

Your Retirement Plan Spreadsheet



Building Your Retirement Plan

Our Goal: Build a financial model for your own retirement plan

1. Determine what you need, when, and the required rate of return.

Create a spreadsheet forecasting the value of your future investments based on a variety of financial inputs.

2. Determine which mutual fund company you will work with.
3. Construct a portfolio of funds meet your investment criteria.

Setting the Stage: Building your Financial Model

Creating your Master Retirement Plan Spreadsheet

	A	B	C	D	E	F	G	H
1	401K Analysis							
2								
3	Starting Salary:	\$100,000	this is your starting salary					
4	Your Contribution per month:	8%	this is a pre-tax contribution as a % of your salary					
5	Company Match of Your Contribution:	5%	this is your company's matching contribution to your contribution					
6	Annual Salary Increase:	4.0%	this is how much your salary grows each year					
7	Anticipated Annual Rate of Return:	8.0%	this is your expected annual rate of return					
8	Portfolio Value Today:	\$50,000	this is what you have in your retirement fund today					
9								
10							PLAN	ACTUAL
11		Beginning Year Salary	Monthly Personal	Monthly Company	EOY Value from	EOY Value	EOY Value	EOY Value
12	Year	(\$/year)	Contribution	Contribution	Monthly Contributions	from Previous Year	of Total Portfolio	of Total Portfolio
13	1	\$100,000	\$667	\$417	\$13,487	\$54,000	\$67,487	
14	2	\$104,000	\$693	\$433	\$14,027	\$72,886	\$86,913	
15	3	\$108,160	\$721	\$451	\$14,588	\$93,866	\$108,454	
16	4	\$112,486	\$750	\$469	\$15,172	\$117,131	\$132,302	
17	5	\$116,986	\$780	\$487	\$15,778	\$142,886	\$158,665	
18	6	\$121,665	\$811	\$507	\$16,410	\$171,358	\$187,768	
19	7	\$126,532	\$844	\$527	\$17,066	\$202,789	\$219,855	
20	8	\$131,593	\$877	\$548	\$17,749	\$237,443	\$255,192	
21	9	\$136,857	\$912	\$570	\$18,458	\$275,607	\$294,065	
22	10	\$142,331	\$949	\$593	\$19,197	\$317,591	\$336,788	

Building your Financial Model

Step 1: Lay out all the assumptions

	A	B	C	D	E	F	G	H
1	401K Analysis							
2								
3	Starting Salary:	\$100,000	this is your starting salary					
4	Your Contribution per month:	8%	this is a pre-tax contribution as a % of your salary					
5	Company Match of Your Contribution:	5%	this is your company's matching contribution to your contribution					
6	Annual Salary Increase:	4.0%	this is how much your salary grows each year					
7	Anticipated Annual Rate of Return:	8.0%	this is your expected annual rate of return					
8	Portfolio Value Today:	\$50,000	this is what you have in your retirement fund today					
9								
10							PLAN	ACTUAL
11		Beginning Year Salary	Monthly Personal	Monthly Company	EOY Value from	EOY Value	EOY Value	EOY Value
12	Year	(\$/year)	Contribution	Contribution	Monthly Contributions	from Previous Year	of Total Portfolio	of Total Portfolio
13	1	\$100,000	\$667	\$417	\$13,487	\$54,000	\$67,487	
14	2	\$104,000	\$693	\$433	\$14,027	\$72,886	\$86,913	
15	3	\$108,160	\$721	\$451	\$14,588	\$93,866	\$108,454	
16	4	\$112,486	\$750	\$469	\$15,172	\$117,131	\$132,302	
17	5	\$116,986	\$780	\$487	\$15,778	\$142,886	\$158,665	
18	6	\$121,665	\$811	\$507	\$16,410	\$171,358	\$187,768	
19	7	\$126,532	\$844	\$527	\$17,066	\$202,789	\$219,855	
20	8	\$131,593	\$877	\$548	\$17,749	\$237,443	\$255,192	
21	9	\$136,857	\$912	\$570	\$18,458	\$275,607	\$294,065	
22	10	\$142,331	\$949	\$593	\$19,197	\$317,591	\$336,788	

Begin with outlining your current situation.

Building your Financial Model

Step 2: Create the timeline

	A	B	C	D	E	F	G	H
1	401K Analysis							
2								
3	Starting Salary:	\$100,000	this is your starting salary					
4	Your Contribution per month:	8%	this is a pre-tax contribution as a % of your salary					
5	Company Match of Your Contribution:	5%	this is your company's matching contribution to your contribution					
6	Annual Salary Increase:	4.0%	this is how much your salary grows each year					
7	Anticipated Annual Rate of Return:	8.0%	this is your expected annual rate of return					
8	Portfolio Value Today		this is what you have in your retirement fund today					
9								
10							PLAN	ACTUAL
11		Beg		Monthly Company	EOY Value from	EOY Value	EOY Value	EOY Value
12	Year	Salary	Contribution	Contribution	Monthly Contributions	from Previous Year	of Total Portfolio	of Total Portfolio
13	1	\$100,000	\$667	\$417	\$13,487	\$54,000	\$67,487	
14	2	\$104,000	\$693	\$433	\$14,027	\$72,886	\$86,913	
15	3	\$108,160	\$721	\$451	\$14,588	\$93,866	\$108,454	
16	4	\$112,486	\$750	\$469	\$15,172	\$117,131	\$132,302	
17	5	\$116,986	\$780	\$487	\$15,778	\$142,886	\$158,665	
18	6	\$121,665	\$811	\$507	\$16,410	\$171,358	\$187,768	
19	7	\$126,532	\$844	\$527	\$17,066	\$202,789	\$219,855	
20	8	\$131,593	\$877	\$548	\$17,749	\$237,443	\$255,192	
21	9	\$136,857	\$912	\$570	\$18,458	\$275,607	\$294,065	
22	10	\$142,331	\$949	\$593	\$19,197	\$317,591	\$336,788	

Building your Financial Model

Step 3: Estimate your future salary

	A	B	C	D	E	F	G	H
1	401K Analysis							
2								
3	Starting Salary:		\$100,000	this is your starting salary				
4	Your Contribution per month:		8%	this is a pre-tax contribution as a % of your salary				
5	Company Match of Your Contribution:		5%	this is your company's matching contribution to your contribution				
6	Annual Salary Increase:		4.0%	this is how much your salary grows each year				
7	Anticipated Annual Rate of Return:		8.0%	this is your expected annual rate of return				
8	Portfolio Value Today:		\$50,000	this is what you have in your retirement fund today				
9								
10							PLAN	ACTUAL
11		Beginning Year Salary	Monthly Contributions	EOY Value from	EOY Value	EOY Value	EOY Value	EOY Value
12	Year	(\$/year)	Contributions	Monthly Contributions	from Previous Year	of Total Portfolio	of Total Portfolio	of Total Portfolio
13	1	\$100,000	\$667	\$417	\$13,487	\$54,000	\$67,487	
14	2	\$104,000			\$14,027	\$72,886	\$86,913	
15	3	\$108,160			\$14,588	\$93,866	\$108,454	
16	4	\$112,486			\$15,172	\$117,131	\$132,302	
17	5	\$116,986			\$15,778	\$142,886	\$158,665	
18	6	\$121,665	\$811	\$507	\$16,410	\$171,358	\$187,768	
19	7	\$126,532	\$844	\$527	\$17,066	\$202,789	\$219,855	
20	8	\$131,593	\$877	\$548	\$17,749	\$237,443	\$255,192	
21	9	\$136,857	\$912	\$570	\$18,458	\$275,607	\$294,065	
22	10	\$142,331	\$949	\$593	\$19,197	\$317,591	\$336,788	

This column is your salary at the start of each year

= C3

= B13*(1+\$C\$6)

Building your Financial Model

Step 4: Estimate your monthly contributions

	A	B	C	D	E	F	G	H
1	401K Analysis							
2								
3	Starting Salary:		\$100,000	this is your starting salary				
4	Your Contribution per month:		8%	this is a pre-tax contribution as a % of your salary				
5	Company Match of Your Contribution:		5%	this is your company's matching contribution to your contribution				
6	Annual Salary Increase:		4.0%	this is how much your salary grows each year				
7	Anticipated Annual Rate of Return:		8.0%	this is your expected annual rate of return				
8	Portfolio Value Today:		\$50,000	this is what you have in your retirement fund today				
9								
10				This column is your monthly contribution			PLAN	ACTUAL
11		Beginning Year Salary	Monthly Personal				EOY Value	EOY Value
12	Year	(\$/year)	Contribution	Contribution	Monthly Contributions	from Previous Year	of Total Portfolio	of Total Portfolio
13	1	\$100,000	\$667			\$54,000	\$67,487	
14	2	\$104,000	\$693			\$72,886	\$86,913	
15	3	\$108,160	\$721			\$93,866	\$108,454	
16	4	\$112,486	\$750			\$117,131	\$132,302	
17	5	\$116,986	\$780	\$487	\$15,778	\$142,886	\$158,665	
18	6	\$121,665	\$811	\$507	\$16,410	\$171,358	\$187,768	
19	7	\$126,532	\$844	\$527	\$17,066	\$202,789	\$219,855	
20	8	\$131,593	\$877	\$548	\$17,749	\$237,443	\$255,192	
21	9	\$136,857	\$912	\$570	\$18,458	\$275,607	\$294,065	
22	10	\$142,331	\$949	\$593	\$19,197	\$317,591	\$336,788	

Building your Financial Model

Step 5: Estimate your company's contributions

	A	B	C	D	E	F	G	H
1	401K Analysis							
2								
3	Starting Salary:		\$100,000	this is your starting salary				
4	Your Contribution per month:		8%	this is a pre-tax contribution as a % of your salary				
5	Company Match of Your Contribution:		5%	this is your company's matching contribution to your contribution				
6	Annual Salary Increase:		4.0%	this is how much your salary grows each year				
7	Anticipated Annual Rate of Return:		8.0%	this is your expected annual rate of return				
8	Portfolio Value Today:		\$50,000	this is what you have in your retirement fund today				
9								
10								
11		Beginning Year Salary	Monthly Personal	Monthly Company	EOY Value		AN	ACTUAL
12	Year	(\$/year)	Contribution	Contribution	Monthly Contributions	from Previous Year	of Total Portfolio	of Total Portfolio
13	1	\$100,000	\$667	\$417	\$1,000	\$100,000	\$67,487	
14	2	\$104,000	\$693	\$433	\$1,040	\$104,000	\$86,913	
15	3	\$108,160	\$721	\$451	\$1,082	\$108,160	\$108,454	
16	4	\$112,486	\$750	\$469	\$1,125	\$112,486	\$132,302	
17	5	\$116,986	\$780	\$487	\$15,778	\$142,886	\$158,665	
18	6	\$121,665	\$811	\$507	\$16,410	\$171,358	\$187,768	
19	7	\$126,532	\$844	\$527	\$17,066	\$202,789	\$219,855	
20	8	\$131,593	\$877	\$548	\$17,749	\$237,443	\$255,192	
21	9	\$136,857	\$912	\$570	\$18,458	\$275,607	\$294,065	
22	10	\$142,331	\$949	\$593	\$19,197	\$317,591	\$336,788	

This column is the company's contribution

$$= (B13/12) * \$C\$5$$

$$= (B14/12) * \$C\$5$$

Building your Financial Model

Step 6: Determine the future value of the monthly contributions

	A	B	C	D	E	F	G	H
1	401K Analysis							
2								
3	Starting Salary:		\$100,000	this is your starting salary				
4	Your Contribution per month:		8%	this is a pre-tax contribution as a % of your salary				
5	Company Match of Your Contribution:		5%	this is your company's matching contribution to your contribution				
6	Annual Salary Increase:		4.0%	this is how much your salary grows each year				
7	Anticipated Annual Rate of Return:		8.0%	this is your expected annual rate of return				
8	Portfolio Value Today:		\$50,000	this is what you have in your retirement fund today				
9								
10							PLAN	ACTUAL
11		Beginning Year Salary		Company	EOY Value from	EOY Value	EOY Value	EOY Value
12	Year	(\$/year)			Monthly Contributions	from Previous Year	of Total Portfolio	of Total Portfolio
13	1	\$100,000			\$13,487	\$51,000	\$67,487	
14	2	\$104,000	\$693	\$433	\$14,027			
15	3	\$108,160	\$721	\$451	\$14,588	\$93,866	\$108,454	
16	4	\$112,486	\$750	\$469	\$15,172	\$117,131	\$132,302	
17	5	\$116,986	\$780	\$487	\$15,778	\$142,886	\$158,665	
18	6	\$121,665	\$811	\$507	\$16,410	\$171,358	\$187,768	
19	7	\$126,532	\$844	\$527	\$17,066	\$202,789	\$219,855	
20	8	\$131,593	\$877	\$548	\$17,749	\$237,443	\$255,192	
21	9	\$136,857	\$912	\$570	\$18,458	\$275,607	\$294,065	
22	10	\$142,331	\$949	\$593	\$19,197	\$317,591	\$336,788	

This column is the EOY value of your portfolio coming from this year's monthly contributions

=FV(\$C\$7/12, 12, -(C13+D13), 0)

Building your Financial Model

Step 7: Determine the future value from this year's present value

	A	B	C	D	E	F	G	H
1	401K Analysis							
2								
3	Starting Salary:	\$100,000	this is your starting salary					
4	Your Contribution per month:	8%	this is a pre-tax contribution as a % of your salary					
5	Company Match of Your Contribution:	5%	this is your company's matching contribution to your contribution					
6	Annual Salary Increase:	4.0%	this is how much your salary grows each year					
7	Anticipated Annual Rate of Return:	8.0%	this is your expected annual rate of return					
8	Portfolio Value Today:	\$50,000	this is what you have in your retirement fund today					
9								
10								
11		Beginning Year Salary	Monthly Personal	Monthly Company	EOY Value from	EOY Value		
12	Year	(\$/year)	Contribution	Contribution	Monthly Contributions	from Previous Year	of Total Portfolio	of Total Portfolio
13	1	\$100,000	\$667		=FV(\$C\$7, 1, 0, -C8)	\$54,000	\$67,487	
14	2	\$104,000	\$693			\$72,886	\$86,913	
15	3	\$108,160	\$721			\$93,866	\$108,454	
16	4	\$112,486	\$750		=FV(\$C\$7, 1, 0, -G13)	\$117,131	\$132,302	
17	5	\$116,986	\$780	\$487	\$15,778	\$142,886	\$158,665	
18	6	\$121,665	\$811	\$507	\$16,410	\$171,358	\$187,768	
19	7	\$126,532	\$844	\$527	\$17,066	\$202,789	\$219,855	
20	8	\$131,593	\$877	\$548	\$17,749	\$237,443	\$255,192	
21	9	\$136,857	\$912	\$570	\$18,458	\$275,607	\$294,065	
22	10	\$142,331	\$949	\$593	\$19,197	\$317,591	\$336,788	

This column is the EOY value of your portfolio due to the increase from the previous year

Building your Financial Model

Step 8: Add those two future values together!

	A	B	C	D	E	F	G	H
1	401K Analysis							
2								
3	Starting Salary:		\$100,000	this is your starting salary				
4	Your Contribution per month:		8%	this is a pre-tax contribution as a % of your salary				
5	Company Match of Your Contribution:		5%	this is your company's matching contribution to your contribution				
6	Annual Salary Increase:		4.0%	this is how much your salary grows each year				
7	Anticipated Annual Rate of Return:		8.0%	this is your expected rate of return				
8	Portfolio Value Today:		\$50,000	this is what you have today				
9								
10								
11		Beginning Year Salary	Monthly Personal	Monthly Company	EOY Value from	EOY Value	PLAN	ACTUAL
12	Year	(\$/year)	Contribution	Contribution	Monthly Contributions	from Previous Year	EOY Value	EOY Value
13	1	\$100,000	\$667	\$417	\$13,487		\$67,487	
14	2	\$104,000	\$693	\$433	\$14,027	=E13+F13	\$86,913	
15	3	\$108,160	\$721	\$451	\$14,588		\$108,454	
16	4	\$112,486	\$750	\$469	\$15,172	=E14+F14	\$132,302	
17	5	\$116,986	\$780	\$487	\$15,778	\$142,886	\$158,665	
18	6	\$121,665	\$811	\$507	\$16,410	\$171,358	\$187,768	
19	7	\$126,532	\$844	\$527	\$17,066	\$202,789	\$219,855	
20	8	\$131,593	\$877	\$548	\$17,749	\$237,443	\$255,192	
21	9	\$136,857	\$912	\$570	\$18,458	\$275,607	\$294,065	
22	10	\$142,331	\$949	\$593	\$19,197	\$317,591	\$336,788	

Building your Financial Plan

Step 9: Complete the plan

You now have the Year 1 and 2 figured out (Rows 13 and 14).

Make sure your values for Year 1-2 match the values here!

Select Cells B14-G14 and copy them all the way to your retirement date.

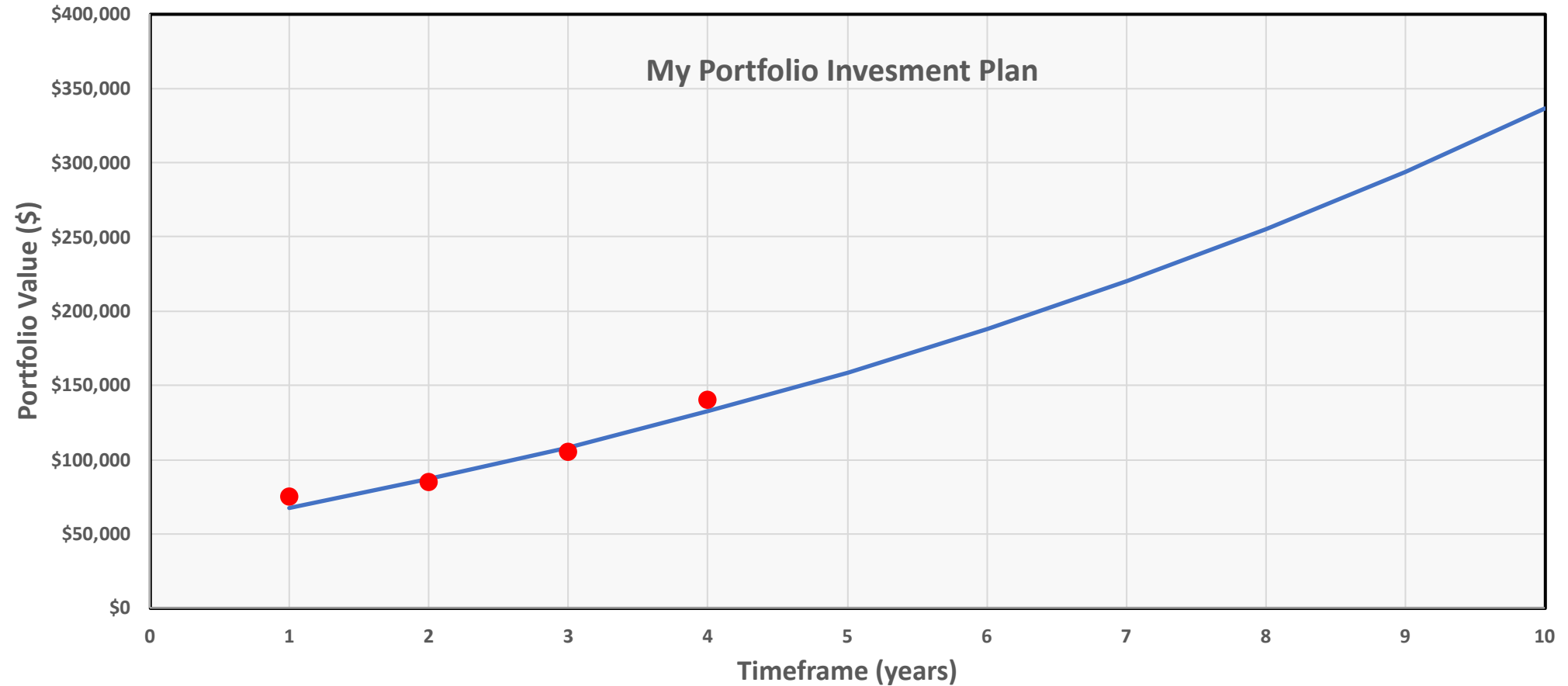
	A	B	C	D	E		
1	401K Analysis						
2							
3	Starting Salary:	\$100,000	this is your starting salary				
4	Your Contribution per month:	8%	this is a pre-tax contribution as a %				
5	Company Match of Your Contribution:	5%	this is your company's matching c				
6	Annual Salary Increase:	4.0%	this is how much your salary grow				
7	Anticipated Annual Rate of Return:	8.0%	this is your expected annual rate o				
8	Portfolio Value Today:	\$50,000	this is what you have in your retirement fund today				
9							
10						PLAN	ACTUAL
11		Beginning Year Salary	Monthly Personal	Monthly Company	EOY Value from	EOY Value	EOY Value
12	Year	(\$/year)	Contribution	Contribution	Monthly Contributions	from Previous Year	of Total Portfolio
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14	2	\$104,000	\$693	\$433	\$14,027	\$72,886	\$86,913
15	3	\$108,160	\$721	\$451	\$14,588	\$93,866	\$108,454
16	4	\$112,486	\$750	\$469	\$15,172	\$117,131	\$132,302
17	5	\$116,986	\$780	\$487	\$15,778	\$142,886	\$158,665
18	6	\$121,665	\$811	\$507	\$16,410	\$171,358	\$187,768
19	7	\$126,532	\$844	\$527	\$17,066	\$202,789	\$219,855
20	8	\$131,593	\$877	\$548	\$17,749	\$237,443	\$255,192
21	9	\$136,857	\$912	\$570	\$18,458	\$275,607	\$294,065
22	10	\$142,331	\$949	\$593	\$19,197	\$317,591	\$336,788

How are you doing?

Step 10: Add the “Actual” values

	A	B	C	D	E	F	G	H
1	401K Analysis							
2								
3	Starting Salary:		\$100,000	this is your starting salary				
4	Your Contribution per month:		8%	this is a pre-tax contribution as a % of your salary				
5	Company Match of Your Contribution:		5%	this is your company's matching contribution to your contribution				
6	Annual Salary Increase:		4.0%	this is how much your salary grows each year				
7	Anticipated Annual Rate of Return:		8.0%	this is your expected annual				
8	Portfolio Value Today:		\$50,000	this is what you have in your				
9								
10								
11		Beginning Year Salary	Monthly Personal	Monthly Company	EOY Value from	EOY Value	EOY Value	ACTUAL
12	Year	(\$/year)	Contribution	Contribution	Monthly Contributions	from Previous Year	of Total Portfolio	of Total Portfolio
13	1	\$100,000	\$667	\$417	\$13,487	\$54,000	\$67,487	\$75,000
14	2	\$104,000	\$693	\$433	\$14,027	\$72,886	\$86,913	\$85,000
15	3	\$108,160	\$721	\$451	\$14,588	\$93,866	\$108,454	\$105,000
16	4	\$112,486	\$750	\$469	\$15,172	\$117,131	\$132,302	\$140,000
17	5	\$116,986	\$780	\$487	\$15,778	\$142,886	\$158,665	
18	6	\$121,665	\$811	\$507	\$16,410	\$171,358	\$187,768	
19	7	\$126,532	\$844	\$527	\$17,066	\$202,789	\$219,855	
20	8	\$131,593	\$877	\$548	\$17,749	\$237,443	\$255,192	
21	9	\$136,857	\$912	\$570	\$18,458	\$275,607	\$294,065	
22	10	\$142,331	\$949	\$593	\$19,197	\$317,591	\$336,788	

How are you doing?



Adding your “actual” portfolio values at the end of the year allows you to track your investments and make any adjustments along the way!

Is it this easy?

Setting up the spreadsheet is easy...getting reality to fit your nice model is sometimes harder!

Your salary increases every year, in part due to your merit raises, and in part due to cost-of-living adjustments (inflation!).

Your risk tolerance changes over time. The model assumes the same risk over the entire timeframe. But as you get older you reduce your risk accordingly.

Now you select the right mix of funds to achieve your goals!

*You now have a solid foundation for your retirement plan!
Time to start contributing to your financial future!*

Next Time...

Building your Retirement Portfolio



Credits & References

Slide 1: Human Hand Drawing Retirement Plan Growth Concept by Andrey Popov, Adobe Stock (168285586.jpeg).

Slide 16: Investment Allocation Graph & Calculator by maxexphoto, Adobe Stock (19847787.jpeg).