

## Motley Fool's *Rule Your Retirement* Newsletter

# Safe Withdrawal Rates: A Sampling of Methods and Tools

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Two weeks ago, we reviewed the [evolution of safe withdrawal rates](#) (SWRs) in retirement. As promised at the end of that article, we're back to review some of the more common methodologies, as well as provide some free tools that will help you determine the right SWR for you.

What follows is not an exhaustive list of methods and tools. Rather, these are meant to provide a "flavor" of all the ways you can make withdrawals. One of the key takeaways, however, is that if you're flexible with your withdrawals, you can begin with a higher withdrawal rate than if you stick with the original SWR methodology proposed by William Bengen in 1994, which is the source of the 4% rate that is most often bandied about.

Speaking of which, that's the first on our list...

### **Original Safe Withdrawal Rate Method Proposed by William Bengen (1994)**

Withdraw 4% of the value of the portfolio on the first day of retirement. Then adjust that dollar amount by inflation each year. To use an example from our [previous article](#): Let's say you have a portfolio worth \$500,000 on the day you quit work. You would withdraw 4%, or \$20,000. One year later, you would adjust that amount according to the inflation rate over the previous 12 months. If inflation was 3%, you would then withdraw \$20,600 at the beginning of the second year of your retirement.

A year later, you adjust again for inflation. Assuming it was 2% this time around, you'd withdraw \$21,012 (\$20,600 increased by 2%) at the beginning of your third year of retirement. This process continues for each year of retirement.

### **Endowment Method Proposed by many experts**

The endowments managed by many nonprofits and private foundations enjoy tax-free growth — but with a catch: They can't just let the money accumulate and not be put to good use; they must spend at least 5% of their value annually on eligible expenses. This is considered a reasonable percentage that balances current expenditures with leaving enough in the portfolio to grow for future use.

While a retiree who follows the same method won't get the benefit of tax-free growth, withdrawing 5% of the value of the portfolio each year does allow for a higher initial safe withdrawal rate. Plus, she technically would never run out of money because no matter how much the portfolio drops, she's just taking out 1/20th of it each year.

However, this method will result in wide fluctuations in spending, including reductions that might take years to return to previous levels. According to Vanguard, a standard 60% stocks, 40% bonds portfolio returned an average 8.7% annually from 1926 to 2015. But it lost money in 21 of those 90 years, with a maximum decline of 26.6%. So a retiree who followed an endowment withdrawal strategy would need to be prepared to reduce spending in about one out of four years, historically speaking.

However, a retiree can smooth out this volatility by doing what 75% of endowments do (according to a 2010 survey by the NACUBO-Commonfund Study): Rather than take a percentage of the portfolio's value in any given year, withdraw a percentage of the average value of the portfolio over the preceding three or so years.

### **"Floor-and-Ceiling" (F&C) Withdrawals Proposed by William Bengen (2001)**

As explained in his article published in the *Journal of Financial Planning*:

- "1. Allow withdrawals to increase during a bull market, but to not more than 25% above the real [i.e., inflation-adjusted] value of the first year's withdrawal.
2. Allow withdrawals to decline during a bear market, but not more than 10% below the real value of the first year's withdrawal."

According to Bengen's analysis, a retiree who was willing to be flexible with his annual spending according to these rules could begin retirement with a 4.58% safe withdrawal rate.

### **Guyton's Decision Rules Proposed by Jonathan Guyton and William Klinger (2006)**

This can get complicated, so we're going to simplify somewhat.

- Rebalance the portfolio by selling assets that have outperformed the others in the portfolio, especially equities. However, avoid taking withdrawals from equities after a negative year.
- Increase annual withdrawals by the rate of inflation (capped at 6%) when the portfolio has grown over the preceding year, but don't make an inflation adjustment when the portfolio is down for the year.
- If the portfolio has dropped so much that an annual withdrawal would represent a rate (i.e., percentage) that is 20% above the initial rate, reduce the withdrawal by 10%.
- If the portfolio has grown so much that a withdrawal would represent a rate (i.e., percentage) that is 20% below the initial rate, increase the withdrawal by 10%.

Guyton and Klinger's research indicated that following these rules, as well as holding a portfolio that is more diversified than those included in the earlier studies, could justify an initial SWR of 5.4%.

### **The 95% Rule Proposed by Bob Clyatt (2006)**

As discussed in our [recent interview](#) with Clyatt – who retired in 2001 at the age of 42, and wrote [Work Less, Live More](#) in 2006 – his "95% rule" states that each year, a retiree can take out the greater of (1) 4% of the portfolio's value at the beginning of the year, or (2) 95% of the previous year's withdrawal. Essentially, this allows the retiree to take out more when the portfolio does well but also has the retiree cut back when the portfolio declines – but not cut back more than 5% from the previous year's spending. As he told us, it has sustained him through the Great Recession. Adjusted for inflation, his portfolio is worth the same amount it was in 2001, despite two bear markets and 15 years' worth of withdrawals.

### **Dynamic Formulas and RMDs Proposed by David Blanchett (2013)**

Blanchett is the director of retirement research for Morningstar and has been a part of several studies on safe withdrawal rates. He summarized much of his research in "[Simple Formulas to Implement Complex Withdrawal Strategies](#)." But don't be misled by that title; his noble effort to boil down many variables to something "simple" may still leave you a bit bogged.

Fortunately, you don't have to do all of the math on your own. Blanchett has created [a free spreadsheet](#) that contains the formulas he recommends. Just input your particulars (keep your inputs to just the yellow fields), and the results are calculated for you.

One of those inputs will be your life expectancy, and the spreadsheet will calculate that for you, too. But don't miss the important footnote: "Optimal default retirement period is life expectancy (50% probability) + 2 years." In other words, his research indicates that the most "efficient" estimate of retirement length is two years above the average life expectancy of a person of a certain age and gender.

This highlights a significant differentiator between Blanchett's method and other SWR methods: the incorporation of mortality as a variable. Rather than assuming every retiree will live to his mid-90s (as most studies do), he incorporates actuarial data. In fact, for retirements that are expected to last less than 15 years, he recommends a formula that incorporates the IRS-provided numbers investors use to calculate required minimum distributions (RMDs) from traditional retirement accounts after age 70 ½. (If you enter a number less than 15 in the "Retirement Period (Years)" field of Blanchett's spreadsheet, you'll notice that other previously yellow fields turn black. That's because those variables don't make much of a difference over shorter time periods.)

Finally, there's a reason why he calls this method "dynamic." You don't stick with the calculated withdrawal rate throughout retirement; that's just the amount to take out this year. In another 12 months, you revisit the spreadsheet and calculate a new withdrawal rate.

## Safe Withdrawal Rate Tools

As you fiddle with these number-crunchers, you might get different results. That's usually because of different tools using different assumptions about inflation, life expectancy, portfolio allocation, and future returns. Do what you can to keep the assumptions consistent.

- [FIREcalc.com](http://FIREcalc.com): It ain't pretty, and takes a little work to figure it all out. But it allows for a good deal of customization, as explained on the main page (scroll down to the section that begins with "Each tab will take you to....").
- [PortfolioVisualizer.com](http://PortfolioVisualizer.com): The Monte Carlo Simulation allows you to test withdrawal rates from portfolios you create. You have a choice of a few spending methodologies and can also see how life expectancy can affect an estimated SWR.
- [The Variable Percentage Withdrawal spreadsheet](#): Created by the Bogleheads online community, this spreadsheet "adapts to the retiree's retirement horizon, asset allocation, and portfolio returns."
- [Vanguard's Withdrawal Rate Calculator](#): Very easy to use, though it doesn't allow for too much customization.
- [The Simple Calculator](#): Give David Blanchett's spreadsheet a whirl.