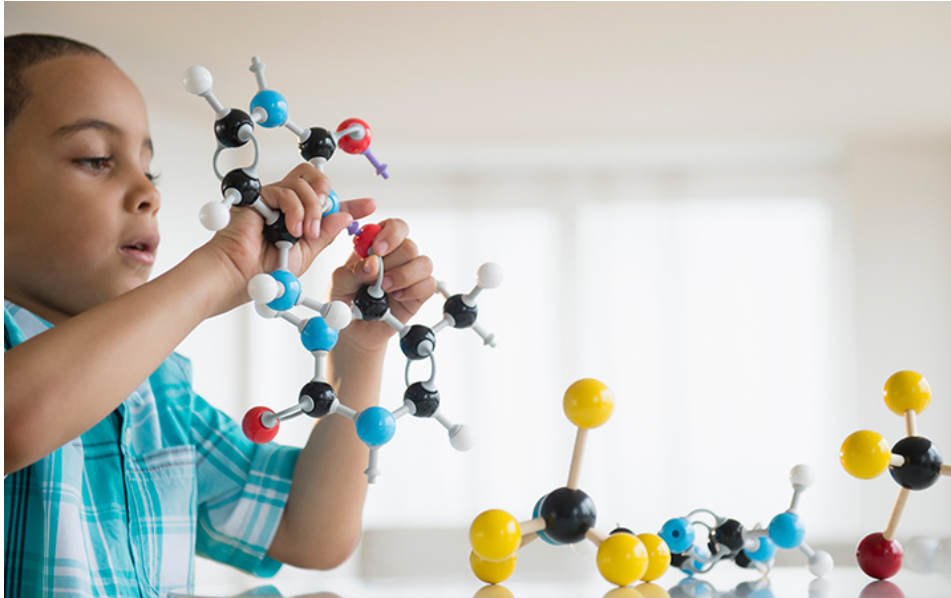


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529 Plans: A Closer Look at a Versatile Solution



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For families saving for college, the federal and, in many cases, state tax benefits of “529 plans” are generally more attractive than those available in alternative solutions such as Coverdell Education Savings Accounts (ESAs) or custodial accounts set up under the Uniform Gifts to Minors Act (UGMA) or the Uniform Transfers to Minors Act (UTMA). In addition to the generous benefits of potential tax-free growth and withdrawal for qualified uses, which includes expenses associated with K-12 education, student loan repayment and tax-free conversion of excess savings to a Roth IRA, 529s can also be used to support future generations. Their usefulness in that sense is due, in part, to their appealing control and flexibility features, which include allowing account owners to change beneficiaries as needed, for example to other family members or even to themselves.

It is this versatility across saving objectives and flexibility to tackle contingencies as they arise that makes 529 plans an attractive vehicle for use within a comprehensive financial plan that applies to all a household’s financial goals. The trade-off involved in leveraging these vehicles is increased complexity for the investor. Decisions about whether to “go it alone” in starting a 529 plan should factor in this consideration, along with differences in plan costs, investment choices and the availability of advice.

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Executive Summary

Education is a critical determinant of a person's standard of living, and that has only become more true in recent years as wages for highly educated workers have increased at a much faster pace than wages for workers without college degrees. Unfortunately, education is a major expense that puts considerable stress on the finances of most Americans, most notably for higher education. Indeed, precious few can afford to finance a child's college education out of their regular earnings. For most Americans, making those ends meet requires a multiyear savings plan that is judiciously invested along the way.

Fortunately, tax-advantaged investment accounts such as "529 plans," so named for the Internal Revenue Service Code that authorizes them, and Coverdell Education Savings Accounts (ESAs), provide significant tax benefits for investments that will ultimately be spent on education expenses. Of these accounts, 529s are the most popular for several reasons (see Exhibit 1). First, they are often afforded state tax benefits that Coverdells and other types of plans are not. Next, there is no income or age limitation for those who can make contributions. Finally, their flexibility and control provisions open them to a range of usages, especially gifting.

To illustrate some of the potential benefits of education savings accounts, we ran an analysis controlled for investment selection to see how the tax benefits added up. The results showed that tax-advantaged education accounts can be very beneficial relative to saving in standard brokerage accounts, especially when an investor starts early, taking full advantage of the long horizon between birth and college-level education. This was true even after factoring in a worst-case scenario in terms of an offset applied to any potential financial aid. The results also showed that when state tax benefits are included, and when contributions earlier in the beneficiary's life might exceed the \$2,000 annual limit set for Coverdell ESAs, 529 plans can offer considerable incremental

value added over those types of accounts, given that the maximum contribution limit set by states ranges from \$235,000 to \$621,411. In other cases where such circumstances do not apply, the benefits of 529 plans and Coverdells may be more alike.

There is more to consider, however, in looking at education savings vehicles than figuring which one provides the most tax benefits under certain investment growth and tax assumptions. There is also the issue of flexibility. Life is unpredictable: Sometimes events will necessitate a reordering of a family's goals, at which time financial flexibility is highly desirable. It is in this regard that 529 plans truly stand out because there is no age limit on beneficiaries nor are there required minimum distributions. This may provide tremendous value within the context of an integrated financial plan that incorporates all of a household's financial objectives, not least in the event of significant financial distress, wherein plan savings could be repurposed, albeit after repayment of deferred taxes and a penalty on any gains. Principal in these accounts can be withdrawn without tax or penalty.

This feature, plus the allowance for accelerated gifting, makes the 529 an excellent vehicle for supporting the educational expenses of future generations, and is an underappreciated feature of the solution. Indeed, in this context, we believe 529 plans are significantly underutilized. Aside from a lack of awareness about the potential for these vehicles, one reason may be the significant complexity involved in exploiting their versatility. The need for advice should be one factor to consider when making a determination of which type of plan is best for an investor, along with the plan's cost and investment choices.

For more about the workings of 529 plans, please see the box on page 5.

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Exhibit 1: How Do 529 Plans Compare to Other College Savings Vehicles?

| | | 529 Plan | 529 Prepaid Tuition Plan | Coverdell Education Savings Account | Custodial Account (UGMA/UTMA) | Taxable Account (Savings/Brokerage) |
|-------------|---|---|---|---|---|-------------------------------------|
| Tax | State Tax Deduction | Yes in many states | Yes in many states | No | No | No |
| | Tax-Deferred Growth | Yes | Yes | Yes | No ("kiddie tax" rules apply) | No |
| | Tax-Free Withdrawal On Qualified Expenses | Yes | Yes | Yes | No | No |
| | Assets Removed from Owner's Estate | Yes | Yes | Yes | Yes, unless owner remains as custodian | No |
| Flexibility | Requirement for State Residency | No | Yes | No | No | No |
| | Income Limit for Participation | No | No | Ability to contribute phases out between \$95,000 and \$110,000 for single filer or \$190,000 and \$220,000 for joint filers | No | No |
| | Federal Gift Tax Treatment on Annual Contribution | \$19,000/\$38,000 (single/joint), or up to \$95,000/\$180,000 (with 5-year election) without gift tax | \$19,000/\$38,000 (single/joint), or up to \$95,000/\$180,000 (with 5-year election) without gift tax | \$19,000/\$38,000 (single/joint) without gift tax (contributions are limited to a maximum of \$2,000 per beneficiary per year). | \$19,000/\$38,000 (single/joint) without gift tax | No |
| | Age/Time Limit for Beneficiary | No | Child<18-21 depending on state | Child<18, balance distributed when child reaches 30 | Child<18-21 depending on state | No |
| | Qualified College Expenses Coverage | Tuition, fees, room, board, books and computers | Tuition and fees | Tuition, fees, room, board, books and computers | No restriction | No restriction |
| | Qualified Distribution for K-12 Tuition, Student Loan Repayment & Apprenticeships | Yes | No | Yes | No | No |
| | Penalty for Nonqualified Withdrawals | 10% of earnings with exceptions + income tax + state tax deduction on contribution | 10% of earnings with exceptions + income tax + state tax deduction on contribution | 10% of earnings with exceptions + income tax + state tax deduction on contribution | No | No |
| | Ability to Change Beneficiary | Yes | Yes | Yes to family members | No | N/A |
| | Investment Choices | Static or age-based with limited rebalancing | Prepaid units | Self-directed | Self-directed | Self-directed |
| Control | Tax-Free Distribution to Roth IRA | Yes | Yes | No | No | No |
| | Control of Account | Owner | Owner | Custodian until beneficiary reaches 30 | Custodian until the minor reaches the age of majority | Owner |
| | Lock In Tuition Price | No | Yes | No | No | No |
| | Negative Impact on Financial Aid | Up to 5.64% of assets | Up to 5.64% of assets | Up to 5.64% of assets | 20% of assets | Up to 5.64% of assets |
| | Allow Accelerated Gifting | Yes | Yes | No | No | No |

Information in the above chart covers nearly all plans; note, however, some plans' rules may differ. Please refer to a plan's program disclosure document for plan specific information.

Gift tax limits apply across all accounts. Refer to Endnote 8 for more details on gift tax, qualified distribution for K-12 tuition, student loan repayment & apprenticeships, tax-free distribution to Roth IRA and negative impact on financial aid

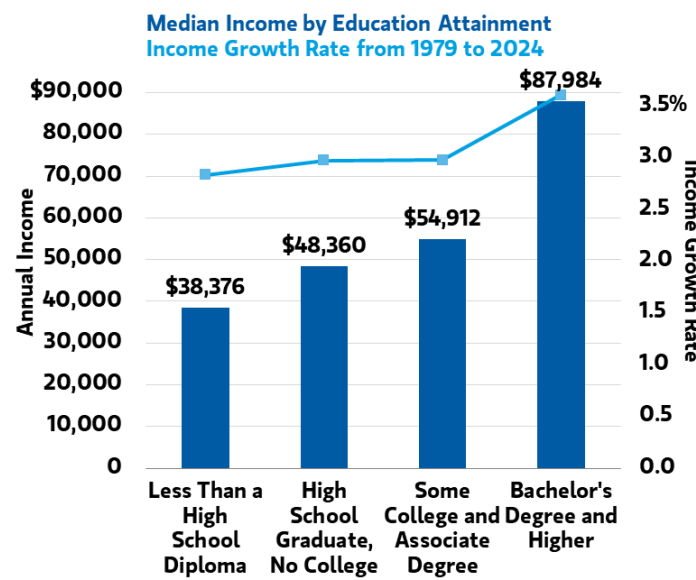
Source: Morgan Stanley Wealth Management Global Investment Office (GIO) as of January 2025

Investing in Education

A college education can open the door to many careers, and it does not come cheap. These days, the cost for an in-state student at four-year public university can exceed \$100,000. Even at that price, the return on a college education is compelling. Median annual income for college graduates was \$87,984 in 2024, 82% more than for high school graduates and 129% more than those without a high school diploma (see Exhibit 2). Not only do college graduates generally earn more, their earnings are growing faster and have been for a long time—3.6% per year in the past four decades compared with 2.8% for those without a high school diploma. Assuming college graduates start working right after graduation and retire at 65, that means their lifelong total earnings are 1.6 times those of similar age without a high school diploma even after subtracting the money spent on college.¹ If trends hold, the gap in earning potential between the well- and less-well educated may continue to widen.

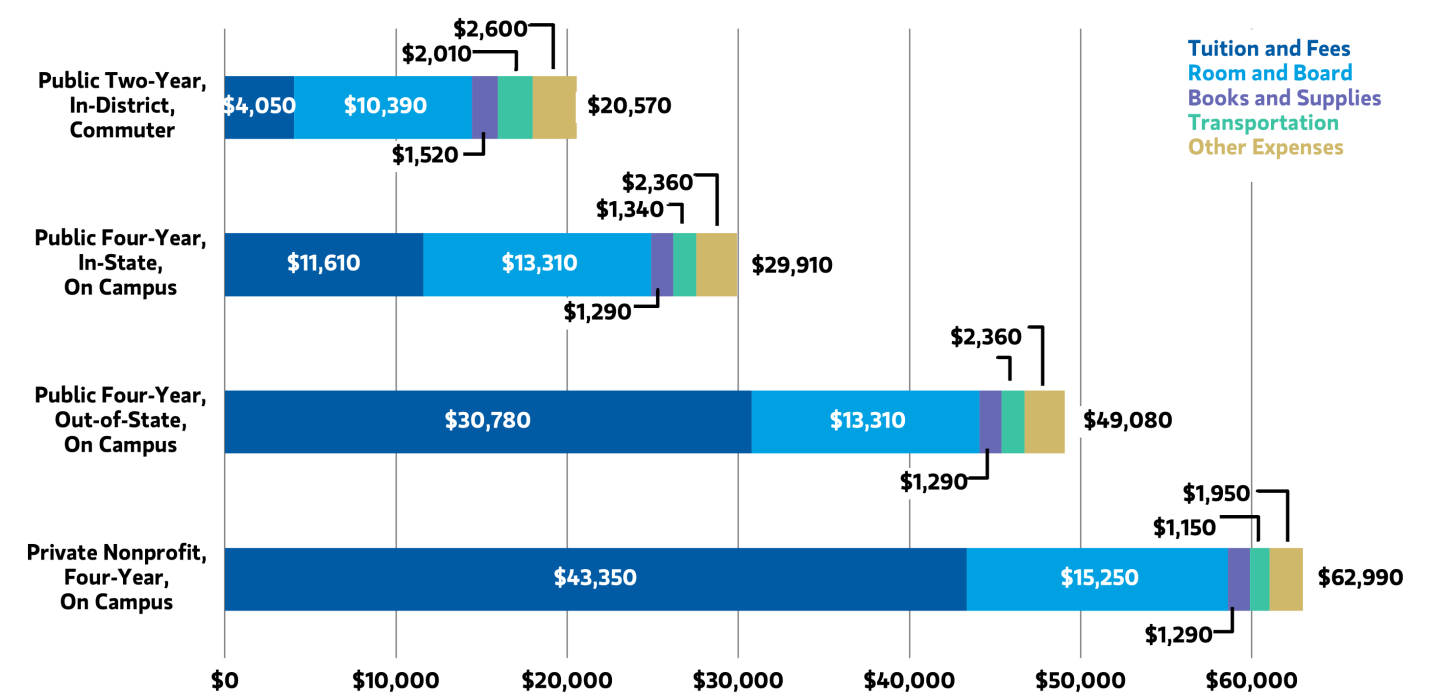
To be sure, college expenses can be prohibitively high if parents haven't prepared for them (see Exhibit 3). In its most recent survey, the College Board reported that a moderate budget for an in-state student at a public university for the 2024-2025E academic year averaged \$29,910; it jumped to \$62,990 for private nonprofit colleges.²

Exhibit 2: Higher Education Has Typically Led to Higher Earnings



Source: Bureau of Labor Statistics, Morgan Stanley Wealth Management Global Investment Office as of January 2025

Exhibit 3: Average Estimated Costs for Full-Time Undergraduates, 2024-2025E

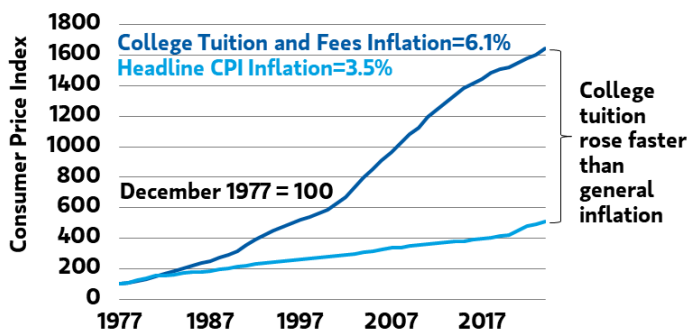


Source: College Board, Annual Survey of Colleges: NCES, IPEDS Fall 2024 Enrollment data

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What that means is a family planning to send three children to a typical four-year private college needs to save in excess of \$750,000 to finance it. Making matters worse, college costs continue to rise faster than the overall cost of living. Between 1977 and 2024, college tuition grew at a 6.1% per year rate, far exceeding the pace of wage growth (see Exhibit 2) and general inflation (see Exhibit 4). As such, many Americans have turned to loans to help finance college tuition, to the point where 42.7 million borrowers have outstanding student debt of nearly \$1.69 trillion—about \$483 billion more than the total US credit card debt, according to the New York Fed Consumer Credit Panel and Equifax. In many cases, students have graduated with total debt far in excess of a typical mortgage, making it difficult to buy homes and start families.

Exhibit 4: Growth in College Tuition and Fees Has Been Nearly Double the Inflation Rate



Source: Bureau of Labor Statistics, Morgan Stanley Wealth Management Global Investment Office as of December 2024

Tax Benefits Help

Fortunately, there are tax-advantaged savings vehicles designed to help those looking to fund their loved one's education. One such vehicle is known as a "529 plan" because it is authorized by Section 529 of the Internal Revenue Code. These plans are qualified savings accounts that provide significant tax benefits when spent on education-related expenses. 529 plans are most commonly thought of as funds for college; however, they can be used for many forms of education expenses, which increase their usefulness as a savings vehicle.

The way 529s most commonly work is that an account owner opens an account for a designated beneficiary, most often a child, grandchild or other close relative. Contributions to these accounts are not eligible for a federal tax deduction. Instead, the money can grow and can be distributed tax free, with the proviso that their funds be used to pay for the beneficiary's qualified education expenses such as tuition, fees, room, board and books.

Why invest in 529 plans?

529 plans offer significant tax advantages for education savings that can considerably improve the affordability of education-oriented financial goals. A combination of tax-free growth and withdrawal potential, flexible provisions, accelerated gifting advantages, estate tax benefits, continuous control features, and versatility to address changing circumstances make 529 plans an attractive investment vehicle. With high contribution limits and no income restrictions, 529 plans are accessible to a wide range of savers.

How to choose the right 529 plan?

Selecting the right 529 plan involves considering several factors beyond state tax benefits. When making a decision, it's important to consider the plan's fees, investment options, and whether it offers the flexibility you need. There are a variety of investment options available, including Morgan Stanley National Advisory 529 Plan—a first-of-its kind fiduciary 529 plan that is coherently integrated into goals based financial planning.

What happens to unused money in 529 plans?

Unused funds in a 529 plan can be handled in several ways. You can change the beneficiary to another family member, which can extend the utility of the account across generations. If funds are withdrawn for nonqualified expenses, they are subject to income tax and a 10% penalty on earnings. However, if the beneficiary receives a scholarship, there's an exception to this penalty, though income tax on earnings may still apply. More helpful, unused funds can now be rolled over to a Roth IRA, subject to a cap, where they can grow and be distributed tax free, due to SECURE 2.0 Act provisions that came into effect 2024.

This tax-free growth and distribution can greatly increase net investment returns. This is due first to the degree to which money that would otherwise have gone to taxes may undergo compound growth—important considering that funds may be invested for many years before they are needed. The effective investment returns may also be high since there is no tax bite when money is withdrawn and used for a designated beneficiary's education.

These headline benefits are a big part of the reason 529s have become so popular for parents saving for their children's education. As we will discuss, however, 529s also have several lesser-known features that make them considerably more useful than is understood, and to a broader population of savers.

We remind readers to consult their tax professionals for related information as Morgan Stanley Financial Advisors do not provide tax advice.

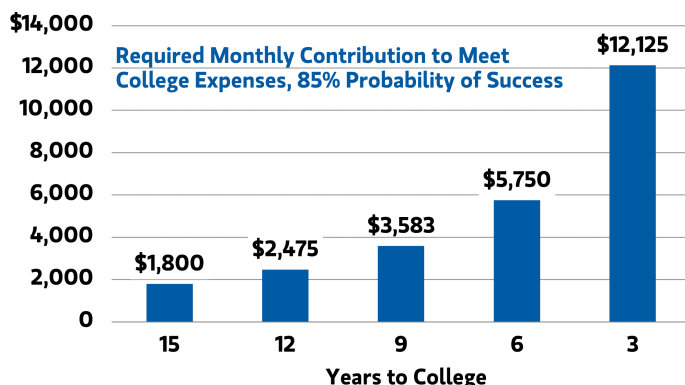
State Tax Benefits, Too

Beyond the federal tax benefits, many states have state tax benefits. For example, all states exempt qualified 529 withdrawals from state taxes. Furthermore, 37 states and the District of Columbia currently provide tax deductions or credits for contributions made to their in-state 529 plans, up to certain thresholds, and another six states offer income tax deductions for investing in any of the state's 529 plans. According to Savingforcollege.com, a couple filing jointly with \$100,000 in taxable income contributing \$100 per month to each of their two children's 529 plans could benefit up to \$360 per year from state tax deductions, assuming they itemize deductions on their federal return.³ Assuming those benefits are recycled back into the savings vehicles, they too will compound for the duration of the plan to far larger amounts when it comes time to pay for school.

Earlier Means Bigger

The economics of investing and tax benefits of 529s favor starting early. For example, according to the College Board, the average net price after grants and aid for students in four-year private colleges was \$43,350 per year in the 2024-2025 school year (see Exhibit 3). If we assume a 529 account is invested following a typical beneficiary age-based allocation, as represented by the Morningstar 529 College Saving Plan Moderate Index,⁴ a family would need to save \$1,800 per month in a 529 if they start contributing immediately when the child turns three in order to have an 85% probability of being able to fully fund college expenses from the plan by the time the child is college-aged (see Exhibit 5); this assumes tuition price inflation and uses the investment returns in accordance with Global Investment Committee's (GIC's) capital markets assumptions.⁵ While that sounds like a lot of money, the calculus gets worse the longer you wait.

Exhibit 5: Starting Early Is Critical



Source: College Board, Morgan Stanley Wealth Management Global Investment Office as of January 2025

For example, if parents were to wait to begin saving after the child turned nine, the required contribution amount would increase sharply to \$3,583 per month. If they wait until there are only three years left to fund the college expenses and still don't plan to take student loans, required monthly contribution skyrockets to \$12,125 per month, with far less tax benefits from the 529 because of the short investment horizon.

Flexibility

The 529 plans provide great flexibility to account owners, in terms of set-up, contributions and withdrawals. Families of all income levels can enjoy the benefits of 529 plans. In fact, there are generally no annual contribution limits, and contributions can be made up to the point at which the account balance exceeds the limit set by the state overseeing the 529 plans. Most plans allow total assets for each beneficiary to exceed \$300,000 and some plan's limits go as high as almost \$621,411 before they stop taking additional contributions, and those contributions can also be made in multiple accounts by friends and family with no set limit on the number of 529 accounts that can be opened for any particular beneficiary.

These 529 accounts can be opened in almost any state, regardless of where the account owner or beneficiary live. The beneficiary can attend almost any college, no matter where the 529 plan is based. And if you live in either a state that does not offer a state tax deduction on contributions or a state that offers state tax deductions for investing in any state's 529 plans, there is no reason to limit yourself to the 529 plans sponsored by your state. Indeed, state tax benefits should be considered only one of many factors to consider when choosing a 529 plan. Other critical factors to consider include expenses and fees, investment options and the availability of advice. In some circumstances, the best alternative may be an out-of-state plan even if that means forgoing state tax benefits, which can often be modest.

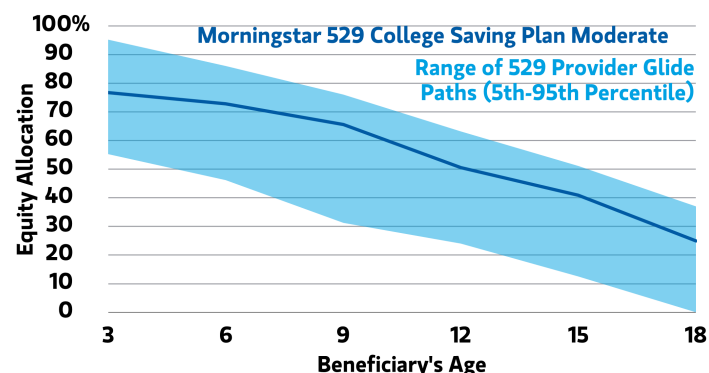
There are also many different 529 plans to choose from, and there is a wide dispersion in the strategies employed within the age-based investment options of different plan providers. There is also a wide variation in equity allocations used across these different providers by the beneficiary's age (see Exhibit 6). The Morningstar 529 College Saving Plan Moderate Index, a benchmark for these types of solutions, is also on the chart. The wide disparity in available investment strategies across plans is one factor to consider when selecting a plan for your beneficiary's needs. Generally speaking, more choices are better, but guidance in selecting investments is also important.

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Another important feature of 529 plans is their flexibility (see Exhibit 7). For starters, anyone can be chosen as beneficiary of a 529 plan. There is no age restriction on the beneficiary, and relatedly, generally no “expiration date” such that money has to be used or distributed before the beneficiary reaches a certain age. The account holder furthermore retains the option to change the account’s designated beneficiary as often as he or she likes without incurring any tax or penalty, as long as the new beneficiary is an eligible member of the family of the current beneficiary.

The IRS definition of an eligible member of a family is broad enough to include a large number of the extended family members of the current beneficiary: natural or legally adopted children, parents or ancestors of parents, siblings or stepsiblings, stepchildren, stepparents, nieces or nephews, aunts or uncles, first cousins, spouses of listed family members and the spouse of the beneficiary. For example, it is possible for an account owner to be the beneficiary and either use the money to further his or her own education or save the funds for his or her children or grandchildren. The fact that 529 funds can be passed down to multiple generations makes them a powerful vehicle for building a bequest.

Exhibit 6: 529 Plans’ Wide Range in Equity Allocations



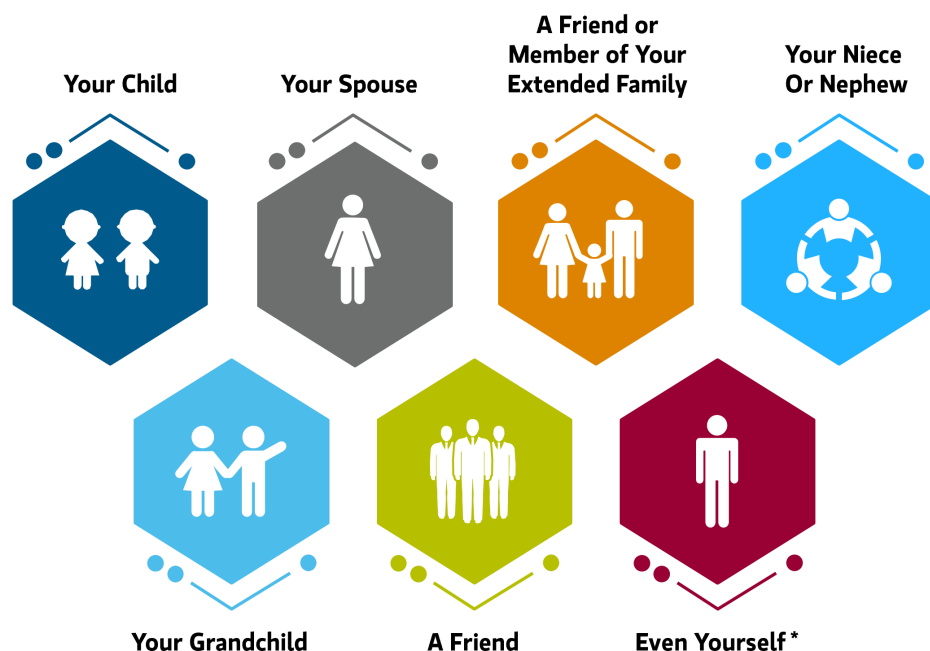
Source: Morningstar Direct as of January 2025

Note: Morningstar Index allocations and range of provider equity allocations are interpolated across ages.

Exhibit 7: Anyone Can Be Your Beneficiary. Change Beneficiary As You Like

529 Plans Offer Flexibility

Anyone can open or contribute to one. And your beneficiary can be almost anyone you choose.



While almost anyone can be named as beneficiary, certain conditions, restrictions, or limitations may apply in some plans. *Selection of yourself as beneficiary will not remove the asset from your taxable estate.

Source: Morgan Stanley Wealth Management Global Investment Office

Gifts and Control

Another important and less well-known benefit of 529 plans is that they offer a way for grandparents and other family members to position such assets outside of their taxable estate and pass on assets to subsequent generations while both reaping the benefits of tax-free growth and withdrawal and enjoying certain tax advantages. For example, a contribution made to a 529 plan is generally not subject to gift tax if the amount contributed is less than the annual gift tax exclusion. For 2025, donors can contribute up to \$19,000 for singles and \$38,000 for married couples, to each beneficiary without triggering any gift tax consequences; this assumes no other gifts are made to the beneficiary during the taxable year. One may also apply a portion of their unified lifetime gift tax credit by opening multiple 529 accounts for different family members and friends to take full advantage of the higher lifetime gift tax exemption under legislative uncertainties about sunseting the Tax Cuts and Jobs Act of 2017 provisions at the end of 2025. In addition to the gift tax rules, contributions made to 529 plans are excluded from a donor's gross estate calculation, even though he or she maintains control of the account.

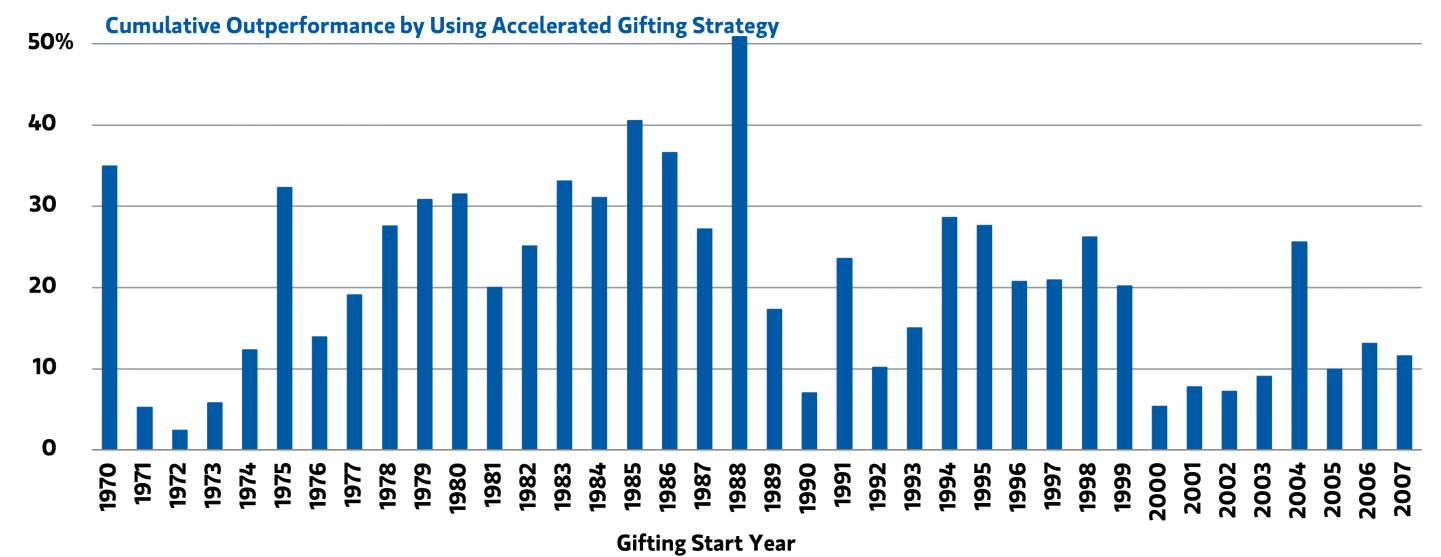
Regarding the attractive control features of 529s, account owners retain full control of the assets at all times, including even after the beneficiary turns 18. Indeed, at no point in time does the beneficiary gain right, title, claim or access to any assets in the account. Unlike traditional qualified retirement accounts, there are no required minimum distributions nor is there an obligation to spend any 529 money at any time. Consequently, account owners can change the beneficiaries back to themselves or another qualified family member at any time, should circumstances change and it turns out they or another family member really need the funds, or simply if they change their minds.⁶ This feature helps to relieve concerns account owners might otherwise have about the use of any money that they give away now. Other types of tax-beneficial ways to save for educational expenses such as trusts, family partnerships, and UGMA/UTMA accounts are largely irrevocable, making 529 accounts a one-of-a-kind vehicle that offers the highly desired combination of control and helping future generations.

The 529's control features also make them ideal vehicles for accelerated gifting strategies. The IRS permits the front-loading of up to five times the annual gift exclusion of \$19,000 per beneficiary or \$38,000 for a married couple filing jointly, by treating front-loaded gifts as being ratable over a five-year period for gift tax purposes. The process requires filing an IRS Form 709, and will exempt the gift from tax assuming no other gifts are made to that beneficiary during a five-calendar-year period. If the account owner dies before the fifth calendar year, the contributions allocated to the years after death are included in the account owner's taxable estate.

The five-year gifting election is a unique feature to 529 plans and it increases the time assets can grow tax free in 529s, boosting the potential magnitude of the gift (or alternatively, the contribution amount required to reach a gifting goal).⁷ Exhibit 8 compares a regular 529 saving strategy that contributes \$19,000 per year for a beneficiary until the maximum investment limit is reached (assumed to be \$550,000 in this example), with an accelerated gifting strategy, in which account owners contribute \$95,000 in Year 1, another \$95,000 in Year 6, etc., until the same \$550,000 maximum investment limit is reached.

Given the extended horizon and for the sake of simplicity, all the money is assumed to be invested in the S&P 500 Index for the holding period, assumed to be the 18 years from birth to college, and accumulations are measured assuming the holding period began at different times historically. At the end of 18 years, we compare the accrued savings using the accelerated gifting strategy according to its fraction of the standard approach. The results show some time period dependence, but generally a substantial increase in the size of the gift. For instance, during the period from 1970 to 2007, the accelerated gifting strategy generated an average positive cumulative performance of 15% before expenses.

Exhibit 8: Value of Accelerated Gifting in a 529 Plan



Analysis assumes an 18-year investment horizon. Data points represent outcomes associated with birth year to college age.
Source: Bloomberg, Morgan Stanley Wealth Management Global Investment Office as of January 2025

Implications of Financial Aid

One of the perceived drawbacks of saving for education expenses is that accrued funds can reduce the amount of financial aid that would otherwise be awarded to college applicants. That said, the impact of 529 savings in the determination of aid is often overestimated. Such offsets are relatively insignificant by comparison with the benefits of these plans and therefore shouldn't deter savers from utilizing these vehicles. First though, the facts: 529 accounts owned by dependent students or one of the custodial parents (most 529 accounts do not support joint owners) are considered parental assets when applying for federal student aid. Any nonretirement assets beyond that allowance amount will reduce a student's financial aid up to a maximum of 5.64% of the value of the assets (see Exhibit 9).

In other words, \$10,000 saved in a 529 account could reduce a financial aid award by \$564 in a worst-case scenario. The reduction of aid would be exactly the same amount if the savings were held in any other account or vehicle in the parent's name, with the exception of retirement accounts. In contrast, independent 529 accounts established under a student's name offset aid at a flat 20% rate as the student's assets. Effective with the 2023-2024 FAFSA (Free Application for Federal Student Aid), which is based on 2021 income, distributions from grandparent-owned 529 plans in 2021 will not affect financial aid for 2023-2024. Distributions in 2020, on the other hand, will still affect financial aid for the 2021-2022 and 2022-2023 FAFSAs as they are treated as taxable income to the beneficiary, and could therefore reduce

financial aid by as much as 50% of the withdrawal amount in subsequent two years.

Exhibit 9: How 529 Accounts Affect Financial Aid

| Source of Assets | Expected Family Contribution (EFC) Federal Student Aid Formula |
|--|--|
| Parental Income | 22% to 44% of adjusted gross income |
| Parental Assets | 2.6% to 5.64% of nonretirement assets |
| Student Income | 50% after certain allowances |
| Student Assets | 20% of all assets |
| Grandparents and Other Non-parents Income & Assets | 0% |

Source: US Department of Education Federal Student Aid, Morgan Stanley Wealth Management Global Investment Office as of January 2025

Case Study

To see how the many unique features of 529 plans can work in practice, consider the following case study: John's father Mike has kindly offered \$10,000 to John as a gift for his newborn daughter Mary's education fund. Because the gift amount of \$10,000 is less than individual gift allowance of \$19,000, no gift tax will be incurred for Mike. John has several options of how he can choose to proceed. For example, he can choose to open a 529 account under his name, designating Mary as beneficiary, or he can ask his father Mike to open a 529 account under his name on behalf of Mary. For this example, we'll assume that both John and Mike

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live in a state that provides a state tax deduction for 529 contributions, and that John and Mike are both taxed at a 32% federal marginal tax rate and a 5% state marginal tax rate.

Another option for John is to open a Coverdell ESA for Mary, assuming his income is not above the limit for making contributions to such accounts. Since Coverdell ESAs limit contributions to \$2,000 per year per beneficiary, it will take five years to contribute Grandpa Mike's gift to the Coverdell account. John also considered opening a custodial UTMA or UGMA account for Mary, in which the investment earnings are taxed at a lower "kiddie" tax rate, assumed here to be 10% for the first \$2,700 earnings and parent's marginal tax rate after that for the purpose of simplicity. Lastly, if none of the options work, John can simply deposit the money into a taxable brokerage account and let it invest in the same assets and potentially grow for 18 years.

Assuming a compound average annual growth rate of 5.8% per year for the first seven years, and 5.9% for the remaining 11 years based on the GIC's capital markets assumptions, there is a significant range in total value of this gift toward Mary's education depending on the option (see Exhibit 10). Factoring in the advantages and limitations of each option, including their effect on aid availability, John will have done the best he could for Mary's college costs by opening the 529 account under Mike's name. In that case, Mike's gift will have increased to \$29,238 in spending power on tuition, out of which \$17,846 is earnings of the original \$10,000 contribution, including the state tax deduction Mike received, which was worth \$500 (0.5%) of \$10,000, and which he deposited into his 529 account. This amount of money grew into \$1,392 in the same 18-year period. Note that in this scenario when Mike uses his 529 account balance to pay for Mary's college, the entire \$17,846 of earnings are free of federal and state taxes. That compares to investing the money in a brokerage account, which would have accumulated \$19,192 after taxes for Mary given the GIC's assumed rate of return. The Coverdell account was a significantly better deal than a standard brokerage account, as given the same strategy it would have accumulated \$24,913. This is still less than the 529 account, due primarily

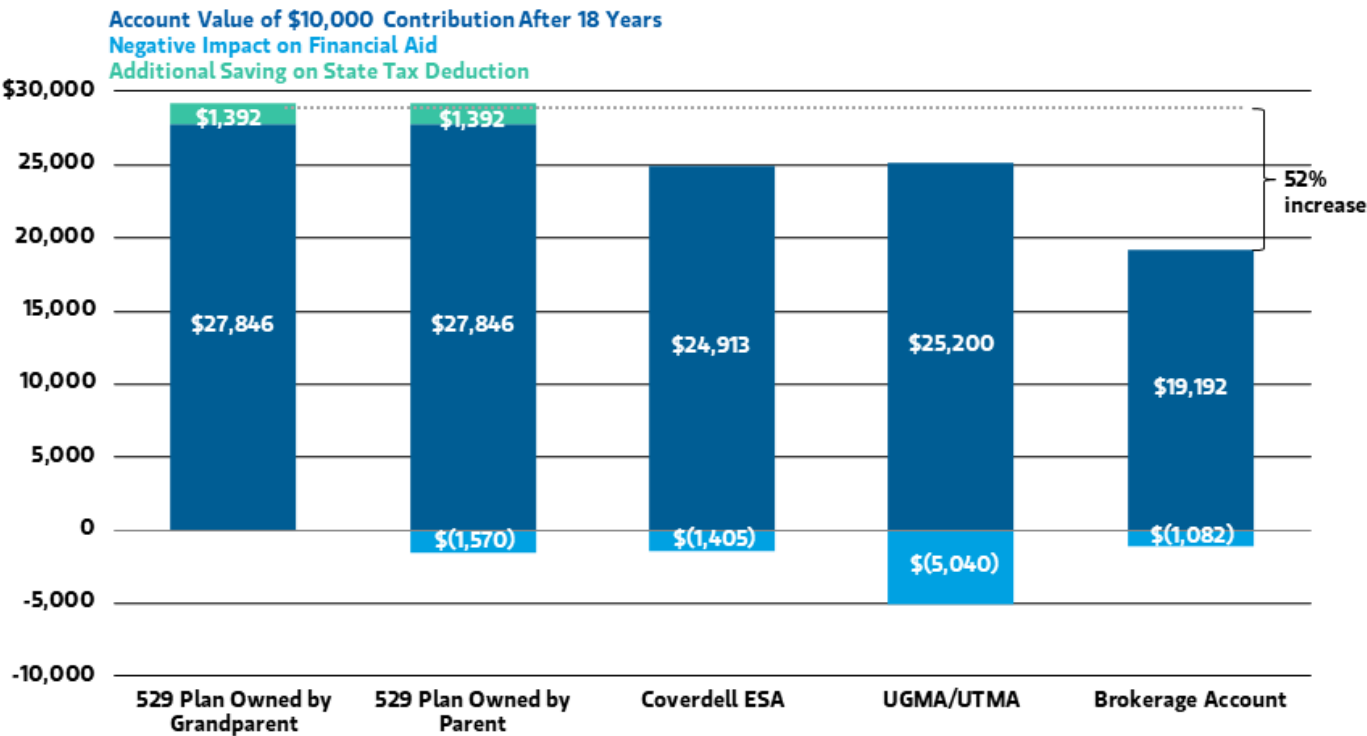
to the limits on the initial deployment of the money. However, the state tax benefit is also a factor in this case. As the UGMA/UTMA account's investment gains are taxed at a lower rate than traditional brokerage accounts, funds would have grown to \$25,200. This is still less attractive than the 529 account.

Given the significant costs of a college education, there is also the impact on Mary's eligibility for financial aid to evaluate in considering the merit of any solution. Savings in a 529 account owned by John, a Coverdell account or in taxable brokerage account, are all considered to be parental assets, for which a maximum of 5.64% of the assets is counted as an offset against any financial aid. So, in this example, in the worst outcome for aid in those scenarios respectively, Mary will likely receive \$1,570, \$1,405, and \$1,082 less financial aid. However, if the 529 account is owned by her grandfather, Mike, the money will not be counted as a parental asset and will no longer be reported on FAFSA, thus does not negatively impact Mary's financial aid eligibility. Assets accumulated in a custodian account for Mary are considered to be "student assets," 20% of which are considered offsets to financial aid. This means that her financial aid would decrease by \$5,040 in the UGMA/UTMA case.

Overall, it's clear that 529 plans provide good investment structures for school expenses compared with any equivalent taxable account. The longer the investment horizon, the higher the asset growth rate and tax rate of the account owner, the more benefit such accounts can deliver through compounded growth. In terms of financial aid, 529 accounts owned by parents are considered no differently than any other parental savings, with the exception of retirement accounts, which do not count in the family contribution calculation, but also generally cannot be used for a child's education expenses without significant penalty, unless a parent is of retirement age. This argues for 529 plans being among, if not the most efficient way, to save for a child's college education.

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Exhibit 10: Wealth Accumulation by Savings Vehicle



Source: Morgan Stanley Wealth Management Global Investment Office as of January 2025

Choice, Planning and Advice

The default investment options offered by 529s differ considerably among plans, with potentially significant implications for the results any individual participant will experience. In addition to wide variation among default options, there are also considerable differences in the investment selection for a personalized investment strategy, in particular between plans sold directly by state governments and those offered through financial advisors. This type of choice and the availability of advice to make it is an important consideration in making the decision about which type of plan a person should open, between the direct-sold variety and the typically more expensive alternatives

available through financial advisors.

Investment selection is not the only important consideration, however. As is clear given their flexibility, 529 plans can be effective within a comprehensive financial plan. With that potential, however, comes a significant amount of complexity that looks across an investor’s finances and investment holdings. For those investors who find the broader potential of 529 plans compelling, but who need help navigating the associated complexity and seek more integral goals-based solutions, advisor-sold options are likely to be a better alternative. Others not so inclined, and more comfortable making their own investment elections or using the default options, may find the lesser fees of direct sold plans to be more attractive.

Endnotes

¹The NPV numbers are calculated based on median wage and wage growth rate from Exhibit 2, private nonprofit four-year, on-campus cost from Exhibit 3, and discounted using historical headline CPI inflation rate from Exhibit 4. Workers with less than a high school diploma are assumed to start working at age 15 while workers with bachelor's degree are assumed to start working at age 22.

²*Trends in College Pricing 2024*. <https://trends.collegeboard.org/college-pricing>

³<https://www.savingforcollege.com/article/how-much-is-your-state-s-529-plan-tax-deduction-really-worth>

⁴More information on the Morningstar 529 College Saving Plan Moderate Index can be found in Exhibit 6.

⁵"Inputs for GIC Asset Allocation: Annual Update of Capital Market Assumptions," Morgan Stanley Wealth Management Global Investment Office, March 2024.

⁶If money is taken back from a 529 plan, it adds to account owner's taxable estate. In addition, any withdrawal not used for beneficiary's qualified expenses subjects the earnings to income tax, a 10% penalty on assets and state deduction recapture.

⁷This assumes that there are no gifts made by the gift giver to the beneficiary in the prior five years. Any gifts made in the five years prior to or the four years after an accelerated gift is made may result in a taxable event.

⁸Gift tax limits apply across all accounts.

Qualified Distribution for K-12 Tuitions: Effective Jan. 1, 2018, the definition of qualified education expenses expanded to include tuition for K-12 schools, as a result of the Tax Cuts and Jobs Act of 2017. The tax law limits qualified 529 withdrawals for eligible K-12 tuition to \$10,000 per beneficiary per year. More states have adopted favorable tax treatment for eligible K-12 tuition since 2018. **Student Loan Repayment And Cost of Apprenticeship Programs:** Under the SECURE Act of 2019 and retroactively effective Jan 1, 2019, qualified education expenses for federal income tax purposes include (a) up to \$10,000 used to repay qualified student loans and (b) certain costs for qualifying apprenticeship programs. The state income tax treatment vary by state. Account owners should consult with a qualified tax advisor prior to making such withdrawals as they may be subject to adverse tax consequences. Earnings on nonqualified distributions will be subject to income tax and a 10% federal income tax penalty.

Tax-Free Distribution to Roth IRA: Effective Jan. 1, 2024, distribution from certain 529 qualified tuition programs is permitted to roll over to Roth IRA, as a result of the SECURE 2.0 Act of 2022. The annual conversion from 529 is subject to annual Roth IRA contribution limits (\$7,000 in 2024), and a life-time limit of \$35,000 per beneficiary. Such rollovers are only permitted from 529 accounts that have been established and maintained for at least 15 years and requires that the IRA owner have compensation equal or above the amount of the rollover. Thirty-five states offer 529 distributions to Roth IRAs as a qualified expense for state income tax purposes.

Negative Impact on Financial Aid for 529 Accounts: up to 5.64% of the parents' assets if a parent owned the account.

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Disclosure Section

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Daniel Hunt, Zi Ye and Stephanie Wang are not members of the Global Investment Committee and any implementation strategies suggested have not been reviewed or approved by the Global Investment Committee.

Hypothetical Performance

General: Hypothetical performance should not be considered a guarantee of future performance or a guarantee of achieving overall financial objectives. Asset allocation and diversification do not assure a profit or protect against loss in declining financial markets.

Hypothetical performance results have inherent limitations. The performance shown here is simulated performance not investment results from an actual portfolio or actual trading. There can be large differences between hypothetical and actual performance results.

Despite the limitations of hypothetical performance, these hypothetical performance results may allow clients and Financial Advisors to obtain a sense of the risk / return trade-off of different asset allocation constructs.

Investing in the market entails the risk of market volatility. The value of all types of securities may increase or decrease over varying time periods.

This analysis does not purport to recommend or implement an investment strategy. Financial forecasts, rates of return, risk, inflation, and other assumptions may be used as the basis for illustrations in this analysis. They should not be considered a guarantee of future performance or a guarantee of achieving overall financial objectives. No analysis has the ability to accurately predict the future, eliminate risk or guarantee investment results. As investment returns, inflation, taxes, and other economic conditions vary from the assumptions used in this analysis, your actual results will vary (perhaps significantly) from those presented in this analysis.

The assumed return rates in this analysis are not reflective of any specific investment and do not include any fees or expenses that may be incurred by investing in specific products. The actual returns of a specific investment may be more or less than the returns used in this analysis. The return assumptions are based on hypothetical rates of return of securities indices, which serve as proxies for the asset classes. Moreover, different forecasts may choose different indices as a proxy for the same asset class, thus influencing the return of the asset class.

529 Risk Considerations

Some plans may have age, residency or other restrictions and may charge a fee for beneficiary changes.

If an account owner or the beneficiary resides in or pays income taxes to a state that offers its own 529 college savings or pre-paid tuition plan (an "In-State Plan"), that state may offer state or local tax benefits. These tax benefits may include deductible contributions, deferral of taxes on earnings and/or tax-free withdrawals. In addition, some states waive or discount fees or offer other benefits for state residents or taxpayers who participate in the In-State Plan. An account owner may be denied any or all state or local tax benefits or expense reductions by investing in another state's plan (an "Out-of-State Plan"). In addition, an account owner's state or locality may seek to recover the value of tax benefits (by assessing income or penalty taxes) should an account owner rollover or transfer assets from an In-State Plan to an Out-of-State Plan. While state and local tax consequences and plan expenses are not the only factors to consider when investing in a 529 Plan, they are important to an account owner's investment return and should be taken into account when selecting a 529 plan.

Tax laws are complex and are subject to change. This information is based upon current tax rules in effect at the time this was written. Morgan Stanley Smith Barney LLC and its Financial Advisors do not provide tax or legal advice. Individuals should always check with their tax or legal advisor before engaging in any transaction involving 529 Plans, Education Savings Accounts and other tax-advantaged investments.

Investments in a 529 Plan are not FDIC-insured, nor are they deposits of or guaranteed by a bank or any other entity, so an individual may lose money. Investors should review a Program Disclosure Statement, which contains more information on investment options, risks factors, fees and expenses and possible tax consequences. Investors should read the Program Disclosure Statement carefully before investing.

Index Definitions

Morningstar 529 College Savings Index This is a family of glidepath indexes specifically for the 529 plan structure, available in aggressive, moderate and conservative tracks. The indexes use asset allocation methodologies developed and maintained by Ibbotson Associates. Each index in the Morningstar 529 Index family provides diversified asset class exposure to global equities, bonds, real estate, and Treasury Inflation-Protected Securities by using existing Morningstar Indexes as asset allocation building blocks.

S&P 500 Index: The Standard & Poor's (S&P) 500 Index tracks the performance of 500 widely held, large-capitalization US stocks.

For index, indicator and survey definitions referenced in this report please visit the following: <https://www.morganstanley.com/wealth-investmentsolutions/wmir-definitions>

Asset Class and Market Risk Considerations

Investing in the market entails the risk of market volatility. The value of all types of securities may increase or decrease over varying time periods.

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Financial forecasts, rates of return, risk, inflation, and other assumptions may be used as the basis for illustrations in this analysis. They should not be considered a guarantee of future performance or a guarantee of achieving overall financial objectives. No analysis has the ability to accurately predict the future, eliminate risk, or guarantee investment results. As investment returns, inflation, taxes, and other economic conditions vary from the assumptions used in this analysis, your actual results will vary (perhaps significantly) from those presented in this analysis.

Equity securities may fluctuate in response to news on companies, industries, market conditions and general economic environment.

Bonds are subject to interest rate risk. When interest rates rise, bond prices fall; generally the longer a bond's maturity, the more sensitive it is to this risk. Bonds may also be subject to call risk, which is the risk that the issuer will redeem the debt at its option, fully or partially, before the scheduled maturity date. The market value of debt instruments may fluctuate, and proceeds from sales prior to maturity may be more or less than the amount originally invested or the maturity value due to changes in market conditions or changes in the credit quality of the issuer. Bonds are subject to the credit risk of the issuer. This is the risk that the issuer might be unable to make interest and/or principal payments on a timely basis. Bonds are also subject to reinvestment risk, which is the risk that principal and/or interest payments from a given investment may be reinvested at a lower interest rate.

Bonds rated below investment grade may have speculative characteristics and present significant risks beyond those of other securities, including greater credit risk and price volatility in the secondary market. Investors should be careful to consider these risks alongside their individual circumstances, objectives and risk tolerance before investing in high-yield bonds. High yield bonds should comprise only a limited portion of a balanced portfolio.

Alternative investments may be either traditional alternative investment vehicles, such as hedge funds, fund of hedge funds, private equity, private real estate and managed futures or, non-traditional products such as mutual funds and exchange-traded funds that also seek alternative-like exposure but have significant differences from traditional alternative investments. The risks of traditional alternative investments may include: can be highly illiquid, speculative and not appropriate for all investors, loss of all or a substantial portion of the investment due to leveraging, short-selling, or other speculative practices, volatility of returns, restrictions on transferring interests in a fund, potential lack of diversification and resulting higher risk due to concentration of trading authority when a single advisor is utilized, absence of information regarding valuations and pricing, complex tax structures and delays in tax reporting, less regulation and higher fees than open-end mutual funds, and risks associated with the operations, personnel and processes of the manager. Non-traditional alternative strategy products may employ various investment strategies and techniques for both hedging and more speculative purposes such as short-selling, leverage, derivatives and options, which can increase volatility and the risk of investment loss. These investments are subject to the risks normally associated with debt instruments and also carry substantial additional risks. Investors could lose all or a substantial amount of their investment. These investments typically have higher fees or expenses than traditional investments.

CDs are insured by the FDIC, an independent agency of the U.S. Government, up to a maximum amount of \$250,000 (including principal and interest) for all deposits held in the same insurable capacity (e.g. individual account, joint account, IRA, etc.) per CD depository. Investors are responsible for monitoring the total amount held with each CD depository. All deposits at a single depository held in the same insurable capacity will be aggregated for purposes of the \$250,000 federal deposit insurance limit, including deposits (such as bank accounts) maintained directly with the depository and CDs of the depository held through Morgan Stanley Wealth Management. A secondary market in CDs may be limited. CDs sold prior to maturity are subject to market risk and therefore investors may receive more or less than the amount invested or the face value. Callable CDs are callable at the sole discretion of the issuer. For more information about FDIC insurance, please visit the FDIC website at www.fdic.gov.

Investors should carefully consider the investment objectives and risks as well as charges and expenses of a mutual fund before investing. The prospectus contains this and other important information about the mutual fund. To obtain a prospectus, contact your Financial Advisor or visit the mutual fund company's website. Please read the prospectus carefully before investing.

Environmental, Social and Governance ("ESG") investments in a portfolio may experience performance that is lower or higher than a portfolio not employing such practices. Portfolios with ESG restrictions and strategies as well as ESG investments may not be able to take advantage of the same opportunities or market trends as portfolios where ESG criteria is not applied. There are inconsistent ESG definitions and criteria within the industry, as well as multiple ESG ratings providers that provide ESG ratings of the same subject companies and/or securities that vary among the providers. Certain issuers of investments may have differing and inconsistent views concerning ESG criteria where the ESG claims made in offering documents or other literature may overstate ESG impact. ESG designations are as of the date of this material, and no assurance is provided that the underlying assets have maintained or will maintain and such designation or any stated ESG compliance. As a result, it is difficult to compare ESG investment products or to evaluate an ESG investment product in comparison to one that does not focus on ESG. Investors should also independently consider whether the ESG investment product meets their own ESG objectives or criteria. There is no assurance that an ESG investing strategy or techniques employed will be successful. Past performance is not a guarantee or a dependable measure of future results.

Asset allocation and diversification do not assure a profit or protect against loss in declining financial markets.

Growth investing does not guarantee a profit or eliminate risk. The stocks of these companies can have relatively high valuations. Because of these high valuations, an investment in a growth stock can be more risky than an investment in a company with more modest growth expectations.

Value investing does not guarantee a profit or eliminate risk. Not all companies whose stocks are considered to be value stocks are able to turn their business around or successfully employ corrective strategies which would result in stock prices that do not rise as initially expected.

Rebalancing does not protect against a loss in declining financial markets. There may be a potential tax implication with a rebalancing strategy. Investors should consult with their tax advisor before implementing such a strategy.

The **indices** are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment.

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