Child Development Accounts, Parental educational expectations, and Savings for college education: Evidence from SEED OK social experiment.

Extended Abstract

Background

College education is increasingly considered as a norm for better lifetime earnings and opportunities. In the past few decades, as enrollment in post-secondary education grows (Snyder & Dillow, 2012), educational expectations become fairly higher (Jacob & Wilder, 2010). For instance, in recent years, over 90% of parents expect their children to go to college (Herrold & O'Donnell, 2008). However, there are widely shared concerns regarding disparity in educational attainment by socioeconomic status and rising burdens of college financing. College costs have rapidly increased (College Board, 2013). While various sources contribute to pay for college education, primary funding come from grants and scholarship and parents' income and savings (Sallie Mae, 2010). The composition of funding sources differ by family income status, for example, high income families meet the cost primarily from parents' contribution but low income counterpart tends to do using scholarships and student borrowing (Sallie Mae, 2010). In the midst of recent economic recession and federal budget deficits, financial burdens seem to continue and double with considerable amounts of college debts. Consequently, financial affordability appears an important factor to determine college choice. Concerns on college costs are likely to cause parents and students to adjust their expectations and plans for post-secondary education that the proportion of college-qualified students who planned to enroll in 4 year college is clearly higher as the level of family income declines (ACSFA, 2006).

Education policy and early intervention programs have made efforts to encourage parental involvement in child's education and minimize disparities in academic achievement by socioeconomic status. In a response to the rising college costs and financial challenges, college savings plans, known as 529 plans, began in 1996 to promote saving for post-secondary education (Clancy, Lassar, & Taake, 2010). In this study, we focus on Child Development Accounts (CDAs) as innovative intervention. CDAs universal and progressive savings accounts, ideally opened for every child at birth (universal) or as early as possible with financial incentives offered to low- and moderate-income families (progressive) (Sherraden, 1991). CDAs are hypothesized to have impacts on not only financial assets but also non-monetary outcomes (Williams-Shanks, Kim, Loke, & Destin, 2010). Our main interest of this paper is to investigate how CDAs are related with parental educational expectations and financial investment. We assume that CDAs help parents hold positive educational expectations and in turn promote parental financial investment. To answer the research question, we use data from the SEED for Oklahoma Kids (SEED OK) policy experiment implemented in Oklahoma.

SEED OK experiment

The SEED OK is a statewide social experiment designed to test the progressive and universal asset-building policy of CDA. The experiment is implemented with a probability sample of newborns in Oklahoma, in a collaboration of the State of Oklahoma (Treasurer's Office, Department of Health, Department of Human Services, Tax Commission, and Oklahoma College Savings Plan), the Center for Social Development, and RTI international (Zager, Kim, Nam, Clancy, & Sherraden, 2010). The experiment builds upon the existing policy structure,

Oklahoma college 529 savings plan (OK 529). The experiment divides the full sample into two groups, treatment or control, and provides SEED OK intervention to treatment group only.

The intervention includes financial incentives and delivery of important information on child's development and college education. First, children of the study participants in treatment group receive a state-owned account automatically opened with $1,000 initial deposit and opt-out option. The accumulated savings in the state-owned account can be used to pay for post-secondary education of the beneficiary child. Second, to increase participant-owned OK 529 account opening and prevent saving barriers, the experiment offers a time-limited incentive, $100 of the minimum deposit required, to the study participants who opened a participant-owned account by April 2008. Third, the experiment mails the treatment group information about a participant-owned OK 529 account to encourage an account opening, which needs to be done individually from a state-owned account. Fourth, the experiment provides savings matches for those with low (1:1 if lower than $29,000) or moderate (0.5:1 if annual adjusted gross income is $29,000 to $43,999) household income to their own deposits made to a participant-owned OK 529 account. In addition to the financial incentives and 529 savings plan information, the experiment delivers postcards and small gifts to emphasize child development and education (e.g. books, educational music CDs).

Control participants do not receive the SEED OK intervention, but they may open a OK 529 account for their child as other main caregivers do. CDA would be ideally one single account structure for each child beneficiary, but the SEED OK experiment is implemented with two different types of accounts, a state-owned account and participant-owned account because the experiment builds upon the existing policy structure (i.e. OK 529 plan).

Methods

This study employs rich data from four different sources. The Oklahoma Health Department provided birth records, RTI collected the SEED for Oklahoma Kids (SEED OK) baseline and follow-up surveys, and the Oklahoma state Treasurer's office shares administrative data of Oklahoma 529 college savings plans delivered by TIAA-CREF on a quarterly basis. The birth records include basic demographic and health information of children and their birth parents. The birth records also serves as the sampling frame to draw a state-representative sample of children in Oklahoma born during two three-month periods (April-June and August-October in 2007). Using stratified random sampling, the SEED OK experiment selected 7,115 children after eliminating 213 ineligible cases for the study (e.g. death of infant or mother, younger twin). Three racial and ethnic groups were oversampled (African Americans, American Indians, and Hispanics) to ensure sufficient statistical power for separate group analysis. With cooperation from the State Treasurer, the SEED OK invited main caregivers of the selected children to participate in the study, and 2,704 caregivers agreed and completed the baseline survey by telephone between August 2007 and April 2008 (response rate 38%). The 2704 study participants were randomly assigned into treatment (n = 1358) or control group (n = 1346), after the baseline survey was conducted and before SEED OK intervention started in 2008. The two groups are not statistically different in observed characteristics at baseline (Kim & Nam, 2009). In 2011 spring, the follow-up survey was conducted when the focal SEED OK children were around four years old. The two survey data provide rich information containing demographic and socioeconomic information as well as child development, parental educational expectations, and views on financial costs for college. The majority of the study participants are mothers with a few exceptions (e.g. father or grandmothers).

For this particular study, we select mothers who completed both baseline and follow-up surveys and were identified as the same caregiver over time for the focal SEED OK child. We exclude those with missing information in the variables used for data analysis, except for household income and financial assets. The final analysis sample includes 2,156 mothers of the SEED OK focal children.

The dependent variable is a dummy indicator of OK 529 account holding status. It is measured by whether the mother opened and held an OK 529 participant-owned account in the name of the focal child as of December, 2012. The primary independent variables are treatment status and mother's educational expectations in the follow-up survey. Treatment status indicates treatment group as "1" and control group as "0". The variable of mother's educational expectations is measured by one question asking "How far in school do you think that [your child] will go?". The response is coded in ordinal level from won't finish high school (=1), will graduate from high school (=2), will go to vocation, trade, or business school (=3), will go to college (=4), and will go to graduate school (=5). A higher value means that mothers have a higher level of educational expectations for the child's future education.

We control for characteristics of the SEED OK children (gender, race and ethnicity), mothers (marital status, nativity status, education level), and households (the number of children, public assistance use, income poverty status, home ownership, financial assets, educational expectations at baseline, and views on child's future education and financial costs) measured at birth or baseline to consider sampling variability.

First, we examine descriptive statistics to show the characteristics of our study sample. Second, we conduct a logistic regression to test the treatment impact on 529 account holding, controlling for other characteristics (Model 1). Next, we add mother's educational expectations measured in the follow-up survey into the logistic regression analysis (Model 2). We suspect that educational expectations may mediate the association between treatment and OK 529 account holding, in other words, that the treatment impact on OK 529 account holding may decrease when educational expectations is included in the model 2. All analyses are weighted to make the findings generalizable to the children of Oklahoma born in 2007.

Results

About 17 % of treatment group hold a 529 account, higher than 1% of control group. Mothers in treatment group have a slightly higher level of educational expectations (4.19) compared to those in control group (4.14). In logistic regression model 1, 529 account holding is significantly higher for treatment participants than control participants ($b= 3.35$, $p<.0001$). In model 2, expectations measured in the follow-up survey have a positive and significant association with 529 acct holding, controlling for other characteristics ($b= .401$, $p=.02$). With the expectations accounted for in the same model, treatment status is still significant, and the regression coefficient is rarely changed. Thus, the treatment impact on 529 acct holding is not mediated by expectations measured in the follow-up survey. As expected, parents' education level, household income, and household financial assets are significant predictors of 529 account holding. Also, as mothers think that college education is important for their child to a higher degree, they are more likely to hold a 529 account for their child ($b= .32$, $p= .02$).

Discussion and Conclusion

Our results support that SEED OK intervention encourages mothers to hold a 529 account and those with higher expectations tend to increase financial investment for the child's

future college education. The findings provide evidence on why parental expectations matter for child's college education and how they may contribute to long-term human capital investment for children. The SEED OK intervention impact on parental investment seems to show not necessarily through their educational expectations. This may result from that the SEED OK children are still very young in child development stage and most mothers are optimistic with high educational expectations. As children transition to formal schooling, it is possible that parents may adjust their expectations by children's academic progress and experience difficulties in making academic preparation toward college education. Challenges are more likely to increase for households with lower level of economic resources and limited educational information. CDAs may be an effective policy intervention to improve parental investment for child development and encourage earlier start of financial planning for college education, especially for socio-economically disadvantaged populations. Future SEED OK research will explore the extent of the intervention impact as children grow over time.

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