Simplification, Assistance, and Incentives: A Randomized Experiment to Increase College Savings

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ABSTRACT

Research has shown that complex forms and processes can be major barriers to students and families making educational investment decisions. The costs of obtaining, sorting, understanding, and prioritizing complicated information to make a decision and complete a task can be quite high. Interventions and policy reforms have the potential to better support such activities, but while providing simplified information or assistance have been found to encourage some behaviors, they are at times ineffective. This paper extends the literature by focusing on the topic of college savings. Many families do not understand the importance of saving for college, are confused by misperceptions about the effects of saving on financial aid eligibility, and are unaware and unsure how to take advantage of financial options that tax advantages. We investigate the effects of a set of interventions designed to help families understand and prepare for the expense of higher education. Working with the Boston Public Schools, we implemented a series of school and community workshops focused on the parents of 7th to 10th graders that provided information about 529 college savings plans, a tax-advantaged way to save for postsecondary education. Using a RCT design, we offered some families assistance opening a college savings account; another group received this assistance as well as the required opening deposit of $50. In this paper, we evaluate the effectiveness of these different types of supports. Additionally, using survey data from the initial workshop and a follow-up survey completed a couple of years later, we explore families' perceptions of the importance of saving and how they make savings decisions. The results suggest helping families to start saving for college by providing the initial deposit can have positive long-term effects on savings behavior and postsecondary outcomes. However, information about the importance of savings and savings options is not enough to spur action suggesting complexity and other barriers to getting started are significant.

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I. INTRODUCTION

Higher education plays an increasingly important role in helping individuals attain social and economic success, but financial aid, the primary state and federal policy aimed at improving student access and affordability, often covers only a small fraction of tuition and other college expenses. According to figures from the College Board, the average net price at a public, four-year college was $14,210 in 2016-17. This is defined as tuition, required fees, and room and board minus the average grant aid and tax benefits received by full-time students. The net price of a private, four-year college was $26,080 (College Board, 2016). Therefore, even after financial aid, the annual cost of a four-year college or university is a significant proportion of median family income.

Increasingly, families are encouraged to recognize the potential gap between financial aid and college costs—and to save for themselves. A range of savings vehicles have been promoted to help families save with the most prominent being 529 Savings Plans, which allow families to save money for college and accrue investment benefits that are mostly tax-free. All states have some type of 529 college savings plan, and at least 30 states offer 529 plans that provide tax deductions (CFED, 2016). However, while politically popular, few families actually take-up these plans to save for college, especially among middle- and lower-income families. According to the Survey of Consumer Finances, less than three percent of families used either a 529 plan or a Coverdell Education Saving Account, another college savings vehicle, and families with accounts had 25 times the median financial assets of those without (GAO, 2012). While college savings plans have the potential to provide substantial benefits, the families that need the most help meeting the gap between the cost of college and financial aid available are not taking advantage of these financial products and programs.

Little is known about the best way to design these types of policies, why low and moderate-income families do not respond to these opportunities, or whether the plans are beneficial to families in the long run. Some suggest non-participation may be due to factors similar to those identified with social programs, including a general lack of awareness of the benefit or program (Bhargava and Manoli, 2015), complexity of programs and applications (Beshears, *et al*., 2006 and 2013; Huang, *et al*., 2013; Shipman, 2016), and general procrastination (O'Donoghue and Rabin, 1999). Additional research specific to college affordability suggests that families often lack information about the true costs of college (Grodsky

and Jones, 2007; Hoxby and Turner, 2013; Oreopoulus & Dunn, 2012), have misperceptions about the effect of savings on financial aid (Dynarski, 2004; Black and Huelsman, 2012), and simply lack the disposable income necessary to save for many needs, including post-secondary education (Kim, et al., 2014; Sallie Mae, 2015).

Our project aims to fill this gap by testing a series of interventions designed to determine the best way to help families prepare for the expense of their children's college educations. Given that information, complexity, and procrastination are three of the key obstacles in establishing accounts, the Early College Planning Initiative (ECPI) introduced different levels of support according to these obstacles. ECPI provided three different interventions in a randomized experimental design to the families of Boston-area students in grades 7 to 10. The first intervention provided information and increased awareness of college savings options; the second simplified the enrollment process; and the third provided additional incentives to encourage savings behavior (and hence reduce procrastination in future deposits).

Using data from ECPI and the subsequent tracking of savings behavior and postsecondary enrollment, we examine three related research questions. First, how does information about college savings options and simplifying the enrollment process affect the likelihood that families enroll in such plans and put away money for their children or themselves? Second, do starter incentives affect the likelihood and amount contributed by families to college savings accounts? Finally, does enrollment in a college savings plan alter families' long-run college savings behavior and enrollment? Our results suggest that parents have substantial interest in college savings; however, information and assistance are not enough to help them engage in savings. When we combined information, assistance, and incentives, we found lasting changes—the likelihood of having an account increased from 8 percent to nearly 32 percent – a 400 percent relative increase. Moreover, families that opened accounts were more likely to start making monthly contributions to college savings accounts. Longer term, the children of families randomly placed in the assistance and incentive group were more likely to attend a four-year college and to attend college full-time, suggesting college savings is an important factor in future educational outcomes.

II. BACKGROUND AND LITERATURE REVIEW

Review of the Literature

Our research intersects with multiple literatures from economics and education. Given that the purpose of 529 plans is to improve college affordability, our research is primarily related to the extant literature demonstrating the importance of college price and financial aid in college decisions. Much of this literature attempts to identify the impact of price and financial aid on eventual attendance and finds that reducing price with financial aid increases college enrollment (Deming and Dynarski, 2010; Dynarski and Scott-Clayton, 2013). One feature in this literature is that the aid programs that are most successful are those that are well-publicized and relatively easy to understand and to apply for (Dynarski, 2000; Cornwell, Mustard, and Sridhar, 2006; Long, 2007). This has also been found in the examinations of other social programs, such as welfare and food stamps. For example, Currie (2004) finds that the take up rates on social programs are increased when eligible participants are automatically enrolled and administrative barriers are reduced. In terms of savings plans, universal and automatic enrollment (Zager, *et al*., 2010; Clancy and Sherraden, 2014), "seeded" accounts from state, federal or private funding sources (Beverly, *et al*., 2015), and providing periodic matches to family contributions (Mason, *et al*., 2010) seem to improve program participation.

Our research is also related to the economic behavioral literature, which emphasizes how reframing and other "nudges" might alter individuals' participation in programs that would benefit them. Interventions focused on simplification and altering defaults have been shown to have important effects outside of education (Beshears, *et al.*, 2009 and 2013). These findings also extend to education decisions. For example, Bettinger, et al. (2012) shows that providing information and personal assistance with complex processes can improve the likelihood that students successfully apply for college. Providing informational reminders and offering assistance can also help students complete forms to renew financial aid awards (Castleman and Page, 2016). Hoxby and Turner (2015) demonstrate that simple informational outreach and fee reductions can lead to substantial differences in college application and enrollment patterns.

Despite the interest in improving the accessibility of college savings programs (e.g. Clancy, et al., 2016), there have been few rigorous research initiatives examining the effect of information, assistance

and incentives on college savings behavior and subsequent enrollment and degree attainment outcomes. The majority of studies that do exist rely heavily on small samples and secondary data analysis. Moreover, there is limited *causal* evidence to demonstrate the impact of savings programs or their individual features on the subsequent savings and enrollment outcomes. However, descriptive and correlational analyses suggest that dedicated college savings may be linked to stronger academic performance (Destin and Oyserman, 2009), enhanced college-going aspirations (Elliott, 2013; Elliott, *et al*., 2011), higher college enrollment (Elliott and Beverly, 2011), greater persistence to postsecondary graduation (Nam and Ansong, 2015), and reduced amount of student loan debt (Elliott, *et al*., 2014), particularly among low-and moderate income families. Studies also suggest positive outcomes such as enhanced social and emotional development in children (Huang, *et al*., 2014: Cowan, 2011), mitigation of the potential harmful effects of material hardship (Wikoff, *et al*., 2015; Huang, *et al*., 2016), and increased financial awareness and capacity (Friedline, 2014; Nam, *et al*., 2013; Kim, *et al*., 2014). This project attempts to contribute to this literature by providing causal evidence on the effects of supports on college savings and postsecondary outcomes.

Background on 529 College Saving Plans

For college savings, 529 Plans are the most common, flexible, and potentially beneficial option (Dynarski 2004). Other options are subject to more requirements and offer less in potential returns.[1] The 529 Savings Plans are instruments that allow families to invest their after-tax college savings in the market while enjoying tax benefits. The minimum amount needed to open an account is often much lower than that required by most mutual funds meaning that this is an option that is more affordable and accessible to low-income families.

States administer and manage 529 Savings plans. All states offer some sort of 529 Savings Plan and, while each state determines the specifics of its plan, families are free to enroll in a 529 plan in any

[1] While the federal Coverdell Education Savings Accounts have much lower contribution limits, unlike 529 Savings Plans, there are income requirements for participation. Prepaid tuition plans, which are also governed under the 529 legislation, guarantee that a family's savings investment will increase at the same rate as in-state college tuition, which may be less than the returns available in the market. Prepaid Tuition Plans also have more limitations, such as requiring the account owner or beneficiary to be a state resident when opening the account. Coverdell Education Savings Accounts and Prepaid Tuition Plans are also treated differently in financial aid need analysis.

state. Most states also treat 529 Savings Plans favorably in terms of taxes.[2] Currently, 30 states and the District of Columbia offer a state income tax deduction for 529 contributions and three states offer a tax credit to families. However, low to moderate-income families are less likely to benefit from the tax-related provisions in 529 plans and may be less likely to participate without meaningful incentives. To address this need, multiple states have enacted plan provisions to offer incentives or remove barriers for low- and moderate-income families to participate in college savings initiatives. As of January 2016, 17 states offer a no-fee option, eight states have plans with no minimum deposit requirements, and 14 states provide a seed deposit or match for low- and moderate-income families (CFED, 2016).

Among other features determined at the state level is the set of investment options available to the family for investment. Although these investments involve some market risk, they offer the potential of larger returns compared to other savings options such as Prepaid Tuition Plans. By limiting the number of investment choices, 529 Plans may simplify the process for parents who do not have the expertise or time to manage their investments. Most plans offer options that adjust the allocation of assets according to the age of the child – the money is put into less risky instruments as the child gets older and approaches college.

There are several advantages of 529 Savings Plans over other savings options, including the ease of transferring a 529 Savings Plan to a related beneficiary, freedom from restrictions on the college at which the money is used (as long as the institution is accredited), and the opportunity for friends, relatives, and colleagues to contribute to an account. Another important difference between the 529 Saving Plans and a Coverdell or Prepaid Tuition Plan is that 529 Savings Plan holdings are treated as an asset of the account holder (usually the parent) rather than the child. As parental assets, contributions to 529 plans are assessed at a much lower rate than student-held assets, which are assessed at a flat rate of 35 percent during the financial aid needs analysis process. The assets of the parents may be further subject to an asset protection allowance based on the age of the parents. While 529 Savings Plans do not greatly impact financial aid eligibility, disbursements from the 529 Prepaid Tuition Plans reduce eligibility for financial aid 100 percent for each dollar of benefit. In addition, distributions from a parent-owned 529

[2] Like the federal government, most states let the earnings accumulate on a tax-deferred basis and exempt the use of the funds from state and local income tax if used for qualified higher education expenses. This treatment may be limited to the use of a state's own 529 plan.

Savings Plans are not treated as untaxed income and thus do not impact federal aid eligibility. Work by Dynarski (2004) documents the result of this difference on the benefits received by families. She shows that the benefits of 529 Savings Plans can be larger than what many families would receive from a Coverdell Educational Savings Account due to differences in the treatment of the two saving plans by the income tax code and financial aid system.[3]

Some suggest that certain families, particularly low-income ones, may be better off not saving at all as it is perceived that asset accumulation reduces college financial aid eligibility. In practice, a significant amount of assets is exempt from need-based aid formulas, and lLow-income families are extremely unlikely to have enough assets to influence aid eligibility. However, asset accumulation ***can*** adversely impact eligibility for a number of public assistance programs that enforce asset limits. To address this barrier, some states have eliminated asset tests for major assistance programs and many others states have exempted educational savings accounts from asset tests.

The Early College Planning Initiative

ECPI arose as a result of collaboration between uAspire, a major college access program in Boston, the research team, and the Massachusetts Educational Financing Authority (MEFA), the non-profit state agency responsible for Massachusetts 529 Program, and the research team. With funding from the U.S. Department of Education, we collaborated in designing a program which could provide new information about college savings. In 2012 and 2013, ECPI implemented three different interventions in a randomized experimental design. We invited the parents of 7th to 10th graders to attend an informational workshop focused on how families can prepare for college both academically and financially. We explained to parents who attended that this is an initiative focusing on helping families learn more about postsecondary options and how to prepare for higher education. We informed the parents that we were also interested in learning more about whether and how parents decide to save for college. ECPI then

[3] Using simulations, Dynarski (2004) finds that pretax income invested in a Coverdell could face income and aid taxes that would consume the entire principal, all of the earnings and an additional several hundred dollars.

collected consent from the parent(s) to participate in the research project and asked them to complete a background survey.[4]

Families were randomly assigned into one of three groups. Approximately one-third of families were placed into the control group, which participated in the informational workshop about the importance of higher education and how to prepare academically and financially. While this is not a completely untouched control group, based on past research, we (correctly) forecasted that information alone, without additional assistance, would not affect the likelihood of participating in a college savings program. The two treatment groups were designed to address hypotheses about the challenges of participating in a 529 savings plan—awareness and complexity—as well as providing some families with a financial incentive as a catalyst toward starting a program of college saving. The two treatment groups were:

(1) Simplifying the Enrollment Process for the Massachusetts College Savings Plan (U.FUND)

For these individuals, ECPI provided the same general information as the control group. In addition, they offered a simplified and streamlined way of enrolling in the Massachusetts 529 Plan (U.FUND) on-site. This first treatment focuses solely on information and complexity barriers and allows us to test the effects of simplification and assistance in this context.

(2) Simplifying the Enrollment Process and Providing the Initial Enrollment Funds

The second treatment group was identical to the first except that we also contributed the initial balance necessary to open a Massachusetts 529 Plan ($50). This treatment is similar to initiatives in many states to provide monetary incentives in the hope of encouraging participation in college savings plans. This small startup incentive may have made opening an account more attractive, and for families that decide to participate, we investigate whether having a college savings account encourages additional investments in the future.

[4] Parents that did not speak English well were not included in the project due to concerns about their ability to give informed consent and understand the 529 financial forms. However, when informed by the host school ahead of time about the possibility of such a group attending the event, we planned ahead by creating a fourth room that could give the workshop information in the first language (usually Spanish). Opening a 529 account is also limited to citizens, so for undocumented families, we focused on disseminating information about how to prepare for college academically but did not include them in the project.

All families electing to open a 529 account with us had their funds invested in the Massachusetts 529 College Savings plan, the U.Fund, and their deposit was put into the FDIC-insured option so there was no investment risk to losing the money. Because we did not want to exert undue pressure on families, they had up until a month after the event to submit their paperwork using a self-addressed stamped envelope, and those in the second treatment group would still receive the $50 opening deposit. After opening an account, participants started to receive the usual quarterly statements from Fidelity Investments about their accounts, and parents were free to make future changes to their account, including changing the investment account or closing the account altogether.

Since the ECPI workshops, we have been tracking family savings behavior in the U.Fund by conducting data matches with Massachusetts Educational Financing Authority (MEFA), the state authority that manages the 529 program, and Fidelity Investments, the company that manages and invests the funds. Also, most of the students would have finished high school on time by spring 2016, and so we use college enrollment data from the National Student Clearinghouse to determine postsecondary outcomes as of fall 2016. Finally, ECPI gathered survey data from families both pre-intervention (at the workshops) and post-intervention (via email and mail) to better understand participant perceptions about college cost, preparation, and financial aid. We also collected information on parent and student demographics, use of savings products other than 529 accounts, family income, and parental education level. This survey data helps us to interpret the empirical results and learn more about family perceptions and understanding of savings and their savings behavior outside of the Massachusetts 529 program.

III. DATA AND EMPIRICAL STRATEGY

The Data: Sample Characteristics and Randomization

Table 1 displays the characteristics of the sample and tests for differences in the control and treatment groups as a result of randomization. The first column gives the means for the control group. As reflected by the fact that the project primarily recruited families with children in the Boston Public Schools, a substantial proportion of the sample is Black (46.7 percent), Hispanic (12.0 percent), or Asian (17.7 percent). Reflecting the high level of education in the Boston area, a majority parents have at least some postsecondary education, though family incomes vary considerably in the sample from being very

low (15.8 percent of families had incomes under $20,000 at the time of the workshop) to being well above median family income in the United States (9.2 percent had incomes above $100,000 at the time of the workshop). The proportion of families on public assistance (23.3 percent) versus owning their own homes (51.5 percent) also reflects the fact that the workshop participants represent a broad range of families in terms of socioeconomic status. This is likely due to the fact that participation in the project involved parents attending an option workshop, so that while many families in the Boston Public Schools are low- or moderate-income, the propensity to attend a workshop was likely higher among more affluent families thus resulting in a broad sample.

The project targeted families with children in grades 7 to 10, and this is mainly who we served as reflected by the average grade at the time of the workshop (8.5). However, because the information was given to the parent for the benefit of all their children, we also attempted to capture information about siblings who might have also impacted by the intervention materials.[5] Based on the pre-workshop survey, families had on average 2 children, and the children tracked over time ranged from being in grade 5 to grade11 at the time of the intervention. In our analysis below, we sometimes distinguish between the results for the full sample (including these older and younger siblings) and the target sample (limiting the analysis to those who were in grade 7-10 at the time of the workshop). Finally, on the pre-workshop survey, we asked parents if they had a 529 college savings account from any state. Confirming the findings of previous research, very few families with children in high school had used such an instrument (5.4 percent). Our results here explore the reasons why this percentage is so low.

The last two columns of Table 1 test whether there are differences in the observable characteristics of the control group versus the two treatment groups. T-tests were conducted for each variable, and statistical significance is denoted by the asterisks. As demonstrated by the lack of statistical differences, the randomization process was largely successful in creating similar groups. The control group contains slightly more Asian students. Meanwhile, Treatment Group 2 (which received assistance and the opening deposit) has students who were on average in a slightly higher grade level at the time of the workshop, a larger proportion of families on public assistance, and more kids per family. While we

[5] For families in Treatment Group 2, we gave the parents access to the $50 deposit for any child in the target grades (7-10). Children outside the eligible grades did not receive the deposit amount, but their parents we still helped with the 529 account forms regardless of child age.

keep these differences in mind, there is little reason ex-ante to suspect variation across groups would favor us incorrectly concluding that the interventions have been effective. It is important to note that as the project progressed, we altered the relative size of each group so that while randomization was maintained at each event, the relative proportion put in the control group versus treatment group 1 or 2 changed, with slightly more families being put in treatment group 2 at later events to help insure our ability to explore the effects of the incentive longer term ad to use project funds as expansively as possible.

Empirical Strategy

Our empirical design relies on the randomized assignment of families to the control or one of two treatment groups. Because ECPI used randomization to assign families to treatments, simple comparisons of students in the various treatments can identify the causal effects of the interventions. Our control group (i.e., those receiving a general information package about saving for college with information already publicly available) are compared to our treatment groups (those receiving assistance to open a 529 plan and those receiving an additional financial incentive for startup).

We investigate three types of outcomes. The first focuses on the take-up of a college savings plan at or shortly after an ECPI workshop. Second, we investigate subsequent savings behavior by tracking saving balances and the use of automatic monthly contributions, an option offered by U.Fund to help families maximize their savings. Finally, over the long term, we examine college enrollment and choice patterns, including the level of postsecondary institution (two- or four-year) and the intensity of attendance (full- or part-time).

To estimate the effects of our intervention on 529 plan take-up, we use the following regression:

$$y_i = \delta_0 + \delta_1 T1_i + \delta_2 T2_i + bX_i + \varepsilon_i \quad (1)$$

where *y* is an outcome for individual *i*. T1 and T2 represents an indicator for being randomly assigned to either the first treatment (information and assistance) or the second treatment (information, assistance, and incentives). We include additional controls, *X*, for student and parent characteristics.

In our analysis, we are sensitive to the potential for correlation within observations. For example, within a school, families get similar resources and interact with the same counselors. Moreover, families attending the same event, which often happened at their school, might share information across control and treatment groups. We control for correlation among observations first by accounting for the specific event that an individual attended by clustering at that level. For a robustness check, we can alternatively cluster at the school of attendance level given some of the ECPI events occurred at community-based sites, such as local libraries.[6]

The "treatment-on-the-treated" effect of college enrollment from 529 plan take-up can be estimated using an instrumental variables approach; treatment group assignment would be used as an instrument for using a 529 plan. Under the assumption that the program effect for families that do not take up a 529 plan is zero, the average effect of the program on college enrollment among those that do take up a plan can be estimated with the following regression:

$$(2) \qquad y_i = \theta_0 + \theta_1 * 529\_TAKEUP_i + \theta_2 + bX_i + e_i$$

Where *529_TAKEUP* indicates whether individual *i* has a 529 plan by the time a child is college age, and is instrumented by the variables T1 and T2.

IV. RESULTS

Descriptive Results

Table 2 summarizes some of the responses by parents before the workshops and interventions took place.[7] The survey aimed to not only collect background information but also to explore prior savings behavior and beliefs. According to the self-reported information, only one-third of parents had already begun to save for college by the time their kids were in 7th to 10th grade. As broken down in the table, there were large differences by family income, with higher-income families being much more likely

[6] Additionally, we can observe the zip codes in which all of the students in our study reside. Therefore, we can control for correlation between households in the same geographic area as an alternative approach.

[7] Due to the fact that some parents have multiple children it the project, the number of survey respondents is less than the total sample of students. Moreover, some parents elected not to answer all of the questions or were not asked certain questions due to skip logic built into the survey. For example, if the parent did not denote having started to save, then he/she was not asked about the method of saving.

(nearly three times) to have started saving than lower-income families (57.7 percent versus 19.8 percent, respectively). When asked why they were not saving at all or saving more, most parents responded that they did not the money to spare (72.2 percent). Other important explanations included not being sure of saving options (36.8 percent) and the process being too complicated (24.9 percent). Others noted that they thought it was too late to start saving (32.1 percent).[8] Very few parents admitted that they were not saving because they did not believe their child would go to college (11.5 percent).

Table 3 shows descriptive statistics of the outcomes from the intervention workshops. The top half of the table focuses on the full sample. The first row shows the take-rate—whether the parent opened a 529 account as a result of our visit. Overall, around 10 percent of the sample opened a Massachusetts 529 account after the workshop. However, this is almost exclusively focused within Treatment Group 2, which received both assistance with the form and the $50 initial deposit. With this group, 22.5 percent of families accepted our offer to open a U.Fund account. Only 1 percent of the control group and 2.2 percent of Treatment Group 1 did so, suggesting that information and even assistance with the form is not enough to get families to start saving for college with a 529 account. This given an early indication of the effectiveness of providing families with the initial deposit.

Since the initial workshop, we have continued to track activity with the Massachusetts 529 program (i.e., the U.Fund). As of July 2016 (three to four years after the initial workshop), we find that the treatment groups had much higher college saving balances. The mean is higher for Treatment Group 1, which is due to the fact that one family has a balance over $100,000, but Treatment Group 2 had saved almost double that of the Control Group.[9] Interestingly, about a third of families in Treatment Group 2 who opened a 529 account also elected to sign up for automatic monthly contributions to that account. Setting up such routine deposits is thought to be an important way to accumulate savings, and it is

[8] The original grant proposal for the project aimed to target families with students entering kindergarten, but we received feedback that it would be important to get college outcome data, and starting at such a young age would make this prohibitive. In our informal discussions with project participants, we did often hear that they would have liked to have had the college savings information earlier, and we suspect this is an important practice. However, among our many goals, our project is testing whether starting to save when children is older is still impactful.

[9] This outcomes is calculated for all families with a Massachusetts 529 account, whether they opened the account after a workshop or not. The reason is that our workshop might have had a positive effect on the rate of savings for families who already had an account by reminding them of the benefits of doing so. In the case of Treatment Group 1, the family with the account over $100,000 had started saving before coming to a workshop. The amount of savings is at the extreme and masks interpretation of the results so future results on savings balances focuses on families with accounts below $100,000.

interesting to see families do this without receiving any special information from us. This project some early suggestive evidence that once entering the 529 system, it becomes easier for families to engage without additional assistance or incentives.

The bottom panel of Table 3 focuses on the behavior of families that opened 529 accounts after the workshops. Among this group, the treatment groups have saved substantially more and are much more likely to start saving automatically each year. However, the number of observations for each group make clear that the action is primarily focused among families in Treatment Group 2.

The Effects of the Interventions on College Savings Outcomes

Tables 4 through 6 examine the effectiveness of the interventions using regression analysis. Due to the randomized design of assigning treatment, a simple comparison of the outcomes by group gives a good sense of the effects of the interventions (as shown in specification 1). However, to improve precision of the estimates and to account for small differences in observable characteristics, additional models include controls for parent and student background. We also include event-year fixed effects, and the standard errors are adjusted by clustering at the event-date level.

Table 4 confirms the earlier descriptive results: families in Treatment Group 2, which received assistance with the 529 account form and the $50 initial deposit, were much more likely to open a U.Fund account. For the full sample, they were 21.6 percent more likely to open an account, and this result does not change whether using the background controls or not. When limiting the analysis to the target group, i.e., students in grade 7 to 10, the results become a little larger magnitude (22.4 percent) and remain large and statistically significant. Given almost no one in the information-only group (i.e., the Control Group) and those who received just assistance (i.e., Treatment Group 1) did not open a 529 account, all else equal, this yet again confirms the importance of making it as easy as possible to open an account by providing the initial deposit. It is not clear whether the $50 acted as an incentive that spurred action or whether the fact families did not initially have to do anything to get an account is the reason for the higher take-up rates among Treatment Group 2, but regardless, it was a far more effective strategy, and to preview the results below, for many families, the initial $50 helped get them started on further action. Of those who previously had 529 accounts before participating in our project, most chose to invested in the

"time horizon" funds, which assume the family will begin to withdrawal funds in 2015 according to the age of the child beneficiary.

Table 5 uses regression analysis to examine the effects on signing up for automatic monthly contributions, which could be as low at $15/month for the U.Fund. As shown for all the specifications, whether using the full sample or just focused on students in grades 7 to 10 at the time of the workshop, families in Treatment Group 2 were much more likely to engage in the practice (approximately 7 percent more likely). Doing so would have taken initiative by one of the parents, suggesting that the barrier to signing up for an account is large, but once having an account, engaging in additional savings behavior is much easier. This may be due to the fact that families receive quarterly statements from Fidelity Investments and the offer to contact plan representatives with questions or changes. It also becomes much easier to make future deposits, as reflected by the results in Table 6. Focusing on accounts less than $100,000, the treatments groups were much more likely to save than the Control Group. For those in Treatment Group 2, the account balance by July 2016 was over $2,000 more.

Early Postsecondary Outcomes

Ultimately, the most important outcome of participating in college savings projects is actual postsecondary enrollment. Given the initial workshops took place in 2012 and 2013 for students in 7th to 10th grade, about half of the group has now had the chance to graduate from high school on time by spring 2016.[10] The college outcome data we have is from a match to the National Student Clearinghouse (NSC) for enrollments up until Fall 2016, and these early results are shown in Table 7 and 8. The tables examine enrollment in any postsecondary institution that is part of the NSC; attending a two-year versus four-year institution, and enrollment intensity (i.e., attending full-time as opposed to part- or less-than-part-time). In defining the outcome, we focus on the first enrollment, i.e., whether the student initially entered a two- or four-year college. Given differences in the costs of colleges by level and enrollment intensity, we interpret a greater propensity to enroll in a four-year institution or at full-time status to suggest more

[10] The college-eligible students are: (a) those who participated in the workshop during the 2011-12 school year and were in grades 8 to 10; (b) those who participated in a workshop during the 2012-13 school year and were in grades 9 and 10; and (c) those who participated in a workshop during 2013-14 and were in grade 10.

expensive investments, which also tend to be associated with a higher likelihood of postsecondary success.

In Table 7, we do not see many statistically significant results among the 406 students who were eligible to attend college. This is likely due to insufficient sample size, which should improve as more of the sample is given time to make their way through high school. In terms of general patterns, we do not see a difference in the likelihood that Treatment Group 2 (i.e., the group most affected by the interventions) went to college relative to other groups, but they are less likely to attend a two-year college—presumably four-year college attendance increased, which is suggested by the positive coefficients in specifications 5 and 6 (though these results are not statistically significant). The sign of the coefficients also suggests a higher likelihood of full-time enrollment.

Table 8 estimates the results conditional on college enrollment. In other words, it examines college choice among those who decided to enter college. Here, we do see statistically significant differences in postsecondary enrollment patterns for Treatment Group 2 relative to the other groups. They are 11 percent less likely to attend a two-year college and 8 percent more likely to choose a four-year college—this suggests more expensive investments, perhaps enabled by the family having more in financial resources through savings. There is also suggestive evidence of students in Treatment Group 2 being more likely to attend full-time, but the result is not statistically significant. With time and a larger sample size, these differences may become significant.

V. ADDITIONAL EVIDENCE: RESULTS FROM THE FOLLOW-UP SURVEY

We also administered a follow-up survey to gain additional insights into the behavior and thoughts of our participants. The primary goal of the follow-up survey was to capture information on college savings in vehicles other than the Massachusetts 529 account, but our secondary goal was to gather additional data regarding factors influencing 529 account take-up, financial resources of participants, and post-secondary financial aid awareness/knowledge. The follow-up surveys were distributed to the participants who had indicated consent to be contacted again and could only be sent if the participant had a valid email or current mailing address in our data. We offered an incentive of a $20

electronic gift card upon completion and submission of the survey. Overall, 336 follow up surveys were completed from the 723 of the eligible participants. This is a response rate of 46.5 percent.[11]

As expected, students in our households were older and some had already enrolled in college (32percent) or completed a degree program (12 percent). Representation of students in grades 10-12 was consistent with our students aging up from our initial Parent Background Survey with a fairly even distribution. Female members of the household overwhelmingly were the respondents to the follow up-survey (83 percent). Home ownership rose to 54 percent, yet 46 percent of our respondents indicated an annual family income of less or equal to $50,000.

As only about a third of the original ECPI workshop participants completed a post-survey (nearly 47 percent of those for whom we had good contact information and permission to re-contact). It is therefore important to note that while we still were able to collect a great deal of valuable information, the pre- and post-survey samples are not exact comparisons. Some of the differences we see between the two surveys has to do with the fact that the underlying characteristics of each sample are different—i.e., while everyone completed the pre-survey, only a subset of parents completed the follow-up survey. It is also important to mention that changes over time are not necessarily attributable to our interventions. For example, awareness of different financial aid programs appears to have increased over time. That may be due to the fact that the children of the participants have gotten older, and as they have approached the college enrollment decision, parents have learned more about specific programs. There is also evidence to suggest that families have continued to participate in various college access workshops, which may also influence their knowledge, perceptions, and savings behavior.

Table 9 summarizes some of the post-survey results. Overall, post-survey families reported greater awareness of financial aid (e.g., the FAFSA and the Pell Grant) and there was a substantial increase in the percentage of families who reported that they had started saving for college, from only 35.3 percent at the time of the original workshop to 68.5 percent by the time of the follow-up survey. However, family income remains an important factor. While 50.7 percent of our lowest income bracket had started saving, two-thirds of those families reported having saved $2,000 or less. Conversely, half of those in the highest income bracket reported saving mover then $20,000.

[11] Of this sample, 236 participants responded via Qualtrics, utilizing either an online computer or a smartphone internet connection, and 91 responses were received via mail as paper surveys.

Table 10 documents that fact that the Massachusetts 529 program, and 529 accounts in general, are not the only way families save for college. While this project has focused on the 529 College Savings program given the intent of the policy to provide incentives to family, our survey results suggest that many parents still choose other instruments for their college savings. Many families use regular savings account (39.5 percent) and nearly a quarter using regular savings accounts as the primary vehicle to save for college. This suggests that bank savings accounts continue to be favored by the majority of families not only for general savings, but also for dedicated college savings. The highest income bracket ($100,000 or more) in our survey was the only group to favor 529 plans, followed closely by bank savings accounts. Also, given families can participate in the 529 account of any state, 8.3 percent have a 529 account in another state. Less popular are Coverdell Education Savings Accounts, though some choose retirement or checking accounts.

While one would naturally expect lower-income families to save less and higher-income families to save more, our observations and experiences suggest that obstacles for saving go beyond income and financial vulnerability. Many lower income families may lack the cultural capital or college financial awareness necessary to open an account and save. In other words, families who may be navigating the college pipeline for the first time may also be navigating financial products and concepts for the first time. This is reflected in the post-survey results summarized in Table 11. The most frequently cited obstacles to saving among *all income groups* are lack of money to spare for savings, having other savings priorities or debt, and worrying about not being able to save enough to make a difference. While not having enough money was the most popular answer, lower-income families were much more like to select that option than higher-income families. Meanwhile, having other savings priorities was a concern expressed more highly for groups that made more than $25,000. Interestingly, the group in the $25,000 to $49,999 income range expressed these top to concerns more frequently than other groups.

Supporting our hypothesis that lack of information might explain some of the underutilization of college savings options, we find nearly one-third of families expressed that they were unsure of their savings options. Nearly half of low-income families said this, though the higher-income families selected this option rarely. Finally, our project focused on families within the last five years of K-12, and many parents expressed concern about not being able to save enough to make a different. However, this

concern was concentrated among low-income families. Surprisingly, families across the income distribution were nearly equal in the proportion concerns about how savings might affect their financial aid eligibility. The literature underscores this as a concern for low-income families, but we also see evidence of higher-income families thinking about this.

VI. CONCLUSIONS

In summary, our project examines the effects of a program that attempts to increase awareness about college savings options, simplify the process of opening an account, and encourage take-up saving by contributing to the initial balance. Nearly no one in the control group has opened a college savings account as a result of the general information we provide about the importance of saving for college. The vast majority of accounts opened are by parents who were in Treatment Group 2 and received the opening deposit from us. About one-third of parents who opened accounts also set up automatic monthly contributions. This is an important pathway to accumulating meaningful savings amounts.

Our research provides evidence about the barriers impeding college savings, the efficacy of current savings devices, policies that may improve college savings, and the effects of college savings on college outcomes. Our early analysis of college outcomes also suggests that college savings lead to more expensive, and perhaps better, investments in postsecondary education. Therefore, we provide promising results about the long-term benefits of engaging families in college savings.

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Table 1: Summary Statistics and Differences between Treatment and Control Group Means

	Control Group Mean	Treatment Group 1 (*Assistance*) Difference	Treatment Group 2 (*Assistance + Incentive*) Difference
Parents' Characteristics			
Parents' Age (max)	45.67	-0.1287	-0.7891
	(0.3832)	(0.5896)	(0.5440)
Parent attending Workshop Female	0.7603	0.0331	-0.0012
		(0.0344)	(0.0324)
Married	0.5331	-0.0387	-0.0435
		(0.0414)	(0.0379)
Black	0.4669	-0.0315	0.0487
		(0.0412)	(0.0379)
Hispanic	0.1199	0.0425	0.0019*
		(0.0289)	(0.0247)
Asian	0.1767	-0.0586**	-0.0471*
		(0.0291)	(0.0274)
Mixed Race or Other	0.0694	0.0192	0.0239
		(0.0224)	(0.0206)
Parent has Some College	0.1924	-0.0485	-0.0033
		(0.0308)	(0.0298)
Parent has a College Degree	0.4921	0.0577	0.0131
		(0.0413)	(0.0380)
Child's Characteristics			
Female Student	0.5110	-0.0276	0.0045
		(0.0414)	(0.0379)
Grade at time of Workshop	8.5048	0.1467	0.2087**
	(0.0704)	(0.1038)	(0.0934)
Child's Year of Birth	1998.15	0.0252	0.0357
	(0.0896)	(0.1274)	(0.1190)
Family Income and Home Ownership			
Family Income under $20,000	0.1577	0.0194	0.0340
		(0.0310)	(0.0287)
Family Income $20,000-39,999	0.2019	-0.0358	-0.0076
		(0.0320)	(0.0303)
Family Income $40,000-59,999	0.1987	0.0042	-0.0485*
		(0.0332)	(0.0289)
Family Income $60,000-79,999	0.1104	-0.0108	0.0114
		(0.0254)	(0.0243)
Family Income $80,000-99,999	0.1041	-0.0008	0.0203
		(0.0253)	(0.0240)
Family Income $100,000 or More	0.0915	-0.0140	-0.0034
		(0.0230)	(0.0217)

On Public Assistance	0.2326	-0.0044 (0.0356)	0.0799** (0.0344)
Own Home	0.5146	-0.0239 (0.0417)	-0.0447 (0.0383)
Family Characteristics			
Number of Kids in the Family	2.01 (0.0627)	0.1275 (0.0976)	0.1591* (0.0851)
Unknown Number of Kids in the Family	0.1073	-0.0667** (0.0211)	-0.0425** (0.0215)
Prior Savings Behavior			
Already had a 529 Account before the Workshop	0.0536	0.0202 (0.0203)	0.0085 (0.0177)
Sample size	317	271	386

Source: Pre-Workshop Background Survey. Information about previous 529 account is from the Massachusetts U.Fund database.

Notes: Self-reported parental education level and family income are missing for 13.6 percent of the sample, but there are no statistically significant differences in this proportion by control/treatment group for either variable.

Table 2: Pre-Workshop Savings Behavior and Beliefs

	Full Sample	Family Income Group		
		Less Than $40,000	$40,000-$79,999	$80,000 or more
Have you begun to save for college? (% who answered "yes")	0.3333	0.1975	0.3294	0.5769
Why are you not saving/not saving more? (% who checked "yes")				
We don't have the money to spare	0.7217	0.7138	0.7577	0.6848
Not sure of options	0.3681	0.3417	0.4141	0.3497
I won't be able to save enough	0.3211	0.3805	0.3359	0.1967
Too complicated	0.2487	0.3281	0.2305	0.1366
Worried about loss of financial aid	0.1548	0.1483	0.1719	0.1421
Not sure child will go to college	0.1149	0.1293	0.1401	0.0546
It's too early to start saving	0.0450	0.0473	0.0547	0.0273
Observations	756	317	256	183
Among families that had begun to save for college				
Amount Saved	$13,122 (23,496)	$2,616 (4,579)	$6,855 (8,015)	$26,601 (32,539)
Number of Respondents	229	76	64	89
When began to save?				
Started within the last 2 years	0.3200	0.5211	0.3263	0.1835
Started 3-5 years ago	0.1891	0.1268	0.2842	0.1468
Started more than 5 years ago	0.4909	0.3521	0.3895	0.6697
Number of Respondents	275	71	95	109
Method of saving				
Checking Account	0.0836	0.1081	0.1042	0.0513
Savings Account	0.3763	0.5000	0.3958	0.2821
Stock Market	0.1672	0.0676	0.0833	0.2991
529 Account	0.3693	0.1351	0.2500	0.6154
Other	0.2230	0.2703	0.2396	0.1795
Number of Respondents	287	74	96	117

Source: Pre-Workshop Background Survey.
Notes: When answering the question about why the family is not saving or not saving more, the parent was instructed to "check all that apply."

Table 3: Summary of Savings Behavior after Workshop

	Full Sample	Control Group	Treatment Group 1 (*Assistance*)	Treatment Group 2 (*Assistance + Incentive*)
Full Sample				
Open 529 after Workshop	9.86%	0.95%	2.21%	22.54%
Account Balance (zero if no account)		$1,267 (11,112)	$3,621 (20,166)	$2,360 (12,261)
Started Automatic Monthly contributions	3.39%	0.63%	0.74%	7.51%
Observations	974	317	271	386
Sample: Opened account after workshop				
Account Balance	$1,182 (2,522)	$522 (772)	$1,783 (2,558)	$1,164 (2,567)
Started Automatic Monthly contributions	30.21%	0	33.33%	31.03%
Observations	96	3	6	87

Source: MEFA/Fidelity Massachusetts 529 College Savings Accounts Database.

Table 4: The Effects of the Interventions on Opening a 529 Account after the Workshop

	Full Sample			Students in Grades 7-10 Only		
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment Group 1 (*Assistance*)	0.0127*	0.0108	0.0109	0.0103	0.0041	0.0044
	(0.0074)	(0.0122)	(0.0123)	(0.0092)	(0.0137)	(0.0137)
Treatment Group 2 (*Assistance + Incentive*)	0.2159***	0.2159***	0.2156***	0.2257***	0.2241***	0.2235***
	(0.0351)	(0.0348)	(0.0348)	(0.0366)	(0.0361)	(0.0361)
Background Controls		Y	Y		Y	Y
Event Year F.E.			Y			Y
R^2	0.12	0.16	0.16	0.13	0.16	0.16
N	974	974	974	893	893	893

* $p<0.1$ ** $p<0.05$ *** $p<0.01$

Source: MEFA/Fidelity Massachusetts 529 College Savings Accounts Database.

Notes: Standard errors adjusted for clustering by event date. The background controls are: dummy variables for parents' race (Black, Hispanic, Asian, Other), dummy variables for parents' level of education (no college; some college; college degree), dummy variables for parents being married, home ownership, and received public assistance each, whether the student is female, the child's grade at the time of the workshop, student's year of birth, number of children in the household.

Table 5: The Effects of the Interventions on signing up for Automatic Monthly Contributions

	Full Sample			Students in Grades 7-10 Only		
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment Group 1 (*Assistance*)	0.0011	0.0052	0.0048	0.0014	0.0030	0.0027
	(0.0083)	(0.0088)	(0.0088)	(0.0089)	(0.0096)	(0.0096)
Treatment Group 2 (*Assistance + Incentive*)	0.0688***	0.0724***	0.0731***	0.0699***	0.0734***	0.0741***
	(0.0180)	(0.0209)	(0.0210)	(0.0203)	(0.0224)	(0.0226)
Background Controls		Y	Y		Y	Y
Event Year F.E.			Y			Y
R^2	0.03	0.06	0.06	0.03	0.06	0.06
N	974	974	974	893	893	893

* $p<0.1$ ** $p<0.05$ *** $p<0.01$

Source: MEFA/Fidelity Massachusetts 529 College Savings Accounts Database.

Notes: Standard errors adjusted for clustering by event date. The background controls are: dummy variables for parents' race (Black, Hispanic, Asian, Other), dummy variables for parents' level of education (no college; some college; college degree), dummy variables for parents being married, home ownership, and received public assistance each, whether the student is female, the child's grade at the time of the workshop, student's year of birth, number of children in the household.

Table 6: The Effects of the Interventions on Amount Saved

Current 529 Account Balance (zero if there is no account; excluding accounts > $100,000)

	Full Sample			Students in Grades 7-10 Only		
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment Group 1 (*Assistance*)	$1,352**	1,709**	1,720**	1,513**	1,771**	1,779**
	(663)	(771)	(773)	(718)	(834)	(837)
Treatment Group 2 (*Assistance + Incentive*)	$1,508**	1,911**	1,895**	1,665**	2,069***	2,055***
	(632)	(715)	(719)	(675)	(730)	(735)
Background Controls		Y	Y		Y	Y
Event Year F.E.			Y			Y
R^2	0.01	0.09	0.09	0.01	0.09	0.09
N	968	968	968	887	887	887

* $p<0.1$ ** $p<0.05$ *** $p<0.01$

Source: MEFA/Fidelity Massachusetts 529 College Savings Accounts Database.

Notes: Standard errors adjusted for clustering by event date. The background controls are: dummy variables for parents' race (Black, Hispanic, Asian, Other), dummy variables for parents' level of education (no college; some college; college degree), dummy variables for parents being married, home ownership, and received public assistance each, whether the student is female, the child's grade at the time of the workshop, student's year of birth, number of children in the household.

Table 7: The Effects of the Interventions on Postsecondary Outcomes (Ever Enrolled by Fall 2016)

	Outcome: Enrolled in College		*Outcome:* Attend Two-year College		*Outcome:* Attend Four-year College		*Outcome:* Attend Full-Time	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Treatment Group 1 (*Assistance*)	-0.0582	-0.0269	-0.0073	-0.0100	-0.0726	-0.0441	0.0160	0.0227
	(0.0453)	(0.0410)	(0.0355)	(0.0329)	(0.0522)	(0.0477)	(0.0565)	(0.0493)
Treatment Group 2 (*Assistance + Incentive*)	-0.0350	0.0081	-0.0770**	-0.0719**	0.0282	0.0619	0.0182	0.0734
	(0.0468)	(0.0510)	(0.0293)	(0.0284)	(0.0526)	(0.0556)	(0.0506)	(0.0553)
Background Controls		Y		Y		Y		Y
Event Year F.E.		Y		Y		Y		Y
R^2	0.00	0.10	0.01	0.12	0.01	0.14	0.00	0.16
N	406	406	406	406	406	406	406	406

* $p<0.1$ ** $p<0.05$ *** $p<0.01$

Source: National Student Clearinghouse (NSC) data matched to project data.

Notes: Standard errors adjusted for clustering by event date. The background controls are: dummy variables for parents' race (Black, Hispanic, Asian, Other), dummy variables for parents' level of education (no college; some college; college degree), dummy variables for parents being married, home ownership, and received public assistance each, whether the student is female, the child's grade at the time of the workshop, student's year of birth, number of children in the household. "Enrolled in college" is defined as having a postsecondary record in the NSC data.

Table 8: The Effects of the Interventions on Postsecondary Outcomes Conditional on College Enrollment (Ever Enrolled by Fall 2016)

	Outcome: Attend Two-year College		*Outcome:* Attend Four-year College		*Outcome:* Attend College Full-Time	
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment Group 1 (*Assistance*)	0.0057	-0.0184	-0.0342	-0.0250	0.0832	0.0638
	(0.0485)	(0.0475)	(0.0492)	(0.0453)	(0.0654)	(0.0619)
Treatment Group 2 (*Assistance + Incentive*)	-0.1006**	-0.1124***	0.0828*	0.0799*	0.0606	0.0978
	(0.0395)	(0.0367)	(0.0441)	(0.0436)	(0.0580)	(0.0592)
Background Controls		Y		Y		Y
Event Year F.E.		Y		Y		Y
R^2	0.02	0.21	0.02	0.21	0.01	0.21
N	286	286	286	286	286	286

* $p<0.1$ ** $p<0.05$ *** $p<0.01$

Source: National Student Clearinghouse (NSC) data matched to project data.

Notes: Standard errors adjusted for clustering by event date. Limited to the sample that enrolled in college by fall 2016 (as determined by NSC records). The background controls are: dummy variables for parents' race (Black, Hispanic, Asian, Other), dummy variables for parents' level of education (no college; some college; college degree), dummy variables for parents being married, home ownership, and received public assistance each, whether the student is female, the child's grade at the time of the workshop, student's year of birth, number of children in the household.

Table 9: Results from the Follow-Up Survey on Savings Behavior

	Full Sample	$0-$24,999	$25,000-$49,999	$50,000-$74,999	$75,000-$99,999	$100,000 or more
Awareness and Preparation Activity						
Have you attended a college workshop during the past school year? (percent " yes")	58.5%	46.1%	58.7%	58.9%	62.2%	67.5%
Do you know what 529 accounts are? (percent " yes")	68.5%	43.4%	57.1%	66.1%	91.1%	93.8%
Have you started saving for college? (percent " yes")	69.9%	50.7%	57.1%	69.6%	82.2%	92.5%
Observations	336	75	77	56	45	80
Amount Saved						
Saved $0-1,999	28.5%	65.8%	38.6%	35.9%	18.9%	4.1%
Saved $2,000 - $4,999	23.4%	31.6%	36.4%	25.6%	21.6%	12.2%
Saved $5,000 -$9,999	15.3%	0.0%	20.5%	12.8%	16.2%	20.3%
Saved $10,000 - $19,999	9.8%	0.0%	2.3%	12.8%	18.9%	13.5%
Saved $20,000 or more	23.0%	2.6%	2.3%	12.8%	24.3%	50.0%
Observations	235	38	44	39	37	74
Is your oldest child aware you have a college savings account for her/him? (percent " yes")	74.3%	58.3%	68.6%	78.6%	72.4%	83.1%
Observations	175	24	35	28	29	59

Source: ECPI Follow-up Parent Survey completed April to August 2015 (the original workshops were held in 2012 and 2013).

Table 10: Results from the Follow-Up Survey on College Savings Vehicles (N=339)

	Using to Save *(check all that apply)*	Primary Savings for College *(choose ONE)*
Massachusetts' 529 Account (U.Fund)	23.9%	14.7%
529 Account in Another State	8.3%	6.8%
Coverdell Education Savings Account	2.4%	0.3%
Retirement Account	14.2%	2.9%
Checking Account	17.7%	4.7%
Savings Account	39.5%	23.6%
Other type of Account	10.9%	7.7%

Source: ECPI Follow-up Parent Survey (completed April to August 2015).

Table 11: Results from the Follow-Up Survey on Impediments to Saving
% saying "Strongly Agree" or "Agree" by family income

	Full Sample	$0-$24,999	$25,000-$49,999	$50,000-$74,999	$75,000-$99,999	$100,000 or more
I don't have the money to spare	77.0%	83.1%	89.6%	71.4%	75.6%	65.0%
I have other savings priorities or debt	70.2%	55.8%	74.0%	75.0%	75.6%	77.5%
I won't be able to save enough to make a difference	47.5%	58.4%	58.4%	44.6%	37.8%	36.3%
I worry saving will hurt my ability to get financial aid	33.9%	35.1%	33.8%	32.1%	28.9%	37.5%
I am unsure of my savings options	28.9%	45.5%	31.2%	37.5%	8.9%	17.5%
I don't want to pay fees for savings accounts	28.9%	37.7%	32.5%	35.7%	24.4%	16.3%
I don't understand how college savings accounts might be beneficial	25.7%	42.9%	22.1%	30.4%	8.9%	18.8%
College savings accounts seem hard to open	16.2%	37.7%	18.2%	16.1%	4.4%	1.3%
I'm unsure whether my child will go to college	9.7%	18.2%	9.1%	10.7%	4.4%	5.0%
Observations	339	77	77	56	45	80

Source: ECPI Follow-up Parent Survey (completed April to August 2015).
Note: The number of observations for each income group does not sum to the total for the full sample because several parents did not report income. The dark gray shading denotes more than 75% responded they "agree" or "strongly agree." The medium gray shading denotes percentages 50 to 74.9%. The light gray shading denotes 30 to 49.9%.