

**Engineering Solutions On-Line presents the**  
**Cost Benefit Analysis Template**  
**(with Amortization Calculator)**

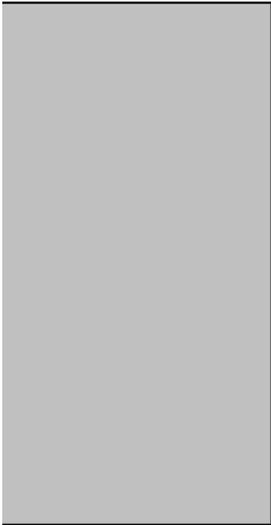
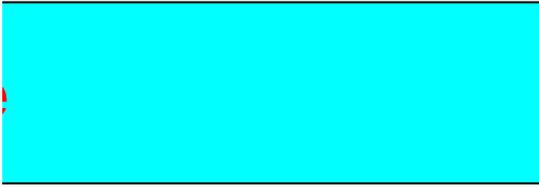
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# Cost Benefit Analysis Template

## General Instructions Page

This Cost/Benefit template will help you to create your own cost/benefit analysis of any project. It provides Net Present Value of a project, Internal Rate of Return, and Payback Schedule. It is expanded and modified using simple Excel programming.

It is set up to operate on a year-by-year basis, but can easily be modified (paid version only).

The chart is currently configured with 10 columns, to analyze budgets of up to 10 years long. To expand the chart, merely highlight the last column, drag your selection to the right the required number of new columns.

For information on unlocking this file for modification, visit [EngineeringSolutions.homestead.com](http://EngineeringSolutions.homestead.com)

To use this template, follow these steps:

### STEP 1:

Go to the "Costs" page and enter your costs (see detailed instructions there)

### STEP 2:

Go to the "Benefits" page and enter your benefits (see detailed instructions there)

### STEP 3:

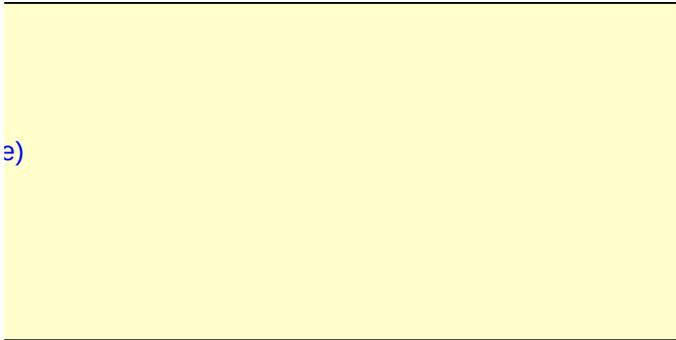
Go to the "Summary" page for CBA metrics of your project.  
Charts of Costs and Benefits are also provided on the next three pages.

### Bonus Step:

This latest version of the Cost Benefit Analysis template includes a Mortgage Analysis



ect. As configured,  
However, the paid version is easily  
  
) for month-by-month or any other basis if you prefer.  
  
j. To extend the paid version to longer projects,  
/ columns, and hit Edit-Fill-Right.  
  
.com or email [jcesarone999@gmail.com](mailto:jcesarone999@gmail.com).



[mortization calculator on the final sheet.](#)

Costs

<b>Cost Benefit Analysis Template</b>											
<b>Cost Data Entry Page</b>											
		Fiscal Year									
Program Element	Element Manager	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Element 1	Bill Smith	\$300,000	\$250,000	\$250,000							
Element 2	Ed White			\$200,000	\$150,000	\$150,000					
Element 3	Frank Burns			\$300,000	\$250,000	\$250,000					
Element 4	Clay Forrester			\$400,000	\$450,000	\$500,000					
Element 5	Jack Burton			\$150,000	\$150,000	\$150,000					
Element 6	Mani Mahesh	\$400,000	\$400,000	\$400,000							
<b>Program Total Costs By Year</b>		\$700,000	\$650,000	\$1,700,000	\$1,000,000	\$1,050,000	\$0	\$0	\$0	\$0	\$0
<b>Program Grand Total Cost</b>		<b>\$5,100,000</b>									
<b>INSTRUCTIONS FOR THIS PAGE:</b>											
1. Enter the first year of your program in Cell C8. The next nine years will be filled in for you on this page and the following pages (if you need more years, you can "insert" additional columns - paid version only)											
2. Enter the names of your program elements in Column A, replacing "Element 1", etc. (if you need more than six elements, you can "insert" additional rows - paid version only)											
3. If you like, add extra information on each program element in Column B (here, program element manager names have been added for illustration)											
4. Enter the anticipated costs for each year for each program element in the appropriate cells. These should be undiscounted costs, i.e., actual dollars, not equivalent dollars. Equivalence will be calculated automatically.											
5. Total spending per year is shown on Row 15, and Grand Total cost for the program is on Row 17											

Benefits

<b>Cost Benefit Analysis Template</b>										
<b>Benefit Data Entry Page</b>										
Fiscal Year										
Benefit Sources	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Cost Reduction			\$500,000	\$525,000	\$550,000	\$600,000	\$650,000	\$700,000	\$800,000	\$1,000,000
Enhanced Revenues				\$250,000	\$350,000	\$500,000	\$600,000	\$750,000	\$800,000	\$900,000
Labor Reduction				\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
Decreased Overhead			\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
Total Benefits Per Year	\$0	\$0	\$550,000	\$925,000	\$1,050,000	\$1,250,000	\$1,400,000	\$1,600,000	\$1,750,000	\$2,050,000
Confidence Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Benefits Claimed for Analysis	\$0	\$0	\$550,000	\$925,000	\$1,050,000	\$1,250,000	\$1,400,000	\$1,600,000	\$1,750,000	\$2,050,000
Program Grand Total Benefit	\$10,575,000									
INSTRUCTIONS FOR THIS PAGE:										
2. Enter the sources of benefits you expect in Column A, as shown (if you need more than four categories of benefits, feel free to insert extra rows - paid version only)										
3. If desired, enter a "Confidence Factor" on Row 14 for each year; this should be between 0 and 100%, and enables you to perform analyses of varying levels of optimism or pessimism. If you do not wish to use this feature, leave all entries at 100%										
4. Total Benefits by year, adjusted for your level of confidence, is shown on Row 15, and Grand Total on Row 17 As with our costs, these are un-discounted so far (that is, not converted to equivalent-year dollars).										

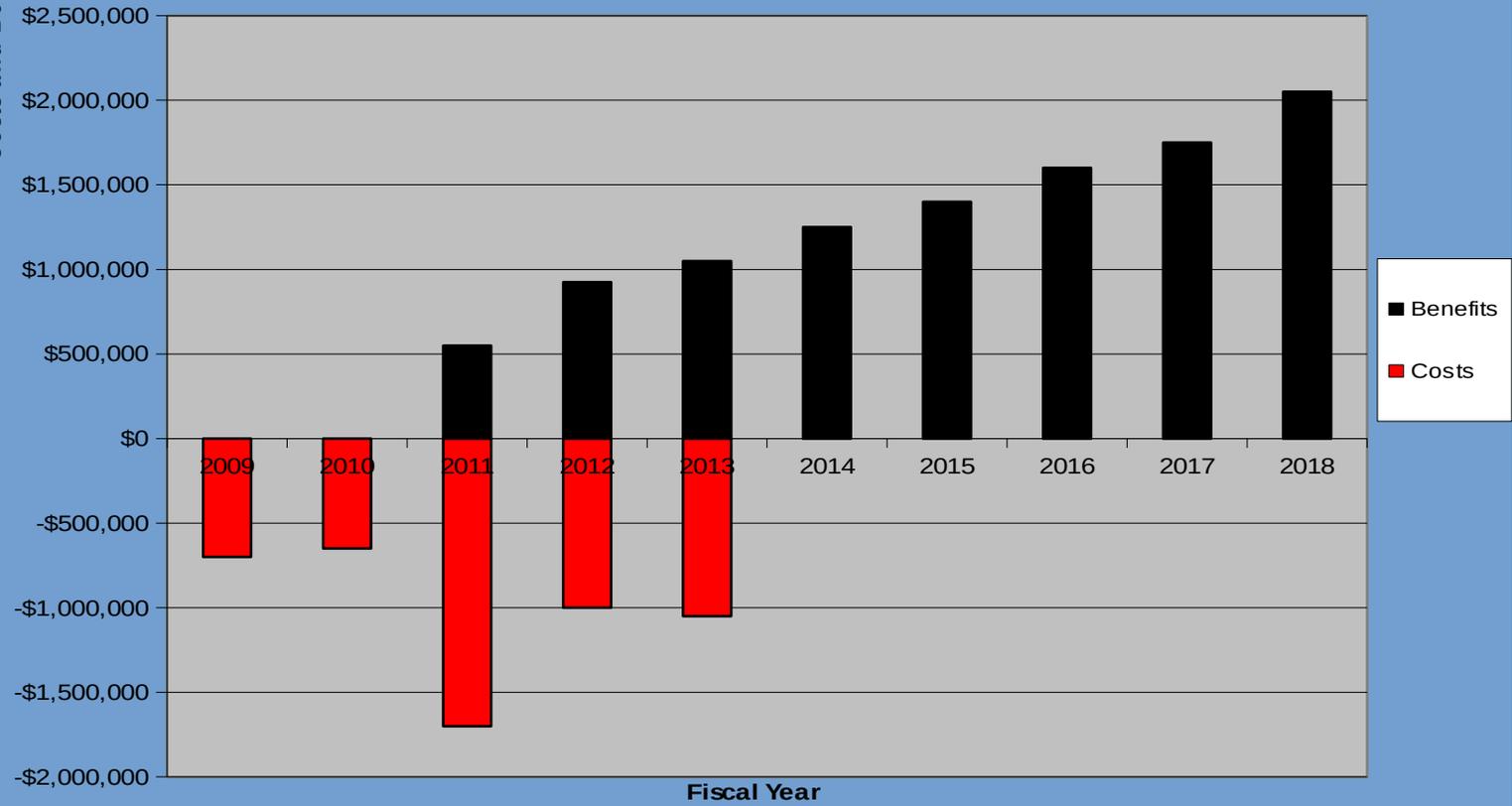
## Cost Benefit Analysis Template

### Results Calculation Page

Fiscal Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<b>Undiscounted Flows</b>										
Costs	-\$700,000	-\$650,000	-\$1,700,000	-\$1,000,000	-\$1,050,000	\$0	\$0	\$0	\$0	\$0
Benefits	\$0	\$0	\$550,000	\$925,000	\$1,050,000	\$1,250,000	\$1,400,000	\$1,600,000	\$1,750,000	\$2,050,000
Net Cash Flow	-\$700,000	-\$650,000	-\$1,150,000	-\$75,000	\$0	\$1,250,000	\$1,400,000	\$1,600,000	\$1,750,000	\$2,050,000
<b>Discount Factors</b>										
Discount Rate	7.0%									
Base Year	2009									
Year Index	0	1	2	3	4	5	6	7	8	9
Discount Factor	1.0000	0.9346	0.8734	0.8163	0.7629	0.7130	0.6663	0.6227	0.5820	0.5439
<b>Discounted Flows</b>										
Costs	-\$700,000	-\$607,477	-\$1,484,846	-\$816,298	-\$801,040	\$0	\$0	\$0	\$0	\$0
Benefits	\$0	\$0	\$480,391	\$755,076	\$801,040	\$991,233	\$932,879	\$996,400	\$1,018,516	\$1,115,064
Net	-\$700,000	-\$607,477	-\$1,004,455	-\$61,222	\$0	\$991,233	\$932,879	\$996,400	\$1,018,516	\$1,115,064
Cumulative	-\$700,000	-\$1,307,477	-\$2,311,931	-\$2,373,154	-\$2,373,154	-\$1,481,921	-\$549,042	\$447,358	\$1,465,874	\$2,580,938
<b>Net Present Value</b>										\$2,580,938
<b>Internal Rate of Return</b>										21%
INSTRUCTIONS FOR THIS PAGE:										
1. The years will be automatically entered on row 8 to exactly match those on the Costs page; do not enter anything here.										
2. Enter your "discount rate" in cell B14; this is the cost of money that determines the time value of your costs and benefits (for illustration, if you were working with an interest-free loan, this would be zero; a typical value is around 8%)										
3. Enter the year you will kick off the project in cell B15; this will be used as the "now" in the CBA calculations on future values (typically, "now" means the current year, which is the year of your initial investment, but it might be different if your plans are for the future)										
INTERPRETATION OF RESULTS:										
Row 17 shows the discount factor; this is how much less the cash flows are worth because they are in the future										
Row 19 shows the discounted costs, and Row 20 shows the discounted benefits. "Discounted" means "in year-0 dollars."										
Row 21 shows the discounted net value per year, and Row 22 shows the accumulated discounted net value per year										
Row 22 shows the cumulative net value for all years so far (when this becomes positive, you have completed your "payback period")										
Row 24 shows the "Net Present Value" of your program; this means that the entire project is economically equivalent to this much money in your hands <b>right now</b> , based on the discount rate you entered										
Row 25 shows the Internal Rate of Return; this means, the interest rate that would make your project exactly break even. Another way to interpret this is, if you had put the money in a bank account at this interest rate, you would get the exact same monetary benefits as you received from performing this program										
CHARTS PROVIDED:										
The first chart, Undiscounted Cash Flows, shows actual costs expended and benefits accrued, adjusted by confidence factor, in each years' <b>current</b> dollars										
The second chart, Discounted Cash Flows, shows costs expended and benefits to be accrued, adjusted by confidence factor, in <b>base year</b> dollars										
The third chart, Payback Schedule, shows benefits accrued minus costs expended, in base year dollars. When this chart crosses above the zero line, the program has achieved profitability										
Sufficient data exists in the above summary to create any other charts you desire; or contact us at 312.266.4828 or at jcesarone@npco.com, or visit us at EngineeringSolutions.Homestead.com for further assistance										

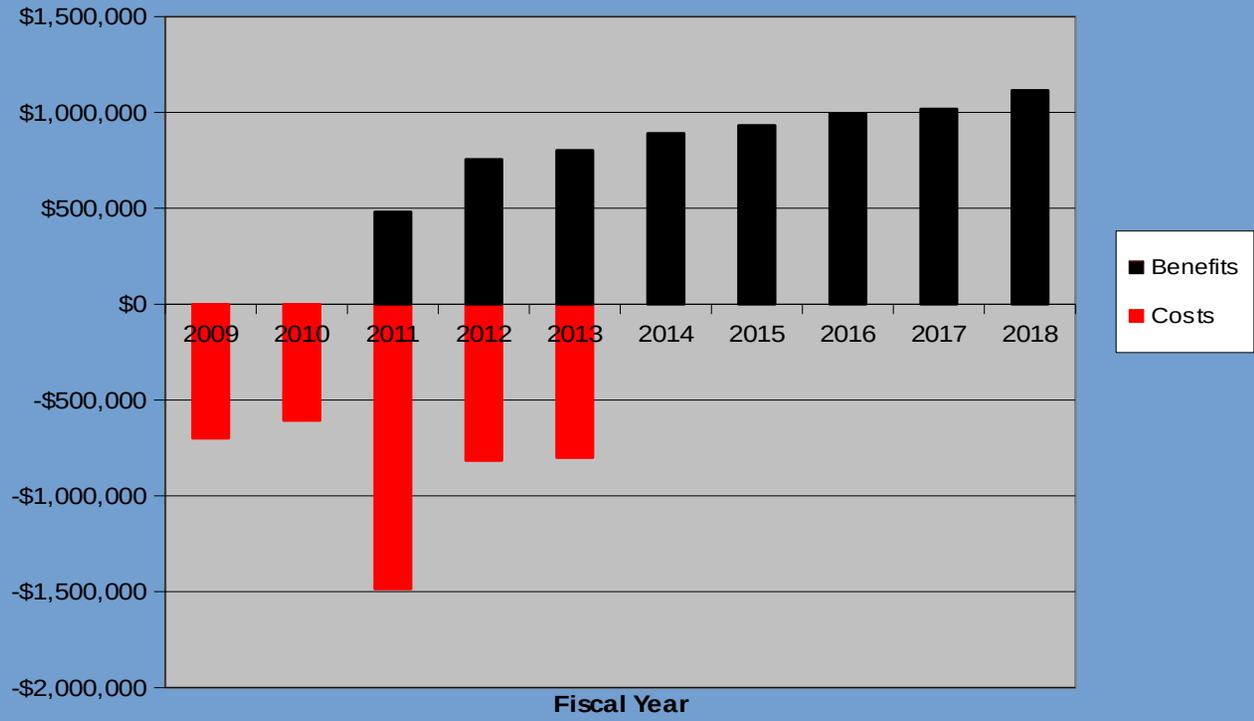
Costs and Benefits in Current Year Doll

### Undiscounted Cash Flows

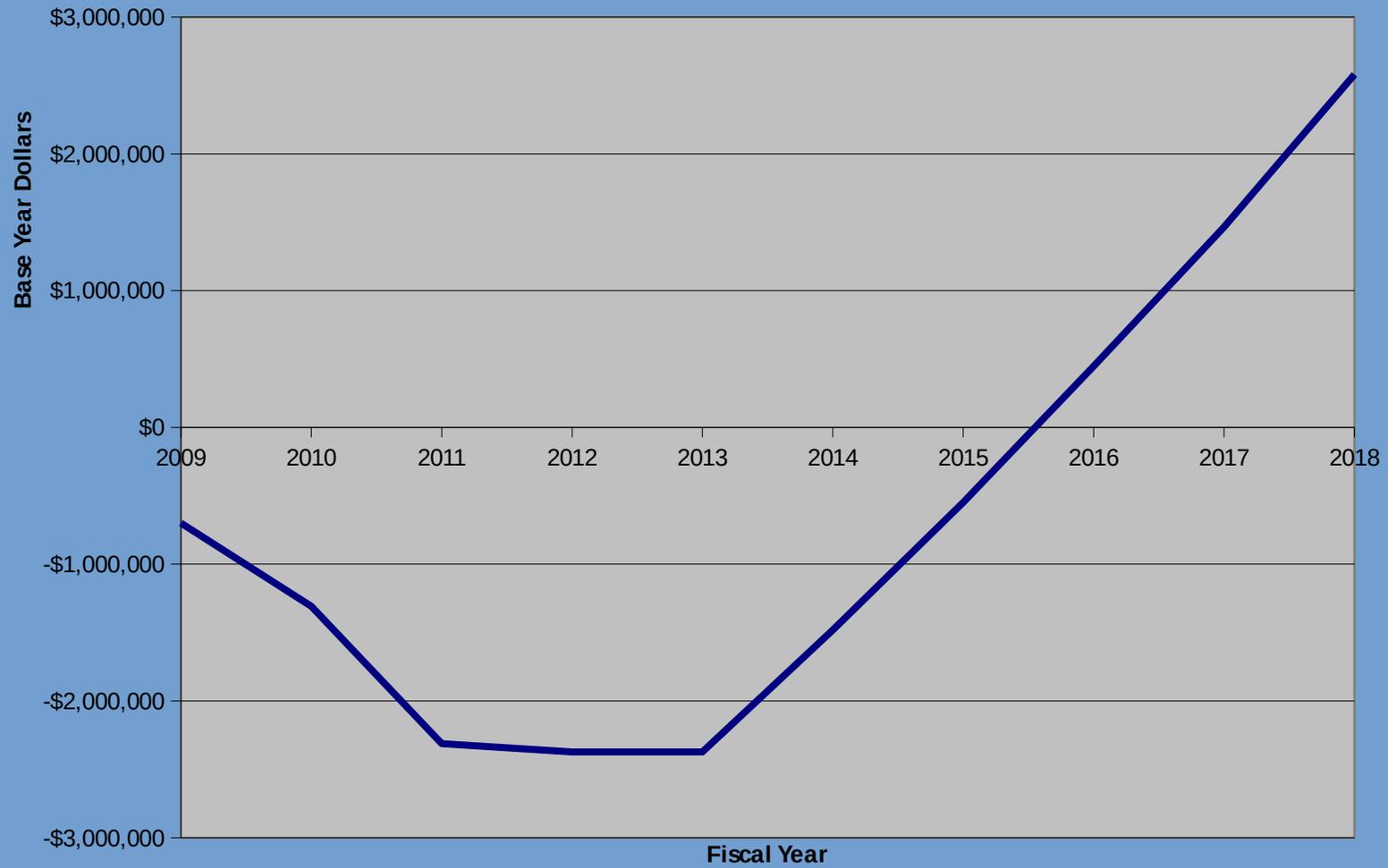


Costs and Benefits in Base Year Dollar

### Discounted Cash Flow



### Discounted Payback



# Cost Benefit Analysis Template

## The Softer Stuff.....

When you write up your Cost/Benefit Analysis, the mathematics presented in the previous sheets are indeed be difficult for your audience to disagree with. They are, therefore, a good argument to make under consideration. However, there are always non-mathematical issues that must be dealt with. When you incorporate into the rigorous equations, they certainly must be addressed. If you do not address them, be certain that one of your detractors or competitors will mention them; better to deal with them in your own words. Then, we will discuss some of the "softer stuff" or non-monetary issues that are required in a Cost/Benefit Analysis.

First and foremost, is there business out there for you to go after in the first place? You are presenting a business plan, you had better be prepared to demonstrate that this business is really out there, waiting to come to you from the get-go. You had better be prepared to show that you are offering something your competitors can't match: higher quality, superior delivery schedule or convenience, etc. If there ARE no current suppliers, well then, are there any customers? In reality, this work may already have been done for you, by your Marketing department. If not, you may knock yourself out.

Also, consider the symbiotic effects of your proposed venture, both good and bad. Will you be cannibalizing your own areas? If your particular division makes a killing, but another division of your company is the one that will NOT be impressed! On the other hand, symbiotic effects can be good; two products that go together can boost market share for both of those products (don't believe me? Just ask Microsoft).

Sometimes, you need to invest in a project just to stay in business at all. For instance, say you are setting up a support office. This is not intended to make money on its own, but it lets you remain in business in your market. When you need to show a profit, you just need to get the job done for the minimum cost. In cases like this, your goal is to lose the least amount of money while meeting the technical window of the requirements. Your proposed solutions are revenue-generating solutions, but merely with each other to lose the least amount of cash. Note that "Cost Centers" (as opposed to "Profit Centers") and are always looked down upon. Better to show that your project is profitable in all possible ways.

Finally, always consider the reputation and image of your organization. If your short-term profits soar but your long-term profits are in trouble in the long run through loss of other business. Will you be teaming with someone your customers would see as your best customer's prime competition? These do not necessarily make a project untenable, but they do require some serious thought.

These musings are excerpted from the article "Sell Your Project!" by John Cesarone, Ph.D., P.E., available at [http://EngineeringSolutions.homestead.com/cba\\_article.html](http://EngineeringSolutions.homestead.com/cba_article.html)



very handy, and can  
n support of (or against) the project  
hile these are difficult to  
yourself, you can be  
vn way, first. In this sheet,  
efit Analysis.

g some sort of monetary benefit;  
u. If not, your analysis fails  
s are NOT offering: better price,  
hen, how do you know that there are  
ent. See what they know before

alizing your own business in other  
gets killed, your board of directors  
ner, from the same supplier, can

tting up a recall center or warranty  
ur core area. In that case, you don't  
goal in a Cost/Benefit analysis is to  
ed solutions are not competing with other  
operations of this sort are called "Cost  
project will actually make money, if at

out your good name suffers, you might be  
omers cannot abide? Are you selling  
hey do indicate that you should give

able at:

This Amortization Calculator assumes that you have an annual interest rate, compounded monthly and are making monthly payments. Enter the Annual interest rate, the number of years to pay off, and the loan amount below.

is the interest rate as a decimal (for example, enter 6% as 0.06)  
 is the number of years (up to 30)  
 is the amount borrowed  
 is the payment amount

Note: If you need more than 30 years, just highlight the bottom row of this table, drag down enough to see more rows.

Payment #	principal	interest	remaining
1	\$99.55	\$500.00	\$99,900.45
2	\$100.05	\$499.50	\$99,800.40
3	\$100.55	\$499.00	\$99,699.85
4	\$101.05	\$498.50	\$99,598.80
5	\$101.56	\$497.99	\$99,497.24
6	\$102.06	\$497.49	\$99,395.18
7	\$102.57	\$496.98	\$99,292.61
8	\$103.09	\$496.46	\$99,189.52
9	\$103.60	\$495.95	\$99,085.92
10	\$104.12	\$495.43	\$98,981.79
11	\$104.64	\$494.91	\$98,877.15
12	\$105.16	\$494.39	\$98,771.99
13	\$105.69	\$493.86	\$98,666.30
14	\$106.22	\$493.33	\$98,560.08
15	\$106.75	\$492.80	\$98,453.33
16	\$107.28	\$492.27	\$98,346.04
17	\$107.82	\$491.73	\$98,238.22
18	\$108.36	\$491.19	\$98,129.86
19	\$108.90	\$490.65	\$98,020.96
20	\$109.45	\$490.10	\$97,911.52
21	\$109.99	\$489.56	\$97,801.53
22	\$110.54	\$489.01	\$97,690.98
23	\$111.10	\$488.45	\$97,579.89
24	\$111.65	\$487.90	\$97,468.24
25	\$112.21	\$487.34	\$97,356.03
26	\$112.77	\$486.78	\$97,243.26
27	\$113.33	\$486.22	\$97,129.92
28	\$113.90	\$485.65	\$97,016.02
29	\$114.47	\$485.08	\$96,901.55
30	\$115.04	\$484.51	\$96,786.51
31	\$115.62	\$483.93	\$96,670.89
32	\$116.20	\$483.35	\$96,554.69
33	\$116.78	\$482.77	\$96,437.92
34	\$117.36	\$482.19	\$96,320.56
35	\$117.95	\$481.60	\$96,202.61
36	\$118.54	\$481.01	\$96,084.07
37	\$119.13	\$480.42	\$95,964.94
38	\$119.73	\$479.82	\$95,845.21
39	\$120.32	\$479.23	\$95,724.89
40	\$120.93	\$478.62	\$95,603.96

41	\$121.53	\$478.02	\$95,482.43
42	\$122.14	\$477.41	\$95,360.29
43	\$122.75	\$476.80	\$95,237.55
44	\$123.36	\$476.19	\$95,114.18
45	\$123.98	\$475.57	\$94,990.20
46	\$124.60	\$474.95	\$94,865.60
47	\$125.22	\$474.33	\$94,740.38
48	\$125.85	\$473.70	\$94,614.53
49	\$126.48	\$473.07	\$94,488.05
50	\$127.11	\$472.44	\$94,360.94
51	\$127.75	\$471.80	\$94,233.20
52	\$128.38	\$471.17	\$94,104.81
53	\$129.03	\$470.52	\$93,975.79
54	\$129.67	\$469.88	\$93,846.12
55	\$130.32	\$469.23	\$93,715.80
56	\$130.97	\$468.58	\$93,584.82
57	\$131.63	\$467.92	\$93,453.20
58	\$132.28	\$467.27	\$93,320.91
59	\$132.95	\$466.60	\$93,187.97
60	\$133.61	\$465.94	\$93,054.36
61	\$134.28	\$465.27	\$92,920.08
62	\$134.95	\$464.60	\$92,785.13
63	\$135.62	\$463.93	\$92,649.50
64	\$136.30	\$463.25	\$92,513.20
65	\$136.98	\$462.57	\$92,376.22
66	\$137.67	\$461.88	\$92,238.55
67	\$138.36	\$461.19	\$92,100.19
68	\$139.05	\$460.50	\$91,961.14
69	\$139.74	\$459.81	\$91,821.39
70	\$140.44	\$459.11	\$91,680.95
71	\$141.15	\$458.40	\$91,539.80
72	\$141.85	\$457.70	\$91,397.95
73	\$142.56	\$456.99	\$91,255.39
74	\$143.27	\$456.28	\$91,112.12
75	\$143.99	\$455.56	\$90,968.13
76	\$144.71	\$454.84	\$90,823.42
77	\$145.43	\$454.12	\$90,677.99
78	\$146.16	\$453.39	\$90,531.82
79	\$146.89	\$452.66	\$90,384.93
80	\$147.63	\$451.92	\$90,237.31
81	\$148.36	\$451.19	\$90,088.94
82	\$149.11	\$450.44	\$89,939.84
83	\$149.85	\$449.70	\$89,789.99
84	\$150.60	\$448.95	\$89,639.39
85	\$151.35	\$448.20	\$89,488.03
86	\$152.11	\$447.44	\$89,335.92
87	\$152.87	\$446.68	\$89,183.05
88	\$153.64	\$445.92	\$89,029.42
89	\$154.40	\$445.15	\$88,875.01
90	\$155.18	\$444.38	\$88,719.84
91	\$155.95	\$443.60	\$88,563.89
92	\$156.73	\$442.82	\$88,407.15
93	\$157.51	\$442.04	\$88,249.64
94	\$158.30	\$441.25	\$88,091.34

95	\$159.09	\$440.46	\$87,932.24
96	\$159.89	\$439.66	\$87,772.35
97	\$160.69	\$438.86	\$87,611.67
98	\$161.49	\$438.06	\$87,450.17
99	\$162.30	\$437.25	\$87,287.87
100	\$163.11	\$436.44	\$87,124.76
101	\$163.93	\$435.62	\$86,960.84
102	\$164.75	\$434.80	\$86,796.09
103	\$165.57	\$433.98	\$86,630.52
104	\$166.40	\$433.15	\$86,464.12
105	\$167.23	\$432.32	\$86,296.89
106	\$168.07	\$431.48	\$86,128.83
107	\$168.91	\$430.64	\$85,959.92
108	\$169.75	\$429.80	\$85,790.17
109	\$170.60	\$428.95	\$85,619.57
110	\$171.45	\$428.10	\$85,448.12
111	\$172.31	\$427.24	\$85,275.81
112	\$173.17	\$426.38	\$85,102.63
113	\$174.04	\$425.51	\$84,928.60
114	\$174.91	\$424.64	\$84,753.69
115	\$175.78	\$423.77	\$84,577.91
116	\$176.66	\$422.89	\$84,401.25
117	\$177.54	\$422.01	\$84,223.70
118	\$178.43	\$421.12	\$84,045.27
119	\$179.32	\$420.23	\$83,865.95
120	\$180.22	\$419.33	\$83,685.72
121	\$181.12	\$418.43	\$83,504.60
122	\$182.03	\$417.52	\$83,322.58
123	\$182.94	\$416.61	\$83,139.64
124	\$183.85	\$415.70	\$82,955.79
125	\$184.77	\$414.78	\$82,771.01
126	\$185.70	\$413.86	\$82,585.32
127	\$186.62	\$412.93	\$82,398.69
128	\$187.56	\$411.99	\$82,211.14
129	\$188.49	\$411.06	\$82,022.64
130	\$189.44	\$410.11	\$81,833.21
131	\$190.38	\$409.17	\$81,642.82
132	\$191.34	\$408.21	\$81,451.48
133	\$192.29	\$407.26	\$81,259.19
134	\$193.25	\$406.30	\$81,065.94
135	\$194.22	\$405.33	\$80,871.72
136	\$195.19	\$404.36	\$80,676.52
137	\$196.17	\$403.38	\$80,480.36
138	\$197.15	\$402.40	\$80,283.21
139	\$198.13	\$401.42	\$80,085.07
140	\$199.13	\$400.43	\$79,885.95
141	\$200.12	\$399.43	\$79,685.83
142	\$201.12	\$398.43	\$79,484.71
143	\$202.13	\$397.42	\$79,282.58
144	\$203.14	\$396.41	\$79,079.44
145	\$204.15	\$395.40	\$78,875.29
146	\$205.17	\$394.38	\$78,670.11
147	\$206.20	\$393.35	\$78,463.91
148	\$207.23	\$392.32	\$78,256.68

149	\$208.27	\$391.28	\$78,048.42
150	\$209.31	\$390.24	\$77,839.11
151	\$210.35	\$389.20	\$77,628.75
152	\$211.41	\$388.14	\$77,417.35
153	\$212.46	\$387.09	\$77,204.88
154	\$213.53	\$386.02	\$76,991.36
155	\$214.59	\$384.96	\$76,776.76
156	\$215.67	\$383.88	\$76,561.09
157	\$216.75	\$382.81	\$76,344.35
158	\$217.83	\$381.72	\$76,126.52
159	\$218.92	\$380.63	\$75,907.60
160	\$220.01	\$379.54	\$75,687.59
161	\$221.11	\$378.44	\$75,466.48
162	\$222.22	\$377.33	\$75,244.26
163	\$223.33	\$376.22	\$75,020.93
164	\$224.45	\$375.10	\$74,796.48
165	\$225.57	\$373.98	\$74,570.92
166	\$226.70	\$372.85	\$74,344.22
167	\$227.83	\$371.72	\$74,116.39
168	\$228.97	\$370.58	\$73,887.42
169	\$230.11	\$369.44	\$73,657.31
170	\$231.26	\$368.29	\$73,426.05
171	\$232.42	\$367.13	\$73,193.63
172	\$233.58	\$365.97	\$72,960.04
173	\$234.75	\$364.80	\$72,725.29
174	\$235.92	\$363.63	\$72,489.37
175	\$237.10	\$362.45	\$72,252.26
176	\$238.29	\$361.26	\$72,013.98
177	\$239.48	\$360.07	\$71,774.49
178	\$240.68	\$358.87	\$71,533.82
179	\$241.88	\$357.67	\$71,291.94
180	\$243.09	\$356.46	\$71,048.84
181	\$244.31	\$355.24	\$70,804.54
182	\$245.53	\$354.02	\$70,559.01
183	\$246.76	\$352.80	\$70,312.25
184	\$247.99	\$351.56	\$70,064.27
185	\$249.23	\$350.32	\$69,815.04
186	\$250.48	\$349.08	\$69,564.56
187	\$251.73	\$347.82	\$69,312.83
188	\$252.99	\$346.56	\$69,059.85
189	\$254.25	\$345.30	\$68,805.60
190	\$255.52	\$344.03	\$68,550.07
191	\$256.80	\$342.75	\$68,293.27
192	\$258.08	\$341.47	\$68,035.19
193	\$259.37	\$340.18	\$67,775.81
194	\$260.67	\$338.88	\$67,515.14
195	\$261.97	\$337.58	\$67,253.17
196	\$263.28	\$336.27	\$66,989.88
197	\$264.60	\$334.95	\$66,725.28
198	\$265.92	\$333.63	\$66,459.36
199	\$267.25	\$332.30	\$66,192.10
200	\$268.59	\$330.96	\$65,923.51
201	\$269.93	\$329.62	\$65,653.58
202	\$271.28	\$328.27	\$65,382.30

203	\$272.64	\$326.91	\$65,109.66
204	\$274.00	\$325.55	\$64,835.66
205	\$275.37	\$324.18	\$64,560.29
206	\$276.75	\$322.80	\$64,283.54
207	\$278.13	\$321.42	\$64,005.40
208	\$279.52	\$320.03	\$63,725.88
209	\$280.92	\$318.63	\$63,444.96
210	\$282.33	\$317.22	\$63,162.63
211	\$283.74	\$315.81	\$62,878.90
212	\$285.16	\$314.39	\$62,593.74
213	\$286.58	\$312.97	\$62,307.16
214	\$288.01	\$311.54	\$62,019.14
215	\$289.45	\$310.10	\$61,729.69
216	\$290.90	\$308.65	\$61,438.79
217	\$292.36	\$307.19	\$61,146.43
218	\$293.82	\$305.73	\$60,852.61
219	\$295.29	\$304.26	\$60,557.32
220	\$296.76	\$302.79	\$60,260.56
221	\$298.25	\$301.30	\$59,962.31
222	\$299.74	\$299.81	\$59,662.57
223	\$301.24	\$298.31	\$59,361.34
224	\$302.74	\$296.81	\$59,058.59
225	\$304.26	\$295.29	\$58,754.33
226	\$305.78	\$293.77	\$58,448.56
227	\$307.31	\$292.24	\$58,141.25
228	\$308.84	\$290.71	\$57,832.40
229	\$310.39	\$289.16	\$57,522.01
230	\$311.94	\$287.61	\$57,210.07
231	\$313.50	\$286.05	\$56,896.57
232	\$315.07	\$284.48	\$56,581.51
233	\$316.64	\$282.91	\$56,264.86
234	\$318.23	\$281.32	\$55,946.64
235	\$319.82	\$279.73	\$55,626.82
236	\$321.42	\$278.13	\$55,305.40
237	\$323.02	\$276.53	\$54,982.38
238	\$324.64	\$274.91	\$54,657.74
239	\$326.26	\$273.29	\$54,331.48
240	\$327.89	\$271.66	\$54,003.59
241	\$329.53	\$270.02	\$53,674.05
242	\$331.18	\$268.37	\$53,342.87
243	\$332.84	\$266.71	\$53,010.04
244	\$334.50	\$265.05	\$52,675.54
245	\$336.17	\$263.38	\$52,339.36
246	\$337.85	\$261.70	\$52,001.51
247	\$339.54	\$260.01	\$51,661.97
248	\$341.24	\$258.31	\$51,320.73
249	\$342.95	\$256.60	\$50,977.78
250	\$344.66	\$254.89	\$50,633.12
251	\$346.38	\$253.17	\$50,286.73
252	\$348.12	\$251.43	\$49,938.62
253	\$349.86	\$249.69	\$49,588.76
254	\$351.61	\$247.94	\$49,237.15
255	\$353.36	\$246.19	\$48,883.79
256	\$355.13	\$244.42	\$48,528.66

257	\$356.91	\$242.64	\$48,171.75
258	\$358.69	\$240.86	\$47,813.06
259	\$360.49	\$239.07	\$47,452.57
260	\$362.29	\$237.26	\$47,090.28
261	\$364.10	\$235.45	\$46,726.18
262	\$365.92	\$233.63	\$46,360.27
263	\$367.75	\$231.80	\$45,992.52
264	\$369.59	\$229.96	\$45,622.93
265	\$371.44	\$228.11	\$45,251.49
266	\$373.29	\$226.26	\$44,878.20
267	\$375.16	\$224.39	\$44,503.04
268	\$377.04	\$222.52	\$44,126.00
269	\$378.92	\$220.63	\$43,747.08
270	\$380.82	\$218.74	\$43,366.27
271	\$382.72	\$216.83	\$42,983.55
272	\$384.63	\$214.92	\$42,598.92
273	\$386.56	\$212.99	\$42,212.36
274	\$388.49	\$211.06	\$41,823.87
275	\$390.43	\$209.12	\$41,433.44
276	\$392.38	\$207.17	\$41,041.06
277	\$394.35	\$205.21	\$40,646.71
278	\$396.32	\$203.23	\$40,250.40
279	\$398.30	\$201.25	\$39,852.10
280	\$400.29	\$199.26	\$39,451.81
281	\$402.29	\$197.26	\$39,049.52
282	\$404.30	\$195.25	\$38,645.21
283	\$406.32	\$193.23	\$38,238.89
284	\$408.36	\$191.19	\$37,830.53
285	\$410.40	\$189.15	\$37,420.13
286	\$412.45	\$187.10	\$37,007.68
287	\$414.51	\$185.04	\$36,593.17
288	\$416.58	\$182.97	\$36,176.59
289	\$418.67	\$180.88	\$35,757.92
290	\$420.76	\$178.79	\$35,337.16
291	\$422.86	\$176.69	\$34,914.29
292	\$424.98	\$174.57	\$34,489.31
293	\$427.10	\$172.45	\$34,062.21
294	\$429.24	\$170.31	\$33,632.97
295	\$431.39	\$168.16	\$33,201.59
296	\$433.54	\$166.01	\$32,768.04
297	\$435.71	\$163.84	\$32,332.33
298	\$437.89	\$161.66	\$31,894.44
299	\$440.08	\$159.47	\$31,454.37
300	\$442.28	\$157.27	\$31,012.09
301	\$444.49	\$155.06	\$30,567.60
302	\$446.71	\$152.84	\$30,120.88
303	\$448.95	\$150.60	\$29,671.94
304	\$451.19	\$148.36	\$29,220.75
305	\$453.45	\$146.10	\$28,767.30
306	\$455.71	\$143.84	\$28,311.59
307	\$457.99	\$141.56	\$27,853.59
308	\$460.28	\$139.27	\$27,393.31
309	\$462.58	\$136.97	\$26,930.73
310	\$464.90	\$134.65	\$26,465.83

311	\$467.22	\$132.33	\$25,998.61
312	\$469.56	\$129.99	\$25,529.05
313	\$471.91	\$127.65	\$25,057.15
314	\$474.26	\$125.29	\$24,582.88
315	\$476.64	\$122.91	\$24,106.25
316	\$479.02	\$120.53	\$23,627.23
317	\$481.41	\$118.14	\$23,145.81
318	\$483.82	\$115.73	\$22,661.99
319	\$486.24	\$113.31	\$22,175.75
320	\$488.67	\$110.88	\$21,687.08
321	\$491.12	\$108.44	\$21,195.96
322	\$493.57	\$105.98	\$20,702.39
323	\$496.04	\$103.51	\$20,206.35
324	\$498.52	\$101.03	\$19,707.84
325	\$501.01	\$98.54	\$19,206.82
326	\$503.52	\$96.03	\$18,703.31
327	\$506.03	\$93.52	\$18,197.27
328	\$508.56	\$90.99	\$17,688.71
329	\$511.11	\$88.44	\$17,177.60
330	\$513.66	\$85.89	\$16,663.94
331	\$516.23	\$83.32	\$16,147.71
332	\$518.81	\$80.74	\$15,628.90
333	\$521.41	\$78.14	\$15,107.49
334	\$524.01	\$75.54	\$14,583.48
335	\$526.63	\$72.92	\$14,056.84
336	\$529.27	\$70.28	\$13,527.58
337	\$531.91	\$67.64	\$12,995.67
338	\$534.57	\$64.98	\$12,461.09
339	\$537.25	\$62.31	\$11,923.85
340	\$539.93	\$59.62	\$11,383.92
341	\$542.63	\$56.92	\$10,841.29
342	\$545.34	\$54.21	\$10,295.94
343	\$548.07	\$51.48	\$9,747.87
344	\$550.81	\$48.74	\$9,197.06
345	\$553.57	\$45.99	\$8,643.49
346	\$556.33	\$43.22	\$8,087.16
347	\$559.11	\$40.44	\$7,528.05
348	\$561.91	\$37.64	\$6,966.14
349	\$564.72	\$34.83	\$6,401.42
350	\$567.54	\$32.01	\$5,833.87
351	\$570.38	\$29.17	\$5,263.49
352	\$573.23	\$26.32	\$4,690.26
353	\$576.10	\$23.45	\$4,114.16
354	\$578.98	\$20.57	\$3,535.18
355	\$581.87	\$17.68	\$2,953.31
356	\$584.78	\$14.77	\$2,368.52
357	\$587.71	\$11.84	\$1,780.81
358	\$590.65	\$8.90	\$1,190.17
359	\$593.60	\$5.95	\$596.57
360	\$596.57	\$2.98	\$0.00

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