

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

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The Importance of Saving for College: Government Policies

With growing tuition prices and unmet financial need
→ **Encourage families to save for themselves**

- 529 Plans allow families to save money for college and accrue benefits that are mostly tax-free
- Growth of programs aiming to encourage family accounts
 - State tax deductions for contributions
 - Opening balances for young children (e.g., SF, NYC, Boston)
 - Matching programs

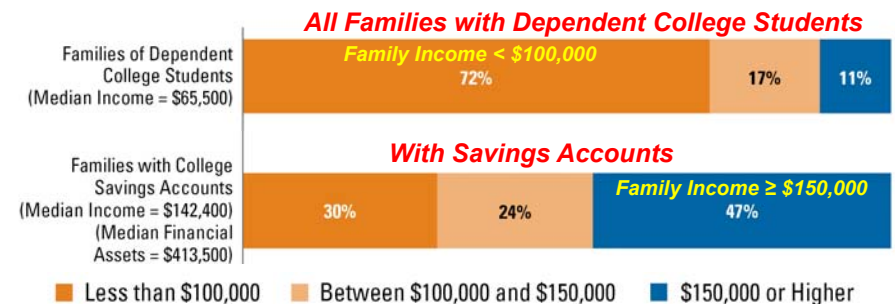
Total Assets in State-Sponsored Section 529 College Savings Plans in 2014 Dollars (in Billions)



Source: The College Board, *Trends in Student Aid 2015*, Figure 32B

Income Distribution of Families with and Without College Savings Accounts, 2010

Families with incomes \geq \$150,000 make up **11%** of Dependent College Students but **47%** of those with Savings Accounts



Source: The College Board, *Trends in Student Aid 2015*, Figure 32A.

College Affordability and Savings

Saving for college is important, yet underutilized, especially among middle- and lower-income families

- Of parents with children younger than 18 years old:
 - 73% of *high-income* families have started saving
 - 34% of *low-income* families have started saving
- **529 Plans:** 45% of high-income families use a 529 Plan, while only 12% of low-income families do

Why don't families save? Are 529 Plans and related policies an effective way to increase savings?

Source: *America Pays for College 2014: Sallie Mae's National Study of College Students and Parents*, conducted by Ipsos Public Affairs (Report).

Why don't more Families Save?

- Low levels of awareness:
 - College costs and need for savings
 - Savings options and their benefits
- Misperceptions about how savings affects aid eligibility
 - What financial aid doesn't cover
 - How having savings affects financial aid awards
- College savings application forms are cumbersome (could result in procrastination)
- College savings plans are too complex
- Families may have little disposable income

Are families not able to save or is lack of information and complexity barriers to doing so?

How can we help families save?

- Little is known about the best way to design these policies or interventions to help families
- Three possibilities:
 - (1) Increase **awareness** of college savings options
 - (2) **Simplify** the enrollment process
 - (3) Provide **additional incentives** to encourage savings behavior

→ *Early College Planning Initiative*

The Early College Planning Initiative

- Free college affordability workshops for Boston-area parents of 7th-10th grade students (Feb 2012 - Dec 2013)
- Partnership with Boston Public Schools, uAspire and MEFA
 - Workshops presented by college access non-profit (advisors who serve in many Boston-area high schools)
 - Massachusetts Educational Financing Authority (MEFA) offers the U.Fund, MA's 529 plan
- Programs held in both school and community settings
- Funding by the U.S. Department of Education and the Bill & Melinda Gates Foundation



College affordability workshops for Boston-area parents of 7th-10th grade students (Feb 2012 - Dec 2013)

Sample = 985 families (1,004 students)

Parent Race/Ethnicity	Parent Max Education
46% Black	19% HS grad/Less than HS
20% White	32% Some college/Assoc Deg
15% Asian	50% Bachelor's degree/Higher
12% Latino/a	

Family Income

- 44% under \$40,000
- 22% \$40-60,000
- 34% \$60,000+

Before the workshops... Financial Aid Awareness
49.1% Know about FAFSA
50.1% Know about Pell Grant
36.1% Know about 529 Plans

Table 2: Pre-Workshop Saving Behavior & Beliefs

	Full Sample	Family Income Group	
		Less Than \$40,000	\$80,000 or more
Have you begun to save for college? (% "yes")	0.3333	0.1975	0.5769

Among families that had begun to save for college

	Full Sample	Family Income Group	
		Less Than \$40,000	\$80,000 or more
Amount Saved	\$13,122 (23,496)	\$2,616 (4,579)	\$26,601 (32,539)
Method of saving			
Checking Account	0.0836	0.1081	0.0513
Savings Account	0.3763	0.5000	0.2821
Stock Market	0.1672	0.0676	0.2991
529 Account	0.3693	0.1351	0.6154

The Early College Planning Initiative

- ✓ Each family completed a survey about financial awareness and family demographics
- ✓ Each family randomly assigned to 1 of 3 groups
- **Control Group:** Informational workshop
Is information alone enough to help families?
- **Treatment Group #1:** Same as above **AND** offered a simplified way to open a 529 plan (MA U.Fund)
Would simplifying the process help families?
- **Treatment Group #2:** Same as #1 **AND** offered the initial minimum balance to open an account (\$50)
Would a small incentive encourage savings?

Table 1: Summary Statistics

	Control Mean	TG1 Difference (Assistance)	TG2 Difference (Assistance + Incentive)
Parents' Characteristics			
Parents' Age (max)	45.67 (0.3832)	-0.1287 (0.5896)	-0.7891 (0.5440)
Married	0.5331	-0.0387 (0.4414)	-0.0435 (0.0379)
Black	0.4669	0.0487 (0.0379)	0.0487 (0.0379)
Hispanic	0.1195	0.0487 (0.0379)	0.0487 (0.0379)
Asian	0.1767	-0.0291 (0.0291)	-0.0291 (0.0291)
Parent has Some College	0.1924	-0.0485 (0.0308)	-0.0485 (0.0298)
Parent has a College Degree	0.4921	0.0577 (0.0413)	0.0131 (0.0380)
Child's Characteristics			
Female Student	0.5110	-0.0276 (0.0414)	0.0045 (0.0379)
Grade at time of Workshop	8.5048 (0.0704)	0.1467 (0.1038)	0.2087** (0.0934)

The Randomization Worked
(the groups have similar characteristics, on average)

Empirical Strategy and Data

$$(1) \quad y_i = \delta_0 + \delta_1 TG1_i + \delta_2 TG2_i + bX_i + \varepsilon_i$$

- Background Controls: Parental background (race, level of education, married, home ownership, public assistance) and student background (gender, grade, age, siblings)
- Standard Errors clustered by event date
- Workshops: Feb 2012 - Dec 2013
- 529 Account data (Fidelity Investments): Jan 2017 (up to 5 years later; 4 years for most families)

Table 3: Savings Behavior after Workshop

	Control Group	Assistance (TG1)	Assistance + Incentive (TG2)
Open 529 after ECPI	0.95%	2.21%	22.54%
Started Monthly contributions	0.63%	0.74%	7.51%
Account Balance (zero if no account)	\$1,267 (11,112)	\$3,621 (20,166)	\$2,360 (12,261)
Observations	317	271	386
Among accounts opened after the Workshop			
Account Balance	\$522 (772)	\$1,783 (2,558)	\$1,164 (2,567)
Started Monthly contributions	0	33.33%	31.03%
Observations	3	6	87

Table 4: The Effects of the Interventions on 529 Account Take-Up

	Full Sample (all grades)			Grades 7-10
	(1)	(2)	(3)	(6)
Assistance (TG1)	0.0127* (0.0074)	0.0108 (0.0122)	0.0109 (0.0123)	0.0044 (0.0137)
Assistance + Incentive (TG2)	0.2159*** (0.0351)	0.2159*** (0.0348)	0.2156*** (0.0348)	0.2235*** (0.0361)
Background controls		Y	Y	Y
Adding Event Year FE			Y	Y
R ²	0.12	0.16	0.16	0.16
N	974	974	974	893

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 on signing up for Automatic Monthly Contributions

	Full Sample (all grades)			Grades 7-10
	(1)	(2)	(3)	(6)
Assistance (TG1)	0.0011 (0.0083)	0.0052 (0.0088)	0.0048 (0.0088)	0.0027 (0.0096)
Assistance + Incentive (TG2)	0.0688*** (0.0180)	0.0724*** (0.0209)	0.0731*** (0.0210)	0.0741*** (0.0226)
Background controls		Y	Y	Y
Adding Event Year FE			Y	Y
R ²	0.03	0.06	0.06	0.06
N	974	974	974	893

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 on the Amount Saved

(529 Account Balance Jan 2017; Excluding accounts > \$100,000)

	Full Sample (all grades)			Grades 7-10
	(1)	(2)	(3)	(6)
Assistance (TG1)	\$1,352** (663)	\$1,709** (771)	\$1,720** (773)	\$1,779** (837)
Assistance + Incentive (TG2)	\$1,508** (632)	\$1,911** (715)	\$1,895** (719)	\$2,055*** (735)
Background controls		Y	Y	Y
Adding Event Year FE			Y	Y
R ²	0.01	0.09	0.09	0.09
N	968	968	968	887

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.

Summary of the RCT Results

- Almost no one in the control group (only received general information) opened a college savings account
- 45-Minute Workshop + \$50 =
 - 22% opened a Massachusetts 529 account
 - TG2 saved on average \$1,800-2,000 more over 4-5 years
- About 1/3rd who opened accounts also set up automatic monthly contributions *without further intervention*
- Families were started in FDIC-Insured account
 - Required by IRB; essential for working with schools
 - Many families switched to age-profile accounts

Summary of the RCT Results:

Preliminary effects on College Enrollment

- College enrollment (NSC): Ever enrolled by fall 2016 (half of sample would have on-time HS graduation by then)
- Early enrollment effects
 - Less likely to attend a two-year college; more likely to attend a four-year college
 - Suggestive that more likely to attend full-time
- Related questions:
 - Are perceptions of affordability related to academic preparation activities?
 - Were there effects on the likelihood of taking a college prep curriculum or taking the SAT?

Follow-Up Parent Survey

Timing: April-August 2015 (1.5 to 3.5 years later)

- Personalized with name and workshop location/date
- Limited to parents who gave consent to be re-contacted
- Response rate = 47% (336 responses out of 723 possible)
- Seems similar to full sample based on observables
 - Student distribution by grade consistent with aging up
 - Home ownership rate rose from 51.5 to 54%, yet 46% reported family incomes less than \$50,000

Table 9: Pre- versus Post-Survey - Awareness and Preparing Financially for College

	Pre-Workshop Survey	Follow-Up Survey (1.5 to 3.5 years later)		
		Full Sample	\$0-\$24,999	\$100,000 or more
Do you know what 529 accounts are?	35.3%	68.5%	43.4%	93.8%
Have you talked with your child about saving for college?	---	85.1%	79.2%	85.0%
Observations	827	335	76	80

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)
Savings Account	39.5%	23.6%
Massachusetts' 529 Account	23.9%	14.7%
Checking Account	17.7%	4.7%
Retirement Account	14.2%	2.9%
Other type of Account	10.9%	7.7%
529 Account in Another State	8.3%	6.8%
Coverdell Educ Savings Acct	2.4%	0.3%

"I am uncomfortable with putting money into a 529 account because I do not want to lose control of the funding if something unforeseen should occur in our family."

"I was informed when I applied for financial aid that the 529 will be deducted from my child's FAFSA and lessen the any aid that I may be eligible for."

"...Those college saving account(s) usually are investment account(s), and its return is not guaranteed and I don't want to risk my money this way."

"The 529 I opened after the workshop has earned less than one percent interest. I didn't realize that when I opened the account. I have earned more interest from my online savings account."

Table 11: F-U Survey on Impediments to Saving

	Full Sample	\$0-\$24,999	\$100,000 or more
Don't have the money to spare	77.0%	83.1%	65.0%
Other savings priorities or debt	70.2%	55.8%	77.5%
Won't be able to save enough to make a difference	47.5%	58.4%	36.3%
Worry saving will hurt ability to get aid	33.9%	35.1%	37.5%
Unsure of my savings options	28.9%	45.5%	17.5%
Don't want to pay fees	28.9%	37.7%	16.3%
Don't understand how accounts might be beneficial	25.7%	42.9%	18.8%
Accounts seem hard to open	16.2%	37.7%	1.3%
Unsure whether child will go to college	9.7%	18.2%	5.0%
Observations	339	77	80

Families and College Savings: *Conclusions*

- It's not enough to say "parents don't save because they don't have money"
- Families want information and assistance early and often; however, information alone is not enough
- Incentives (initial opening balance) and a streamlined process to open an account can be effective help
- Once getting over the initial hurdle (a cumbersome application), saving behaviors became much easier
 - *Perhaps due to quarterly statements/reminders?*
 - *Easier process to make new deposits or changes?*
- Links to the effectiveness of simplification and assistance with aid applications (FAFSA study in H&R Block offices)