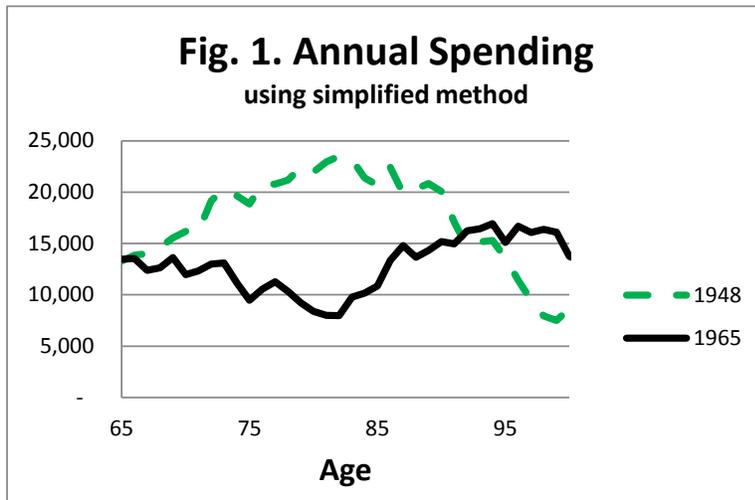


## Withdrawal Strategies in Difficult Times

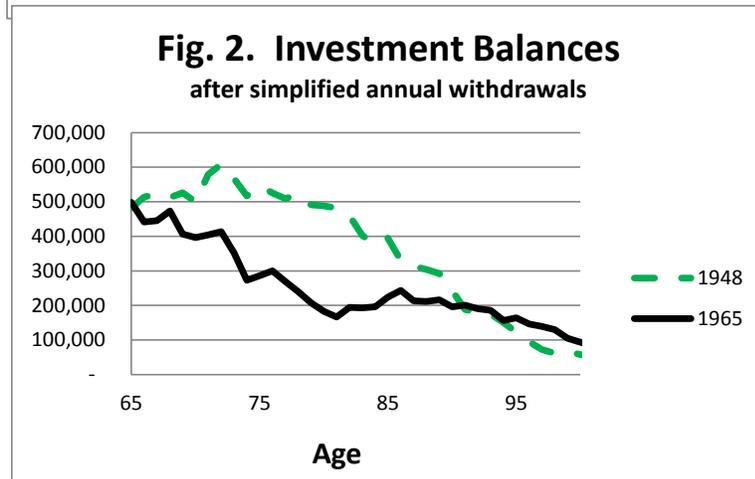
Retirement financial outcomes depend on many factors including health, unforeseen emergency spending, investment choices, the economy, future tax rates, and, importantly, the degree of optimism or conservatism in forecasting the future as well as the method used to control retirement spending.

**Results in widely different economies:** We're going to look at economic conditions that represent a future similar to one of the worst historical stretches in post World War II conditions, one of which is the



period starting in 1965. Figures 1 and 2 show the differences between retiring in 1965 and 1948, all in constant dollar values. The 1948 scenario represents one of the best years to have retired in the same period.

In both cases, we used "simplified" annual withdrawal calculations as described below. You can see that the differences in historical returns and inflation for each of the subsequent years made a big difference in results.



Both scenarios started with a \$500,000 balance at age 65 in a qualified account such as a 401(k) or IRA and a 15% tax rate. Although the analysis is based on qualified accounts, the results are similar to those in taxable accounts where the returns are reduced by their taxes.

Results throughout these comparisons are shown in terms of **constant value dollars**, that is, adjusted downward each year corresponding to the amount of inflation. This preserves

our perspective. Spending is shown as an amount after paying taxes on the withdrawals at a 15% tax rate.

**Difficult times ahead:** Without question, we are facing several decades of difficult economic times. Our population is aging with ever increasing numbers of elderly compared to younger people still in the workforce. Not only are there more elderly, but the elderly are living longer. Government debt is increasing exponentially that can only be brought under control with lower government spending, higher taxes of all kinds and inflation incurred by printing money to make the past debt seem smaller. Savings rates have been far too low for more than the last two decades which means the elderly have accumulated less to spend in their retirement. Although inflation makes debts seem smaller, it also makes savings smaller and destroys fixed income that is part of most people's retirement resources. Some hope that economic growth will fix everything, but it would take more than a decade of unprecedented and sustained growth at rates over twice historical amounts.

We will be looking at three different strategies to determine how much a retiree could spend and hopefully not exhaust investments till death. We will be using the 1965 scenario to compare these strategies because it included a poor economy with low returns and high inflation. Of course there is no

way to tell whether that scenario will prove to be optimistic or conservative, but it's much likely to be closer to the truth than selecting a scenario that represents higher returns and lower inflation.

**Life expectancies:** It's logical to expect that the amount retirees can spend depends on how much longer they will live. A young person can expect to live many more years than an old person. Therefore the younger retiree will have to stretch investments over a longer period by spending less. Also keep in mind that each year a person ages, the expected age-to-die increases.

**Fig. 3. IRS Req'd Minimum Distributions (RMD)**

RMD = Life expectancy in this analysis

Age	RMD	Die	Age	RMD	Die	Age	RMD	Die
60	35.2	95.2	70	27.4	97.4	80	18.7	98.7
61	34.4	95.4	71	26.5	97.5	81	17.9	98.9
62	33.5	95.5	72	25.6	97.6	82	17.1	99.1
63	32.7	95.7	73	24.7	97.7	83	16.3	99.3
64	31.8	95.8	74	23.8	97.8	84	15.5	99.5
65	31.0	96.0	75	22.9	97.9	85	14.8	99.8
66	30.2	96.2	76	22.0	98.0	86	14.1	100.1
67	29.4	96.4	77	21.2	98.2	87	13.4	100.4
68	28.6	96.6	78	20.3	98.3	88	12.7	100.7
69	27.8	96.8	79	19.5	98.5	89	12.0	101.0

The life expectancies we will use equal the required minimum distribution (RMD) factors used by the IRS for qualified accounts as shown in Fig. 3. These are about ten years higher than the life expectancy of a single person or a younger spouse and therefore may represent a conservative estimate of life expectancy for forecasting purposes unless the older spouse may be significantly older than the younger spouse. It is important to use a conservative age for death so that the retiree doesn't run out of money if in the 50% of the population that will live longer than life expectancy in common mortality tables. **The RMD for everyone over 70 ½ equals last year's ending balance divided by the factor in Fig. 3.**

Original RMD factors were life expectancies for various different age spouses and required many pages of research to find their factors. Now there's just one life expectancy for each age unless spouses' ages are more than ten years apart in which case they have to rely on complicated tables. Those in very poor health might want to use lower life expectancies in their calculations. RMD factors for ages less than 70 ½ are used for inherited IRAs.

**Method 1. Simplified spending calculation:** The simplified method determines the amount of a withdrawal by **dividing last year's ending investment balance by the remaining life expectancy as with an RMD.** It's that simple. After age 70 ½, the IRS requires withdrawals for 401(k)s, IRAs, etc. to be at least as big as the RMD or otherwise get a large tax penalty. If over 70 ½, the method is as simple as spending what you have left from your RMD after paying taxes due.

**Method 2. Planner's annual calculation:** The second strategy assumes that a new spending calculation is made each year using the following financial planning equation that is embodied in financial calculators and computer spreadsheets:

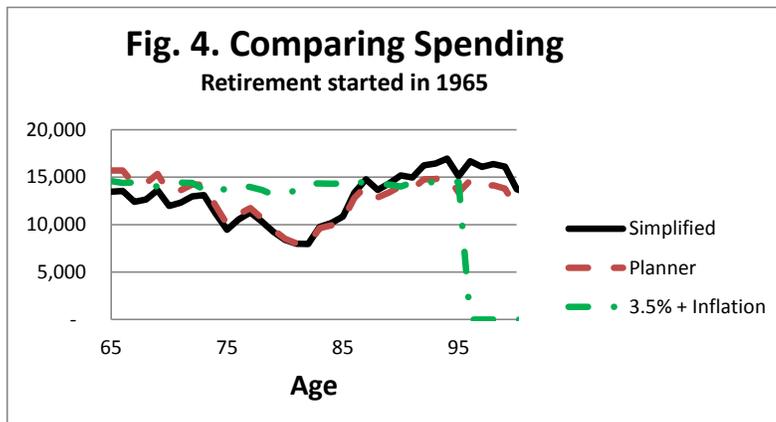
$$\text{Pmt} ([\text{Assumed return} - \text{assumed inflation}], [\text{Life expectancy}], [\text{Previous investment balance}])$$

This equation reduces to the simplified planning method if the assumed return equals inflation. Hence, the simplified method assumes that the retiree's investments produce a return equal to inflation in a qualified account or that the after-tax return equal to inflation in a taxable account. (After-tax return = Before-tax return x (1 - Tax Rate)). In the charts that follow, the planner assumed an average return for the future of 4% and inflation of 3%. That's a real return of 1%, higher than many retirees achieve.

**Method 3. Initial percentage draw followed by annual inflation adjustments:** This third method is commonly used in simple Web calculators which show when a retiree will run out of money. It is based on calculating a withdrawal based on a certain percentage of the investment balance in the first year and increasing that amount by inflation in subsequent years. In 1999, one prominent financial analyst recommended using an all stock portfolio with an initial draw over 7% of the first year's investment balance. In the years that followed, retirees spending this much (plus inflation increases) were on their way to exhausting their investments far too early. Subsequently, many papers were written showing that 4% initial draw from a balanced portfolio produced better results. More recently, it has become apparent that 4% would likely be too much, and estimates now are settling around 3.5%. Hence, we'll

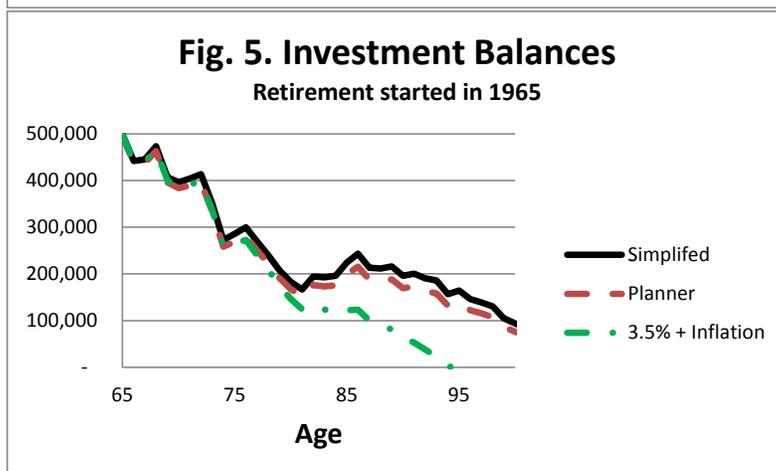
use 3.5% for an assumption in the comparisons that follow. The often used initial value of 4% would exhaust investments far too rapidly in tough economic times such as may well be ahead of us.

**Comparing results:** Figures 4 and 5 compare the results from the three different strategies using the scenario where a person retired in 1965 and had the actual returns and inflation of each subsequent year. Investments incurred 1.5% costs compared to pure indexes for the S&P 500 stocks, Corporate AAA bonds, and short term treasuries as a proxy for money markets. Stocks were allocated and rebalanced each year on an allocation basis of a percentage equal to 105 minus age. Money markets always had a 10% allocation. Remaining investments were in bonds. Though there can be many departures from such assumptions, history has shown that retirees get more conservative with age and seldom beat the pure indexes because they tend to chase investment performance and pay higher than minimum costs for various reasons including account fees and mutual fund costs. Often retirees will use a professional adviser who may charge 1% or more and some advisors get a 12(b)1 kickback every year from the funds.



Both the simplified and planner approaches give similar results as shown in Fig. 4. Both require retirees to reduce future spending as investment values plummet. Sadly, many retirees are irrevocably committed to fixed expenses forcing withdrawals in the worst of times.

Yet, the 3.5% + inflation adjustment strategy does just that. Figure 4 shows spending at an almost constant value on an inflation adjusted basis. It's not quite constant because the spending adjustment lags the actual inflation by a year.



The resulting investment balances, shown on an inflation adjusted basis in Figure 5, fall at an alarming rate having lost almost half their real value only ten years into retirement. Particularly disturbing are the results of the strategy based on a 3.5% investment withdrawal in the first year and increased by inflation thereafter. In their eighties they have lost almost 80% of their investment value or likely even more if they

had encountered some expensive unplanned financial event as often happens. So it's doubtful that retirees would continue with this strategy and likely would change to a much different lifestyle, perhaps going to live with children and trying to live off just their Social Security checks. If not, they are likely to be on welfare in their later years. Future welfare won't be as generous as it is now.

**Conclusion:** If retirees have already started Social Security and a pension, many do not need a computer program **IF** they put aside some of their investments for emergencies and replacing expensive things that wear out and, importantly, control their spending. In difficult economic times, an affordable annual budget would be the sum of results from the simplified method above plus the annual after-tax income from Social Security and a COLA pension (or COLA annuity) plus after-tax income from a fixed pension (or fixed payment annuity) multiplied by the retiree's age divided by 100. The remaining part of a fixed pension or fixed annuity would be reinvested to provide help from future inflation.