

High-Income Families Benefit Most from New Education Savings Incentives

Susan Dynarski

A new breed of tax-advantaged savings vehicle has emerged for the college bound. Earnings on both the federal Coverdell Education Savings Account (ESA) and the state-level 529 savings plan are tax-free if the funds are used for postsecondary education. About half of states also allow an income tax deduction for contributions to their 529 plans, subject to an annual limit. The advantages of these education plans rise sharply with income for several reasons. Most obviously, those with the highest marginal tax rates benefit the most from sheltering income. A less obvious advantage lies in how the accounts are penalized if withdrawals are not used for schooling. Penalties more than offset tax benefits for lower-income families, but not for those with higher incomes, so higher-income families gain even if their children do not go to college. Finally, the reduction in college financial aid as a result of holding these assets takes a toll on many families, but especially low- to middle-income families who might otherwise qualify for more tuition assistance.

This brief explains how these new college plans work, comparing benefits between education savings and other savings vehicles. Although 529 plans and ESAs are still novel investment options, the 2001 Survey of Consumer Finances offers characteristics of the first investors to choose tax-advantaged college saving. Most important, the analysis presented here illustrates how the education savings plans deliver financial returns to families across the income brackets, from the lowest earners to the highest.

The Education IRA was established in 1997 and in 2001 renamed the Coverdell ESA. Much like Roth IRA contributions,

ESA contributions are not tax deductible, but earnings accumulate tax-free. If withdrawals are used for postsecondary education, ESA earnings are never taxed.

Likewise, Roth IRA earnings remain untaxed if the retiree reaches age 59½ before taking any funds. Annual contributions to the ESA were capped at \$500 per child until 2001, when the contribution limit was raised to \$2,000 and educational expenses were expanded to include primary and secondary education.¹

While the ESA is a product of federal legislation, the 529 savings plan is a state innovation. Michigan created the first in 1986, a prepaid tuition plan with a rate of return linked to tuition costs at the state's public postsecondary schools. Those who purchased shares were insured against the risk of rising tuition prices. Michigan exempted investment returns from state taxes, and, in 1994, won a battle against the Internal Revenue Service to also exempt returns from federal taxes.

Several other states introduced their own plans, with some variants, as the Michigan case moved through the courts. So when Congress codified the federal tax treatment of tuition plans in 1997, the tax-advantaged college savings plan was also recognized. Like the ESA, these new savings plans allowed after-tax investments to grow free of federal and state taxes; however, withdrawals used for postsecondary costs were exempt only from state taxation until legislation enacted in 2001 eliminated the federal tax on withdrawals.² The growth of the 529 savings plans quickly outstripped that of the prepaid plans. As of summer 2003, every state except Washington had a 529 savings plan, as did the District of Columbia.

If funds from education savings plans are not used for schooling, the penalties more than offset the tax benefits for lower-income families; higher-income families gain even if their children do not go to college.

How They Work and Who Invests

The tax advantages of the ESA and 529 are similar: earnings and after-tax dollars put into savings are not taxed as they accrue or at withdrawal, if used for educational purposes. There are also key differences between the two plans:

- While there is no **income limit** on contributions to a 529 savings plan,³ contributions to an ESA are restricted to joint-filer households with adjusted gross income (AGI) below \$220,000 and single-filer households with AGI below \$110,000.
- **Contribution limits** are much higher on the 529 than on the ESA. Families contributing to an ESA face an annual limit of \$2,000 per child. A 529 plan has no annual contribution limit, and annual deposits of up to \$11,000 per child are free from federal gift tax. States bar further contributions to 529 plans when the account balance exceeds a certain amount, which is typically about \$250,000 and can be as high as \$305,000.
- **Investment options** are more restrictive in the 529. Families can invest their ESAs as they wish. Families with 529 plans, however, are restricted to the investment choices determined by their state and, by federal law, can reallocate their assets only once a year. Until recently, most 529 savings plans provided only one investment option, an age-based portfolio that grew less aggressive as the child neared college age. Most plans now offer several investment options.
- **Parental control** is another difference. A parent, grandparent, or other relative establishing a 529 account for a child can withdraw funds at any time, but would pay a penalty if the funds are not spent on college expenses. By contrast, the establisher of an ESA cannot withdraw the funds, since the beneficiary technically owns the account.
- With each state sponsoring its own plan, the 529s vary on **contribution deductions and fees**. Individ-

uals are free to participate in any state's plan. Many states encourage residents to invest in their own state's plan by allowing them to deduct contributions from state taxable income. Another cross-state variation is fees, which appear higher, on average, than those on retail mutual funds, IRAs, or ESAs. In some states, fees can wipe out the tax advantages.

The profile that emerges of the earliest education savings investors reveals an elite group. The 2001 Survey of Consumer Finances, the first representative survey to gather information on the type of household that invests in education savings plans, finds 3 percent of households with children holding an ESA or 529.⁴ Education savers (those who hold an ESA or 529) have incomes, educations, and wealth higher than those of both retirement savers (those who hold an IRA or Keogh) and the general population.

Education savers' median income is \$91,000, nearly double the median (\$50,000) for all households with children and considerably higher than the \$75,000 reported for those who save in an IRA or Keogh. Education savers also have accumulated over four times more wealth than other families with children have—\$281,200 compared with \$61,830. The median net worth of retirement savers is \$227,600.

The data suggest that education savers are not new savers, but those who already have substantial investments in other tax-advantaged plans, such as IRAs or Keoghs. In fact, they have more retirement savings than the general population. The average balance in an IRA among education savers is nearly \$90,000, compared with \$56,523 for all retirement savers and \$20,132 for all households with children.

Education Savings Compared with Other Savings

Education savings accounts provide substantial tax advantages. The 529

with an up-front tax reduction offers a higher return than any other existing investment option. The 529 and ESA substantially expand the assets that can be shielded from taxation. Since the 529 has no eligibility requirements, these state-sponsored plans provide the first tax-advantaged saving opportunity for families ineligible for IRAs or ESAs because of high incomes and access to pension programs at work.

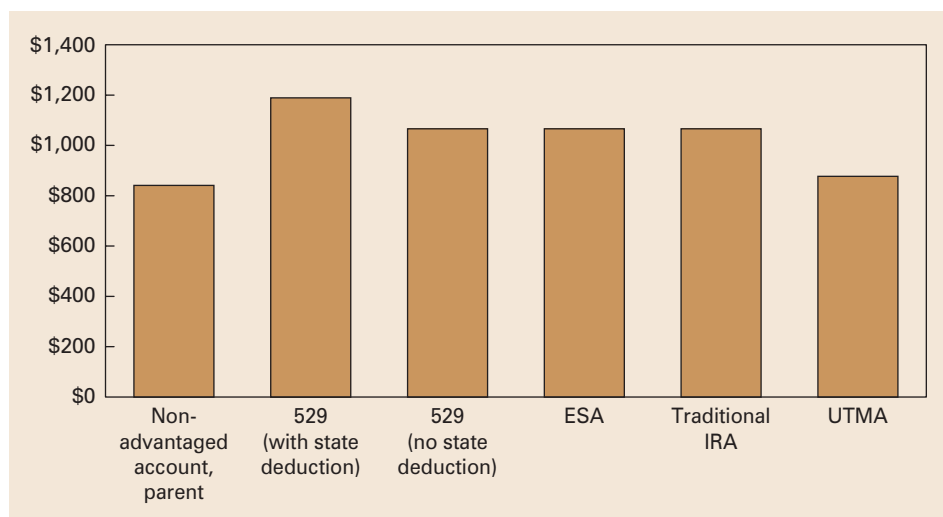
Below, the two education savings plans are compared with a non-tax-advantaged mutual fund account in the parent's name, a Uniform Transfer to Minors Act (UTMA) account in the student's name, and a traditional IRA.⁵ The returns were calculated using a single household type: a married couple, filing jointly, with two dependent children, and no itemized deductions. The findings assume a one-time investment of \$1,000 at the beneficiary's birth, with all after-tax earnings reinvested in a standard investment portfolio over 18 years. Any variation in returns is the result of income tax and aid system treatment.

Figure 1 shows how returns on the \$1,000 investment for a family with \$50,000 in taxable income would vary among the savings options. The UTMA yields slightly more than the non-advantaged mutual fund account, with the small advantage explained by higher taxes levied on the parents than on the children. Both the ESA and the IRA confer the same tax advantages as the 529, and therefore yield the same return. A key difference, however, is that much larger amounts can be deposited into a 529 than an ESA. The greatest returns are realized with the 529 in a state that allows state tax deductions on deposits.

Tax Rates

The progressivity of the U.S. tax system generally assures that taxes rise as a share of income as income increases. So, a lower-income family, with lower marginal tax rates, retains more of its \$1,000 pre-tax investment. Higher earners would pay more in taxes, leaving less of the \$1,000 to invest. The lower earners also face the lowest marginal tax rates on capital gains, dividends, and interest. For

FIGURE 1. After-Tax Return to College Savings Options for a Family with \$50,000 Taxable Income



Source: Author's calculations.

both reasons, returns drop on non-advantaged savings as income rises.

Education savings plans counteract this progressivity by removing some taxes. Figure 2 shows the ratio of the net return on education savings accounts to the return on non-advantaged accounts for households in various tax brackets. For lower-income (low-tax) earners, the new education savings accounts offer after-tax returns only slightly higher than those on a non-advantaged account. As income (and tax rate) rises, the education savings accounts become more attractive. For those in the top federal tax bracket, the 529 with an up-front deduction delivers a net return more than twice as high as that of a non-advantaged account.

Penalties

Education savings accounts have a downside that distinguishes them from other investments: their tax benefits are contingent on the funds being used for educational expenses. For both the 529 and ESA, the earnings portion of a withdrawal not used for qualified education expenses is taxed as ordinary income, plus a federal penalty of 10 percent of the account's earnings.⁶

Those in the lower brackets especially suffer if the money is not used for schooling. The 10 percent penalty is moderated for higher earners by

the large tax savings of shifting income into their children's tax bracket. Because only the beneficiary can make ESA withdrawals, the nonqualified funds are taxed at the beneficiary's lower tax rate.

Figure 3 shows how the returns on the noneducational use of the ESA compare with returns on the savings account without tax advantages. Even after the penalty is assessed, the upper four income brackets are still better off in an ESA than in a non-advantaged account. By contrast, those in the two lower brackets are worse off in the ESA than they would have been in a non-advantaged account. Most striking, those in the top bracket gain a larger advantage from an ESA with the penalties than those in the bottom bracket gain from saving for college.

As these calculations make clear, program design is quite important here. The penalty was created out of a concern that some households might strategically shelter large sums in the education savings accounts without any intent of using them for college. Given that families in the top brackets are more likely to have significant assets to shelter, it is sensible to create a penalty structure that discourages them from using education saving accounts for unintended purposes. However, as the ESA penalty (and the 529 penalty in those states

that assign non-qualified withdrawals to the child's income) is structured, those in the upper brackets can still benefit substantially from the education savings accounts when they do not use them for their intended purposes. By contrast, those in the lower brackets, who generally have few assets to shelter and are unlikely to engage in such strategic tax avoidance, always face a lower return if the accounts are not used for educational purposes.

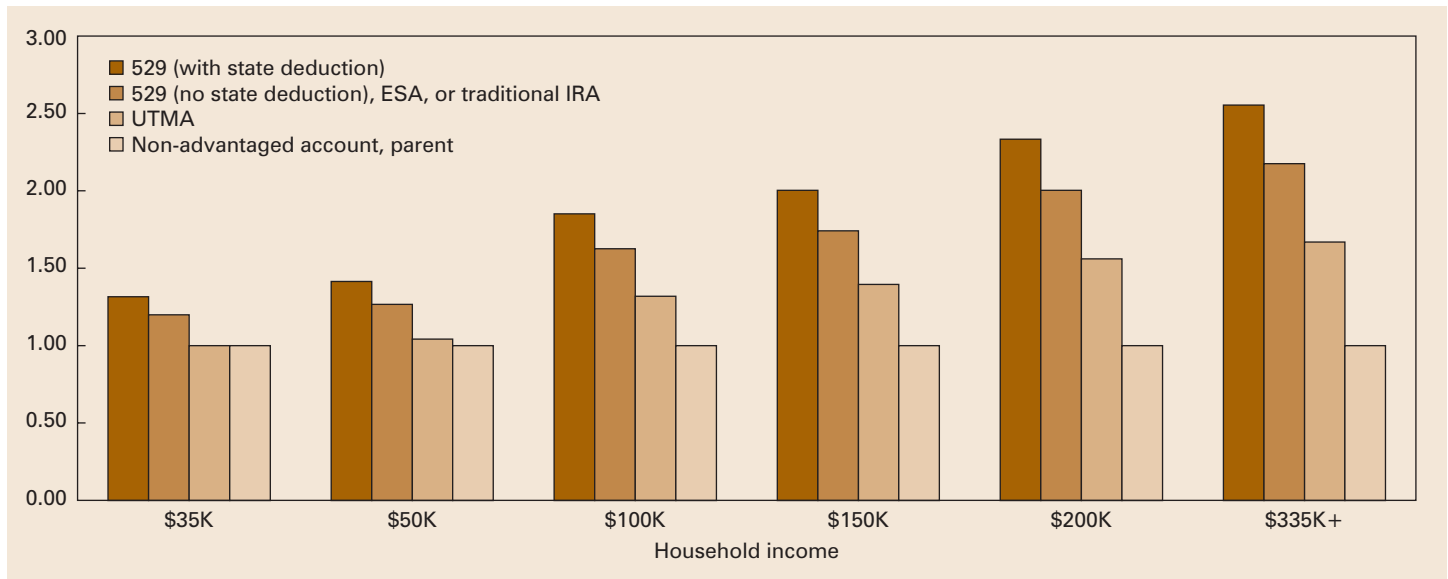
Financial Aid Tax

The financial aid system for college "taxes" the savings, including education savings accounts, of many families. Given the historically high level of tuition prices, even relatively well-off families can qualify for need-based aid, and so face this tax. Families at the extremes, either the wealthiest who receive no aid or the ones needy enough to qualify for maximum aid, face a zero aid tax. Because low- to middle-income families are more likely to be on the aid margin than high-income families, the aid tax becomes another contributor to the concentration of education savings benefits among higher earners.⁷

The aid tax has two components: a tax on asset balances and a tax on asset earnings, with the magnitude of each tax depending on the type of asset. Asset balances in both educational savings plans are taxed annually at a maximum rate of 5.64 percent. Each asset dollar is therefore taxed at a cumulative rate of 21 percent for a student who attends college for four years. By contrast, balances in accounts owned by the student (UTMAs) are taxed at an annual rate of 35 percent, or 82 percent over four years. Earnings are also taxed if they arrive in a year whose income is considered in determining college. In particular, as accounts are drawn down for college, earnings may be realized and after-income-tax realizations assessed by the aid formula.

Figure 4 shows that college savings vehicles provide higher net returns than any other investment option for those who are on the aid margin. Over the course of a college

FIGURE 2. After-Tax Return to College Savings Options Compared with After-Tax Return to Non-Advantaged Account



Source: Author’s calculations.

career, students with an ESA or 529 will lose about 15 cents in aid for each dollar invested. Most dramatically, each dollar held in a UTMA would reduce aid over a dollar during the college period, effectively confiscating those students’ savings.

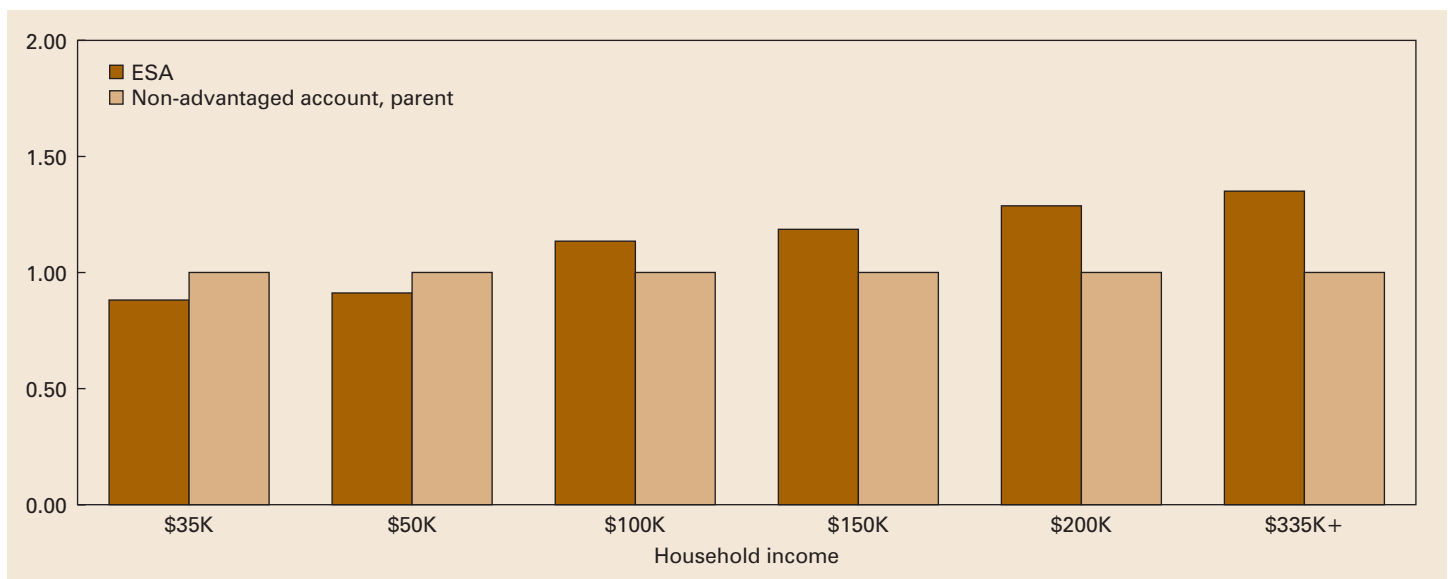
Until early 2004, the ESA was treated like the UTMA in the calculation of financial aid. This resulted in the same confiscatory treatment of the ESA for aid-marginal families, with all principal and earnings lost to income

and aid taxes. New U.S. Department of Education rules alter the treatment of the ESA, with assets now considered the parent’s rather than the child’s, like the 529. Further, the earnings portion of ESA withdrawals no longer counts as income for the purposes of calculating financial aid. As a result of these provisions, both education savings plans now receive the most favorable treatment by the aid system of all investment options considered.

Discussion and Conclusion

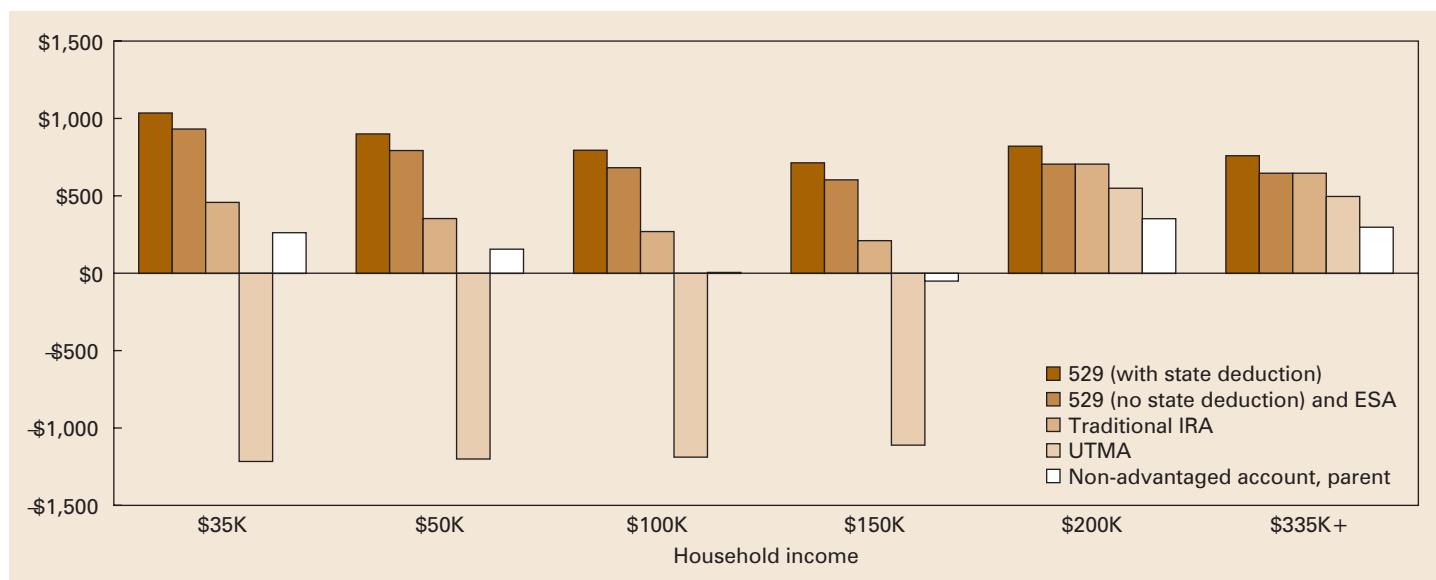
Education savings accounts are a good deal for many prospective students. Yet, for some parents, the desire to control how savings are spent may trump the tax advantages. For example, if funds in an ESA are not spent on college, they still go to the child eventually; the parent cannot take back ESA funds. When an ESA beneficiary reaches age 30, having not gone to college, the funds

FIGURE 3. After-Tax Return to Non-College Use of Education Savings Compared with After-Tax Return to Non-Advantaged Account



Source: Author’s calculations.

FIGURE 4. Return to College Savings Options, Net of Aid Lost and Income Tax



Source: Author's calculations.

Note: Figure assumes those in bottom four brackets are on aid margin; in top two brackets, assumed aid tax is zero.

automatically release to the beneficiary as a nonqualified withdrawal. A parent holds more control over the funds with a 529 savings account, as the account holder can liquidate the account—albeit after paying taxes and a penalty—or transfer it to another relative tax- and penalty-free.

From a behavioral standpoint, the penalty tied to the education savings accounts can be perceived as a benefit rather than a drawback, as it helps commit parents to hold funds for college rather than use them for immediate consumption. This incentive is similar to that of the worker who invests in an IRA or 401(k) as a commitment to retirement savings. Yet, the treatment of nonqualified withdrawals on the ESA and, in some states, the 529 favors the wealthy. Withdrawals are taxed at the child's tax rate rather than at the parent's much higher rate.

Given that the penalty was created out of concern that some households might strategically shelter large sums in education savings accounts, the choice of penalty structure should be reexamined. Right now, families in the top tax brackets, who are more likely to have significant assets to shelter, can still benefit substantially from the ESA (and the 529, in some states) when the money is not used for its

intended purpose. Yet, those with fewer assets to shelter and those less likely to engage in any strategic tax avoidance consistently face a lower return if the accounts are not used for educational purposes. One way to undo this perverse penalty structure would be to require that the earnings portion of any nonqualified withdrawal be taxed at the parent's rate. An additional option would be to assess a penalty proportional to the account owner's tax rate, rather than the current flat penalty of 10 percent of earnings.

While the income tax system disproportionately penalizes low-income 529 and ESA beneficiaries who do *not* go to college, the college financial aid system reduces returns for those who *do* go. Again, unfortunately, this most hurts the low- to middle-income families who are on the aid margin. With college savings, some children are being left behind.

Notes

1. This increase sunsets in 2010.
2. This federal tax treatment of the 529 savings plans sunsets in 2010. The present analysis assumes that the provision will be extended indefinitely.
3. No state has an income cap on eligibility for excluding 529 earnings from taxation. Only

Georgia has an income cap on eligibility for deducting contributions from state taxable income; it is \$100,000 for joint-filer households.

4. The Survey of Consumer Finances is a relatively small survey. Once the sample is limited to households with children under age 16, there are just 1,500 observations. The 3 percent holding an ESA or 529 translates into fewer than 50 households. Thus, these estimates may be imprecise.
5. The complete analysis is available at the author's web site, http://ksgfaculty.harvard.edu/Susan_Dynarski.
6. An exception is granted if the child attends college and receives a scholarship. In this case, the value of the scholarship is treated as a qualified expense. If a child chooses not to attend college, the parent can also change the beneficiary of the 529 or ESA to a relative.
7. For those on the aid margin, an increase in financial resources will decrease the amount of financial aid for which they are eligible. See Susan Dynarski, "Tax Policy and Education Policy: Collision or Coordination? A Case Study of the 529 and Coverdell Saving Incentives," *Tax Policy and the Economy* 18 (2004) for data on families that are aid-eligible or on the margin.

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