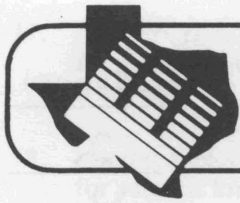


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ppt. 5A



## Texas Agricultural Extension Service

# Financial Planning For College

Parents, as well as people planning to resume their education, are keenly interested in knowing what it will cost to attend college, but many people cannot estimate costs because they are unsure about the arithmetic.

## WORKSHEETS

This worksheet will enable anyone with a simple calculator to calculate college costs quickly and easily. Estimating college costs requires making certain assumptions about the future. These important assumptions include:

1. **Assume you have \_\_\_\_\_ years until college begins.** This will range from 1 to 18 years, but in some cases, may be more than 20 years.
2. **Assume your child will attend college for \_\_\_\_\_ years.** This may vary from one to four years or longer if graduate, professional or specialized education is planned.
3. **Assume that the cost of attending the institution of choice for the current year is \$\_\_\_\_\_.** This figure will depend upon the type and location of the institution chosen. The figure will be adjusted for inflation on the worksheet.
4. **Assume that the cost of education will rise \_\_\_\_\_% per year.** Current projections indicate costs will rise steadily by about 6-7% each year.
5. **Assume you will finance \_\_\_\_\_% of your child's education.** This figure may range from less than 10% up to 100%. How much you finance will depend on your family's financial situation as well as the availability of alternate sources of financing, such as scholarships, grants, loans and student employment.
6. **Assume that you can earn \_\_\_\_\_% on your savings after taxes.** This may range from 5% to 12% or more, depending on how you have invested your money and what your tax bracket is.
7. **Assume that you have already saved \$\_\_\_\_\_ towards college education.** This may range from no money to several thousand dollars.

As with any worksheet, it is important to follow instructions carefully. You will be using several interest factor tables, so make sure you use the correct tables to calculate your answers.

Once you estimate how much you will need for college costs, you may wish to analyze your investment and tax strategies to maximize the return on money you set aside for college.

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The Texas A&M University System, U.S. Department of Agriculture, and the County Commissioners Courts of Texas Cooperating

WORKSHEET FOR ESTIMATING COLLEGE COSTS

			Example	
1.	Names of children	_____	_____	Example
2.	Current ages	_____	_____	2
3.	Number of years until children reach college age	_____	_____	16
4.	Estimated number of years in school	_____	_____	4
5.	Calculate years for inflation adjustment (add half of line 4 to number from line 3)	_____	_____	18
6.	Estimated annual inflation rate between now and time children finish college	_____	_____	7%
7.	Inflation factor (use Table A for rate on line 6 and years on line 5)	_____	_____	3.379
8.	The cost of one year of college <u>today</u>	_____	_____	5,400
9.	The cost of one year of college in the future (multiply line 8 by the factor on line 7)	_____	_____	18,246
10.	Total cost of college in the future (multiply line 9 by line 4)	_____	_____	72,984
11.	Percentage of total college costs to be paid by parents (enter as a decimal)	_____	_____	.75
12.	Total cost to be paid by parents (multiply line 10 by line 11)	_____	_____	54,738
13.	Expected rate of return on savings after taxes	_____	_____	8%
14.	Compound interest factor (use Table A for rate on line 13 and years on line 5)	_____	_____	3.996
15.	Current value of money saved for college	_____	_____	2,000
16.	Future value of current education funds (multiply line 15 by the interest factor on line 14)	_____	_____	7,992

17. FINANCIAL GOAL: amount needed  
for college (subtract line 16  
from line 12)

46,746

18. Interest factor (use Table B  
for rate on line 13 and years  
on line 5)

37.450

19. AMOUNT THAT MUST BE SAVED  
EACH YEAR TO MEET FINANCIAL  
GOAL ON LINE 17 (divide line 17 by  
the factor on line 18)

\$1,248

TABLE A

YRS	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%	16%	YRS
1	1.050	1.060	1.070	1.080	1.090	1.100	1.110	1.120	1.130	1.140	1.150	1.160	1
2	1.102	1.123	1.144	1.166	1.188	1.210	1.232	1.254	1.276	1.299	1.322	1.345	2
3	1.157	1.191	1.225	1.259	1.295	1.331	1.367	1.404	1.442	1.481	1.520	1.560	3
4	1.215	1.262	1.310	1.360	1.411	1.464	1.518	1.573	1.630	1.688	1.749	1.810	4
5	1.276	1.338	1.402	1.469	1.538	1.610	1.685	1.762	1.842	1.925	2.011	2.100	5
6	1.340	1.418	1.500	1.586	1.677	1.771	1.870	1.973	2.081	2.194	2.313	2.436	6
7	1.407	1.503	1.605	1.713	1.828	1.948	2.076	2.210	2.352	2.502	2.660	2.826	7
8	1.477	1.593	1.718	1.850	1.992	2.143	2.304	2.475	2.658	2.852	3.059	3.278	8
9	1.551	1.689	1.838	1.999	2.171	2.357	2.558	2.773	3.004	3.251	3.517	3.802	9
10	1.628	1.790	1.967	2.158	2.367	2.593	2.839	3.105	3.394	3.707	4.045	4.411	10
11	1.710	1.898	2.104	2.331	2.580	2.853	3.151	3.478	3.835	4.226	4.652	5.117	11
12	1.795	2.012	2.252	2.518	2.812	3.138	3.498	3.895	4.334	4.817	5.350	5.936	12
13	1.885	2.132	2.409	2.719	3.065	3.452	3.883	4.363	4.898	5.492	6.152	6.885	13
14	1.979	2.260	2.578	2.937	3.341	3.797	4.310	4.887	5.534	6.261	7.075	7.987	14
15	2.078	2.396	2.759	3.172	3.642	4.177	4.784	5.473	6.254	7.137	8.137	9.265	15
16	2.182	2.540	2.952	3.425	3.970	4.594	5.310	6.130	7.067	8.137	9.357	10.748	16
17	2.292	2.692	3.158	3.700	4.327	5.054	5.895	6.866	7.986	9.276	10.761	12.467	17
18	2.406	2.854	3.379	3.996	4.717	5.559	6.543	7.689	9.024	10.575	12.375	14.462	18
19	2.526	3.025	3.616	4.315	5.141	6.115	7.263	8.612	10.197	12.055	14.231	16.776	19
20	2.653	3.207	3.869	4.660	5.604	6.727	8.062	9.646	11.523	13.743	16.366	19.460	20
21	2.785	3.399	4.140	5.033	6.108	7.400	8.949	10.803	13.021	15.667	18.821	22.574	21
22	2.925	3.603	4.430	5.436	6.658	8.140	9.933	12.100	14.713	17.861	21.644	26.186	22
23	3.071	3.819	4.740	5.871	7.257	8.954	11.026	13.552	16.626	20.361	24.891	30.376	23
24	3.225	4.048	5.072	6.341	7.911	9.849	12.239	15.178	18.788	23.212	28.625	35.236	24
25	3.386	4.291	5.427	6.848	8.623	10.834	13.585	17.000	21.230	26.461	32.918	40.874	25



**TABLE B**

YRS	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%	16%	YRS
1	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1
2	2.050	2.060	2.070	2.080	2.090	2.100	2.110	2.120	2.130	2.140	2.150	2.160	2
3	3.152	3.183	3.214	3.246	3.278	3.310	3.342	3.374	3.406	3.439	3.472	3.505	3
4	4.310	4.374	4.439	4.506	4.573	4.641	4.709	4.779	4.849	4.921	4.993	5.066	4
5	5.525	5.637	5.750	5.866	5.984	6.105	6.227	6.352	6.480	6.610	6.742	6.877	5
6	6.801	6.975	7.153	7.335	7.523	7.715	7.912	8.115	8.322	8.535	8.753	8.977	6
7	8.142	8.393	8.654	8.922	9.200	9.487	9.783	10.089	10.404	10.730	11.066	11.413	7
8	9.549	9.897	10.259	10.636	11.028	11.435	11.859	12.299	12.757	13.232	13.726	14.240	8
9	11.026	11.491	11.977	12.487	13.021	13.579	14.163	14.775	15.415	16.085	16.785	17.518	9
10	12.577	13.180	13.816	14.486	15.192	15.937	16.722	17.548	18.419	19.337	20.303	21.321	10
11	14.206	14.971	15.783	16.645	17.560	18.531	19.561	20.654	21.814	23.044	24.349	25.732	11
12	15.917	16.869	17.888	18.977	20.140	21.384	22.713	24.133	25.650	27.270	29.001	30.850	12
13	17.712	18.882	20.140	21.495	22.953	24.522	26.211	28.029	29.984	32.088	34.351	36.786	13
14	19.598	21.015	22.550	24.214	26.019	27.974	30.094	32.392	34.882	37.581	40.504	43.671	14
15	21.578	23.275	25.129	27.152	29.360	31.772	34.405	37.279	40.417	43.842	47.580	51.659	15
16	23.657	25.672	27.888	30.324	33.003	35.949	39.189	42.753	46.671	50.980	55.717	60.925	16
17	25.840	28.212	30.840	33.750	36.973	40.544	44.500	48.883	53.739	59.117	65.075	71.673	17
18	28.132	30.905	33.999	37.450	41.301	45.599	50.395	55.749	61.725	68.394	75.836	84.140	18
19	30.539	33.759	37.378	41.446	46.018	51.159	56.939	63.439	70.749	78.969	88.211	98.603	19
20	33.065	36.785	40.995	45.761	51.160	57.274	64.202	72.052	80.946	91.024	102.443	115.379	20
21	35.719	39.992	44.865	50.422	56.764	64.002	72.265	81.698	92.469	104.768	118.810	134.840	21
22	38.505	43.392	49.005	55.456	62.873	71.402	81.214	92.502	105.491	120.435	137.631	157.414	22
23	41.430	46.995	53.436	60.893	69.531	79.543	91.147	104.602	120.204	138.297	159.276	183.601	23
24	44.501	50.815	58.176	66.764	76.789	88.497	102.174	118.155	136.831	158.658	184.167	213.977	24
25	47.727	54.864	63.249	73.105	84.700	98.347	114.413	133.333	155.619	181.870	212.793	249.214	25

**Technical Notes**

1. Table values have been dropped, without rounding, to three places beyond the decimal point.
2. Table A shows how \$1 left at compound interest will grow. The formula for deriving values is  $(1 + i)^N$  where  $i$  = rate of interest and  $N$  = number of periods.
3. Table B shows how \$1 deposited periodically will grow. The formula for deriving values is  $\frac{(1 + i)^N - 1}{i}$  where  $i$  = rate of interest and  $N$  = number of periods.
4. Tables A and B are from *Financial Compound Interest and Annuity Tables*, 5th Edition, Boston: Financial Publishing Company, 1970, as reprinted in Rosen, Lawrence R. *The Dow Jones Irwin Guide to Interest—What You Should Know About the Time Value of Money*, revised edition, Homewood, Illinois: Dow Jones-Irwin, 1981.
5. Other references used in developing this worksheet include:

Anonymous. "Can You Cope With College Costs?" *Consumer Reports*, pp. 345-348, June 1985.

Porter, W. T., J.R. Connell, L.L. Dotson, and R.E. Zobel. "Educational Financing," Chapter 11 in *Touche Ross Guide to Personal Financial Management*, Rainier Bank 1985 Edition. Englewood Cliffs, N.J.: Prentice-Hall Inc., 1985.

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