





Best Collateral, Asset Management Marketing Awards





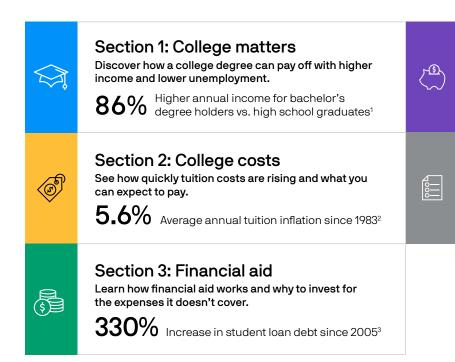


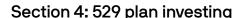


College Planning Essentials

A comprehensive guide to saving and investing

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Explore the unique benefits of tax-advantaged 529 plans and the many ways to use them.

63% Families not using 529 plans to invest for college⁴

Section 5: Appendix

Get additional details on college preparation, financial aid, tax breaks and more.

 $^{1.\,\,}U.S.\,Census\,Bureau, Current\,Population\,Survey.\,Data\,for\,2023\,based\,on\,mean\,earnings\,for\,workers\,aged\,18\,and\,older.$

^{2.} BLS, Consumer Price Index, J.P. Morgan Asset Management. Data from 12/31/82 to 12/31/24.

^{3.} Federal Reserve Bank of New York, Household Debt and Credit Report, Q2 2024.

^{4.} ISS Market Intelligence, 529 Industry Analysis 2024.

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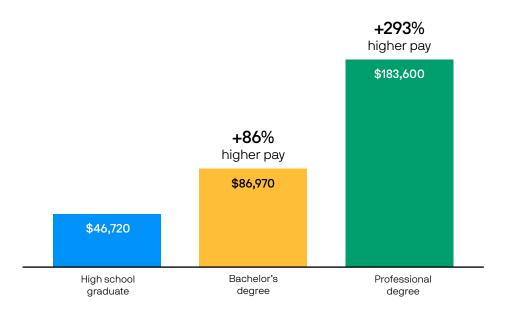
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Higher education pays

A college diploma opens the door to a lifetime of higher earnings.

Average annual earnings

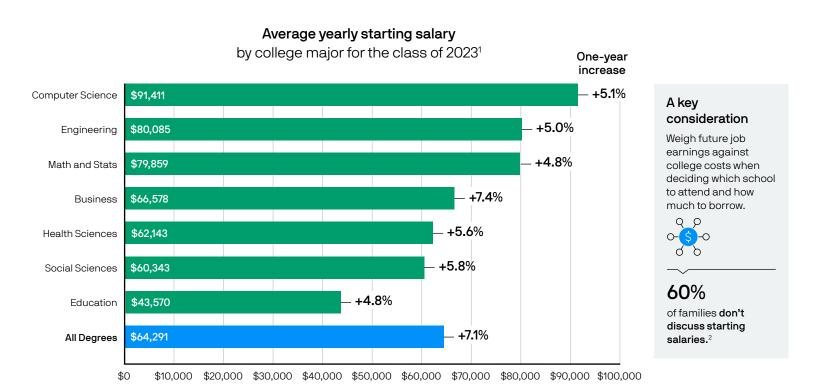
by highest educational degree¹





- $1.\,\,U.S.\,Census\,Bureau,\,Current\,Population\,Survey.\,Data\,for\,2023\,based\,on\,mean\,earnings\,for\,workers\,aged\,18\,and\,older.$
- 2. College Board, Trends in College Pricing and Student Aid 2024. Based on average tuition, fees, and room and board at an in-state, four-year public university.

Choice of college major has a significant impact on a graduate's starting salary.



 $^{1. \} National \ Association \ of \ Colleges \ and \ Employers \ (NACE), \ Salary \ Survey, \ Summer \ 2024. \ For \ bachelor's \ degree \ recipients.$

^{2.} Sallie Mae, How America Pays for College, 2024.

More education, more job opportunities



College graduates are more likely to find — and keep — good jobs.

Employment landscape by education level since 2000

Total jobs created		Average unemployment rates
+28.4 million	Bachelor's degree or greater	2x lower than high school graduates
+2.6 million	Some college	4.8%
-2.3 million	High school, no college	5.8%
-3.1 million	No high school diploma	8.7%

College is a must
70%
of all jobs now held
by workers who
attended college

Source: U.S. Bureau of Labor Statistics. Data shown are for civilians aged 25 and older, from 1/1/2000 to 10/31/2024.

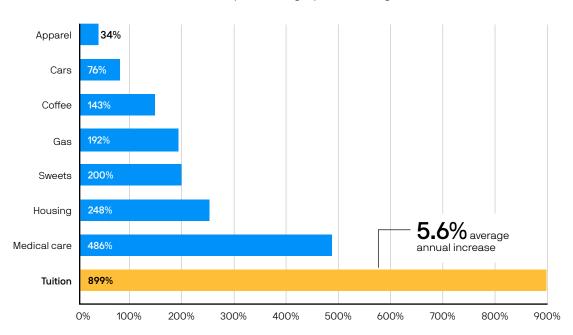
Tuition inflation



College tuition costs have increased much faster than any other household expense in recent decades.

College tuition vs. other expenses

Cumulative percentage price change since 1983



Why costs typically rise

- Colleges spend more to attract the best students.
- Colleges hire more faculty and administrative staff.
- Colleges receive less financial support from states.
- Colleges pursue more international students willing to pay higher prices.



Source: BLS, Consumer Price Index, J.P. Morgan Asset Management. Data represent cumulative percentage price change from 12/31/82 to 12/31/24.

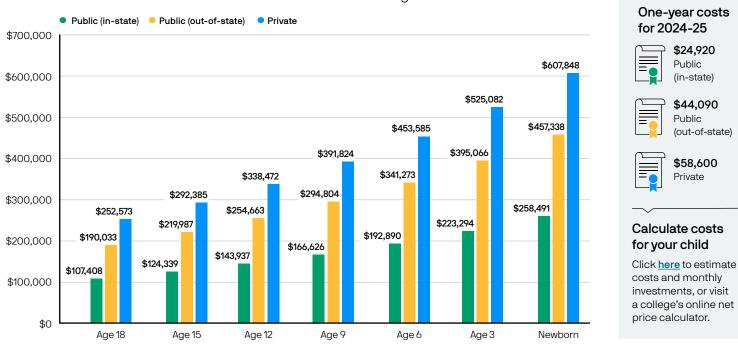
Future four-year college costs



The younger the child, the more college is likely to cost. Add up four years per child, and it equals one of a family's largest expenses.

Projected cost of a four-year college education

based on child's current age



Source: J.P. Morgan Asset Management, using College Board's *Trends in College Pricing and Student Aid 2024*. Future college costs estimated to inflate 5% per year, based on average tuition, fees, and room and board for 2024-25.

The community college option

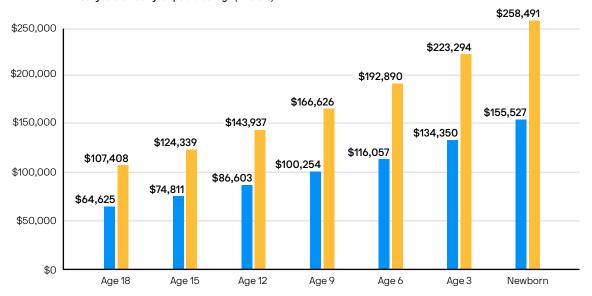


Some students choose to attend two years of community college before transferring to four-year universities.

Projected four-year costs with and without community college

based on child's current age

- Two years at community college/two years at four-year public college (in-state)
- Four years at four-year public college (in-state)



Save 40%

by attending two years of community college.

\$4,050

Average annual tuition and fees at community college

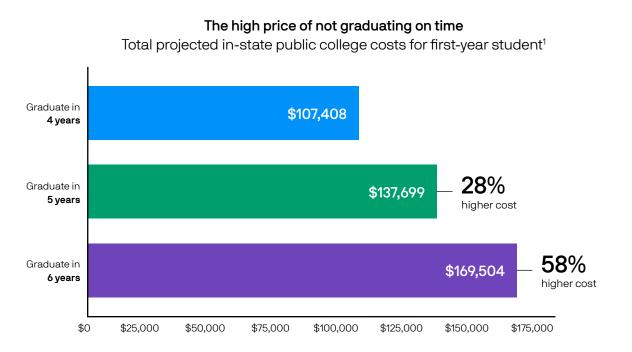


Source: J.P. Morgan Asset Management, using College Board's *Trends in College Pricing and Student Aid 2024*. Future college costs estimated to inflate 5% per year. Average tuition, fees, and room and board for public college reflect four-year, in-state charges. Community college costs are based on average tuition and fees for an in-district student.

Preparing for more than four years



Most students take more than four years to earn degrees, which increases total college costs.

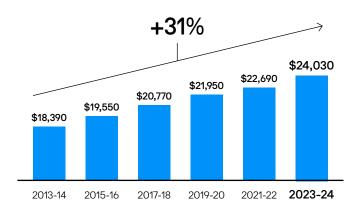




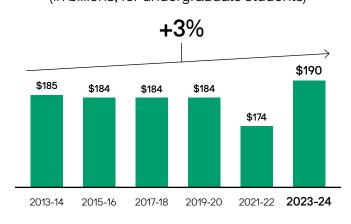
- 1. J.P. Morgan Asset Management, using College Board's *Trends in College Pricing and Student Aid 2024*. Future college costs estimated to inflate 5% per year. Average tuition, fees, and room and board for public college reflect four-year, in-state charges.
- 2. U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), as of January 2024. Data reflect graduation rates from first institution attended for first-time, full-time bachelor's degree-seeking students at four-year colleges.
- 3. AP tests College Board, for high school class of 2023. Dual enrollment National Student Clearinghouse Research Center, as measured by enrolled college students under age 18 for Spring 2023. Percentage of high school seniors based on estimates from National Center for Education Statistics.

College costs are rising much faster than financial aid — leaving families to pay more of the expenses.

College costs¹
(four-year in-state public university)



Total financial aid² (in billions, for undergraduate students)





Result: Families are paying more.

Families now pay 48% of college costs from their income and investments, up from 38% 11 years ago.³

- 1. College Board, Trends in College Pricing, 2013, 2015, 2017, 2019, 2021 and 2023. Based on average tuition, fees, and room and board at an in-state, four-year university.
- 2. College Board, Trends in Student Aid, 2014, 2016, 2018, 2020, 2022 and 2024. Includes federal, state, institutional and private grants as well as federal work-study, tax benefits, veterans' benefits and loans.
- 3. Sallie Mae, How America Pays for College, 2014 and 2024. Remaining college costs paid with loans, grants, scholarships and family gifts.

Financial aid reality check

Financial aid

Free grants and scholarships normally pay only a small portion of college costs, and many families don't qualify.



Average amount: \$5,361

▼ 10% since last year

Percentage of total costs paid by grants Private college 11%

Public college 11%

Community college 15%

Scholarship reality 2023-24 (merit-based)¹

64% Percentage of families receiving scholarships

Average amount: \$6,596

▼ 16% since last year

Percentage	of total costs	paid by	scholarships

Private college 19%

Public college 13%

Community college 9%

Will we get a Federal Pell Grant?

It depends on your income, marital status and family size. Example: Two-parent households with two kids qualify for a full Pell Grant only if their income is \$52,500 or lower.²

^{1.} Sallie Mae, How America Pays for College, 2023 and 2024.

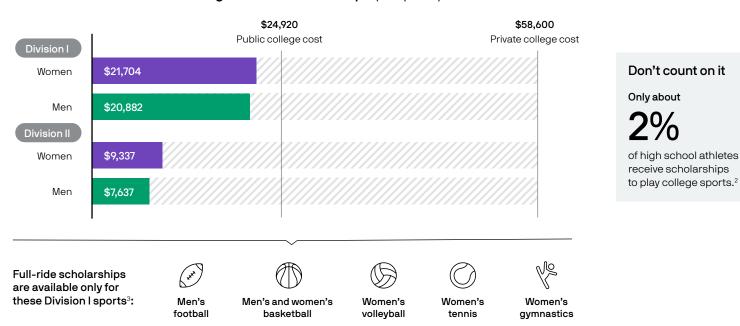
^{2.} U.S. Department of Education, 2025-26 Student Aid Index (SAI) and Pell Grant Eligibility Guide. For dependent, full-time students, based on 2023 federal poverty guidelines for the 48 contiguous states. Families may also qualify for maximum Federal Pell Grants based on other criteria.

The facts about athletic scholarships



Athletic scholarships usually cover only some college costs — and only for the select few who receive them.

Average athletic scholarships (all sports)1



^{1.} ScholarshipStats.com, based on 2019-20 data with 3% annual increases through 2024-25. College costs are based on average tuition, fees, and room and board, using College Board's Trends in College Pricing and Student Aid 2024. Public college reflects in-state charges.

^{2.} National Collegiate Athletic Association, Guide for the College-Bound Student-Athlete 2024-25.

^{3.} National Collegiate Athletic Association.

Key rules in effect for the 2025-26 school year and beyond

+ Rule changes that could increase aid



529 education plans

- Withdrawals from accounts owned by grandparents and other non-parents no longer reported as student income
- Only accounts in student's name reported as parental assets (previously had to include siblings)



Income and asset reporting

- Pre-tax contributions to employer retirement plans, worker's compensation benefits and other income sources not reported
- Child support received treated more favorably as an asset instead of income
- More income excluded from eligibility formula



Other changes

- Expanded Federal Pell Grant eligibility for lower-income families
- More opportunities to appeal a college's financial aid decision

- Rule changes that could decrease aid



Families with multiple college students

Expected to pay more for each child enrolled (family contribution previously divided by number of college students to increase aid eligibility)



Small business owners and farmers

Must report net worth of business or farm regardless of size (previously only if 100+ employees)



Divorced or separated parents

- Parents providing the most financial support to students must apply, using their income and investments
- No income reduction for child support paid



Residents of high-tax states

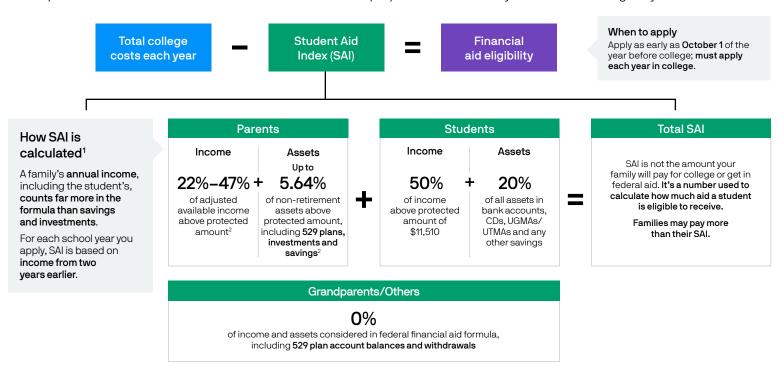
No income reduction for state taxes paid

New federal financial aid rules originally took effect with the 2024-25 school year and are subject to change. Please consult your financial professional for more information.

Federal financial aid eligibility

Financial aid

The Department of Education calculates the Student Aid Index (SAI) used to determine your financial aid eligibility.



- 1. Based on federal methodology for 2025-26 school year. Federal financial aid rules are subject to change. Please consult your financial professional for more information. To learn more about how SAI is calculated, click here.
- 2. Protected amount for parental income is based on household size. Protected amount for parental assets is based on age and marital status and excludes primary residence and retirement accounts.

Use this chart to estimate your Student Aid Index, the number used to determine federal financial aid eligibility.

Annual Student Aid Index (SAI)

Examples based on income and assets1

Assets (excluding primary residence and retirement accounts)

assets.		Addets (excluding primary residence and retirement added not							
assets.	·	\$0	\$25,000	\$50,000	\$100,000	\$150,000	\$200,000	\$250,000	\$300,000
	\$50,000	-\$1,061	-\$401	\$0	\$0	\$0	\$0	\$0	\$0
	\$75,000	\$3,359	\$4,019	\$4,679	\$6,200	\$8,003	\$10,149	\$12,715	\$15,535
Φ	\$100,000	\$8,713	\$9,785	\$10,985	\$13,696	\$16,516	\$19,336	\$22,156	\$24,976
moou	\$125,000	\$17,128	\$18,538	\$19,948	\$22,768	\$25,588	\$28,408	\$31,228	\$34,048
Combined income	\$150,000	\$25,395 —	\$26,805	\$28,215	\$31,035	\$33,855	\$36,675	\$39,495	\$42,315
ombi	\$175,000	\$33,661	\$35,071	\$36,481	\$39,301	\$42,121	\$44,941	\$47,761	\$50,581
O	\$200,000	\$41,927	\$43,337	\$44,747	\$47,567	\$50,387	\$53,207	\$56,027	\$58,847
	\$225,000	\$50,131	\$51,541	\$52,951	\$55,771	\$58,591	\$61,411	\$64,231	\$67,051
	\$250,000	\$58,163	\$59,573	\$60,983	\$63,803	\$66,623	\$69,443	\$72,263	\$75,083

Calculate your personal SAI

Use the U.S. Dept. of Education's online calculator to get an estimate.



Example: If you earn \$150,000 in income and have \$0 in assets, your estimated SAI is \$25,395 — more than one year of public college costs.²

Income has a much bigger impact than

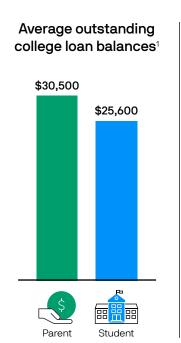
^{1.} J.P. Morgan Asset Management and studentaid.gov. Based on two-parent household with two children. Assumes no income or assets for each dependent. Protected amounts for parental assets vary based on age and marital status. These are estimates provided for illustrative purposes only, and they may not be representative of your personal situation and circumstances.

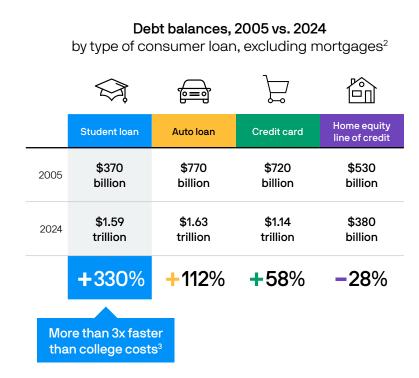
^{2.} J.P. Morgan Asset Management, using College Board's *Trends in College Pricing and Student Aid 2024*. Average tuition, fees, and room and board for public college reflect four-year, in-state charges.

Rising college debt



Families that don't invest enough for college often have no other choice than to borrow.





A heavy burden

97%

of recent graduates with college debt have delayed or abandoned life milestones like buying homes or having children.⁴



- 1. U.S. Department of Education, National Student Loan Data System. Data as of Q2 2024 for federal Stafford and parent PLUS loans.
- 2. Federal Reserve Bank of New York, Household Debt and Credit Report, Q2 2024.
- 3. College Board, Trends in College Pricing, 2005 and 2024. Based on average tuition, fees, and room and board at an in-state, four-year public university.
- 4. MarketWatch Guides, May 2024 survey of Americans who graduated college between 2015 and 2024.









Tax-advantaged investing	Estate planning benefits	Control and flexibility	Accessible and affordable
Tax-deferred compounding of contributions and earnings Tax-free withdrawals for qualified education expenses Tax-deductible contributions in some states	Contributions and investment gains removed from taxable estate Option to make five years of tax-free gifts in a single year — up to \$190,000 per beneficiary from married couples filing jointly and \$95,000 from individuals ² Only completed gift that can be revoked under current laws	Account owner retains full control over assets Can change beneficiaries to other eligible family members Covers any qualified expense at accredited U.S. and foreign colleges, trade schools, and apprenticeship programs³ Option to make tax-free rollovers to Roth IRAs⁴ Minimal impact on financial aid eligibility	No income limits on contributors No age limits on beneficiaries or contributors No mandatory withdrawals at any age Very low investment minimums make it easy to get started High contribution limits, often \$400,000 or more per beneficiary

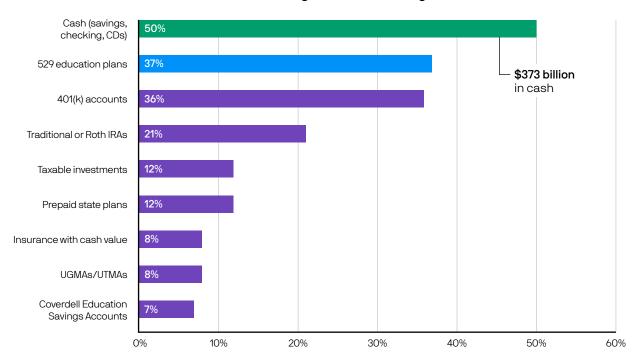
- 1. Earnings on federal non-qualified withdrawals may be subject to federal income tax and a 10% federal penalty tax, as well as any applicable state and local income taxes. Please consult your tax professional about your particular situation.
- 2. No additional gifts can be made to the same beneficiary over a five-year period. If the donor does not survive the five years, a portion of the gift is returned to the taxable estate.
- 3. To search for accredited schools, visit https://studentaid.gov/fafsa-app/FSCsearch.
- 4. Tax- and penalty-free rollovers are subject to certain requirements and limitations. See <u>page 24</u> for details. State tax treatment of Roth IRA rollovers may vary by 529 plan. Please consult your financial or tax professional for more information.

Choose the right investing vehicle for higher education

529 plan investing

Many families use cash, retirement and taxable accounts instead of tax-advantaged 529 plans designed especially for education.

Percentage of families using each vehicle

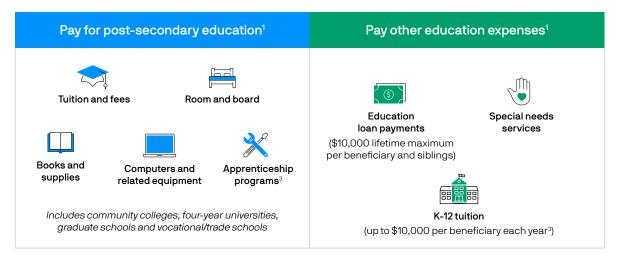


Missed opportunities
\$1.5 trillion
Education savings held outside taxadvantaged 529 plans

30%
Families not saving for college

Source: ISS Market Intelligence, 529 Industry Analysis 2024.

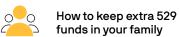
A flexible 529 plan can be used to pay for a wide range of education expenses — and beyond.



529 plan rules vary by state

Check with your plan to see if any uses are considered non-qualified for state tax purposes.



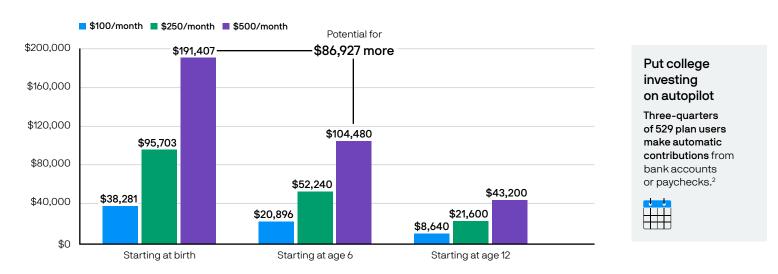


- Change account beneficiary to another eligible family member
- Withdraw amounts equal to scholarships received²
- Make tax-free rollovers to Roth IRAs³
- 1. Earnings on federal non-qualified withdrawals may be subject to federal income tax and a 10% federal penalty tax, as well as any applicable state and local income taxes. Please consult your tax professional about your particular situation.
- 2. The 10% federal penalty tax is waived, but investment earnings withdrawn are subject to federal income tax as well as any applicable state and local income taxes.
- 3. Tax- and penalty-free rollovers, K-12 tuition and Apprenticeship programs are subject to certain requirements and limitations and State tax treatment can vary by 529 plan. See page 24 for additional details on Roth IRA rollovers. Please consult your financial or tax professional for more information.

The sooner you start investing, the more time you have to grow your college fund through the power of long-term compounding.

Small monthly contributions add up over time

Total amounts accumulated at different starting ages1



- 1. J.P. Morgan Asset Management. This hypothetical example illustrates the future values at age 18 of different regular monthly investments for different time periods. Chart also assumes an annual investment return of 6%, compounded monthly. Actual rate-of-return is not guaranteed. Investment losses could affect the relative tax-deferred investing advantage. This hypothetical illustration is not indicative of any specific investment and does not reflect the impact of fees or expenses, for example, Federal or State penalties for non-qualified expenses. Such costs would lower performance. Each investor should consider his or her current and anticipated investment horizon and income tax bracket when making an investment decision, as the illustration may not reflect these factors. A plan of regular investment cannot ensure a profit or protect against a loss in a declining market. This chart is shown for illustrative purposes only. Past performance is no guarantee of future results.
- 2. ISS Market Intelligence, 529 Industry Analysis 2024.

See how much you should be investing each month, based on a child's age and your college funding plans.

Monthly investment to pay your share of college costs

	Public college (in-state)				Private col	lege		
Child's age when	Total 4-year	Monthly	investment	t to pay:	Total 4-year	Monthly	investment	to pay:
investments start	cost	100%	75%	50%	cost	100%	75%	50%
Newborn	\$258,491	\$675	\$506	\$338	\$607,848	\$1,588	\$1,191	\$794
Age 3	\$223,294	\$774	\$581	\$387	\$525,082	\$1,821	\$1,366	\$911
Age 6	\$192,890	\$923	\$692	\$462	\$453,585	\$2,171	\$1,628	\$1,085
Age 9	\$166,626	\$1,171	\$878	\$585	\$391,824	\$2,753	\$2,065	\$1,376
Age 12	\$143,937	\$1,666	\$1,249	\$833	\$338,472	\$3,918	\$2,938	\$1,959
Age 15	\$124,339	\$3,153	\$2,365	\$1,577	\$292,385	\$7,415	\$5,561	\$3,707

set your investment goal with our college planning calculator. Never miss a monthly 529 contribution Most plans allow you to set up automatic transfers from a bank account.

Source: J.P. Morgan Asset Management. Based on average tuition, fees, and room and board costs for 2024-25 school year, College Board's *Trends in College Pricing and Student Aid 2024*. Costs estimated to inflate 5% per year. This hypothetical example illustrates the future values of different regular monthly investments for different time periods, assuming an annual investment return of 6%, compounded monthly. Actual rate-of-return is not guaranteed. This hypothetical example does not represent the performance of any particular investment. Different assumptions will result in outcomes different from this example. Your results may be more or less than the figures shown. These figures do not reflect the impact of fees or expenses that would be paid by a 529 plan participant. Such costs would lower performance. A plan of regular investment cannot ensure a profit or protect against a loss in a declining market.

Growth of \$10,000 initial investment and \$500 monthly contributions over 18 years





State tax benefits

Many 529 plans offer state tax benefits in addition to federal tax-free investing.² See page 42 for more information.



- 1. J.P. Morgan Asset Management. Illustration assumes an initial \$10,000 investment and monthly investments of \$500 for 18 years. Chart also assumes an annual investment return of 6%, compounded monthly, and a federal tax rate of 32%. Actual rate-of-return is not guaranteed. Investment losses could affect the relative tax-deferred investing advantage. This hypothetical illustration is not indicative of any specific investment and does not reflect the impact of fees or expenses, for example, Federal or State penalties for non-qualified expenses. Tax rates on capital gains and dividends can affect the Taxable account's return. Each investor should consider his or her current and anticipated investment horizon and income tax bracket when making an investment decision, as the illustration may not reflect these factors. These figures do not reflect any management fees or expenses that would be paid by a 529 plan participant. Such costs would lower performance. This chart is shown for illustrative purposes only. Past performance is no guarantee of future results.
- 2. Earnings on non-qualified withdrawals may be subject to federal income tax and a 10% federal penalty tax, as well as state and local income taxes.

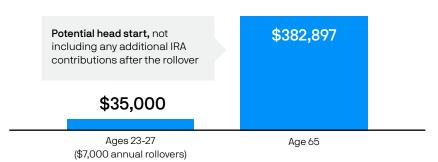
Making rollovers from 529 plans to Roth IRAs



Moving extra money to Roth IRAs extends tax benefits beyond college while easing concerns about overfunding 529 accounts.

Giving college graduates a head start on retirement savings

Growth of \$35,000 rollover from 529 plan to Roth IRA



Consult your financial or tax professional

Qualified rollovers are free from federal taxes and penalties, but each state sets its own 529 plan rules.



Questions about 529-to-Roth rollovers

Who is eligible?

- · No income limits
- Roth IRA must be in same name as 529 beneficiary
- Beneficiary's annual job earnings must equal or exceed rollover amount

How much can be rolled over?

- \$7,000 annual maximum per beneficiary (\$8,000 if age 50 or older)
- \$35,000 lifetime maximum per beneficiary

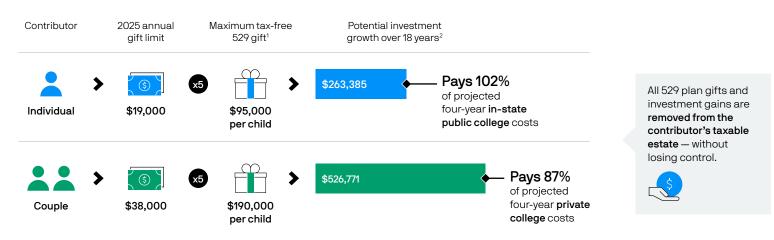
When can rollovers occur?

- 15+ years after 529 account opened
- Can't include 529 contributions or investment earnings within five years of rollover

Source: J.P. Morgan Asset Management. Chart assumes \$7,000 annual rollovers with 6% annual returns, compounded monthly, which grow to \$41,827 after five years. For illustrative purposes only. Earnings on federal non-qualified withdrawals may be subject to federal income tax and a 10% federal penalty tax, as well as any applicable state and local income taxes. Please consult your tax professional about your particular situation.

Only 529 plans allow five years of tax-free gifts in one year to help families meet college costs and manage estate taxes.

One gift at birth may pay all or most four-year college costs



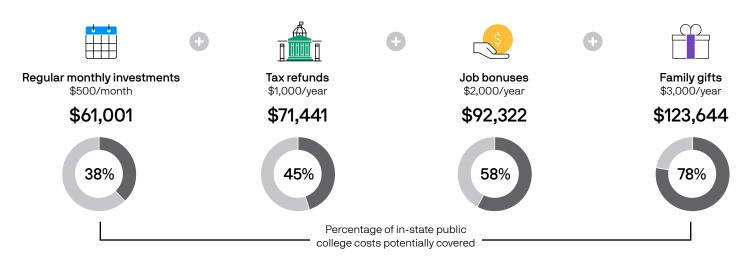
- 1. No additional gifts can be made to the same beneficiary over a five-year period. If the donor does not survive the five years, a portion of the gift is returned to the taxable estate.
- 2. J.P. Morgan Asset Management. Illustration assumes an annual investment return of 6%, compounded monthly. Actual rate-of-return is not guaranteed. It also assumes the gift was made January 1 of the year of birth and college starts at age 18. This example does not represent the performance of any particular investment. Different assumptions will result in outcomes different from this example. Your results may be more or less than the figures shown. Investment losses could affect the relative tax-deferred investing advantage. Each investor should consider his or her current and anticipated investment horizon and income tax bracket when making an investment decision, as the illustration may not reflect these factors. These figures do not reflect any management fees or expenses that would be paid by a 529 plan participant. Such costs would lower performance. Average projected four-year college costs are based on College Board's *Trends in College Pricing and Student Aid 2024*, assuming 5% annual inflation. This chart is shown for illustrative purposes only. Past performance is no quarantee of future results.

Catching up on college investing

By funding 529 plans with manageable amounts from multiple sources, late starters may still have time to achieve their goals.



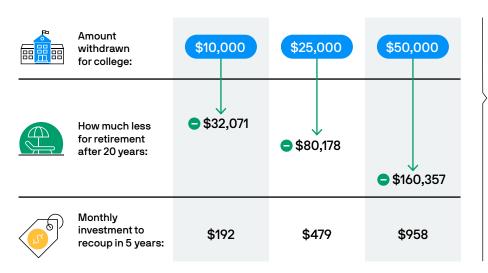
Example: Getting started for a 10-year-old



Source: J.P. Morgan Asset Management. This hypothetical illustration assumes an annual investment return of 6%, compounded monthly. Actual rate-of-return is not guaranteed. Investment losses could affect the relative tax-deferred investing advantage. Each investor should consider his or her current and anticipated investment horizon and income tax bracket when making an investment decision, as the illustration may not reflect these factors. All savings sources combined reflect \$500 monthly investments, plus \$6,000 in combined annual tax refunds, bonuses and family gifts. Projected four-year college costs are based on College Board's *Trends in College Pricing and Student Aid 2024*, assuming 5% annual inflation. Projected college costs for this example are \$158,691, which includes average tuition, fees, and room and board at an in-state public college. Different assumptions will result in outcomes different from this example. Your results may be more or less than the figures shown. This example does not represent the performance of any specific investment and does not reflect any management fees or expenses that would be paid by a 529 plan participant. These costs would lower performance. This chart is shown for illustrative purposes only. Past performance is no guarantee of future results.

Every dollar used for college can mean several less for retirement, due to years of lost investment earnings and compounding.

How college withdrawals can jeopardize retirement security¹





Retirement accounts may also be reduced by:

- Potential taxes due on amount withdrawn²
- Potential 10% penalty if under age 59½²

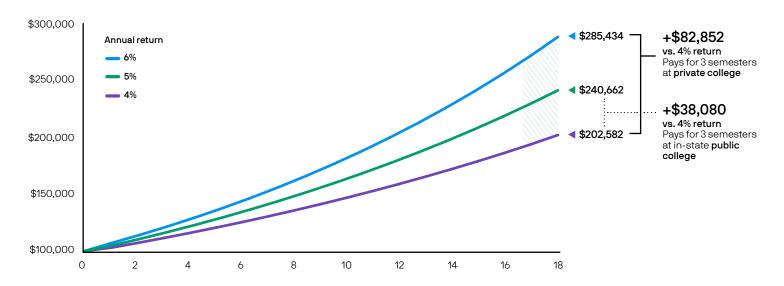
Why 529 plans make more sense

- Special tax benefits not available in retirement accounts
- Greater flexibility in paying education costs
- Higher contribution limits
- Unique gift giving and estate planning opportunities
- 1. J.P. Morgan Asset Management. This illustration assumes that assets would have remained in a tax-advantaged retirement account instead of being withdrawn for college, earning 6% annual investment returns for 20 years, compounded monthly. Actual rate-of-return is not guaranteed. This example does not represent the performance of any particular investment. Different assumptions will result in outcomes different from this example. Your results may be more or less than the figures shown. Investment losses could affect the relative tax-deferred investing advantage. Each investor should consider his or her current and anticipated investment horizon and income tax bracket when making an investment decision, as the illustration may not reflect these factors. These figures do not reflect any management fees or expenses. Such costs would lower performance. Monthly investment to recoup reflects amount needed to equal college withdrawal and lost investment earnings over five years, assuming 6% annual investment returns, compounded monthly. Shown for illustrative purposes only. Past performance is no guarantee of future results.
- 2. Distributions from certain retirement accounts, including IRAs, may not be subject to the 10% penalty tax if used for qualified higher education expenses. Income taxes may be due on withdrawals if certain requirements are not met. Refer to IRS Publication 970 or consult your tax professional regarding your personal circumstances.

Even small increases in investment returns can make a big difference when it comes time to pay for college.

Small increases in returns, big impact on college funds

Potential growth of \$100,000 investment over 18 years



Source: J.P. Morgan Asset Management, using College Board's *Trends in College Pricing and Student Aid 2024*. This hypothetical illustration assumes an investment of \$100,000 over an 18-year period, with returns compounded monthly. Actual rate-of-return is not guaranteed. Different assumptions will result in outcomes different from this example. Investment losses could affect the relative tax-deferred investing advantage. This hypothetical illustration is not indicative of any specific investment and does not reflect the impact of fees or expenses, for example, Federal or State penalties for non-qualified expenses. Such costs would lower performance. Each investor should consider his or her current and anticipated investment horizon and income tax bracket when making an investment decision.

Compare the best, worst and average annual returns for different investments over rolling 18-year periods.

Best, worst and average rolling 18-year periods

Average annual returns, 1983-2024

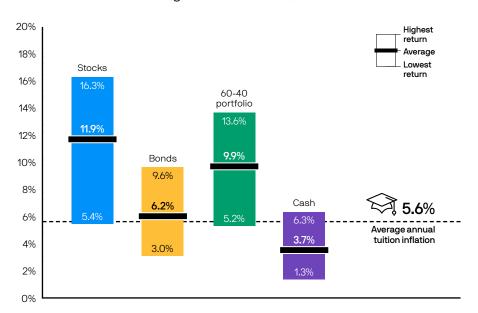


Chart highlights

- Average returns for both stocks and bonds outpaced tuition inflation.
- The diversified portfolio delivered higher returns than bonds, with lower volatility than stocks.
- Average returns for shortterm cash did not keep pace with tuition inflation.



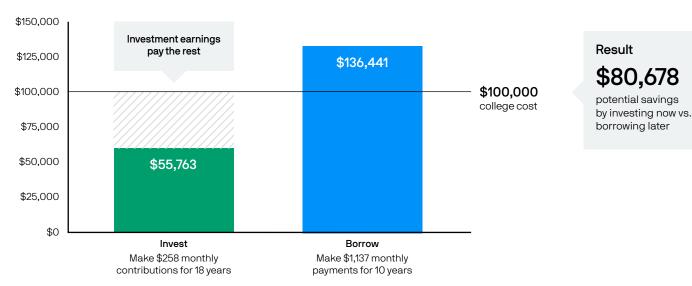
Source: Barclays Capital, FactSet, Robert Shiller, Strategas/Ibbotson, Federal Reserve, BLS, J.P. Morgan Asset Management. Rolling returns shown are based on calendaryear returns from 1983 through 2024. Stocks are represented by S&P 500 Index, bonds by Bloomberg Barclays U.S. Aggregate Index and cash by Bloomberg Barclays U.S. Treasury Bellwethers 3M Index. Data are as of 12/31/24. Past performance is not indicative of future results. Diversification does not guarantee investment returns and does not eliminate the risk of loss.

Invest more, borrow less

College costs less when you earn interest and other investment returns instead of paying interest on loans.

Cost of investing vs. cost of borrowing

Example: Paying \$100,000 for college



Source: J.P. Morgan Asset Management. Illustration assumes a college cost of \$100,000. In one scenario, \$258 monthly investments are made over an 18-year period. In the other, the entire \$100,000 is borrowed. Investing illustration assumes an annual investment return of 6%, compounded monthly. Actual rate-of-return is not guaranteed. Investment losses could affect the relative tax-deferred investing advantage. This hypothetical illustration is not indicative of any specific investment and does not reflect the impact of fees or expenses, for example, Federal or State penalties for non-qualified expenses. Each investor should consider his or her current and anticipated investment horizon and income tax bracket when making an investment decision, as the illustration may not reflect these factors. These figures do not reflect any management fees or expenses that would be paid by a 529 plan participant. Such costs would lower performance. Borrowing illustration assumes an interest rate of 6.53% and a repayment period of 10 years. This chart is shown for illustrative purposes only. Past performance is no guarantee of future results.









State benefits	Investment choices	Investment managers	Investor resources
Compare home state plan vs. out-of-state plans: • Tax deductions/credits, matching funds, scholarships • Tax treatment of withdrawals • Minimum/maximum contributions	 Variety of options Level of diversification Individual portfolio holdings – ETFs/mutual funds, active/passive Historical performance Investment fees and sales charges 	 Experience, reputation and capabilities Investment philosophy Investment universe and screening/selection process Ongoing portfolio oversight and adjustments 	 Cash-back rewards and e-gifting programs College planning insights and investor education Quality of plan website and phone support Access to a financial planning professional for guidance and assistance

College preparation timeline

Appendix

Planning in advance and filing early for financial aid may help students get into their preferred colleges.

	September-November	December-February	March-May	June-August
High school junior	Begin researching colleges Take PSAT/SAT/ACT	 Begin to formulate college list Retake SAT/ACT or continue test preparation Schedule college visits 	 Retake SAT/ACT (if needed) Take AP exams Write college essay Get recommendations from guidance counselor, teachers and others 	 Finalize college list Visit colleges Aug. 1: Common Apreleased online Begin applying for scholarships
High school senior	Oct. 1: File FAFSA Register for CSS Profile (if required) Nov. 1: Apply early decision/early action Retake SAT/ACT (if needed)	 Consider early decision acceptances Submit regular decision applications 	 Consider regular decision acceptances May 1: Make final decision/pay deposit Take AP exams Finalize loan applications (if needed) 	Pay for Fall semester College begins College begins

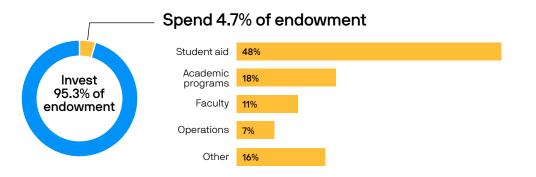
Source: J.P. Morgan Asset Management. For informational purposes only. Check with individual colleges regarding their application deadlines and policies. See page 34 for additional resources.

College endowments and financial aid



Endowments fund college scholarships and other financial aid, but not enough to cover a typical family's costs.

What endowments do with money received from donors



Few college students get the full benefit of endowments

100 biggest U.S. endowments

79% of all endowment assets

More student aid, but usually
higher-cost colleges

Average endowment \$4.7 million spent on student aid Enough to fund only 189 full scholarships

Why not spend more?

Most endowments are meant to last in perpetuity, so they generally have limits on annual spending to reduce the risk of running out of money.



Source: 2023 NACUBO-Commonfund Study of Endowments®. Average endowment spending is based on a 4.7% spending rate, with 48% going to student aid. Full scholarship amount is based on College Board's Trends in College Pricing and Student Aid 2024, using average tuition, fees, and room and board for four-year, in-state public college.

Financial aid and college planning websites





Financial aid

fafsa.gov

cssprofile.collegeboard.org

studentaid.gov

irs.gov

(IRS Publication 970, Tax Benefits for Education)



529 college savings plans

collegesavings.org savingforcollege.com



College preparation

collegeboard.org collegeconfidential.com act.org

petersons.com

naviance.com



Grants and scholarships

goingmerry.com

fastweb.com

appily.com

bigfuture.com

scholarships.com

finaid.org



Net price calculators

Nearly all colleges offer an online tool for estimating your family's costs after grants and scholarships.

	Types of financial aid	Details
U.S. federal government	Grants and scholarships Loans Work-study Tax credits and deductions	In addition to aid from the U.S. Department of Education, scholarships and loan repayment may be available to qualified students through other government entities.
States	Grants and scholarships	Eligibility requirements and policies vary by state. Click here to learn about financial aid programs available in your state.
Colleges	Grants and scholarships	Aid may be available for attending a particular college and/or studying specific majors.
Nonprofit or private organizations	Grants and scholarships	Possible sources include charitable foundations, religious and community organizations, local businesses, ethnicity-based organizations, students' and parents' employers, civic groups, and professional associations related to a field of study.
Banks, credit unions or other lenders	Private loans	Tend to have higher interest rates and less flexible repayment options than federal loans.

Types of financial aid

Grants and scholarships are free gifts that generally don't have to be repaid.

Grants are typically need-based, while scholarships are merit-based.

Loans must be paid back with interest.



 $Source: studentaid.gov (U.S.\ Department\ of\ Education).$

The <u>Free Application for Federal Student Aid (FAFSA)</u> is required by all colleges to award federal and institutional aid. About 250 colleges also require students to submit the <u>CSS Profile</u>, a more detailed assessment used to determine eligibility for institutional scholarships, grants or loans.¹

Income and assets reported ²	FAFSA	CSS Profile
Taxable income	•	•
Untaxed income (e.g., tax-deductible IRA contributions, tax-exempt interest, untaxed retirement distributions)	•	•
Interest and dividend income		•
Bank and investment accounts		•
Education savings accounts in student's name, owned by either parent or student	•	•
Trust funds		•
Investment real estate net worth		•
Business or farm net worth		•
Child support received		•
Parent assets held in sibling names ³		•
Retirement assets		•
Home equity (primary home)		•
Education savings accounts in student's name, owned by grandparents or other non-parents		•
Income and assets for both divorced or separated parents (and spouses, if remarried)		•
Pre-tax contributions to employer retirement plans		•
Mandatory contribution from student income		•
Untaxed Social Security benefits		•

Allowances and deductions ²	FAFSA	CSS Profile
Number in household	•	•
Federal income and/or payroll taxes paid		•
Income and asset protection allowances		•
Education-related benefits (e.g., federal tax credits, taxable grants/scholarships, federal work-study)	•	•
Employment/business expenses		•
Number of family members enrolled in college		•
State taxes paid		•
Private K-12 tuition for siblings		•
Medical and dental expenses		•
Emergency reserve allowance		•
Education loan payments		•
Child support paid		•
Regional cost-of-living adjustments		•

^{1.} College Board, for 2025-26 school year. The CSS Profile may vary by college. See financial aid office or net price calculator at your desired college for more information about what is used to calculate awards.

^{2.} For illustrative purposes only. Information is not meant to be exhaustive. Review the FAFSA and CSS Profile applications for additional details.

^{3.} For siblings under age 19 and not enrolled in college.

Federal student aid: A sample of grant programs



	Details	2024-25 award year Annual award limit
Federal Pell Grant	Generally awarded to undergraduate students with exceptional financial need; click here for eligibility requirements	^{up to} \$7,395
Federal Supplemental Educational Opportunity Grant (FSEOG)	 Administered directly by each college's financial aid office; not all colleges participate Typically awarded to undergraduate students with the most financial need Apply early; no grants given after college uses up funds received from U.S. Department of Education each year 	up to \$4,000
Teacher Education Assistance for College and Higher Education (TEACH) Grant	 For undergraduate or graduate students taking eligible coursework needed to become elementary or secondary school teachers Must attend a participating college and meet certain academic achievement requirements Must agree to serve as a full-time, highly qualified teacher in a high-need field and low-income area for at least four years within the first eight years after college Failure to complete the teaching service commitment results in grant funds being converted to a Federal Direct Unsubsidized Loan that must be repaid with interest 	up to \$3,772
Iraq and Afghanistan Service Grant (discontinued)	Starting in 2024-25, this grant is no longer available. Instead, eligible students will receive the maximum Federal Pell Grant if they are: • A child of a parent or guardian who died in the line of duty while serving in the military after 9/11 or as an active public safety officer • Under 33 years old as of the January 1 prior to the award year	^{up to} \$7,395

Source: U.S. Department of Education. Awards are subject to availability of funds, and recipients must meet certain eligibility requirements. This is for informational purposes only. To learn more, visit https://studentaid.gov/understand-aid/types/grants.

	Lender	Eligibility	Interest rate	Annual Ioan limit
Direct Subsidized Loan	U.S. Department of Education	Undergraduate students enrolled at least half-time and demonstrating financial need	6.53% Student not charged interest while in school and during deferment periods	\$3,500-\$5,500 depending on year in school
Direct Unsubsidized Loan	U.S. Department of Education	Undergraduate and graduate students enrolled at least half-time, regardless of financial need	6.53% for undergraduates 8.08% for graduate students Student responsible for interest during all periods	\$5,500-\$12,500 for undergraduates, depending on year in school and dependency status \$20,500 for graduate students
Direct PLUS Loan for parents	U.S. Department of Education	Parents of dependent undergraduate students enrolled at least half-time Parents must not have negative credit history	9.08% Parents responsible for interest during all periods	Cost of attendance (determined by the school) minus any other financial aid received
Direct PLUS Loan for graduate or professional students	U.S. Department of Education	Graduate or professional degree students enrolled at least half-time Student must not have negative credit history	9.08% Student responsible for interest during all periods	Cost of attendance (determined by the school) minus any other financial aid received

Source: U.S. Department of Education. Interest rates apply to loans first disbursed between July 1, 2024, and June 30, 2025. For more information, visit https://studentaid.gov/understand-aid/types/loans.

Tax-free investing and withdrawals for qualified education expenses

State tax breaks on contributions

Income limits on contributors

Annual contribution maximum

without gift taxes

life of the account

Account owner control for the

Impact on federal financial aid

Allows rollovers to Roth IRAs

Assets removed from taxable estate

Understanding the different college planning vehicles can help you choose the right one for your needs.

(five years of tax-free gifts in one year)

Yes

Yes

Low

Yes3

\sim			
529 education plan	Custodial account (UGMA/UTMA)	Coverdell Education Savings Account	
Yes¹	No, some earnings may be taxed at child's rate, the rest at parents' rate	Yes¹	
Yes, in some states	No	No	
No	No	Yes	
3190,000 per beneficiary ²	\$38,000 per beneficiary	\$2,000 per beneficiary	

No, child usually takes control at

age 18 or 21; doesn't have to use

money for education

No. if donor is also custodian.

Hiah

No

1. Earnings on federal non-qualified withdrawals may be subject to federal income tax and a 10% federal penalty tax, as well as any applicable state and local income taxes. Please consult your tax professional about your particular situation.

2. Maximum gifts are \$190,000 per beneficiary from married couples filing jointly and \$95,000 from single tax filers. No additional gifts can be made to the same beneficiary over a five-year period. If the donor does not survive the five years, a portion of the gift is returned to the taxable estate.

3. Tax- and penalty-free rollovers are subject to certain requirements and limitations. See page 24 for details. State tax treatment of Roth IRA rollovers may vary by 529 plan. Please consult your financial or tax professional for more information.

No, beneficiary must generally

use money by age 30

Yes

Low

No

Compared to these options, a 529 education plan is usually the better choice.

	How it works	Pros	Cons
Roth IRA	Withdraw retirement funds to pay for college	No taxes or penalties when contributions withdrawn¹ No penalty if investment earnings withdrawn for qualified higher education expenses Assets not considered for federal financial aid	 Withdrawals for college reduce retirement savings (see page 27) Potential taxes on investment earnings withdrawn² Annual contributions limited to \$7,000 (\$8,000 if age 50 or older) Contributors subject to income limits; no gifts allowed from others No state tax benefits
Life insurance with cash value	Withdraw or borrow against the cash value of a policy to pay for college	Cash value grows tax-deferred; withdrawals generally tax-free ³ Cash value not considered an asset for federal financial aid	Subject to fees, commissions and surrender charges Loan interest not generally tax deductible Withdrawals and unpaid loans reduce policy's death benefit No state tax benefits
Home equity loan	Borrow against home equity value to pay for college	Have fixed interest rates often lower than college loans Not subject to borrowing limits of federal loans	 Interest not tax deductible when used for college Less repayment flexibility than federal loans Risk of foreclosure if loan not repaid
Private loan	Borrow from bank, credit union or other lenders outside the U.S. government	Interest may be tax deductible, subject to income limits Higher borrowing limits than federal loans	Interest rates often variable and higher than federal loans Interest may be due while student is in college Less repayment flexibility than federal loans Often require cosigners

^{1.} Subject to certain requirements. Penalties may be due if contributions from a converted account are withdrawn within five years of the conversion. Please consult a tax professional for additional details.

^{2.} Withdrawals of investment earnings are tax free if the account owner is over age 59½ and the Roth IRA has been open at least five years. Please consult a tax professional for additional details.

^{3.} If withdrawal amounts exceed the premiums paid, taxes may be due on the difference.

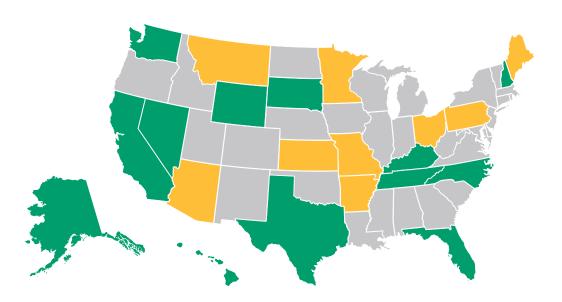


	Details	Income limits	Tax benefits
Tax-advantaged education savings plans	529 plans for any level of education, from elementary school through graduate school, as well as student loan payments and apprenticeship programs	None	Contributions not typically deductible from federal taxes; investments grow tax-deferred , and withdrawals are generally tax-free for qualified expenses ²
	Coverdell Education Savings Accounts for any level of education, from elementary school through graduate school	Single: \$110,000 Married filing jointly: \$220,000	
Federal tax credits ³	American Opportunity Tax Credit for qualified expenses in the first four years of college	Single: \$90,000	Reduce taxes by up to \$2,500 per student each year (100% of the first \$2,000 of qualified expenses, and 25% of the next \$2,000)
	Lifetime Learning Credit for qualified expenses in an unlimited number of years of college Married filing jointly: \$180,000		Reduce taxes by up to \$2,000 per tax return each year (20% of the first \$10,000 of qualified expenses)
Student loan interest deduction	For interest paid on student loans taken out for yourself, your spouse or dependents	Single: \$100,000 Married filing jointly: \$200,000	Reduce taxable income by up to \$2,500 each year
State tax deductions	Some states allow deductible contributions to a 529 education plan for state income tax purposes	Varies by state	Varies by state; see page 42 for more information

^{1.} Must meet certain eligibility requirements. Information as of November 2024. Please consult a tax professional for additional details.

^{2.} Tax-free withdrawals cannot be taken for the same expenses used to claim tax credits.

 $^{3. \, \}text{Taxpayers cannot claim both credits for the same student in the same year.} \\$



Some states have income limits

Tax breaks may be subject to income requirements in some states, including Delaware, Maine, Minnesota, New Jersey, Oregon and Pennsylvania.

Check with individual plans for more details.

Tax parity states

These states offer a tax deduction for contributing to any 529 plan, including out-of-state plans that may be more attractive than the in-state option: Arizona, Arkansas, Kansas, Maine, Minnesota, Missouri, Montana, Ohio, Pennsylvania.

Tax-neutral states

These states offer **no state tax deduction** for 529 plan contributions: Alaska, California, Florida, Hawaii, Kentucky, Nevada, New Hampshire, North Carolina, South Dakota, Tennessee, Texas, Washington, Wyoming.

All other states

These states offer potential tax breaks on contributions made only to in-state 529 plans.

- 1. Savingforcollege.com, as of October 2024. State rules are subject to change.
- 2. Arkansas offers larger tax deductions for contributions made to an in-state 529 plan. Minnesota offers either a tax deduction or tax credit, depending on income. Consult the plans for more details.

Index definitions and disclosures



Indices are unmanaged, and an individual cannot invest directly in an index. Index returns do not include fees or expenses.

The Bloomberg Barclays U.S. Treasury Bellwethers 3M Index tracks the performance and attributes of the on-the-run (most recently auctioned) U.S. Treasury bill with 3 months' maturity. The index follows Bloomberg Barclays Capital's index monthly rebalancing conventions. It contains index history starting January 1, 1981.

The Bloomberg Barclays Capital U.S. Aggregate Index represents securities that are SEC-registered, taxable and dollar denominated. The index covers the U.S. investment-grade fixed-rate bond market, with index components for government and corporate securities, mortgage pass-through securities and asset-backed securities. These major sectors are subdivided into more specific indices that are calculated and reported on a regular basis.

The **S&P 500 Index** is widely regarded as the best single gauge of the U.S. equities market. This world-renowned index includes a representative sample of 500 leading companies in leading industries of the U.S. economy. Although the S&P 500 Index focuses on the large cap segment of the market, with approximately 75% coverage of U.S. equities, it is also an ideal proxy for the total market. An investor cannot invest directly in an index.

Past performance is no guarantee of comparable future results.

Diversification does not guarantee investment returns and does not eliminate the risk of loss.

Bonds are subject to interest rate risks. Bond prices generally fall when interest rates rise.

The price of **equity** securities may rise or fall because of changes in the broad market or changes in a company's financial condition, sometimes rapidly or unpredictably. These price movements may result from factors affecting individual companies, sectors or industries, or the securities market as a whole, such as changes in economic or political conditions. Equity securities are subject to "stock market risk," meaning that stock prices in general may decline over short or extended periods of time.

Disclosures

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