



## Cooperative Extension

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A child's education is one of the largest expenses many families face. College tuition and fees are increasing at a faster rate than the general rate of inflation. By the year 2020, the cost of tuition, fees, and room and board at a public college is expected to exceed \$100,000. This fact alone makes it imperative to develop a plan to meet these costs. The sooner you start, the less money you'll have to save per year.

Because of the time value of money (interest compounding on interest over time), a little money saved early can actually exceed a lot of money saved later on. To illustrate this point, let's compare two sets of parents of college freshmen. Kara's parents started saving \$100 a month for her education as soon as she was born, while Jason's parents waited until he was 10 and then started saving \$250 a month for eight years. When Kara and Jason turned 18, their college funds—assuming an average annual return of 8 percent—were worth \$48,300 and \$33,700, respectively, even though Jason's parents actually saved more money.

Unfortunately, financial planning for college has a lot in common with a blindfolded marksman. It's difficult to "shoot" at a goal that is up to 18 years away, especially when tuition increases exceed the consumer price index (CPI) and government regulations concerning grants and student loans change frequently. Nevertheless, planning is a must.

It is best to err on the conservative side when making future predictions. Assume, for example, that your child

will not receive any assistance and that you will be responsible for most, if not all, of the cost of his or her college education. While financial aid may be available, it is probably best not to count on it.

To estimate the cost of a college education, select a few "representative" types of schools (e.g.,—community college, state university, private college, "Ivy League" university) and investigate what their total costs are this year. Then multiply that cost by four years, the typical length of a college degree program. Decide how much of this cost you want to save for. Then estimate how many years are left from now until your child enters college and use the table (Table 1) on page 2 to find the appropriate inflation factor.

Multiplying the current four-year cost of colleges by the appropriate inflation factor gives you the estimated total cost of four years of education when your child is ready. Don't be surprised if the total is in the high five-figure range. For example, if the school you select costs \$15,000 a year now, or \$60,000 for four years, and your child will enter school in 10 years ( $\$40,000 \times 1.80$ ), by the time your child enters school the cost will be at least \$108,000 (this figure assumes 6% inflation and excludes potential tuition hikes between freshman and senior year, which will probably occur).

Once you've determined the future cost of an education at the college(s) of your choice, complete the balance of the worksheet to determine how much you need to save for each child on an annual and a monthly basis. There

are three sets of tables available that assume a 6%, an 8%, and a 10% average return on college savings and/or investments.

In addition to making decisions about specific investment products, it is also important to consider the effects of tax laws when saving or investing for your child's education. Any unearned income (interest, dividends, capital gains) received by a child under age 24 if in college or under age 19 otherwise, over an annually-adjusted amount, is taxed at his or her parents' generally-higher marginal tax rate. This is the so-called "kiddie tax", which reduces the tax benefits of shifting income to pre-teenage children.

Some parents also wonder if saving will make their child ineligible for future college financial aid. It might—a classic "catch 22" situation. Generally speaking, the more income and assets a family has, the less financial aid they may be eligible for. Special strategies such as the use of tax-deferred retirement savings plans (the amount contributed does not count as available income) or a home equity loan or refinanced mortgage (mortgage debt counts in the needs analysis formula) can be used, however, to increase the chances of qualifying for assistance.

On the other hand, there are no guarantees of financial aid. If money is not saved, parents run the risk of not being able to send their child to college or having to take out expensive loans if no financial aid is available. The safest course of action is to plan to contribute a specific amount toward your child's education and to begin saving for it as soon as possible.

## College Planning Worksheet

What will college cost? To estimate how much college will cost, and how much is needed to invest to meet this expense, complete the following worksheet. A separate calculation should be done for each child.

	Your child	Jane Smith
1. Enter your child's age		6
2. Years to college; time to invest (generally, 18 minus child's age)		12
3. Annual college costs. Enter your own figure, using the most current total of tuition, fees, and other expenses for the types of colleges that you are considering.		\$15,000

4.	College Inflation Factors. According to the College Board, college costs are increasing 6% per year on average. Refer to Table 1 for the inflation factor based on your time horizon.		2.02
5.	Future annual cost of college: (Step 3 x Step 4).		\$30,300
6.	Future total cost of college: Step 5 x number of years of college (4).		\$121,200
7.	Amount of total cost that you wish to fund (ex - 80%) x total cost (6).		50%- \$60,600

### Table 1: Inflation Factors

The long-term annual rate of college inflation is approximately 6% according to the College Board. To find the factor by which inflation will increase college costs over the years, select the appropriate figure in the left column, find the inflation factor to the right, and enter factor on line 4 of the worksheet.

Years to start of college	Factor: Rate of inflation (6%)	Years to start of college	Factor: Rate of inflation (6%)
1	1.06	10	1.80
2	1.12	11	1.91
3	1.19	12	2.02
4	1.26	13	2.14
5	1.34	14	2.27
6	1.42	15	2.41
7	1.51	16	2.55
8	1.60	17	2.7
9.	1.70	18	2.87

Source: Fidelity Investments

While no one can predict the future value of an investment, you must assume some rate of return to estimate your investment target. To determine the factor by which a 10% rate of return, compounded annually, increases your investment, select the appropriate figure from the left column, find the return rate factor to the right, and enter the rate on line 8 on the worksheet. Then do the same thing for an 8% and a 6% return rate.

## How Much Should I Invest?

8.	Assumed rate of return (10%). Take the number of years your child has until college, refer to Table 2, and enter applicable return rate factor.	21.38
9.	Annual target amount to invest. Divide Step 8 into Step 7.	\$2,834
10.	Monthly amount to invest. Divide Step 9 by 12.	\$236

**Table 2: Return Rate Factors - 10%**

Years to start of college	Factor: Rate of return (10%)	Years to start of college	Factor: Rate of return (10%)
1	1.00	10	15.94
2	2.10	11	18.53
3	3.30	12	21.38
4	4.64	13	24.52
5	6.10	14	27.98
6	7.71	15	31.77
7	9.49	16	35.95
8	11.43	17	40.55
9	13.58	18	45.60

Source: Future Value of Annuity Factor Tables, College for Financial Planning, Denver.

If you earned an average of 8% on your money:		Your child	Jane Smith
8.	Assumed rate of return (8%). Take the number of years your child has until college, refer to Table 2, and enter applicable return rate factor.		18.97
9.	Annual target amount to invest. Divide Step 8 into Step 7.		\$3,195
10.	Monthly amount to invest.		\$266

**Table 3: Return Rate Factors - 8%**

Years to start of college	Factor: Rate of return (8%)	Years to start of college	Factor: Rate of return (8%)
1	1.00	10	14.48
2	2.08	11	16.64
3	3.25	12	18.97
4	4.50	13	21.50
5	5.87	14	24.21
6	7.33	15	27.15
7	8.92	16	30.32
8	10.64	17	33.75
9	12.48	18	37.45

Source: Future Value of Annuity Factor Tables, College for Financial Planning, Denver.

If you earned an average of 6% on your money:		Your child	Jane Smith
8.	Assumed rate of return (6%). Take the number of years your child has until college, refer to Table 2, and enter applicable return rate factor.		16.87
9.	Annual target amount to invest. Divide Step 8 into Step 7.		\$3,592
10.	Monthly amount to invest.		\$299

**Table 4: Return Rate Factors: 6%**

Years to start of college	Factor: Rate of return (10%)	Years to start of college	Factor: Rate of return (10%)
1	1.00	10	13.18
2	2.06	11	14.97
3	3.18	12	16.87
4	4.37	13	18.88
5	5.64	14	21.02
6	6.98	15	23.28
7	8.39	16	25.67
8	9.89	17	28.21
9	11.49	18	30.91

Source: Future Value of Annuity Factor Tables, College for Financial Planning, Denver.

As the above example illustrates, you'll need to save more money per month if you earn a lower yield on savings and investments. You'll also need to save more if you wait to start a college savings program.

Because of the time value of money, a little money saved early can actually grow to exceed a lot more money saved later on. Time and money are truly a magical combination!

Ideally, college savings should begin as soon as a child is born but, in the real world, many people just never get started. Suddenly their child is a teenager and college tuition is staring them in the face. By that time, the required monthly savings amount is often more than what they earn.

So what do you do when college tuition is due and there's no money in the bank? Below are 10 ideas to consider:

1. Read up on the process of applying for college financial aid and act accordingly. For example, certain investments, such as tax-sheltered annuities and 401(k) plans for retirement, are not counted as parental assets in the financial aid formula.
2. Check with local colleges to find out about scholarships offered by local service organizations (e.g., Rotary, Soroptimists). Also, check back after the deadlines have passed to inquire about unclaimed funds. Inquire, too, about scholarships with your employer, church, union, or professional organization.
3. Complete the first two years "on the cheap" at a community college and transfer credits to a larger institution. The final degree will still come from the larger and more prestigious school—but with substantial savings.
4. Consider refinancing your mortgage and taking out equity. This is an attractive option only if the interest is lower than what you pay currently and you'll be staying in the home long enough to recoup closing costs.
5. Consider a home equity loan if you can't refinance. Try to lock in a low interest rate with a fixed rate mortgage, if conditions are favorable.
6. Track your cash flow (income and expenses) for a month or two. This will help you decide how much you can afford to spend on college from current earnings.
7. Don't discount on-campus jobs for your child. Some do not have income guidelines. Encourage your child to look around and ask questions.
8. Increase household income for college expenses. This may include your child getting a job or a parent returning to the labor force.
9. Consider hiring a scholarship search company—but only after carefully checking its track record to make sure that its data base is truly "unique" and not a rehash of information available elsewhere for free.
10. Don't pay for graduate school. Many large universities have assistantships and fellowships that provide stipends for living expenses and/or a waiver of tuition. Assistantships require 10-20 hours of work assisting professors with classroom instruction or research projects.

## Reference:

*Time Value of Money Tables*, College for Financial Planning.

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