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Rough Guide to Retirement Calculators

Variable inputs and assumptions make the planning tools more a wake-up call than definitive guide

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While assessing retirement calculators this past week, I plugged in my own information to see how much money I should sock away when one of the scariest things I've ever seen appeared on my computer screen. It said I will need to work until I'm 80 to afford to retire.

Or maybe not. I plugged the same information into another calculator, and according to its forecast, I could end up with a savings surplus.

What gives?

"To make a projection, you have to make lot of assumptions about past and future income based on current information," said Anek Belbase, a research fellow at the Center for Retirement Research at Boston College. "Right off the bat, it can be difficult. How do you account for taxes? What income do you use? The amount people say you need varies. It depends on whether you count medical expenses and whether you plan to reduce consumption down the road."

Online calculators rely on information provided by users that typically includes age, income, savings, monthly contributions and the age the person expects to stop working. Using these parameters—and sometimes others; the calculators vary—the algorithms generate an estimate of how much money will be needed at retirement to maintain the current lifestyle.

The simpler the calculator, the more built-in assumptions it makes, and the cruder its results. More sophisticated versions may run thousands of simulations using historical investment returns and inflation figures to forecast retirement income rather than relying on fixed inputs, but even so, experts say at best the calculators offer a rough guide to savings and are no replacement for a comprehensive financial plan.

“Calculators help you make an estimate, but they could wildly over- or under-estimate your needs,” said Billy J. Hensley, director of education at the National Endowment for Financial Education.

One factor that can dramatically alter the forecast is longevity. Some calculators assume retirement savings should last a set number of years; 30 is common. Some adjust the calculations based on average life expectancy. And some ask users to specify how long they expect to live.

The average lifespan for a man who is 65 today is about 84 years. For a woman, it’s about 87. But 25% of people who make it to age 65 will live past age 90, according to the Social Security Administration, and 10% will surpass age 95.

As an example of how a calculator works, here are the assumptions employed by one tool offered by mutual-fund firm Vanguard Group.

The retirement-income calculator first asks users to enter their age and the age they expect to retire. It assumes retirement savings should last 30 years with the retiree spending 4% the first year and, to account for inflation, 3% more in each subsequent year.

“On one hand, it’s designed to give a predictable income stream,” saidMaria Bruno, a senior investment analyst at Vanguard. “But the flipside is that it doesn’t consider market performance. If you get into a sustained bear market at retirement, and you spend 4% and increase that by inflation, and your portfolio has fallen, there can be a high risk of prematurely depleting your portfolio.”

Users are then asked to plug in annual salary, which the algorithm assumes will expand by 3% each year; choose a replacement ratio, which is the fraction of income they hope to earn in retirement (the default is set at 85%); and list total savings plus the amount set aside each month, including any matching funds.

Savings are adjusted for an expected annual return, another parameter entered into the calculator. The default is 5%, which Vanguard considers a reasonable return on investments for a moderate portfolio with 40% to 60% stocks, but users can raise or lower the figure.

Finally, the user estimates Social Security income and, if applicable, pension benefits.

Mr. Belbase notes that the most accurate Social Security projections are available by signing up for the Social Security Administration's online tool My Social Security, which estimates the benefit based on lifetime earnings.
As each piece of information is entered, the calculator displays the amount of money the user would collect each month in retirement in today's dollars, along with the amount of money needed to meet the desired replacement ratio should the projected savings fall short.

Users can test out other scenarios by altering the inputs. What if you delayed retirement by a few years? What if you increased monthly savings by 1%? What if investment returns were particularly rosy—or bleak?

"I would encourage people to go through that to see what makes a difference," Ms. Bruno said. "The thing that will move the dial the most is how much you're saving."

To retire comfortably, experts say most people should set aside 10% to 15% of their annual income for retirement, but many don't.

"We find that 43% of all households will run short of retirement income," said Jack VanDerhei, research director at the Employee Benefit Research Institute.
For them and others, retirement calculators may function best as a wake-up call. After all, who wants to work until age 80 because you can't afford to retire—even if you're lucky enough to write The Numbers?