



Retirement Needs Analysis

This calculator takes a common but simplistic approach to determining retirement needs: assume that a certain percentage of pre-retirement income will be needed after retirement, estimate the retirement income already available from other sources, determine the shortfall, and estimate how much additional money needs to be saved each month from now until retirement to make up the difference.

Despite its basic approach, however, this calculator does provide some flexibility.

- It will estimate Social Security benefits, and will automatically inflate them or disregard them if you prefer.
- It can inflate pension benefits after retirement.
- It can illustrate level or increasing retirement expenses.
- It can handle a different rate of return for existing vs. new retirement savings.
- It allows you to specify that savings are to be conserved after retirement so that the retiree lives off the interest alone, or that principal be consumed and amortized over a specified number of years.
- It can calculate savings between now and retirement on a level or increasing basis.

When to Use This Calculator

We consider this approach to be adequate for people who are more than a few years away from retirement. People in this situation cannot yet know with any real precision what they will need, or even what they will have available. The purpose of this calculator is to motivate them to save, and to give them a rough idea of how much they should be saving.

For those who are in the process of retiring, or are within a few years of retirement, this analysis is probably too simplistic. In any event, it provides only a general matching of expected needs with expected funds, and does not attempt to advise on the many specific financial decisions that face those who are about to retire.

Because of the live graphics that appear on the screen as you change inputs, this can be a very effective tool for interactive planning with clients.



How to Use This Calculator

If you have not used this calculator before, it is probably best to start by clicking the “Calculation Settings” button at the bottom of the screen. A second screen filled with assumptions appears. Adjust these as you see fit. These will then become your default settings for future cases as well.

Back on the main input screen, start at the top and work your way down. As you do so, you will see a bar graph appear in the background, illustrating the data you are inputting.

Most input fields are self-explanatory, but use the detailed instructions that follow, or press the <F1> key at any time during the input process to obtain on-line Help.

When you have finished entering all the required information, use the “Print” menu to print or preview the results.

Reaching your retirement goal...	
Name	<input type="text"/>
Date of birth (mm/dd/yyyy)	<input type="text"/>
Number of years to retirement	<input type="text"/>
Your family's current annual income	\$ <input type="text"/>
Estimated rate of annual salary increase	<input type="text"/> 2.5 %
Estimated final pre-retirement household income (3982)	\$ <input type="text"/> 0
Percent of pre-retirement income needed to retire	<input type="text"/> 75 %
Annual Retirement Income Needed	\$ <input type="text"/> 0
Currently available sources of retirement income (ANNUAL):	
Social Security (estimated)	\$ <input type="text"/>
Pension from this employer	\$ <input type="text"/>
Pensions from other employers	\$ <input type="text"/>
Earnings on current savings of \$ <input type="text"/>	
growing at <input type="text"/> % per year.	\$ <input type="text"/> 0
Annual retirement income already provided for	\$ <input type="text"/> 0
Annual additional retirement income you will need	\$ <input type="text"/> 0
Assuming an annual average rate of return of 8%:	
Amount of additional funds you need at retirement:	\$ <input type="text"/> 0
Additional amount you need to be saving monthly	\$ <input type="text"/> 0

Close Version 2.17A expires 05/31/01 Calculation Settings Reset



Detailed Input Instructions

Name

Enter the future retiree's name as it should appear on the printed report.

Date of Birth

Enter the future retiree's date of birth in mm/dd/yyyy format. This information is needed to estimate Social Security Benefits.

Number of years to retirement

Enter the number of years from now until the expected retirement date. You may use fractions of a year if you wish.

This field, together with the "Your family's current annual income" and the "Estimated rate of annual salary increase" fields, is used to calculate the estimated pre-retirement income, which displays in yellow immediately below it on the screen.

An increase in the number of years to retirement will generally reduce the monthly savings required.

If you have multiple adults in the household each expected to retire at a different time, and only one place to enter years to retirement, it is generally best to enter the average expected years to retirement. Erring on the low side of average will provide a more conservative result, but will call for higher monthly savings amounts.

Your family's current annual income

Enter all income earned by those who will be living in the household permanently after the party in question retires. In particular, if there are two working spouses, income from both should be included. Note, however, that in some versions of the system two columns of input



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are provided, so that two spouses (or any two parties, for that matter) can list income and other items separately. This option can be helpful if two people are retiring at very different times.

Increasing this number will tend to decrease the amount of monthly savings required.

Estimated rate of annual salary increase

Enter the average rate of salary inflation that is expected to apply from now to retirement. Keep in mind that this same rate will be used, if necessary, to inflate household expenses, pension benefits, and/or Social Security benefits if those options are selected on the "Retirement Planning Default Settings" pop-up screen described below.

Increasing this number will tend to increase the amount of monthly savings required.

Percent of pre-retirement income needed to retire

Enter the percentage of final pre-retirement household income the retiree (and spouse, if any) will need to live on after retirement. Retirement planning specialists usually use 70-85% as a rule of thumb, though sometimes more, or occasionally less, is appropriate for a particular family. The higher this value, the more retirement income will be needed, and the more retirement savings will be required.

Social Security (estimated)

This field will default to zero, to an estimate of the currently earned benefit, or to that estimate inflated from now until retirement, depending on the relevant setting in the "Social Security options" field on the "Retirement Planning Default Settings" pop-up screen described below.

This field indicates the assumed annual Social Security benefit at retirement. If you don't like the number that appears automatically, you may change it to anything you like.



Pension from this employer

Enter the assumed initial annual pension amount at retirement from the current employer's retirement plan. Increasing this value will tend to reduce the amount of new retirement savings needed.

Pensions from other employers

Enter the assumed initial annual pension amount at retirement from retirement plans of employers other than the current employer. Include here pensions earned from a spouse's employer, and from prior employers of either spouse. Increasing this value will tend to reduce the amount of new retirement savings needed.

Earnings on current savings of \$_____ growing at _____% per year

Enter the current balance of any funds that have been saved by the household for retirement purposes, and their projected rate of return. Such funds may reside in a 401(k) or other such pension plan, in an annuity or life insurance policy, and/or in any kind of personal investment or savings vehicle. In general, it is advisable to use an after-tax rate of return so as to not over-estimate the growth of existing funds. If existing funds are a mixture of taxable and tax-deferred monies, then you may use an average of after-tax and pre-tax rates.

This field's value will be projected forward at the rate of return entered here. No new savings are assumed in this projection; all new savings are included in the "Additional amount you need to be saving monthly" result at the bottom of the screen. The income from the fund's projected value at retirement appears in yellow to the right of the field.

Increasing this value will tend to reduce the amount of new retirement savings needed.

Calculation Settings

When you click on this button, the "Retirement Planning Default Settings" pop-up screen appears.

The purpose of this screen is to let you set certain default values or select certain calculation options for the retirement planning calculation that appears on the "Retirement Planning Calculation" screen and accompanying printed presentation.



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Most of these options will take effect immediately. The exceptions are those affecting Social Security, which may not immediately affect the projected retirement income. This is because the values already entered in those fields may have been entered deliberately, and the system won't automatically overlay them. See below for more information.

To close the screen, simply click the "OK" button. Any values you have entered on this screen will be permanently saved and used as defaults for future new participants. They will not be overwritten, even when you install new versions of the system.

The screenshot shows a Windows-style dialog box titled "RetirementWorks® Retirement Planning Calculation". The dialog has a menu bar with "File", "Print", "Calculations", "Windows", and "Help". The main content area is blue and contains the following settings:

- Retirement Planning Default Settings**
- Default Replacement Ratio (percent of pre-retirement income needed after retirement): %
- Inflate expenses after retirement: Yes No
- Social Security options:
 - Exclude Social Security (i.e., default to zero)
 - Base Social Security estimate on current formulas; assume no inflation before retirement
 - Base Social Security estimate on current formulas plus inflation until retirement
 - Base Social Security estimate on current formulas plus inflation before and after retirement
- Pension options:
 - Assume no inflation either before or after retirement
 - If pension is automatically calculated, assume inflation before retirement, but not after
 - Assume inflation of pension benefits both before (where applicable) and after retirement
- Assumed rate of return on NEW savings, if different from existing savings: %
- Are retirement savings conserved or consumed during retirement? Conserved (live off interest only) Consumed (principal is amortized over life expectancy)
- No. of retirement years funds must last (if expenses inflate or principal is consumed): yrs.
- Inflate monthly payments (to reduce initial amount)? Yes No
-

Default Replacement Ratio (percent of pre-retirement income needed after retirement)

This field establishes a default value for the "Percent of pre-retirement income needed to retire" field on the main screen. If you change the value in the default field, it will also change the



value for the current individual. However, you can change the amount for the current individual directly on the main "Retirement Planning Calculation" screen without changing the default. Increasing this value will tend to reduce the amount of new retirement savings needed.

Inflate expenses after retirement

Click on "Yes" to indicate that retirement expenses should continue to increase after retirement using the salary inflation rate, or "No" to indicate that they should be assumed to remain level after retirement. If you change the option in this field, it will immediately be applied to the current individual. Choosing to inflate expenses after retirement will tend to increase the amount of new retirement savings needed.

Social Security options

This field allows you to indicate how Social Security retirement benefits for new cases should be calculated. The options are:

- **Exclude Social Security (i.e., default to zero).** No Social Security benefits are expected upon retirement.
- **Base Social Security estimate on current formulas; assume no inflation before retirement.** Social Security benefits are estimated based on today's Social Security limits and household compensation.
- **Base Social Security estimate on current formulas plus inflation until retirement.** Social Security benefits are estimated based on today's Social Security limits and household compensation and inflated until retirement.
- **Base Social Security estimate on current formulas plus inflation before and after retirement.** Social Security benefits are estimated based on today's Social Security limits and household compensation and inflated both up to and after retirement.

If inflation is part of the selected option, the rate used will be the rate entered in the "Estimated rate of annual salary increase" field on the main screen.

Changes in this option do NOT affect the current individual's projected benefit at retirement. To get the system to recalculate Social Security using the new option, delete the amount in the "Social Security (estimated)" field on the main screen, then click on "Number of years to retirement", "Your family's current annual income", or "Estimated rate of annual salary



increase" fields. Then, moving the cursor off that field will trigger a recalculation using the new default option.

Choosing to inflate Social Security benefits will tend to decrease the amount of new retirement savings needed.

Pension options

This field allows you to indicate how pension benefits should be calculated. The options are:

- **Assume no inflation either before or after retirement.** Pension benefits are assumed to be level.
- **If pension is automatically calculated, assume inflation before retirement but not after.** Pension benefits are inflated from now until retirement. This option is applicable only if you have a customized version of the system that automatically calculates certain retirement plans.
- **Assume inflation of pension benefits both before (where applicable) and after retirement.** Pension benefits are inflated from now up to and after retirement.

In most cases, the middle option is disabled, since it applies only to situations in which the system itself is calculating pension benefits.

Choosing to inflate pension benefits will tend to decrease the amount of new retirement savings needed by participants.

Assumed rate of return on NEW savings, if different from existing savings

If this field is left blank, it indicates that the rate of return to be used for new savings is the same as the rate being used for existing savings, as entered in the "Earnings on current savings of \$___ growing at ___% per year" field on the main screen. If you enter a different value here, however, that rate will be used to determine additional savings needs.

A different rate of return for the two kinds of savings may be appropriate because new savings will go into a new product, or because new savings will be tax-deferred while existing savings may be in taxable or a mix of taxable and tax-deferred funds (or vice versa). The rate of return on new savings should always be a pre-tax rate.



Increasing this value will tend to reduce the amount of new retirement savings needed by participants.

Are retirement savings conserved or consumed during retirement?

Indicate here how funds saved for retirement are to be consumed. The options are:

- **Conserved (live off interest only).** The principal is conserved, and the individual lives off the interest only.
- **Consumed (principal is amortized over life expectancy).** Amortization of principal will take place over the number of retirement years indicated in the following field. Choosing consumption of principal will tend to reduce the amount of new retirement savings needed, but will increase the likelihood that the individual will run out of money before death.

No. of retirement years funds must last (if expenses inflate or principal is consumed)

Enter the number of years the individual expects to live after retirement.

This option has no effect if you selected "Conserved (live off interest only)" in the preceding field, AND you have not indicated that any other income or expenses are to be inflated after retirement. If you indicate "Consumed (principal is amortized over life expectancy)", or indicate one or more kinds of inflation after retirement, this field is required to indicate how many years of retirement need to be accounted for.

Entering a smaller number of years will tend to reduce the amount of new retirement savings needed, but will also increase the risk that the individual will outlive his or her retirement income.

Inflate monthly payments (to reduce initial amount)?

Indicate here whether monthly savings made between now and retirement are assumed to be level or to increase/inflate with salary, using the rate entered in the "Estimated rate of annual salary increase" on the main screen.

Choosing to inflate monthly payments will tend to reduce the initial amount of new retirement savings needed.