







College Planning Essentials

A comprehensive guide to saving and investing

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Section 1: College matters

Discover how a college degree can pay off with higher income, lower unemployment and other lifelong benefits.

> 88%

Higher annual income for bachelor's degree holders vs. high school graduates¹



Section 2: College costs

See how quickly tuition costs are rising and what you can expect to pay.

> 81%

Families having to rule out some colleges because of cost²



Section 3: Financial aid

Learn what financial aid is, how it works and why it's important to invest for the expenses not covered by free grants and scholarships.

> 330%

Increase in student loan debt since 2005³



Section 4: Saving and investing

Make informed decisions about how much to contribute, when to start, where to invest and which strategies can help your money work hardest.

> 69%

Families not using taxadvantaged 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 2021 based on mean earnings for workers age 18 and older.
- 2. Sallie Mae, How America Pays for College, 2022.
- 3. Federal Reserve Bank of New York, Household Debt and Credit Report, Q2 2022.
- 4. ISS Market Intelligence, 529 Industry Analysis 2022.

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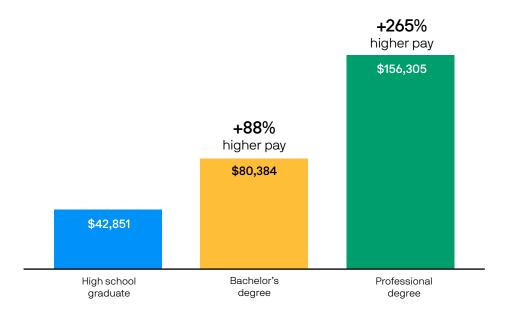
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Higher education pays

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

Average annual earnings

by highest educational degree¹





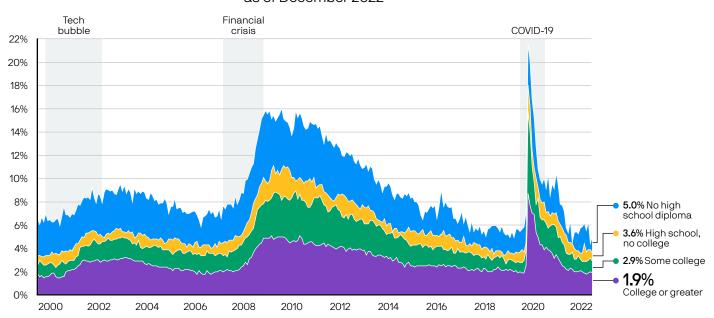
- $1.\,\,U.S.\,Census\,Bureau, Current\,Population\,Survey.\,Data\,for\,2021\,based\,on\,mean\,earnings\,for\,workers\,age\,18\,and\,older.$
- 2. The College Board, Trends in College Pricing and Student Aid 2022. Based on average tuition, fees, and room and board at an in-state, four-year public university.

More education, less unemployment



College graduates enjoy much better job security and opportunity, especially during economic downturns.

Unemployment rates by education level as of December 2022

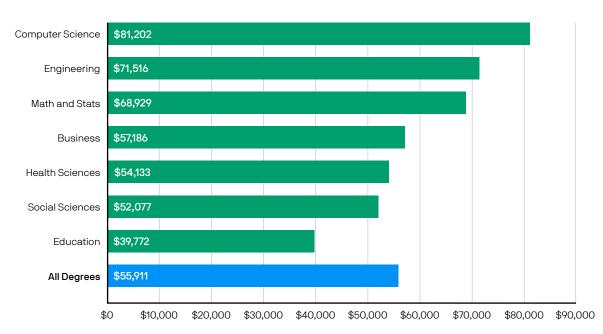


Source: Bureau of Labor Statistics. Unemployment rates shown are for civilians aged 25 and older. Data current as of 12/31/22.

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

Average yearly starting salary

by college major for the class of 2021



A key consideration

Weigh future job earnings against college costs when deciding which school to attend and how much to borrow.



Source: National Association of Colleges and Employers (NACE), Salary Survey, Summer 2022. For bachelor's degree recipients.

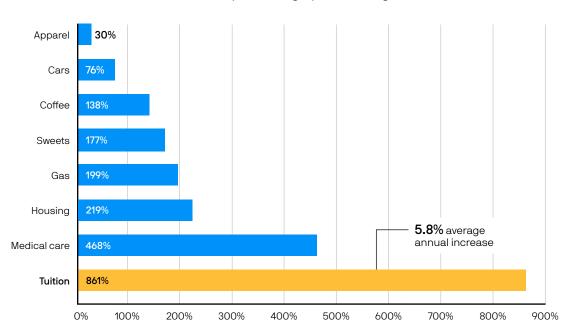
Tuition inflation



College tuition costs have increased more quickly 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.



Source: BLS, Consumer Price Index, J.P. Morgan Asset Management. Data represent cumulative percentage price change from 12/31/82 to 12/31/22.

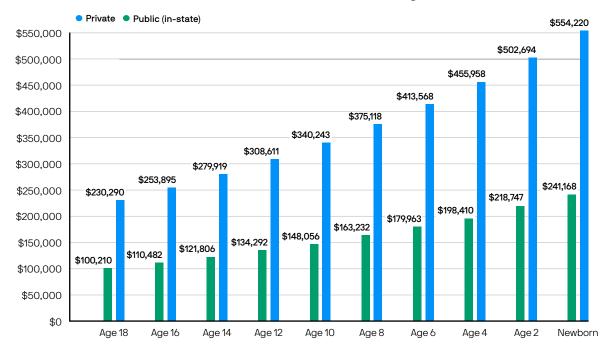
Future four-year college costs



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 age1





^{1.} J.P. Morgan Asset Management, using The College Board, *Trends in College Pricing and Student Aid 2022*. 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.} Sallie Mae, How America Pays for College, 2022.

The community college option

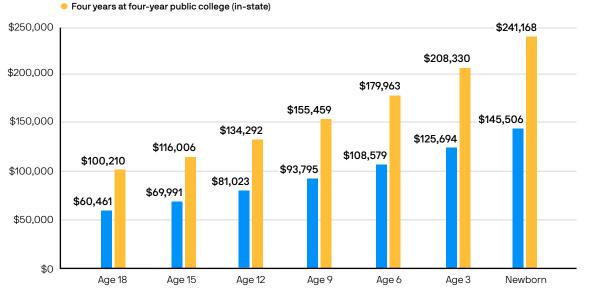


Some students choose to attend two years of community college before transferring to four-year universities.

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)



Save 40% by attending two years of community college. \$3,860

Average annual tuition and fees at community college



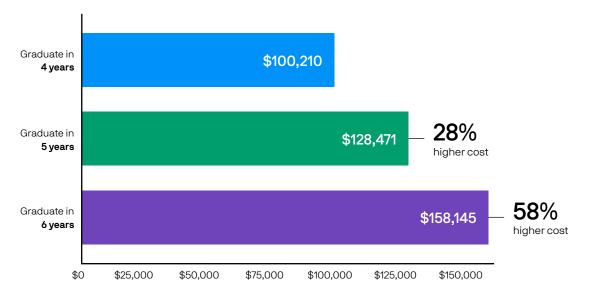
Source: J.P. Morgan Asset Management, using The College Board, *Trends in College Pricing and Student Aid 2022*. Future college costs estimated to inflate 5% per year. Average tuition, fees, and room and board for public college reflect four-year, in-state charges. Community college costs are based on tuition and fees for an in-district student.

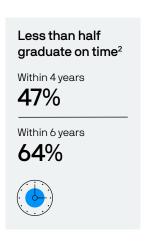
Preparing for more than four years

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

The high price of not graduating on time

Total projected in-state public college costs for first-year student¹

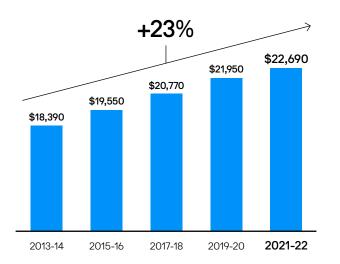




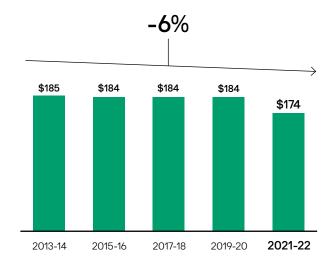
- 1. J.P. Morgan Asset Management, using The College Board, *Trends in College Pricing and Student Aid 2022*. Future college costs estimated to inflate 5% per year. Average tuition, fees, and room and board for public college reflect four-year, in-state charges.
- 2. U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), as of October 2021. Data reflect graduation rates from first institution attended for first-time, full-time bachelor's degree-seeking students at four-year colleges.

College costs continue rising while financial aid has declined — leaving families to cover more of the expenses.

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



Total financial aid² (undergraduate students, in billions)



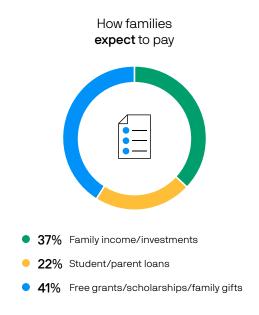
^{1.} The College Board, Trends in College Pricing, 2013, 2015, 2017, 2019 and 2021. Based on average tuition, fees, and room and board at an in-state, four-year university.

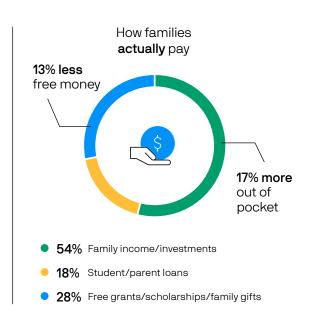
^{2.} The College Board, Trends in Student Aid, 2014, 2016, 2018, 2020 and 2022. Includes federal, state, institutional and private grants as well as federal work-study, tax benefits, veterans' benefits and loans.

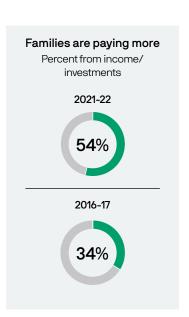
The typical family pays more than expected for college from their own pocket.

Families need more for college than expected

Breakdown of college funding sources







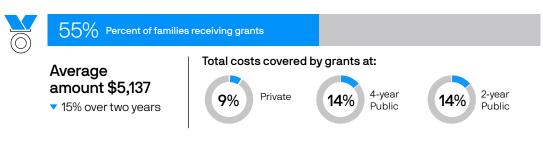
Source: Sallie Mae, How America Pays for College, 2017 and 2022, and Higher Ambitions: How America Plans for Post-secondary Education, 2020.

Financial aid reality check

Financial aid

Free grants and scholarships normally pay for little of college, and many families don't qualify.

Grant reality 2021-22 (need-based)1



Few free rides

0.3%

of college students receive enough grants and scholarships to cover all costs.²



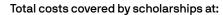
Scholarship reality 2021-22 (merit-based)1



60% Percent of families receiving scholarships

Average amount \$6,041

▼ 24% over two years





Private



4-year Public

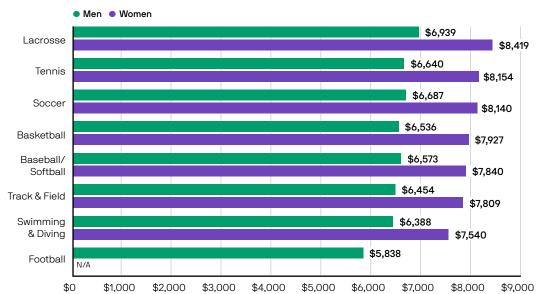


^{1.} Sallie Mae, How America Pays for College, 2022 and 2020.

^{2.} Mark Kantrowitz, National Postsecondary Student Aid Study from the National Center for Education Statistics. Based on full-time students at four-year colleges.

Athletic scholarships usually cover only a small portion of college costs - and only for the select few who receive them.

Average scholarship by sport (Division II)1



Impact on 529 plans

If students earn scholarships, families can either:

- Transfer unused 529 plan assets to another family member:² or
- Withdraw an amount equal to the scholarship without paying the 10% federal penalty tax.³

Don't count on it

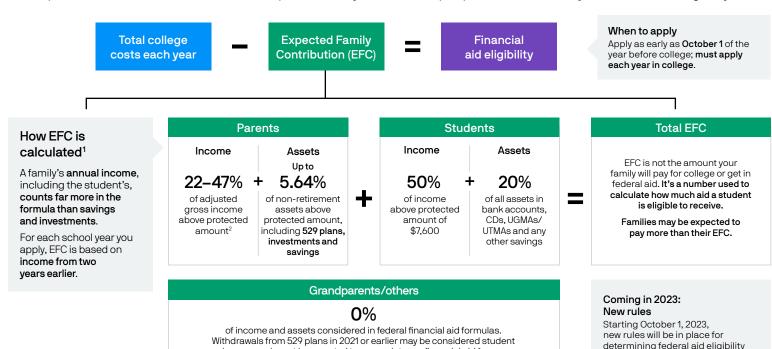
Only about 1-2% of high school athletes play Division II college sports.4

- 1. ScholarshipStats.com, based on Division II programs in the National Collegiate Athletic Association (NCAA) for the 2019-20 school year.
- 2. Section 529 of the Internal Revenue Code defines a family member as a son, daughter, stepson or stepdaughter, or a descendant of any such person; a brother, sister, stepbrother or stepsister; a father or mother, or an ancestor of either; a stepfather or stepmother; a son or daughter of a brother or sister; a brother or sister of the father or mother; a son-in-law, daughter-in-law, father-in-law, mother-in-law, brother-in-law or sister-in-law; the spouse of the beneficiary or the spouse of any individual described above; or a first cousin of the beneficiary. Gift or generation-skipping transfer taxes may apply. Please consult your tax professional for more information.
- $3. \, \text{Federal and state income taxes are due on any investment earnings. Consult your tax professional for more information.} \\$
- 4. NCAA, Estimated probability of competing in college athletics, April 2020.

Federal financial aid eligibility

Financial aid

The Department of Education calculates the Expected Family Contribution (EFC) used to determine your financial aid eligibility.



income and must be reported two years later on financial aid forms.

Withdrawals from 529 plans in 2022 or later will not need to be reported.3

- Based on federal methodology for 2023-24 school year. To learn more about how EFC is calculated, see https://fsapartners.ed.gov/sites/default/files/2022-08/2324EFCFormulaGuide.pdf.
- 2. Protected amount for parents is dependent upon a number of factors, including household size and number of students in college.
- 3. Federal financial aid rules are subject to change. Please consult your financial professional for more information.

for the 2024-25 school year.3

Estimating Expected Family Contribution



Use this chart to estimate your Expected Family Contribution, the amount used to determine federal financial aid eligibility.

Annual Expected Family Contribution (EFC)

Examples based on income and assets

Assets (excluding primary residence and retirement accounts)

assets.		Addet devoluting primary reductive and retirement accounts)							
assets.		\$0	\$25,000	\$50,000	\$100,000	\$150,000	\$200,000	\$250,000	\$300,000
	\$50,000	\$1,948	\$2,508	\$3,168	\$4,575	\$6,251	\$8,370	\$10,973	\$13,793
	\$75,000	\$7,026	\$7,905	\$9,105	\$11,836	\$14,656	\$17,476	\$20,296	\$23,116
ē	\$100,000	\$15,735	\$16,930	\$18,340	\$21,160	\$23,980	\$26,800	\$29,620	\$32,440
Combined income	\$125,000	\$24,120	\$25,316	\$26,726	\$29,546	\$32,366	\$35,186	\$38,006	\$40,826
nedi	\$150,000	\$32,628	\$33,823	\$35,233	\$38,053	\$40,873	\$43,693 -	\$46,513	\$49,333
idmo;	\$175,000	\$41,505	\$42,700	\$44,110	\$46,930	\$49,750	\$52,570	\$55,390	\$58,210
O	\$200,000	\$50,343	\$51,539	\$52,949	\$55,769	\$58,589	\$61,409	\$64,229	\$67,049
	\$225,000	\$58,879	\$60,075	\$61,485	\$64,305	\$67,125	\$69,945	\$72,765	\$75,585
	\$250,000	\$67,416	\$68,611	\$70,021	\$72,841	\$75,661	\$78,481	\$81,301	\$84,121
,									

Calculate your personal EFC

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



Example: If you earn \$150,000 in income and have \$200,000 in assets, your estimated EFC is **\$43,693**.

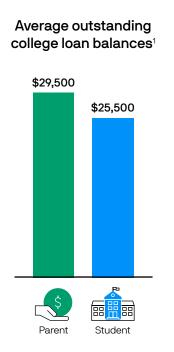
Source: J.P. Morgan Asset Management and studentaid.gov. Based on two-parent household with one child attending college, one child living at home, all are residents of New York. Assumes no income or assets for each dependent and age 49 for eldest parent. Protected amounts for parental assets vary based 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.

Income has a much bigger impact than

Rising college debt



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



Debt balances, 2005 vs. 2022 by type of consumer loan, excluding mortgages²

		(<u> </u>		
	Student loan	Auto Ioan	Credit card	Home equity line of credit
2005	\$370 billion	\$770 billion	\$720 billion	\$530 billion
2022	\$1.59 trillion	\$1.50 trillion	\$890 billion	\$320 billion
	+330%	+95 %	+24%	- 40%

Nearly 4x faster than college costs³

 $^{1.\,\,}U.S.\,\,Department\,of\,\,Education,\,National\,\,Student\,\,Loan\,\,Data\,\,System.\,\,Data\,\,as\,of\,\,Q3\,\,2022\,for\,\,federal\,\,Stafford\,\,and\,\,parent\,\,PLUS\,\,loans.$

^{2.} Federal Reserve Bank of New York, Household Debt and Credit Report, Q2 2022.

^{3.} The College Board, Trends in College Pricing, 2005 and 2022. Based on average tuition, fees, and room and board at an in-state, four-year public university.

The burden of student debt



Paying off college loans can negatively affect a borrower's financial, personal and family life.

Percentage of borrowers delaying key life milestones

Financial milestones	Paying off other loans 42%	Investing 40%	Saving for retirement 38%
Personal milestones	Travel 35%	Buying a home 33%	Finding a new job
Family milestones	Having a baby 16%	Getting married 14%	

A heavy burden

81%

of college borrowers had to delay life plans because of debt.



Source: CNBC and Acorn, Invest in You Student Loan Survey, January 2022.

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

		\$	
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	Yes ³	
Yes, in some states	No	No	
No	No	Yes	
\$170,000 per beneficiary ² (five years of tax-free gifts in one year)	\$34,000 per beneficiary	\$2,000 per beneficiary	
Yes	No, child usually takes control at age 18 or 21; doesn't have to use money for education	No, beneficiary must generally use money by age 30	
Yes	No, if donor is also custodian	Yes	
	Yes¹ Yes, in some states No \$170,000 per beneficiary² (five years of tax-free gifts in one year)	Yes' No, some earnings may be taxed at child's rate, the rest at parents' rate Yes, in some states No No No No \$170,000 per beneficiary² (five years of tax-free gifts in one year) Yes No, child usually takes control at age 18 or 21; doesn't have to use money for education	

Hiah

Low

Low

Impact on federal financial aid

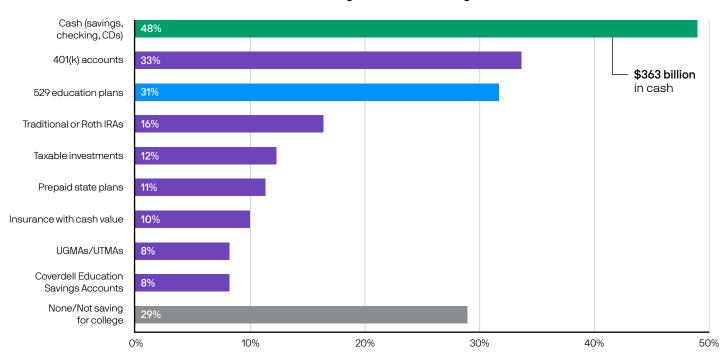
^{1.} Earnings on federal non-qualified withdrawals may be subject to federal income tax and a 10% federal penalty tax, as well as state and local income taxes. New York State tax deductions may be subject to recapture in certain additional circumstances such as rollovers to another state's 529 plan, withdrawals used to pay elementary or secondary school tuition, or qualified education loan repayments as described in the Disclosure Booklet and Tuition Savings Agreement. State tax benefits for non-resident New York taxpayers may vary. Tax and other benefits are contingent on meeting other requirements. Please consult your tax professional about your particular situation.

^{2.} Maximum gifts are \$170,000 per beneficiary from married couples filing jointly and \$85,000 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.} 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.

Many families invest for college with retirement and savings accounts instead of taking full advantage of 529 plans.

Percentage of families using each vehicle



Source: ISS Market Intelligence, 529 Industry Analysis 2022.

See how much you should start investing or already have invested, based on a child's current age and your college funding plans.

Not yet investing?

Amount to start contributing each month

	Public college (in-state)			Pr	ivate colleç	ge
Child's		M	onthly inves	stment to pa	y:	
current age	50%	75%	100%	50%	75%	100%
Newborn	\$315	\$472	\$630	\$724	\$1,086	\$1,448
3	\$361	\$542	\$723	\$830	\$1,245	\$1,661
6	\$431	\$646	\$861	\$990	\$1,484	\$1,979
9	\$546	\$819	\$1,092	\$1,255	\$1,882	\$2,510
12	\$777	\$1,166	\$1,554	\$1,786	\$2,679	\$3,572
15	\$1,471	\$2,206	\$2,942	\$3,380	\$5,070	\$6,760

Already investing?

Current balance or lump-sum contribution to be on track

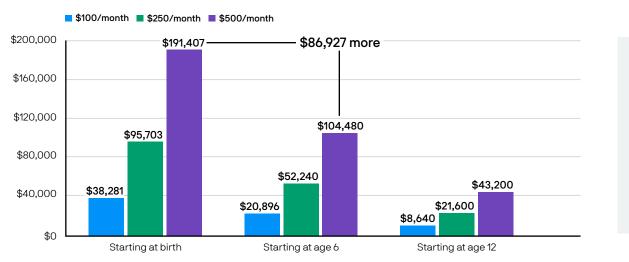
	Public college (in-state)			Pr	ivate colle	ge
Child's	Cı	urrent bala	nce or lump	s-sum inves	tment to pa	ay:
current age	50%	75%	100%	50%	75%	100%
Newborn	\$42,246	\$63,369	\$84,492	\$97,084	\$145,626	\$194,168
3	\$43,464	\$65,197	\$86,929	\$99,884	\$149,826	\$199,768
6	\$44,718	\$67,077	\$89,436	\$102,765	\$154,148	\$205,531
9	\$46,008	\$69,012	\$92,016	\$105,729	\$158,594	\$211,459
12	\$47,335	\$71,003	\$94,671	\$108,779	\$163,169	\$217,559
15	\$48,700	\$73,051	\$97,401	\$111,917	\$167,875	\$223,833

Source: J.P. Morgan Asset Management. Based on average tuition, fees, and room and board costs for 2022-23 school year, The College Board, *Trends in College Pricing and Student Aid 2022*. Costs estimated to inflate 5% per year. This hypothetical example illustrates the future values of different regular monthly investments and lump-sum investments with no additional contributions for different time periods, assuming an annual investment return of 6%, compounded monthly. 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.

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



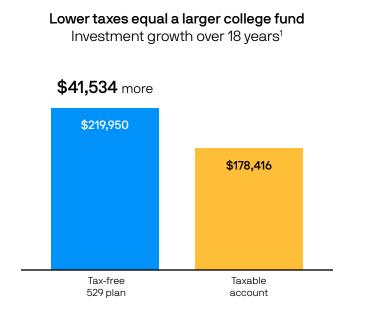
Put college investing on autopilot

Three-fourths of 529 plan users make automatic contributions from bank accounts or paychecks.²



- 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. 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. 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 2022.

A tax-advantaged 529 plan has the potential to grow more quickly than a taxable investment earning the exact same returns.





State tax benefits

Many 529 plans offer state tax benefits in addition to federal tax-free investing.² See the Appendix on 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%. 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. 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.







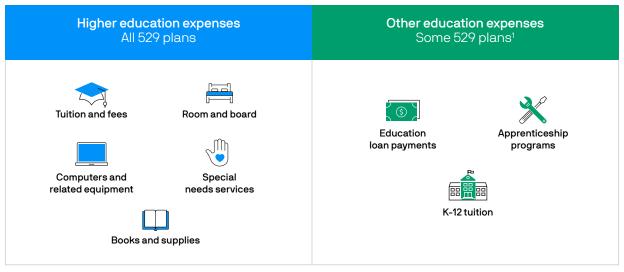


Tax-advantaged investing	Estate planning benefits	Control and flexibility	Accessible and affordable
Tax-deferred compounding of contributions and earnings Tax-free withdrawals for qualified education expenses Tax-deductible contributions in some states	Contributions and investment gains removed from taxable estate Option to make five years of tax-free gifts in a single year — up to \$170,000 per beneficiary from married couples filing jointly and \$85,000 from individuals ² Only completed gift that can be revoked under current laws	Account owner retains full control over assets Can change beneficiaries or transfer unused assets to certain other family members Covers any qualified expense at accredited schools throughout the U.S. and overseas, including vocational/trade schools as well as apprenticeship programs ³ Minimal impact on financial aid eligibility	 No income limits on contributors No age limits on beneficiaries or contributors Very low investment minimums make it easy to get started High contribution limits, often \$400,000 or more per beneficiary⁴

Source: Internal Revenue Service.

- 1. Earnings on federal non-qualified withdrawals may be subject to federal income tax and a 10% federal penalty tax, as well as state and local income taxes. New York State tax deductions may be subject to recapture in certain additional circumstances such as rollovers to another state's 529 plan, withdrawals used to pay elementary or secondary school tuition, or qualified education loan repayments as described in the Disclosure Booklet and Tuition Savings Agreement. State tax benefits for non-resident New York taxpayers may vary. Tax and other benefits are contingent on meeting other requirements. 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. The Program Administrators of New York's 529 Advisor-Guided College Savings Program impose a maximum aggregate balance of all accounts for a single beneficiary in qualified tuition programs sponsored by the State of New York, which limits the amount of contributions that may be made for any one beneficiary, as required by Section 529 of the Internal Revenue Code. The current maximum account balance is \$520.000.

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

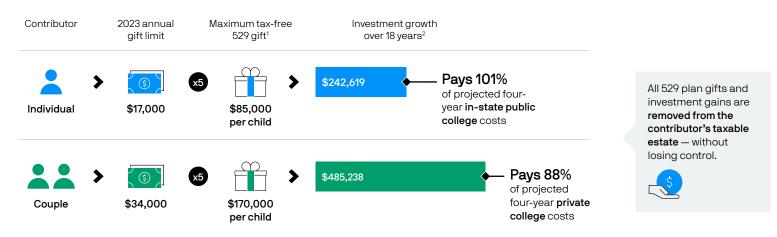


Includes community colleges, four-year universities, graduate schools and vocational/trade schools

^{1.} Earnings on federal non-qualified withdrawals may be subject to federal income tax and a 10% federal penalty tax, as well as state and local income taxes. New York State tax deductions may be subject to recapture in certain additional circumstances such as rollovers to another state's 529 plan, withdrawals used to pay elementary or secondary school tuition, or qualified education loan repayments as described in the Disclosure Booklet and Tuition Savings Agreement. State tax benefits for non-resident New York taxpayers may vary. Tax and other benefits are contingent on meeting other requirements. Please consult your tax professional about your particular situation. Rules vary by state. Check with individual plans for more information.

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 can pay all or most four-year college costs

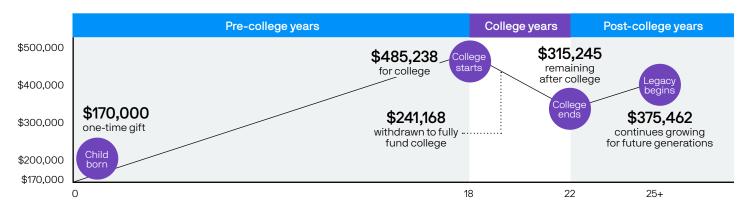


- 1. No additional gifts can be made to the same beneficiary over a five-year period. If the donor does not survive the five years, a portion of the gift is returned to the taxable estate.
- 2. J.P. Morgan Asset Management. Illustration assumes an annual investment return of 6%, compounded monthly. This 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 The College Board's Trends in College Pricing and Student Aid 2022, assuming 5% annual inflation. This chart is shown for illustrative purposes only. Past performance is no guarantee of future results.

Any money left in a 529 plan after college can continue growing for future generations.1

Investing for many generations with one 529 plan gift

Growth of one-time \$170,000 gift over 25 years²

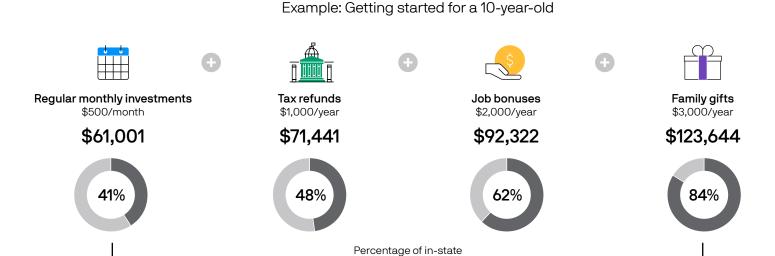


- 1. The Beneficiary of a 529 Account can be changed at any time. If the new Beneficiary is a Member of the Family, the change of Beneficiary is free from New York State and federal income tax. A Member of the Family includes the Beneficiary's child or step-child (and their descendants); sibling or step-sibling; parent or step-parent (and their ancestors); niece or nephew; aunt or uncle; a son-in-law, daughter-in-law, father-in-law, mother-in-law, brother-in-law or sister-in-law; the spouse of the Beneficiary or the spouse of any individual described above; or a first cousin of the Beneficiary.
- 2. J.P. Morgan Asset Management. Illustration assumes an annual investment return of 6%, compounded monthly. 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. Illustration assumes student attends an in-state public college. Average projected four-year college costs are based on The College Board's *Trends in College Pricing and Student Aid 2022*, assuming 5% annual inflation. Changing a 529 plan beneficiary to another generation may result in federal gift and generation-skipping transfer taxes. Please consult a tax professional for advice specific to your situation. This chart is shown for illustrative purposes only. Past performance is no guarantee 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.

Combining investment strategies can increase college funds



Source: J.P. Morgan Asset Management. This hypothetical illustration assumes an annual investment return of 6%, compounded monthly. 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 strategies combined reflects \$500 monthly investments, plus \$6,000 in combined annual tax refunds, bonuses and family gifts. Projected four-year college costs are based on The College Board's *Trends in College Pricing and Student Aid 2022*, assuming 5% annual inflation. Projected college costs for this example are \$148,056, 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 quarantee of future results.

public college costs covered

Don't pay for college with retirement funds

Saving and investing

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

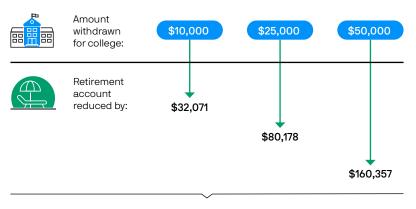
A dangerous decision

One in five parents

has used retirement savings to pay for college.1



How college withdrawals can jeopardize retirement security²



Retirement accounts may also be reduced by:

Potential taxes
due on amount withdrawn³

Potential 10% penalty if under age 59½3

How retirement savings affect college financial aid

Account balances

0%

factored into federal financial aid formula.

Withdrawals for college

50%

may count against federal aid as student income.

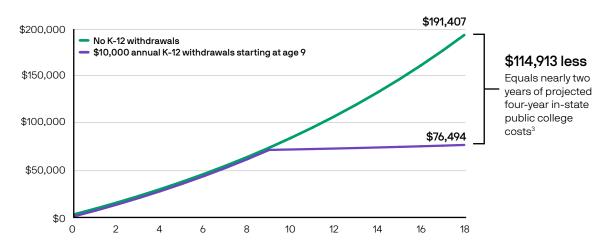


- 1. College Ave Student Loans survey, January 2022.
- 2. J.P. Morgan Asset Management. This illustration assumes that assets would have remained in a tax-advantaged retirement account instead of being withdrawn for college, earning 6% annual investment returns for 20 years, compounded monthly. This 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. Shown for illustrative purposes only. Past performance is no guarantee of future results.
- 3. 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.

Withdrawing money from a 529 plan before college can leave families with less during college.

The price of K-12 withdrawals

Growth of \$500 monthly investments over 18 years¹



Check your 529 plan

Annual withdrawals of up to \$10,000 per beneficiary for private K-12 tuition are free from federal taxes, but state tax consequences may apply in certain states.²

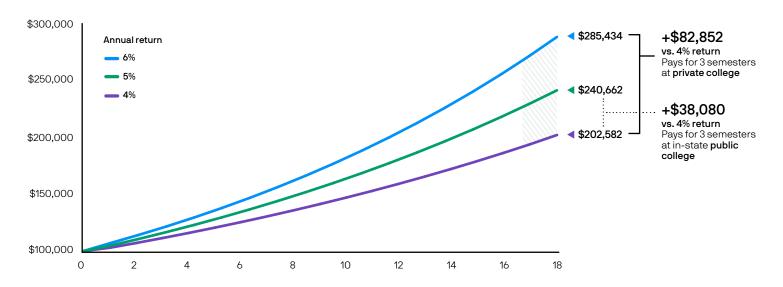


- 1. J.P. Morgan Asset Management. Illustration assumes an annual investment return of 6%, compounded monthly. It also assumes \$10,000 annual K-12 withdrawals between ages 9 and 17. This example does not represent the performance of any particular investment. Different assumptions will result in outcomes 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. This chart is shown for illustrative purposes only. Past performance is no guarantee of future results.
- 2. Under New York State law, withdrawals used to pay elementary or secondary school tuition or qualified education loan repayments are considered non-qualified distributions and will require the recapture of any New York State tax benefits that have accrued on contributions.
- 3. The College Board, Trends in College Pricing and Student Aid 2022, assuming 5% annual inflation. Based on average tuition, fees, and room and board at an in-state, four-year public college.

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

Growth of \$100,000 investment over 18 years



Source: J.P. Morgan Asset Management, using The College Board, *Trends in College Pricing and Student Aid 2022*. This hypothetical illustration assumes an investment of \$100,000 over an 18-year period, with returns compounded monthly. 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. 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, 1983-2022

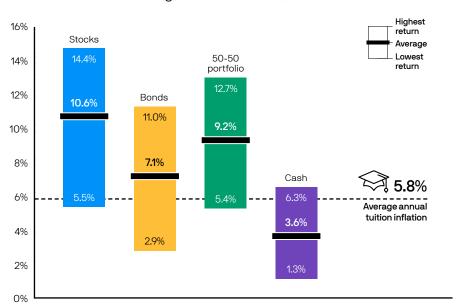


Chart highlights

- 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 calendar-year returns from 1983 through 2022. 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 12/31/22. Past performance is not indicative of future results. Diversification does not guarantee investment returns and does not eliminate the risk of loss.

College preparation timeline



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

High school junior	Begin researching colleges Take PSAT/SAT/ACT September-November	Begin to formulate college list Retake SAT/ACT or continue test preparation Schedule college visits December-February	Retake SAT/ACT (if needed) Take AP exams March-May	Finalize college list Visit colleges Common App released online Begin applying for scholarships June-August
High school senior	Oct. 1: File FAFSA Register for CSS Profile (if required) 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

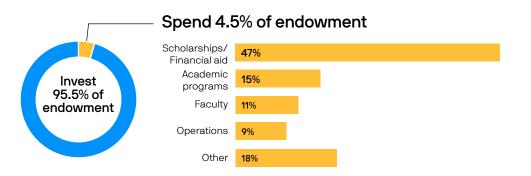
Source: J.P. Morgan Asset Management. For informational purposes only. Check with individual colleges regarding their application deadlines and policies. See page 35 for additional resources.

College endowments and financial aid



Endowments fund college scholarships and 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

81% of all endowment assets

More student aid, but usually
higher-cost colleges

Average endowment

\$4.2 million spent on student aid

Enough to fund

only 181 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: 2021 NACUBO-TIAA Study of Endowments. Average endowment spending is based on a 4.5% spending rate, with 47% going to student aid. Full scholarship amount is based on The College Board's Trends in College Pricing and Student Aid 2022, using average tuition, fees, and room and board for four-year, in-state public college.

Financial aid and college planning websites





Federal 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



Grants and scholarships

goingmerry.com

fastweb.com

cappex.com

petersons.com

finaid.org



Aid for New York residents (including the Excelsior Scholarship)

hesc.ny.gov

	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	Example: New York's Tuition Assistance Program offers grants of up to \$5,665 per year to eligible residents attending approved New York State schools and meeting income limits.
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.



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

Financial aid: Types of applications

Appendix

More than 200 mostly private, specialized or highly selective institutions require students to submit the CSS Profile in addition to the FAFSA.¹ The CSS Profile is an online application used to determine eligibility for need-based institutional scholarships, grants or loans and is a more detailed assessment of a family's finances.

	FAFSA (Federal Methodology)	CSS Profile ² (Institutional Methodology)
Type of application	Standard, universal application required by every institution	College-specific application required by more than 200 institutions in addition to the FAFSA
Type of financial aid	Need-based federal and institutional aid	Need-based institutional aid
Income and assets considered when calculating Expected Family Contribution (EFC)	Taxable income Nontaxable income (child support, workers' compensation, disability, etc.) Interest and dividend income Cash, savings and investments Family trusts Student trusts Investment and real estate net worth (excluding primary home) Business or farm net worth	Same as Federal Methodology, plus: Untaxed Social Security benefits Tax credits and itemized deductions Parents' assets held in all children's names Noncustodial parent information Home equity Business income (losses) Rental income (losses)
Allowances and expenses considered when calculating EFC	Number in household Number of family members enrolled in college at least half-time Federal income tax State tax ⁴ FICA tax Employment expenses Income protection allowance Education savings and asset protection allowance Child support paid	Same as Federal Methodology, plus: • Medical and dental expenses • Private elementary and secondary school tuition for siblings • Emergency reserve allowance

^{1.} The College Board.

^{2.} The CSS Profile may vary by institution. See financial aid office or net price calculator at your desired institution for more information about what is used to calculate awards.

^{3.} Only if more than 100 full-time employees in the Federal Methodology.

^{4.} Sales and property taxes also considered in the Institutional Methodology.

Federal student aid: A sample of grant programs

	Details	2022-23 award year¹ Annual award limit
Federal Pell Grant	Generally awarded to undergraduate students with exceptional financial need	up to \$6,895
Federal Supplemental Educational Opportunity Grant (FSEOG)	 Awarded to undergraduate students with exceptional financial need Federal Pell Grant recipients receive priority Not all colleges participate Funds depend on availability at the college; apply by college's deadline 	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 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 Stafford Loan that must be repaid with interest 	up to \$3,772
Iraq and Afghanistan Service Grant	 Non-need-based, this grant is available to any undergraduate student who is not eligible for a Federal Pell Grant and whose parent or guardian died as a result of performing military service in Iraq or Afghanistan after the events of 9/11 Must have been younger than 24 years old or enrolled in college at least part-time at the time of the parent's or guardian's death 	up to \$6,502

^{1.} 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 Stafford Loan	U.S. Department of Education	Undergraduate students enrolled at least half-time and demonstrating financial need	4.99% Student not charged interest while in school and during deferment periods	\$3,500-\$5,500 depending on year in school
Direct Unsubsidized Stafford Loan	U.S. Department of Education	Undergraduate and graduate students enrolled at least half-time, regardless of financial need	4.99% for undergraduates 6.54% for graduate students Student responsible for interest during all periods	\$5,500-\$20,500 (Minus any subsidized amount received for the same period), depending on year in school and dependency status
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	7.54% 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	7.54% 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, 2022, and June 30, 2023. For more information, visit https://studentaid.gov/understand-aid/types/loans.

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 treated as student income for federal financial aid Withdrawals for college reduce retirement savings (see page 29) Potential taxes on investment earnings withdrawn ² Annual contributions limited to \$6,500 (\$7,500 if age 50+) Contributors subject to income limits; no gifts allowed from others No state tax benefits
Life insurance	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	Withdrawals treated as student income for federal financial aid Subject to fees, commissions and surrender charges Loan interest not tax deductible 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 Unspent loan proceeds considered an asset for federal financial aid 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 59% and the Roth IRA has been open at least five years. Please consult a tax professional for additional details.

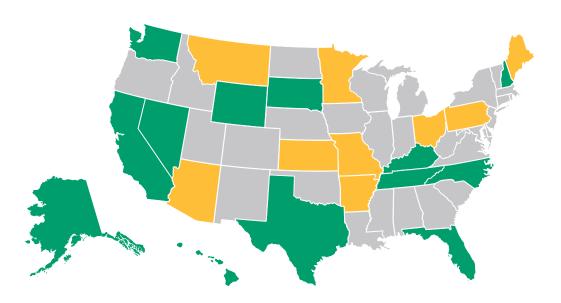
^{3.} If withdrawal amounts exceed the premiums paid, taxes may be due on the difference.

	Details	Income limits	Tax benefits
Tax-advantaged college savings plans	529 plans for four-year universities, graduate school, vocational-technical schools and community college	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 Married filing jointly: \$180,000	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		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: \$90,000 Married filing jointly: \$185,000	Reduce taxable income by up to \$2,500 each year
State tax deductions			Varies by state; see page 42 for more information

^{1.} Must meet certain eligibility requirements. Information as of November 2022. Please consult a tax professional for additional details.

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

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



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.} As of January 2023.

^{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.

Not FDIC Insured | No Bank, State or Federal Guarantee | May Lose Value

For more information about New York's 529 Advisor-Guided College Savings Program, you may contact your financial professional or obtain an Advisor-Guided Plan Disclosure Booklet and Tuition Savings Agreement at www.ny529advisor.com or by calling 1-800-774-2108. This document includes investment objectives, risks, charges, expenses, and other information. You should read and consider it carefully before investing.

Before you invest, consider whether your or the Beneficiary's home state offers any state tax or other state benefits such as financial aid, scholarship funds, and protection from creditors that are only available for investments in that state's qualified tuition program.

The Comptroller of the State of New York and the New York State Higher Education Services Corporation are the Program Administrators and are responsible for implementing and administering New York's 529 Advisor-Guided College Savings Program (the "Advisor-Guided Plan"). Ascensus Broker Dealer Services, LLC serves as Program Manager for the Advisor-Guided Plan. Ascensus Broker Dealer Services, LLC and its affiliates have overall responsibility for the day-to-day operations of the Advisor-Guided Plan, including recordkeeping and administrative services. J.P. Morgan Investment Management Inc. serves as the Investment Manager. J.P. Morgan Asset Management is the marketing name for the asset management business of JPMorgan Chase & Co. JPMorgan Distribution Services, Inc. markets and distributes the Advisor-Guided Plan. JPMorgan Distribution Services, Inc. is a member of FINRA.

No guarantee: None of the State of New York, its agencies, the Federal Deposit Insurance Corporation, J.P. Morgan Investment Management Inc., Ascensus Broker Dealer Services, LLC, JPMorgan Distribution Services, Inc., nor any of their applicable affiliates insures accounts or guarantees the principal deposited therein or any investment returns on any account or investment portfolio.

New York's 529 College Savings Program currently includes two separate 529 plans. The Advisor-Guided Plan is sold exclusively through financial advisory firms who have entered into Advisor-Guided Plan selling agreements with JPMorgan Distribution Services, Inc. You may also participate in the *Direct Plan*, which is sold directly by the Program and offers lower fees. However, the investment options available under the Advisor-Guided Plan are not available under the *Direct Plan*. The fees and expenses of the Advisor-Guided Plan include compensation to the financial advisory firm. Be sure to understand the options available before making an investment decision.

The Advisor-Guided Plan is offered through financial intermediaries, including broker-dealers, investment advisers and firms that are registered as both broker dealers and investment advisers and their respective investment professionals. Broker-dealers and investment advisers are subject to different standards under federal and state law when providing investment advice and recommendations about securities. Please ask the financial professional with whom you are working about the role and capacity in which their financial intermediary acts when providing services to you or if you have any questions in this regard.

The Program Administrators, the Program Manager and JPMorgan Distribution Services, Inc., and their respective affiliates do not provide legal or tax advice. This information is provided for general educational purposes only. This is not to be considered legal or tax advice. Investors should consult with their legal or tax advisors for personalized assistance, including information regarding any specific state law requirements.

If you are a person with a disability and need additional support in viewing the material, please call us at 1-800-774-2108 (8am-6pm ET, M-F) for assistance.

February 2023

529-CPE

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New York's 529 Advisor-Guided College Savings Program®

Entrust your college fund to one of the world's largest, most respected financial institutions. The Advisor-Guided Plan is the only 529 plan offering you full access to the insights and investments of J.P. Morgan.



Expert management

Oversight by J.P. Morgan's Multi-Asset Solutions Group

- Dedicated team of more than 100. investment professionals1
- More than \$226 billion in global assets under management1
- Builds Plan portfolios, selects investments and makes adjustments as market conditions change over time



Investment choices

- · One age-based option, automatically shifting to nine different portfolios between newborn and college age
- · Six asset allocation portfolios, each pursuing different risk/return objectives
- 18 individual single-asset portfolios for creating your own customized investment mix, including a new stable asset income option



Broad diversification

- Access to asset classes and investment strategies not often found in 529 plans
- Potential for higher returns and lower risk than less diversified portfolios²



State tax deductions

for account owners. living or working in New York³

High contribution

limit of \$520,000 per beneficiary

Uaift® online tool enables family and friends to make aift contributions to Plan accounts

Upromise® rewards program turns everyday purchases into funds for college



To learn more, please consult a financial professional, visit ny529advisor.com or call 1-800-774-2108.

- 1. As of 9/30/22.
- 2. Diversification does not guarantee investment returns and does not eliminate the risk of loss.
- 3. Deductions may be subject to recapture in certain circumstances, such as rollovers to another state's plan; distributions for tuition expenses in connection with enrollment or attendance at an elementary or secondary public, private or religious school; or qualified education loan repayments.



