Our assumptions and methodology

Objective

The primary objective of this calculator is to help provide education on how retirement savings coupled with other sources of predictable income could affect the estimated amount and composition of income in retirement. Through the basic inputs, we gather general information about a hypothetical scenario and roughly estimate how that scenario may perform over time. The results offered by the calculator are not intended to be recommendations of any investment, investment strategy, or account type, and are not based on your personal situation. You should not rely on the calculator to make your retirement income decisions. The calculator is not a substitute for a retirement income plan. The calculator's results regarding the hypothetical withdrawal amount are determined by a set of growth rates for various time horizons. These rates have been generated through simulations based on historical market data to consider the probabilities of different market conditions a portfolio might experience, although the market's past performance does not predict how it will perform in the future. The calculator provides results based on how a selected asset allocation performs in a conservative market scenario. Predictable income presented in this experience is the sum of Social Security income, pension income, and income derived from allocations to a hypothetical annuity purchase. In addition, the calculator incorporates a number of assumptions to arrive at these amounts. These assumptions are discussed below.

We encourage you to take control of your own retirement income situation and expectations by building a sound plan that details your personal situation, time horizon, risk tolerance and goals.

Limitations of the Fidelity Retirement Income Calculator

It is important to remember that the calculator is not intended to project or predict the present or future value of actual investments or actual holdings in your portfolio (or a selected allocation) or actual predictable income. Also, the calculator should not be used as the primary basis for any investment or tax-planning decisions. This calculator makes no assumptions about taxes and displays all results in gross (before tax) format. Please consult your tax advisor regarding your specific legal and tax situation. Information within this engager is not legal or tax advice.

When generating the growth rates used to determine your hypothetical withdrawal amount, the calculator assumes a level of diversity within each asset class consistent with a specific market index. Volatility of the stocks, bonds and short-term asset classes is based on the historical annual data from 1926 through the most recent year-end data available from Ibbotson Associates, Inc. Stocks (domestic and foreign), bonds, and short-term are represented by S&P 500®[1] , U.S. Intermediate Term Government Bonds, and 30-day U.S. Treasury bill, respectively. Annual returns assume the reinvestment of interest and dividends, no transaction costs, and no management or servicing fees. It is not possible to invest directly in an index. All indices include reinvestment of dividends and interest income. All calculations are purely hypothetical and will not affect your actual accounts. The historical performance analysis is intended only to be one source of information that may help you assess your retirement income plan. Remember, past performance is no guarantee of future results. Performance returns for actual investments will generally be reduced by fees or expenses not reflected in these hypothetical illustrations. Returns also will generally be reduced by taxes.

Annuity pricing within this calculator is hypothetical. Pricing data extracted from this calculator should not be used to determine if an annuity is appropriate for you.

Among other assumptions (all disclosed below), the annuity payments illustrated by the calculator assume the purchase of a lifetime income annuity that provides no beneficiary protection (also referred to as a “life only” annuity). While a “life only” annuity will generally provide a higher payment than an otherwise identical annuity purchased with beneficiary protection, all payments cease upon the annuitant’s death and beneficiaries receive nothing. For this reason, “life only” annuities are not suitable for most individuals. A “life only” annuity is used for this illustration to be consistent with predictable income from other sources, including Social Security and pensions, which typically are on a “life only” basis. Before purchasing an annuity, consult an insurance-licensed representative to help assess whether or not an annuity is suitable for you and to receive accurate and current pricing.

How the calculations work

The first part of the process is to estimate withdrawal amount in retirement. The withdrawal amounts for each time horizon are estimated using a simulation approach called Monte Carlo. 250 market simulations are run for each time horizon and a withdrawal is determined that will result in a 0 or positive ending value in at least 90% of the simulations.

The income projection is based on five data items derived from the information you provide:

1. The age at which you plan to begin taking withdrawals from your retirement savings. If you are already taking withdrawals, the withdrawal age is your current age

2. Estimated retirement savings at your withdrawal age

3. Planning age

4. Asset allocation (one of the nine asset mixes/investment styles listed below)

5. Annuity allocation as a portion of your estimated retirement savings

These values are inflation-adjusted and do not need to be discounted by any projected inflation estimates.

Factoring in predictable income

To take into account the impact of Social Security income on your retirement income, we have made certain assumptions that you should consider in analyzing your hypothetical results. We assume Social Security benefits will begin when withdrawals begin. It is your decision when you start claiming Social Security benefits. If you enter a withdrawal age before age 62, the earliest age at which Social Security benefits can be claimed, any indicated benefits may be overstated. Additionally, no tax consequences for Social Security benefits are taken into account. All calculations are gross of taxes. Your Social Security benefit increases each year with a cost-of-living adjustment or COLA. It is assumed that this growth rate is the same rate experienced by other sources of income represented in this calculator. If you do not know your Social Security benefit amount, please visit www.ssa.gov .

Defined benefit pension plan income, if applicable, is assumed to grow with inflation and continue for your entire lifetime beginning at the withdrawal age indicated; however, most pension plans do not provide inflation protected benefits. The calculator does not consider the specifics of your pension plan nor the plan structure. Please consult your plan administrator for specifics on your defined benefit pension plan.

Annuity income is based on recent market quotes reviewed on a quarterly basis and updated as appropriate. Market quotes are retrieved for life-only immediate annuities with 2% and 3% COLA for both male and females ages 55 – 75. Prices for male and female annuities are averaged, and then the resulting gender-neutral prices for 2% and 3% COLA annuities are averaged a second time. This pricing represents a hypothetical gender-neutral, life-only immediate annuity with 2.5% COLA. It is important to note that an annuity with the above characteristics is not available at Fidelity and is created only for the purposes of this calculator to generalize the annuity purchasing process. Pricing data extracted from this calculator should not be used to determine if an annuity is appropriate for you. Consult an insurance-licensed representative before purchasing an annuity to receive accurate and current pricing for your personal situation.

For the purposes of this calculator, we assume the age at which you plan to begin withdrawals is when the hypothetical annuity purchase is made. We also assume that any allocation to an annuity purchase will reduce your estimated retirement savings at the beginning of your withdrawal age.

Assumptions within the calculator

Planning age — The age your retirement plan lasts through. It is the sum of the age you plan to start withdrawals and the number of years you plan to spend in retirement, beginning at the end of the year in which you start withdrawals. Planning age is limited within this experience between 80 and 110. The default planning age (or longevity) used in the calculator is 94.

Fidelity estimates longevity using date of birth, gender, and the Retirement Plans (RP) mortality tables most recently published by the Society of Actuaries. These tables are based on the mortality experience of US pension plans. Among the most recent set of tables, identified as RP-2014, we use the Healthy Annuitants table, updated periodically to reflect mortality rate improvements. Our longevity estimates are not tailored to a specific individual or situation, do not reflect additional factors that could increase or decrease your life expectancy (such as your health, lifestyle, and family history), and should not be considered definitive.

The calculator uses the average of the estimated longevity for both males and females. The default "planning age" (or above average lifespan) is the age to which you have an estimated 25% chance of surviving (that is, there is a 75% chance that you will die before this age).

Inflation rate — All the rates and cash flows in the calculator including investment growth rates, Social Security income, pension income, and annuity income are in real terms or “retirement” dollars. We assume an inflation rate of 2.5% and that all cashflows in the tool, including withdrawals, Social Security, pensions, and annuity income grow at 2.5%. This produces a consistent spending power throughout retirement. However, it may not align with specific products or pensions for any given user.

Asset allocation/Investment Style — The nine different target asset mixes available in the Calculator are:

Target asset mix	Stocks	Bonds	Short-term	
0% stock portfolio	0%	0%	100%	This target asset mix may be appropriate for investors who want to preserve their capital and can accept the lowest returns in exchange for price stability.
20% stock portfolio	20%	50%	30%	This target asset mix may be appropriate for investors who want to minimize fluctuations in market value by taking an income-oriented approach with some potential for capital appreciation.
30% stock portfolio	30%	50%	20%	This type of asset mix may be appropriate for investors who seek income and the potential for capital appreciation, with a slight priority on income, and who can withstand moderate fluctuations in market values.

Target asset mix	Stocks	Bonds	Short-term	
40% stock portfolio	40%	45%	15%	This type of asset mix may be appropriate for investors who seek income and the potential for capital appreciation, with a slight priority on capital appreciation, and who can withstand moderate fluctuations in market values.
50% stock portfolio	50%	40%	10%	This target asset mix may be appropriate for investors who want the potential for capital appreciation and some growth, and who can withstand moderate fluctuations in market value.
60% stock portfolio	60%	35%	5%	This type of asset mix may be appropriate for investors who seek moderate growth and income and who can withstand moderate fluctuations in market values.
70% stock portfolio	70%	25%	5%	This target asset mix may be appropriate for investors who have a preference for growth and who can withstand significant fluctuations in market value.
85% stock portfolio	85%	15%	0%	This target asset mix may be appropriate for investors who seek aggressive growth and who can tolerate wide fluctuations in market value, especially over the short term.
100% stock portfolio	100%	0%	0%	This target asset mix may be appropriate for investors who seek very aggressive growth and who can tolerate very wide fluctuations in market value, especially over the short term.

Investment growth – the retirement income estimates provided are generated through simulations based on an analysis of historical market data and presented for underperforming market conditions. Underperforming market conditions mean that in 9 out of 10 market scenarios the hypothetical portfolio performed at least as well, while 1 out of 10 times the hypothetical portfolio failed to perform as well.

1. The S&P 500®: The S&P 500® Index, an unmanaged market capitalization–weighted index of common stocks, is a registered service mark of Standard & Poor's Financial Services LLC.

2. The source for this estimate is the RP-2014 Mortality Table projected with Mortality Improvement Scale MP-2017 as of 2018.