

Selecting a Program for Retirement Planning

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I've been comparing computer programs for retirement planning for many years. Some of this work appeared in major articles in *The Wall Street Journal* by Vanessa O'Connell and Tom Herman. Some of those I've reviewed have improved while some refuse to remove errors in spite of substantial prodding.

I wrote many of my early programs just to show that major improvements were practical to implement. One of these was liberally praised by *Financial Planning*, a magazine for professional planners. My current efforts are to provide programs that offer a major dash of reality. Unfortunately most retirement planning programs are sadly lacking in this regard.

The planning industry is starting to get swept into Monte Carlo analysis. A number of years ago, I started to develop a Monte Carlo analysis program based on *Crystal Ball*. This comprehensive program seemed well suited to the purpose. In doing so, I found some disturbing things about that method. Unfortunately, those problems persist even though a Nobel Prize winner has successfully marketed a similar program. I've watched planners come to hopelessly wrong conclusions and publish erudite papers such as one advocating over 7% withdrawals and all stock portfolios.

The Monte Carlo analyses use theoretical distributions for security performance that only roughly simulate their actual performance. These models have such skinny tales that they do not represent cataclysmic results. For example, an analysis done in 1999 would have forecasted a very low probability of actual market performance over the last few years. Moreover, many of these representations often are outright lies such as pretending that you can get enough information from a new security to describe how it would have performed over seventy-five years of past history.

A common fault of the majority of all commercial programs is that they completely ignore the costs of owning securities. The financial industry has about \$300 billion of overhead costs to cover every year. When you trade in securities or mutual funds, you pay part of these costs. These costs can easily take away a very large part or even all of your return. Most programs completely ignore these costs and rely on "market indexes" which do not reflect any of these costs. The honest way to use an index is to reduce the performance in accordance with the costs you actually incur. People who trade in and out of securities often experience even higher costs related to the fact that they get out of sync and buy near market peaks and sell near market lows.

Although some of the deepest thinkers in the financial industry think that what happens in the market tomorrow has no relation to what happened today, I think that's fallacious. Unfortunately, that's a fundamental premise of the Monte Carlo method. What makes more sense to me, and I apparently stand alone in this, is that all you can honestly represent are actual parts of history. These actual parts of history include the actual costs, returns, and inflation that occurred in each subsequent year in the order they actually occurred, not some statistical representation each year.

So that's what all of my programs do now. They show what would have happened if you retired in some past year and how you would have fared thereafter. Jersey Gilbert, the financial editor of *Money* magazine calls this approach the poor man's Monte Carlo. I think it's a lot more than this. It gives you some real life perspective without offering false promises of confidence levels.

More importantly, my programs let you compare situations so that you can make better decisions. This requires that two or three programs run simultaneously in the computer. If you fuzzed this up with statistics, you could not clearly see the best choice for you. So first, my programs look at how the alternatives compare in a perfect world where returns are the same every year. Then after you set up these cases, you test them to see how your choices would have behaved if you retired in a good year such as 1950 or a bad year such as 1960. This is quite different than a Monte Carlo analysis in principle because if you ran two side-by-side Monte Carlo cases you can't see how each would have performed in the same circumstances.

In fact, the most important thing a person can do is to make good decisions. It's impossible to make an accurate projection of the future, but it is possible to see how different alternatives behave in different situations. Unfortunately, most commercial programs are so canned that the majority of the decisions are either ignored or made for you. That's why I developed the Retirement Decision Assistant. Unlike other retirement planning programs you can compare your alternatives directly and develop highly customized plans that fit your particular circumstances. For example, what other program will let you adjust the start date and withdrawal rate for taking money from an IRA while preserving unrealized capital gains for heirs?

Earlier I developed The Retirement Autopilot program to show that retirement planning could benefit from some feedback. It's the only program that I know of that develops an entirely new plan each year in reaction to whatever happened in the market or some discrete event you introduced. Still, this is exactly what happens in real life. You evaluate your situation each year and modify your plan accordingly. But the program goes another step further and introduces some simple feedback theory so that your new plan is not so much unlike the past plan that you are not living on the fat of the land in one year and living like a pauper the next. I call this a retirement autopilot because it helps tame the ups and down of the market just as an airplane autopilot helps tame the ups and downs of gusty air and makes a smoother flight.

The Retirement Autopilot program is better suited to engineers, professionals and investigators who want to know more about what advanced technology can do for retirement planning. In fact, this is more important than introducing Monte Carlo analysis, because the Monte Carlo analysis never benefits from any feedback. It assumes that a person will continue to save or spend at some predetermined and often reckless rate as opposed to cutting expenses when the market turns sour.

The Retirement Decision Assistant program offers a lot more detailed alternatives than the Retirement Autopilot, but it takes advantage of the things learned from the Retirement Autopilot program. You can't see the results of new annual plans on the Retirement Decision Assistant, but you can use the same formula to modify how much you can spend in retirement, and you can see what would have happened if you retired in a good year like 1950 or a bad year like 1960. If I was a lot younger and had the energy, I'd combine the two programs, but the mathematical complexity is daunting. Each of those programs has over 20,000 equations now, so it would probably take me a year to program. I'd rather help people make better financial decisions than get glued to the computer.

The Retirement Decision Assistant Pro offers somewhat more. You can enter whatever returns you want so that you are not bound by historical returns. You can enter a lot of detail to account better for tax-exempt securities and different capital gains situations such as a 1031 exchange.

For those of you who are far from retirement or already well into retirement, the Retirement Perspective programs are easy to use and will develop better plans than many of the more

complex programs you can find on the web. They let you compare three relatively simple alternatives at the same time, one of which could be last year's planning choices. They also take you back in history and compare your selections in some good and bad historical scenarios. The method is the same as that used in J. K. Lasser's *Your Winning Retirement Plan*, so you can follow the logic if you have a copy of the book. It's really an extension of the book so that you don't have to do all of the book's calculations methodically with a hand-held calculator.

No matter where you go to find a program, I would choose one that allowed you to enter the costs of holding securities and offered some advice on returns that might be realizable for the risk that's acceptable to you. If you have a fixed pension, make sure the program asks you whether you have a fixed or COLA pension and that it explains whether it wants you to enter the actual projected future dollar value or the present dollar value. Make sure the program can make real estate projections if that's part of your retirement resources. Ask yourself what decisions you want to make about retirement: Will it help you decide when to take social security, your pension, convert an IRA to a Roth, buy an annuity, understand your risks, save to an IRA vs. a taxable account, better preserve wealth for heirs, etc., etc.? Make sure that you are not asked to use one program to determine how much you should save for your children's education and another program to save for retirement. If you use separate programs, you'll have to make your greatest savings when you are young and the least after the kids have left home. That's obviously just the opposite of real life. And no matter what, make sure that you set aside some reserves that don't go into the retirement planning equations because no one can foresee all of the future financial events that will ultimately face you.