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MI-SEED Investment Funds and Account Growth: Implications for Achieving Higher Rates of Return in CDA Programs

By Trina R. Shanks and Patrick Meehan

In 2004, the Michigan Saving for Education, Entrepreneurship and Down Payment initiative (MI-SEED) recruited 430 families through 14 Head Start centers, enrolling 497 children in Child Development Accounts (CDAs). Designed to begin to address wealth disparities between low- and high-income families, CDA programs like MI-SEED can take many forms, from savings accounts to investment instruments like the 529 college savings account. For MI-SEED, the CDAs were held in the state 529 college savings plan, which allowed participants to accumulate savings that could be used toward a child beneficiary's postsecondary education. Accounts were seeded with an initial $800 deposit, and MI-SEED matched deposits made between 2004 and 2008 at a 1-to-1 rate up to $1,200. Additionally, Michigan offered a 1-to-4 match (up to $200) on deposits by income-eligible households that opened 529 accounts. A total of 497 accounts were opened by participants, and 485 of these were eligible for the additional 1-to-4 state match. Consequently, in 2004, 97% of MI-SEED accounts had an initial balance of $1,000. In the years that followed, two factors determined the growth of these accounts: deposits and investment strategy.

In this brief, we consider the growth of MI-SEED accounts from 2004 through 2019, paying particular attention to the investment funds chosen by the account holders. Unlike a traditional savings account, the 529 college savings account is an investment instrument. As such, the growth of the account's assets depends in part on how aggressively account holders choose to be positioned in the stock market, if at all. We will see that the asset growth in MI-SEED accounts depended on the investment fund chosen for the account's assets. We will also see that deposit behavior varied according to investment fund. Ultimately, account growth impacted the amount available for postsecondary education expenses.

The 529 Investment Instrument

In 1996, Congress amended Section 529 of the Internal Revenue Code, allowing individuals to accumulate tax-exempt savings to pay for rapidly increasing college tuition (Small Business Job Protection Act, 1996). Each state and the District of Columbia partners with financial institutions, such as TIAA and Vanguard, to offer a limited selection of investment choices in 529 accounts.

Account holders select investment funds when they open 529 accounts. Ideally, risk tolerance and time horizon shape this choice (see Clancy, Sherraden, & Beverly, 2015; and Clancy & Beverly, 2017). For example, over 18 years—the approximate time horizon for a 529 account opened at birth—the stock market has never ended lower (Capital Group, n.d.). However, shorter time horizons leave account holders at greater risk of losing money should they choose investment strategies heavily weighted toward stocks. It should be noted that, for investment instruments like 529 accounts, losses are only realized when an individual makes a withdrawal. Some states restrict withdrawals until beneficiaries reach 18 years of age, which further limits the account holder's risk of loss (Clancy et al., 2019a).

Downward turns in the stock market, though, are not the only way account holders can lose money. Investment strategies that are too conservative risk losing real value due to inflation. Moreover, the cost of attending college has greatly outpaced the rate of inflation over the last three decades (National Center for Education Statistics, n.d.;

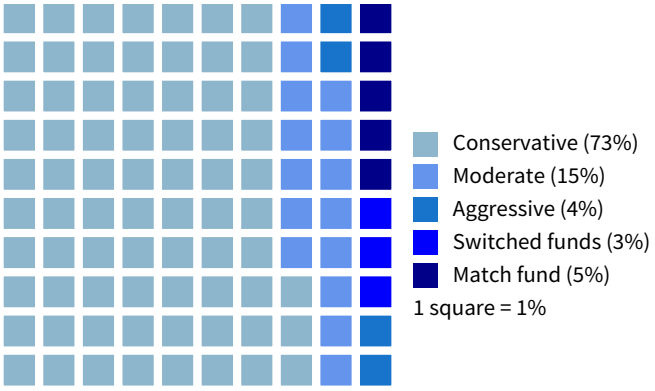


Figure 1
MI-SEED Investment Funds (N = 497)

Sackstein, 2019). Account holders will want to assume some risk so that their 529 accounts can grow faster than inflation and in line with increases in college tuition.

Consistent deposits are key to maintaining growth above the rate of inflation. Over time, regular deposits will create compound interest such that earnings will grow exponentially as the account's beneficiary approaches the age of postsecondary enrollment.

MI-SEED 529 Accounts

MI-SEED participants owned the 529 accounts they opened under the program.[1] This feature distinguished MI-SEED from other CDA programs in which the state or program sponsor maintains ownership of the accounts. For example, the State of Oklahoma owned accounts opened through the SEED for Oklahoma Kids experiment and chose a default age-based investment fund for participants (Beverly, Clancy, Huang, & Sherraden, 2015; Clancy, Beverly, Sherraden, & Huang, 2016). This arrangement prevents participants from making early withdrawals. Moreover, if the state owns the accounts, the balances do not count as assets for participants. This can help maintain eligibility for safety net programs that impose asset limits.

MI-SEED functioned differently (Blumenthal & Shanks, 2019; Williams Shanks et al., 2014). Participants opened 529 accounts through the Michigan Education Savings Program (MESP). Then as now, TIAA managed these accounts. MESP offered account holders a wide variety of investment funds with varied levels of risk, from conservative to aggressive. Among MI-SEED participants, the most commonly chosen of the conservative investment funds was the Principal Plus Interest option. This fund guaranteed participants a return. For the life of the fund, the annual return rate could never fall below 1%.

In addition, MESP offered age-based funds that automatically rebalanced, with the investments becoming increasingly conservative as beneficiaries approached 18 years of age. Rated as moderate or aggressive based on the percentage of stocks, the funds exposed participants to greater risk than the Principal Plus Interest Option but also greater potential return.

For comparison purposes, all of the MESP investment options available to MI-SEED participants have been grouped into conservative, moderate, and aggressive categories. Figure 1 shows the distribution of investment strategies chosen by MI-SEED account holders.

Low-income investors tend to pick conservative investment strategies (Cohn, Lewellen, Lease, & Schlarbaum, 1975; Rahmawati, Kumar, Kambuaya, Jamil, & Muneer, 2015), and MI-SEED participants were no exception. The vast majority of participants chose a conservative investment fund, while less than one fifth of participants chose moderate or aggressive funds. A small percentage of participants switched investment funds between 2004 and 2019. Finally, we had data on the match accounts for 5% of participants but not on their own 529 accounts. These match accounts were not invested in any specific type of fund.[2]

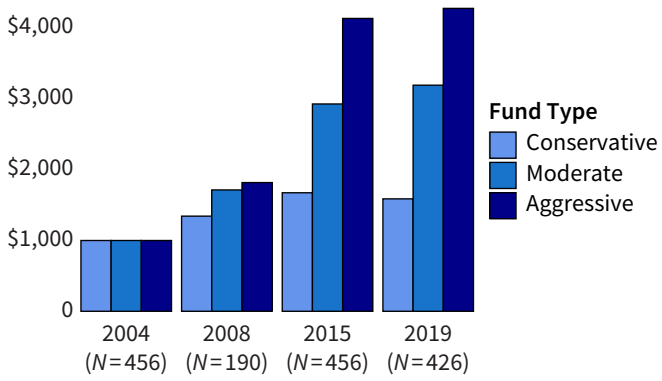
Account Growth

Growth in MI-SEED accounts varied greatly depending on the amount of deposits and the chosen investment strategy. Accounts invested in a conservative fund, for example, grew at a much slower pace than did accounts invested in a moderate or aggressive fund. By the end of 2008, after 4 years of growth, the average balance in a conservative account was $1,344 (Figure 2). This figure was $1,674 in 2015 and $1,588 in 2019, as participants began to withdraw from their accounts. After 15 years, the average balance in a conservative account had grown $588, or 3.9% each year. For aggressive accounts, the balances looked very different. The average balance was $1,818 in 2008, $4,136 in 2015, and $4,278 in 2019. The figures also indicate that withdrawals did not affect the average balance of these accounts. This represents $3,278 growth over 15 years, or 21.8% each year.

Importantly, the rate of growth in conservative accounts was above that of inflation. This means that, over 15 years,

Figure 2
MI-SEED Average Account Balances Over Time

Note. The *N* values reflect available data on conservative, moderate, and aggressive funds for that year.



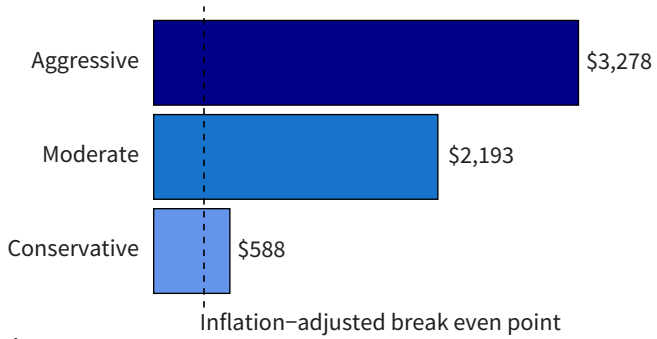


Figure 3

Average MI-SEED Account Growth, 2004–2019

Note. $N = 426$. The *N* value reflects available data on conservative, moderate, and aggressive funds for 2019.

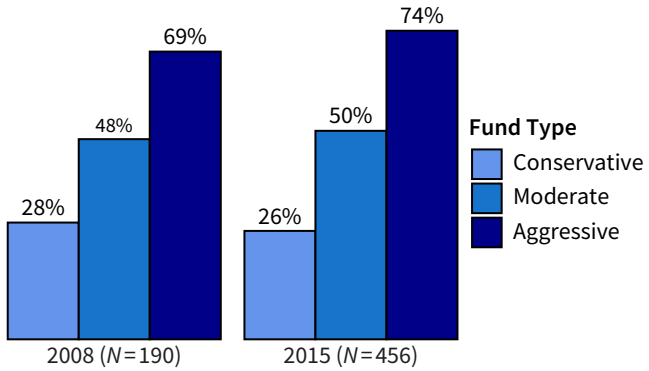


Figure 4

Percentages of MI-SEED Participants Making Deposits Over Time, by Fund Type

Note. The *N* values reflect available data on conservative, moderate, and aggressive funds for that year.

the accounts increased in real value but not nearly as much as the moderate or aggressive accounts did (Figure 3).

Deposits

Our deposit data included quarterly information from 2004 through 2008, as well as information on total deposits from 2008 through 2015. This information enabled us to determine both who made deposits to their 529 accounts and the total amount deposited.

By 2008, 28% of account holders invested in a conservative option had made at least one deposit to their 529 account (Figure 4). For account holders in an aggressive option, this figure was 69%. Over the next 7 years, the percentage making deposits decreased to 26% among account holders in a conservative option and increased to 74% among counterparts in an aggressive option.

The percentage of account holders making deposits paralleled the total amount deposited in 529 accounts. By 2008, after 4 years of MI-SEED, account holders in a conservative option had deposited $114, on average (Figure 5). For account holders in an aggressive option, the average figure was $584. By 2015, the average for account holders in a conservative fund was $254 and that for counterparts in an aggressive fund was $1,100.

Although the amount of money deposited is meaningful to the growth of the account, the consistency of deposits is of even greater significance. Taking the 2015 average total deposits and dividing them evenly over 15 years makes it possible to calculate what the account balances would have been in 2019 had the same annual growth continued. For account holders in a conservative fund, this amounts to $17/year at 3.9% growth (Figure 6). For account holders in a moderate option, it is $41/year at 14.6% growth. For those in an aggressive position, it is $73/year at 21.8% growth. In addition, participants were eligible for a 1-to-1 deposit match from 2004 through 2008, up to $1,200. Calculations must also account for that.

Account holders who selected a conservative option and deposited $17/year from 2004 through 2019 at 3.9% growth would have had a 2019 balance of $2,240. Counterparts who selected an aggressive option would have had $30,997 by that point. By failing to space out their deposits consistently over time, MI-SEED

Figure 5

MI-SEED Average Deposit Totals Over Time

Note. The *N* values reflect available data on conservative, moderate, and aggressive funds for that year.

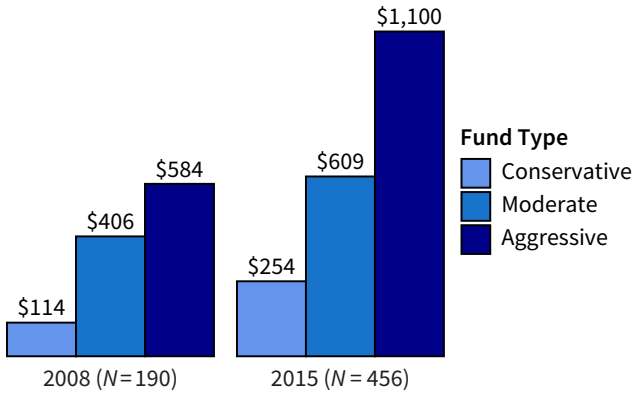
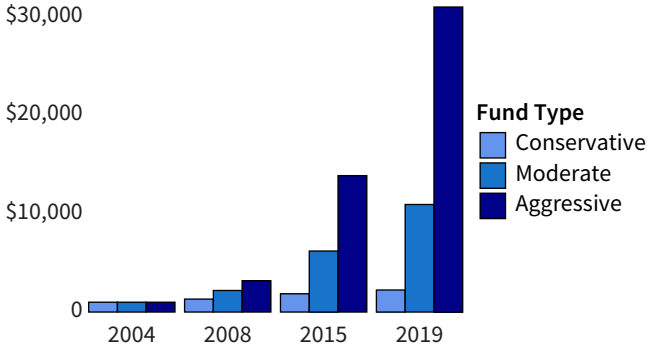


Figure 6

Hypothetical MI-SEED Account Balances Over Time

Note. The calculations assume consistent annual deposits at the same rate of growth.



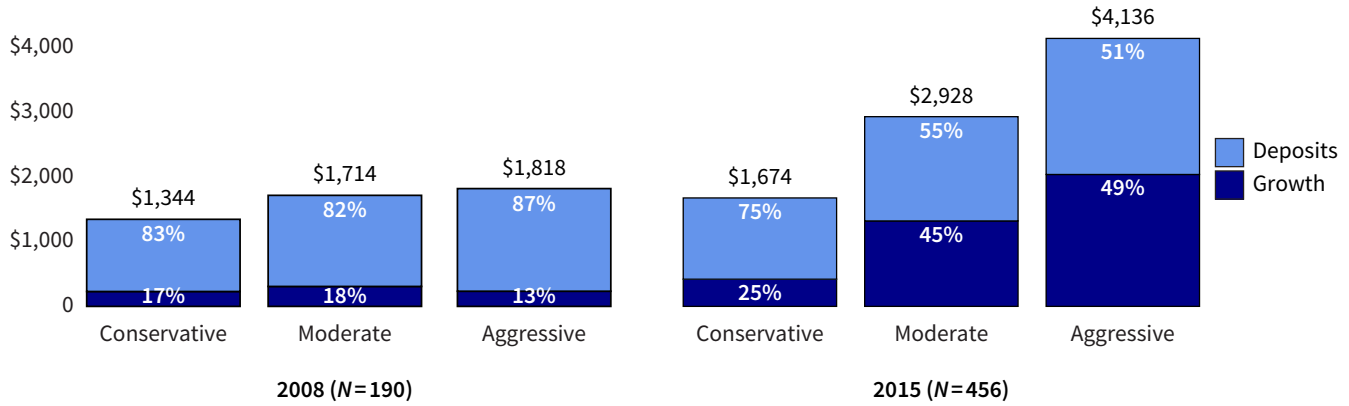


Figure 7

Percentages of MI-SEED Account Growth Attributable to Deposits, 2008 through 2015

Note. The *N* values reflect available data on conservative, moderate, and aggressive funds.

participants missed out on significant gains through compound interest.[3]

Failure is perhaps too strong a characterization for this aspect of MI-SEED deposit behavior. Only 12 households had income above the threshold qualifying them for the state match. The vast majority of MI-SEED households had low income, and making deposits may not have been feasible. Even so, had account holders in a conservative fund deposited $1.50 every month, their rate of return might have approached the $2,240 hypothetical value shown above.

As it is, the money deposited to accounts in an aggressive fund went further than that deposited to accounts in a conservative one. That is, over time, deposits made up a smaller percentage of the balances for accounts in an aggressive fund (51%) than for accounts in a conservative fund (75%). These differences reflect gains made in the stock market over time. Accounts invested in an aggressive position grew as the market grew, making their balances less dependent on deposits alone for growth (Figure 7).

Withdrawals

Ultimately, MI-SEED accounts existed to pay for expenses related to the beneficiary's postsecondary education. Earnings in 529 accounts are not subject to tax if used for qualified expenses; withdrawals for other purposes would incur a 10% penalty on earnings. Although modest, such penalties may have deterred participants from making withdrawals prior to 2015, and beneficiaries would have been too young to attend postsecondary education.

Indeed, only seven participants, or 3%, had made any withdrawals by the end of 2008. The size of these withdrawals suggest these were emergency situations; five of the seven participants withdrew more than $800.

It is worth noting, as well, that the account-growth time horizon coincided with the 2007–2009 financial crisis and the Great Recession. Many of the MI-SEED families were low income and may have been tempted to withdraw the savings in their child's 529 account. However, few did so. Most MI-SEED families weathered the Great Recession without dipping into their child's account.

However, by 2019, 21% of account holders had begun to make withdrawals (Figure 8). This is in line with the point at which beneficiaries reached the typical age for postsecondary enrollment.

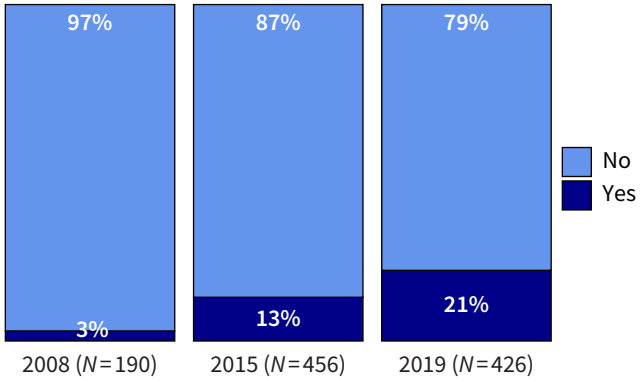
The varied nature of account growth may have affected how much account holders were willing to withdraw from their accounts. For example, the average withdrawal in 2019 was $147 for accounts in a conservative fund and $171 for accounts in an aggressive fund (Figure 9). With more money in their accounts, account holders in an aggressive fund may have felt freer to withdraw more.

Greater account growth also meant that account holders in an aggressive fund actually withdrew less as a percentage of their overall balance. The average withdrawal from an aggressive account was 4% of the average balance in such accounts, and the average withdrawal from a conservative account was 9% of the average in those accounts. This difference would allow account holders in an aggressive

Figure 8

Percentages of MI-SEED Participants Making Withdrawals Over Time

Note. The *N* values reflect available data on conservative, moderate, and aggressive funds for that year.



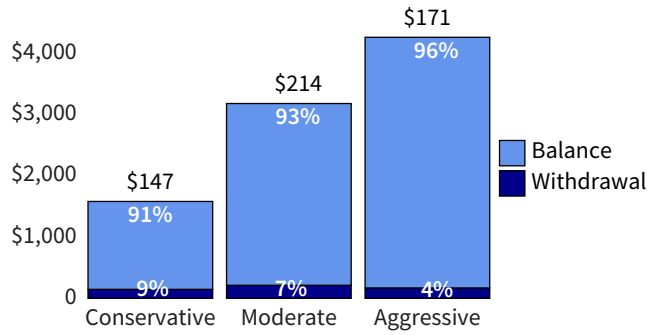


Figure 9

MI-SEED Average Withdrawals as Percentages of Balances in 2019

Note. $N = 426$. The N value reflects available data on conservative, moderate, and aggressive funds for that year.

fund to make more withdrawals of similar size.

Conclusions

MI-SEED was an effort to address the yawning wealth gap by building assets in low-income households and to foster expectations that children go to college or pursue some form of postsecondary education. The program offered low-income households incentives to accumulate assets in a 529 college savings account. These included an initial $800 deposit, a 1-to-1 match (up to $1,200) from MI-SEED on deposits made from 2004 through 2008, and a 1-to-4 match (up to $200) from the state. A total of 497 accounts were opened. We have closely tracked the progress of these accounts and report on that progress in this brief, summarizing financial records from 2008 through 2019.

We found the investment strategy—conservative, moderate, or aggressive—chosen by the account holder mattered greatly to the account's growth. By 2019, the balance of the average aggressive account was more than double that of the average conservative account. This growth was not merely a function of gains in the stock market, but also of the greater likelihood that account holders in aggressive options make deposits and of the likelihood that they deposit more money overall. Greater asset growth allowed those account holders to withdraw more from their accounts in real dollars, but less as a percentage of their overall balance, than did account holders in a conservative fund.

Taken together, these findings suggest that, for account holders in an aggressive fund, the choice of investment strategy was not random. Rather, the decision to go with an aggressive investment strategy signaled broader commitment to saving and overall confidence in the stock market. These account holders took on greater risk but gained more over the 15-year time horizon. Account holders in a conservative fund appeared to be more passive, making fewer deposits and depositing less overall. On average, their accounts grew faster than the rate of inflation but missed out on more substantial gains that were available to them.

Interesting on their own, these findings take on added significance when we consider that the vast majority of MI-SEED participants, 75%, chose a conservative investment strategy rather than an aggressive one. As a result, the 529 accounts of their beneficiaries accumulated less money than they would had the account holders chosen more aggressive investment funds. It may be that the majority of participants were risk averse. This is not uncommon among low-income households. Consequently, there may be comfort in knowing that, over 15 years, their accounts did not *lose* value—barely.

However, stock market loss is not the only way to understand risk. If balances do not grow fast enough, there is also risk that their *real* value will decline because of inflation. It may be that account holders with a conservative strategy did not take into account this alternative understanding of risk.

MI-SEED offered individual outreach and limited financial counseling to participants. If future asset-building programs that involve investment instruments like 529 college savings accounts continue to allow participants to choose investment plans, program creators might consider ways to impart a wider view of risk.

At the same time, MI-SEED participants protected the value of the asset they were building. Regardless of their investment strategy, a remarkable finding from MI-SEED is that, among this sample of low-income mothers, very few (3%) made withdrawals from their child's 529 account before it was available to support educational expenses. Despite what were undoubtedly tough economic circumstances, particularly from 2007 to 2009, these mothers refused to jeopardize their child's future by making early withdrawals. This is a heartwarming testament to parental commitment and a refutation to the unfortunately common view that the poor do not know how to handle their money.

As CDA programs enter their third decade, opportunities exist to make investing more accessible. For example,

> Many of the MI-SEED families were low income and may have been tempted to withdraw the savings.... However, few did so. Most MI-SEED families weathered the Great Recession without dipping into their child's account.

today's app technology did not exist when MI-SEED launched in 2004. Most investment firms now offer apps that make it easy for account holders to deposit money. App technology may also "gamify" the investment process in ways that individuals will find are more appealing than sitting through financial counseling sessions.

However, if future CDA programs decide to implement recommended design elements (Clancy & Beverly, 2017; Clancy et al., 2019b), they might automatically enroll participants in more aggressive age-based funds that have investment growth potential. Rather than offering a confusing set of choices that might push families to select more conservative alternatives, programs could simply make a prudent investment decision for everyone. Most importantly, while children are young and the time horizon long, the program would invest in a mix of funds likely to grow and earn an acceptable rate of return. As children grow older or families take an interest in the accounts, they can always shift to conservative options. This also allows families time to monitor accounts and obtain good financial advice so that they can make the best choices within the parameters of their particular circumstances.

Notes

1. Participants did not own the match accounts, which were held by the State of Michigan.

2. The State of Michigan maintained ownership of these accounts, with state-sponsored matching contributions capped at $200. To be eligible, an account holder had to be a Michigan resident with a household income of $80,000 or less and a beneficiary 6 years old or younger. The state discontinued matching contributions in 2009 (Saving for College, n.d.).

3. We acknowledge that actual performance would not conform exactly to expectations and that annual growth rates would not have been consistent over time.

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