a small number, given the economic situation of the participant households. In fact, 42 percent of the participants had direct ability to withdraw from their accounts, as the caregiver was the sole account custodian, but this happened infrequently.

Findings from selected SEED studies on CDAs for preschool children

At the start of the SEED initiative, the researchers developed a data-based profile of the financial knowledge, attitudes, and ownership patterns of low-income parents of preschool children in an economically distressed community.²⁰ Their findings included the following:

Low-income parents of preschool children lacked financial knowledge, yet few attended the free financial education classes offered by the sponsoring agency.

Only 7 percent of parents could roughly estimate the cost of annual tuition at the local community college. The vast majority overestimated the cost, usually significantly so.

Most parents reported financial behaviors that were at odds with their own beliefs and values about saving and accumulating assets. For example, 40 percent of parents reported a money-management time horizon of only one month, and almost two-thirds said they did not have a written household budget.

Most of the parents wanted to save, but their financial practices fell short of the desired outcomes.

- While nearly three-fourths of the parents had a bank account, few had any investment products such as retirement accounts, stocks, bonds, or certificates of deposit.
- CDAs represented the parents' first real opportunity to accumulate assets for their children's future development, as most were only modestly integrated into the financial mainstream.

These findings suggest the need for both financial education and access to financial products and services that are structured and incentivized to be truly inclusive of the low-income parents of preschool children. The researchers note that this approach would be consistent with emerging theory on financial capability, which is thought to require both financial knowledge and access to financial services.

Part of the research on CDAs for preschool families included a quasi-experimental design that was conducted at the largest of the community-based SEED programs. Sixty-two percent of the parents in the treatment group who completed a baseline survey took the opportunity to open a CDA, with an initial deposit from the program for their preschool-age children.²¹ Approximately 31 percent of the CDAs opened by parents who consented to participate in account monitoring research received additional deposits from parents or others on behalf of the children within the first four years of the program.²² The CDAs of this SEED program were established as state 529 plans, special tax-favored investment accounts for higher education.

A research survey conducted at this large preschool program revealed that SEED had a positive impact on the importance parents attached to a college education.²³ However, CDAs otherwise had little impact on the social and psychological outcomes of interest. Furthermore, a substantial percentage of account holders did not deposit any funds of their own. In contrast, the program did have a small percentage of high savers, who tended to be White, have a higher level of education, have higher incomes, and be banked.

There is one additional noteworthy finding. SEED CDAs established for the preschool children had initial deposits of \$800 from the program that were available to parents, yet relatively few families made withdrawals, despite the difficult financial circumstances they faced and the length of time before their preschool children would be needing the accounts to pay for postsecondary education or training. This indicates that the families valued the opportunity to save for their child's education and resisted the temptation to dip into this account, honoring the commitment to restrict these resources.

About one-third of the parents of preschool children who were offered these CDAs did not enroll their children in the matched savings program, which gave researchers the chance to conduct a qualitative study of the parents of preschool children who choose not to open CDAs in the form of college savings accounts (529s).²⁴ They learned that most non-enrollees recalled hearing about SEED and

even understood the basic details of the program. The parents gave a number of reasons for not opening a college savings account:

- It was unfair to offer an account to just one child among many
- They did not have enough money to make deposits
- They mistrusted banks
- They thought the program sounded “too easy” and that there must be “a catch”
- They were concerned that there was too much red tape
- They could not open an account due to their legal status

These findings provide insights to help make the next generation of CDA programs better.

Findings from selected SEED studies on CDAs for primary school children

Margaret Sherraden and her colleagues studied a college savings program for kindergarten and first-grade students in a public elementary school.²⁵ As in the SEED initiative, this program was premised on the notion that children with CDAs gain financial knowledge because they are accumulating savings in a bank account. Another premise was that these children would be more likely than others to view college as a realistic goal because they were saving to help pay for their education or training after high school.

One key finding from this study was that having institutional structures that facilitate saving would likely improve the regularity of deposits and increase overall savings. For example, the children in this CDA program earned a small amount of money for attending the afterschool I Can Save club and visited the bank regularly to make deposits as part of the club experience. Many children interviewed talked about the dollars they earned by attending the club meetings, visiting the bank, and making deposits into their accounts.

Chicago SEED: Concept Mapping

The second approach to CDAs for primary school children involves those conducted in low-income urban communities.²⁶ One study used participatory concept mapping methods to explore the perspectives of parents whose young children had state 529 college savings accounts. Two main questions guided this study: What do parents perceive to be the most effective components of a CDA college savings program for children? How important is each of these components in this type of CDA program?

The parents worked together to identify the effective components, first sorting them into groups that reflected their perspectives on which were related to others and then rating the importance of each component. The findings suggest that parents value CDA components that demonstrate respect for parents and those that enhance accountability, which is an effective and important element of college savings programs for young children.

While study participants felt that the respect program staff members showed them was most important in promoting saving, about two-thirds of the compo-

nents parents considered effective were institutional rather than interpersonal. These features reflected institutional notions of access, information, and security, and included bank statements that are accurate, contain information about earned interest, and showed them how their money was growing.

Another SEED study of CDA programs for primary school students involved 14 focus groups with the parents of young children from seven SEED programs.²⁷ The study found that

- SEED staff members were generally popular and influential with the parents. In fact, they were sometimes so helpful that they even made deposits for parents. This created complications for the parents and the program's goals, since many parents felt more comfortable making deposits through the SEED program than by going to the bank themselves.
- Parents who used direct deposit to add to their child's CDA had a positive perspective on this institutional mechanism; most parents did not use, and some did not have accurate information on, electronic deposit.
- Parents reported that finding money to deposit into their CDAs was a challenge and spoke of the importance of matching funds.
- Institutional structures were reported to help parents make difficult choices, such as committing to deposit a certain amount of money each month to a child's CDA. The researcher concluded by suggesting that the institutional features of CDAs may need to be expanded to provide additional help for very low-income children and their parents.

What do we know from SEED research about CDAs for secondary school children and young adults?

A study of high school-age students with CDAs found that participants perceived positive effects of SEED on their fiscal prudence, future orientation, sense of security, and financial knowledge.²⁸

In-depth interviews with the youth suggested that SEED had a positive impact on the self-image of those who were able to save but a negative effect on those who were not able to meet their savings goals. We found little evidence that the youth perceived any changes in their familial relationships or community involvement as a result of having a CDA.

Another study analyzed data on high school students who had CDAs to determine the participants' perspectives on SEED program components.²⁹ Findings indicate that the students perceived their SEED program to be trustworthy, and they were comfortable with the agency's primary services (employment) and secondary services (matched savings); they found the CDA match structure to be very positive; and they felt a great deal of excitement about being able to save for the future. These findings suggest that secondary school students and older youth are a population primed for saving in CDAs when such opportunities are offered by trusted agencies with strong ties to students' communities, especially if the CDA is offered in concert with employment or other income-generating programs.

Finally, the study participants often viewed both online and in-person financial education programs somewhat negatively, reporting that they were “boring” and the content “repetitive.” It appears that assessing students’ individual baseline financial knowledge and shaping financial education to include the most useful content would be helpful.

CONCLUDING THOUGHTS

Offering children accounts, particularly with an initial deposit or a saving incentive, may not always be feasible. However, helping young people develop positive financial behaviors and obtain relevant financial information to prevent them from making costly mistakes can help to develop productive citizens who contribute to a stable economy. If the overall goal is to encourage savings and good financial practices early in life and to establish a foundation for lifelong asset building, offering CDAs or other relevant financial products may be more effective than financial education alone. Having a real account or the opportunity to practice financial strategies may make it easier for students to retain knowledge gained from financial education.

There is still more to learn about designing and offering accounts in the most effective way, especially to reach disadvantaged children and youth. Designing information and incentives that target these young people’s stage in life and their relevant short-term goals may well be an investment that will have positive social and economic returns for years to come.

-
1. Lewis Mandell, “Teaching Young Dogs Old Tricks: The Effectiveness of Financial Literacy Intervention in Pre-High School Grades,” in *Financial Literacy for Children and Youth*, ed. Thomas A. Lucey and Kathleen S. Cooter. Digitalextextbooks.biz, 2008.
 2. Annamaria Lusardi and Olivia Mitchell, *Financial Literacy and Planning: Implications for Retirement Wellbeing*, Pension Research Council, working paper no. 1, Wharton School, Philadelphia, 2006.
 3. Lewis Mandell, *The Financial Literacy of Young American Adults: Results of the 2008 National Jumpstart Coalition Survey of High School Seniors and College Students*. Washington, DC: Jumpstart Coalition, 2008.
 4. Annamaria Lusardi, Punam Anand Keller, and Adam M. Keller, “New Ways to Make People Save: A Social Marketing Approach,” in *Overcoming the Saving Slump: How to Increase the Effectiveness of Financial Education and Saving Programs*, ed. Annamaria Lusardi. Chicago: University of Chicago Press, 2009.
 5. Chris Parr, “Not Staying the Course,” *Times Higher Education*, May 10, 2013. Available at <http://www.insidehighered.com/news/2013/05/10/new-study-low-mooc-completion-rates#ixzz2XRHoliFP>.
 6. Holden, K., Kalish, C. Scheinholz, L., Dietrich, D. and Novak, B. *Financial Literacy Programs Targeted on Pre-school Children: Development and Evaluation*. Madison, Wisconsin: University of Wisconsin Working Paper, 2009.
 7. Mandell, “Teaching Young Dogs Old Tricks.”
 8. Lewis Mandell, “The Impact of Mad About Money on the Savings Knowledge, Attitudes and Behavior of Pre-High School Students,” State University of New York at Buffalo Working Paper, 2009.
 9. William Elliot, Monique Constance-Huggins, and Hyun-a Song, “Improving College Progress

- among Low- to Moderate-Income (LMI) Young Adults: The Role of Assets,” *Journal of Family and Economic Issues*: 1-18, 2012.
10. Catherine Bell, Daniel Gorin, and Jeanne M. Hogarth, “Does Financial Education Affect Soldiers’ Financial Behaviors?” paper presented at the Federal Reserve Community Affairs Research Conference, Washington, DC, April 16-17, 2009.
 11. Michael Sherraden, “Rethinking Social Welfare: Toward Assets,” *Social Policy* 18, no. 3, 1988: 37-43; Michael Sherraden, *Assets and the Poor: A New American Welfare Policy*. New York: M. E. Sharpe, 1991.
 12. Sherraden, *Assets and the Poor*.
 13. Child and Youth Finance International (CYFI), *Children and Youth as Economic Citizens: Review of Research on Financial Capability, Financial Inclusion, and Financial Education*, research working group report, Amsterdam, 2012a; *Children and Youth as Economic Citizens: Review of Research on Financial Capability, Financial Inclusion, and Financial Education—Companion Report to the Review of Research*, research working group report, Amsterdam, 2012b; Trina R. Williams Shanks, Youngmi Kim, Vernon Loke, and Mesmin Destin, “Assets and Child Well-Being in Developed Countries,” *Children & Youth Services Review* 32 (2010): 1488-1496; Vernon Loke and Reid Cramer, *Singapore’s Central Provident Fund: A National Policy of Life-Long Asset Accounts*. Washington, DC: New American Foundation, 2009; Vernon Loke and Michael Sherraden, “Building Assets from Birth: A Global Comparison of Child Development Account Policies,” working paper no. 08-03, Center for Social Development, Washington University, St. Louis, 2008.
 14. Michael Sherraden and Julia Stevens, *Lessons from SEED: A National Demonstration of Child Development Accounts*. St. Louis: Washington University, Center for Social Development, 2010.
 15. Robert Zager et al., “The SEED for Oklahoma Kids Experiment: Initial Account Opening and Savings,” research report no. 10-14, Washington University, Center for Social Development, St. Louis, 2010.
 16. For more information on universal CDAs, including current policy overviews and early program outcomes from an ongoing experimental design in the United States, see Terry Lassar, Margaret Clancy, and Sarah McClure, “College Savings Match Programs: Design and Policy,” policy report no. 11-28, Washington University, Center for Social Development, St. Louis, 2011; Sondra Beverly et al., “Socioeconomic Status and Early Savings Outcomes: Evidence From a Statewide Child Development Account Experiment,” working paper no. 12-30, Washington University, Center for Social Development, St. Louis, 2012.
 17. Ellen L. Marks, Bryan B. Rhodes, Jennifer Wheeler-Brooks, and Deborah Adams, *A Process Study of the SEED Community Partners Initiative*. Durham, NC: Research Triangle Park, 2009.
 18. Marks et al., *A Process Study of the SEED Community Partners Initiative*, 3-8.
 19. Lisa Reyes Mason, Yunju Nam, Margaret Clancy, Vernon Loke, and Youngmi Kim, *SEED Account Monitoring Research: Participants, Savings, and Accumulation*. St. Louis: Washington University, Center for Social Development, 2009.
 20. Deborah D. Adams and Sondra G. Beverly, “Low-Income Parents of Pre-School Children: Financial Knowledge, Attitudes, and Ownership,” in *Financial Capability and Asset Development: Research, Education, Policy, and Practice*, ed. Julie Birkenmaier, Margaret Sherraden, and Jami Curley. Oxford, England: Oxford University Press, 2013, 108.
 21. Deborah Adams, *SEED Pre-School Demonstration and Impact Assessment*, SEED research brief, University of Kansas School of Social Welfare, Lawrence, 2008.
 22. Vernon Loke, Margaret Clancy, and Robert Zager, “Account Monitoring Research at Michigan SEED,” research report no. 09-62, Washington University, Center for Social Development, St. Louis, 2009.
 23. Lisa Reyes Mason, Bryan B. Rhodes, Gary V. Engelhardt, Scott Scheffler, and Ina F. Wallace, *Building Assets: An Impact Evaluation of the MI SEED Children’s Savings Program*. Durham, NC: Research Triangle Park, 2009.
 24. Trina R. Williams Shanks, Toni Johnson, and Kerri Nicoll, *Helping People Act on Their Hopes Rather Than Their Fears: Lessons From Non-Enrollees in the SEED Initiative*, SEED research

Financial Education and Financial Access

- report, University of Kansas, Lawrence, 2008.
25. Margaret Sherraden, Lissa Johnson, William Elliott, Shirley Porterfield, and William Rainford, "School-Based Savings Accounts for College: The 'I Can Save' Program," *Children and Youth Services Review* 29,2007: 294-312.
 26. Toni Johnson, Deborah Adams, and Johnny S. Kim, "Mapping the Perspectives of Low-Income Parents in a Children's College Savings Account Program," *Children and Youth Services Review*, 32 , 2010.
 27. J. Wheeler Brooks, "How Parents Decide to Participate and Save in Their Children's Asset-Building Accounts: Implications for Practice, Policy, and Theory," *Children and Youth Services Review*, 33, 2011: 955-962.
 28. Edward Scanlon and Deborah Adams, "Do Assets Affect Well-Being? Perceptions of Youth in a Matched Savings Program," *Journal of Social Science Research* 35 (2009): 33-46.
 29. Edward Scanlon, Andrea Buford, and Kenneth Dawn, "Matched Savings Accounts: A Study of Youths' Perceptions of Program and Account Design," *Children and Youth Services Review* 31, 2009: 680-687.