



Planning for Retirement: What We Consider—What We Ignore

by Bruce E. Palmer

Abstract

Retirement planning involves more than simply deciding where and when to retire. Advance planning is required to optimize the possibility of fulfilling retirement dreams and recognizing roadblocks that may alter the best of plans. This paper looks first at retirement income planning techniques currently practiced in North America. Further discussion is then given to contingencies that are generally omitted from retirement needs analysis. The need to revisit the planning process often is emphasized because of changing goals and deviations from projected experience.

are always being made. In this case the destination may also be changing. However, we need to start, and for most of us we need to start early in order to reach our goals. For many young people the need to provide housing, groceries, transportation, and insurance outweighs the incentive to start saving early for retirement. Often the approach is to simply estimate that 65% to 100% of preretirement income will be enough for comfortable living in retirement. The reason given for reducing the income need at retirement is that many expenses incurred during our working lifetime are associated with our work years, such as transportation and part of our clothing budget or mortgage payments.

Determining Retirement Goals

We may dream about living out our retirement years on an idyllic Caribbean island, living a simple life, but with a satellite dish to keep up with our favorite teams; however, reality doesn't include that for many people. As we age our interests and priorities constantly change. Changes in our health status may make it important to retire close to the providers of quality health care. Thus our desert island becomes a suburb of a metropolitan community with one or more teaching hospitals. We simply may not have planned well enough or couldn't meet our goals.

These individual changes we experience as we age mean that planning for retirement should be a continual process throughout the working years. Most of us are aware that the financial accumulation process should start early to ensure meeting any of these changing goals. If our goals are likely to change, how can we adequately start saving for them today? The approach can be likened to piloting an airplane. Midcourse corrections

Inflation

Inflation plays an important part in retirement planning, and potential adjustments will be suggested later, once income needs and sources have been quantified. The planning process should recognize that purchasing power be maintained in retirement, not just a certain dollar level of income. Salary inflation also affects some benefits accruals, such as Social Security and defined benefit pension plans based upon salary. Profit-sharing and 401(k) contributions may be a function of salary.

Lifestyle and Location

Our first consideration is based upon our current lifestyle. We don't want to be worse off when we retire; in fact, we may want to do some things in retirement that we couldn't do during our working years. This may entail only more free time, or it may require additional

income. Travel, hobbies, and dining out more frequently may increase the income needed in retirement, but current lifestyle provides a benchmark.

A change in location at retirement can mean an increase or decrease in cost of living. In addition, the choice to own or rent materially effects the income needed and the assets available. First estimates of lifestyle and housing costs need to be made as if retirement is immediate. The adjustment for inflation can then be made by multiplying the annual retirement income desired at today's cost of living by the factor by $(1 + I)^n$ where I is appropriate for average annual cost of living inflation for the n years until retirement. The result represents the income desired in the year of retirement or "projected" income need. This will be referred to as the inflated initial annual retirement income (ARI).

The procedure most commonly followed to determine any shortfall in meeting desired retirement income goals is to first determine the income gap at retirement, that is, the income desired at retirement less any known amounts of income. Since sources of retirement may not all be available at the retirement date, the "income gap" may vary from year to year. For instance, retirement may be desired at age 55, but Social Security is not available until age 62. The current practices of determining the income gap at retirement generally ignore the possibility that some of the income sources have built-in cost of living adjustments, while others do not.

Income Sources

The major concern for many people is the possibility of living so long that the sources of income run out or no longer provide enough. Preplanning needs to consider the various potential sources of retirement income. Retirement income may come in two different forms: income streams or income-producing assets, such as rental properties or farms. In addition, assets that are not income producing may be converted to produce income or may reduce the need for income, as in the case of a home, to provide housing.

Retirement Income Stream Estimates

Social Security:¹ Social Security benefits apply to most individuals who are considering retirement planning.

¹SSA Handbook, §2319: http://ftp.ssa.gov/op_home/handbook/handbook.23/hbk-2319.htm.

The best source for retirement income estimates is from the Social Security Administration (800-772-1213 or on the Internet² at www.ssa.gov/top10.html). A Personal Earnings record and Benefit Estimate Statement³ (PEBES) is mailed in about two to four weeks. A quicker estimate frequently used is to simply use the ratio of current income to the current maximum taxable income (\$68,400 in 1998). The ratio cannot exceed 100%. Then apply that ratio, which cannot exceed 100%, to the maximum monthly income (\$1,342 per month for 1998). This estimate has the disadvantage of understating income for lower wage earners. Recognizing that the retirement benefit is a higher percentage of income at low-income levels, Table 1 allows an improved estimate.

Some planners prefer to omit Social Security benefits since there are concerns about its continued viability, in its current form, in the future. The ratio of workers funding Social Security to retirees receiving Social Security will decrease dramatically by the time the Baby Boomer

TABLE 1
ESTIMATE OF RETIREMENT BENEFITS
FOR DIFFERENT EARNINGS LEVELS

Earnings	1996 Income	Percentage of Earnings at Normal Retirement in 1999
Low	\$11,661	59%
Average	25,914	44
High	41,462	35
Maximum	62,700	24

generation has retired. To preserve the system changes will have to be made to some combination of the following: benefit structure, benefit eligibility, taxation of benefits, FICA tax rates or taxable base, and method of funding including allocation of budget surpluses. Lack of faith in politicians to solve the problems adequately has resulted in the conservative approach of assuming the benefits will not be available at all.

Railroad retirement benefits: This information, for ten or more years of railroad employment, should be requested from the U.S. Railroad Retirement Board (telephone directory under United States Government). Less than ten years of railroad employment income is reported in the Social Security PEBES.

²Social Security Online: http://gopher.ssa.gov/ssa_home.html.

³Your Personal Earnings and Benefit Estimate Statement: Form SSA-7005-SM-OR (10-98).

Employee pension benefits: An estimate of future pension benefits can be supplied by the employer's benefits office. Retirement income pension benefits are likely to be level for life, with a possible adjustment for income to a spouse after death of the employee. Benefits subject to union bargaining may include potential cost of living adjustments after retirement.

Annuity income: The annuity carrier should be able to supply a projection of income at retirement based upon current performance. If not, consider the current value of the annuity as another current asset. Annuities are available in many different forms, payable for fixed periods or for life, with guaranteed or variable payments. Most commonly used for retirement purposes are annuities with income guaranteed for the lifetime of the annuitant or annuitants. Various guarantees are often available to provide a minimum total payment even in the event of early death of the annuitant(s). Annuities may provide income at pre-established rates (fixed annuities) or income that varies. The "variable" income may have a base guaranteed rate plus "excess" interest credited to the account, as is available with payment options from insurance settlements. The excess interest is payable only on the fund balance providing income for a guaranteed number of years. As that fund is depleted by the payment of the guaranteed benefits, the excess interest payments also decrease. Variable annuities provide, as the name implies, income that varies based upon performance of the fund that backs the annuities. When the fund loses market value, the payments decrease. When the fund, similar to a mutual fund, gains faster than a predetermined benchmark rate, the payments increase.

Adjustments to Income

The various retirement income stream estimates are generally not consistent in the inclusion of inflationary adjustments. The estimated income streams can be modified to convert the income stream values into more nearly equivalent amounts that preserve purchasing power. The modifications vary depending upon the placement of the estimate into one of the following categories:

1. The estimate anticipates future salary changes prior to retirement and also includes post-retirement cost-of-living adjustments. The Social Security retirement estimates prepared by the Social Security Administration as part of a PEBES would be in this category. No further adjustment would be made.

2. The estimate is of income at retirement with pre-retirement inflation considered but provides for level income during retirement. Inflationary cost of living during retirement decreases the purchasing power of a benefit consisting of level dollar amounts. Assumptions can be made about a post-retirement inflation rate, I , and the rate at which funds can be invested i , during retirement lasting N years. An equivalent adjusted initial income can be determined as

$$\text{level annual income} \times \frac{a_j}{a_i},$$

where a_i is the present value of a level annuity of one per year for N years defined by

$$a_i = \left\{ \frac{1 - (1 + i)^{-N}}{i} \right\} \times (1 + i),$$

and a_j is the present value of an increasing annuity defined by

$$a_j = \left\{ \frac{1 - (1 + j)^{-N}}{j} \right\} \times (1 + j),$$

$$\text{where } j = (1 + i)/(1 + I) - 1.$$

The value j may be considered the equivalent interest rate adjusted for inflation. Many planners simply use $j = i - I$. The adjusted income is the payment in the first year. For each following year the income would each be increased for inflation by multiplying the prior year by $(1 + I)$. This is done automatically in the formula for a_j .

3. The estimate of income is similar to (2) with level retirement income except that the salary prior to retirement has not been inflated beyond current levels and the income is based upon salary level(s). There are many levels of sophistication that may provide good adjustments. As an example, the income at retirement may be based upon a limited number of years of final salary, such as a final five-year average. A simple adjustment would work well. The projected level income can be multiplied by $(1 + I)^n$ where I is appropriate for salary inflation for the n years from the final salary used to compute benefits until retirement. This adjusted income now has been adjusted for pre-retirement salary inflation but still needs to be adjusted for post-retirement inflation as in (2).

These adjustments are, at best, imperfect. The cost-of-living adjustments in Social Security are going to be different from fund value adjustments in variable annuities, which in turn will be different for the inflation

factor I assumed above. The adjustment in (2) of retirement income turns the income stream from a constant dollar level to a series that starts lower but increases at an assumed inflation rate. The existence of this adjustment is a good reminder for the retiree to initially invest a portion of level payments to provide for payments that increase with inflation.

Income-Producing Assets

Not all retirement income is paid on a regular basis as income. An investment portfolio may be maintained using withdrawals to provide income. To more nearly ensure payments continuing for the lifetime of the retiree(s) only the earnings should be available for income, and to allow for cost-of-living increases only a portion of the earnings should be withdrawn. The portion of earnings is the ratio of a_i to a_j . These are the same factors as in (2), except that the calculation is done each year, and the years of retirement remaining, N , need to be reevaluated. Mutual funds may offer withdrawal options that that simplify the withdrawal process.

Assets Needed at Retirement

Once the income available at retirement has been adjusted for cost-of-living inflation after retirement, the asset value to cover the income gap at retirement can be determined.

The assets needed at retirement to provide for the "projected" income need at retirement may be calculated by multiplying the inflated initial annual retirement income (ARI) by a_j , the present value of an increasing annuity defined by

$$a_j = \left\{ \left[1 - (1 + j)^{(-N)} \right] / j \right\} \times (1 + j),$$

$$\text{where } j = (1 + i)/(1 + I) - 1,$$

and N is the number of years of retirement. This may be estimated based upon life expectancy plus a cushion, or age 80 or 90 minus retirement age. This total asset need can be defined as A_T .

Similarly calculate the assets needed at retirement to provide the available adjusted lifetime benefits starting at retirement. If the assets from this portion are to be retained for the estate, use 999 for N . Label the sum of assets for lifetime income as A_L .

If an income stream is not yet available at retirement, but will be available M years later, the asset value of the deferred income stream would be A_{Ld} :

$$A_{Ld} = (1 + j)^{(-M)} \times \left\{ \left[1 - (1 + j)^{(-N)} \right] / j \right\} \times (1 + j).$$

If an income stream is not available for life, but for N years, simply use the two formulas above, as appropriate. Label the sum of these as A_N or A_{Nd} .

The additional assets required (A_R) to provide the income gap are determined by

$$A_R = A_T - A_L - A_{Ld} - A_N - A_{Nd}.$$

Some problems may occur here. For instance, the asset value of the income available in a deferred mode may be large enough to appear to satisfy all or part of the assets needed to provide income starting at retirement. As an example, \$100,000 of annual income commencing at age 65 may have enough asset value at age 55, A_L , to provide for a lesser lifetime income need of, say, \$50,000 starting at 55. But in this scenario, if there is no option to receive any income prior to age 65, then there is no income from age 55 to 65. Calculate the income for that ten-year period the same as for A_N and add it to A_R . In this case some of the income was simply not going to be available early enough, so additional assets are required to fill the gap.

Finding or Growing the Assets

A balance sheet should be prepared of current assets and liabilities. Examples of categories are:

Assets

- Savings / money market accounts
- Cash / checking accounts
- Home furnishings
- Automobiles
- Other personal property
- Residence
- Real estate
- Securities
- Employee benefits (401(k), pension, etc)
- Notes and accounts receivable
- Close corporation interest
- Partnership interest
- Other assets

Liabilities

- Mortgage on residence
- Mortgage on real estate
- Consumer credit
- Other liabilities

Only part of the net worth consisting of assets less liabilities is available to consider for retirement purposes. The purpose here is to determine which of these assets is or will be available. On the one hand, the savings or money market accounts may be temporary places to hold money for investment elsewhere. On the other hand, they may hold funds earmarked for some other purpose which will not contribute toward retirement. The intended use of each of the assets determines whether it can be considered further to meet the retirement need.

Assets such as employee pensions may have already been considered as providing an income stream during retirement. Also included would be income-producing securities, farm land, rental properties, or an insurance policy cash value that is intended to be converted to annuity payout at retirement. If an asset has already been projected to retirement to provide income, it should not be used here to determine asset need.

Some assets may be held until retirement and then be disposed of, allowing the asset value to be used to provide income. The value may or may not grow before retirement. Determine a value for those assets that will be available at retirement. If growth is expected, the value at retirement can be estimated by multiplying the current asset value by $(1 + I)^n$ where I is appropriate for inflation at an estimated rate specific to that asset for the n years until retirement. For example, if the asset is non-income producing, such as a home, the inflation rate I would be the annual rate at which homes are expected to grow in value during the period (this may be negative). If the asset is a mutual fund where annual earnings are reinvested, the inflation factor I should include the expected annual growth of fund value including both the earnings reinvested and capital appreciation. A_C can represent the sum of the current assets, available for retirement purposes, valued at retirement.

Asset Shortfall at Retirement

If $A_R - A_C$ is positive, it represents a shortfall of assets at retirement, A_{SF} . If A_C exceeds A_R , sufficient assets are expected to be available under the assumptions made to fund at the desired level for retirement.

Additional Saving for Retirement

If there is still a shortfall, the next step is to try to fund for it during the years until retirement. The level dollar amount to be saved annually, AP_L , can be determined as

$$AP_L = A_{SF} / \left[\left\{ \frac{(1+i)^N - 1}{i} \right\} \times (1+i) \right],$$

where i is the interest rate at which funds can be invested, after taxes, during the N years until retirement. Similarly an increasing annual savings amount, AP_I , may be calculated

$$AP_I = A_{SF} / \left[\left\{ \frac{(1+j)^N - 1}{j} \right\} \times (1+j) \right],$$

$$\text{where } j = (1+i)/(1+I) - 1.$$

In this case I is the percent of growth each year of the annual savings. For instance, if I represents expected salary inflation, the increasing annual savings can be pegged as a percent of salary, as is often the case in 401(k) plans. The percent of salary may be found by dividing AP_I by current annual salary.

Is the Goal Too Grand?

The level annual savings and even the percent of salary may be too ambitious. What can be done? Are the retirement expectations realistic? If early retirement was desired, can retirement be delayed? Is the income expectation too high? These should be reviewed. Is there a possibility of continued employment, perhaps, at a reduced level after retirement? That income can be included as an income stream in the section "Adjustments to Income." But there have also been a great many assumptions made. Are the cost of living inflation and salary inflation rates reasonable assumptions? Are the interest rates reasonable? The process can be repeated with different assumptions: perhaps a range of interest rates. If retirement is many years away, lowering retirement income expectations to levels that appear easier to fund today might give the needed encouragement to sacrifice a bit more today in order to enjoy retirement. In any event the planning process should not be a one-time event. It needs to be repeated and refined every few years. Not only will the actual value of retirement savings vary from projections, but also assumptions for interest and inflation will likely vary for the remaining years.

Interest and Inflation Assumptions

Interest assumptions may vary for different segments of the needs analysis. Savings or funding vehicles may be handled by different entities: mutual funds, pension plans, corporate earnings, and personal investments, to name a few. For projections to be meaningful the assumptions need to be realistic. The risk tolerance of

the individual should be considered if they are doing the investing. If they are only comfortable with bank CDs, savings accounts, or money market funds, they should not expect to get the higher yields possible elsewhere. Retirement planning is, or should be, a lengthy process, involving a number of years. For this reason the immediate financial climate should not be taken as the sole basis for long-term projections.

Inflation currently appears to be under control, but as with interest rates a longer view is appropriate. The Cost of Living Adjustment for Social Security recipients was 1.3% in January 1999, but was 5.4% in 1990. Since higher interest rates often are accompanied by higher inflation rates, the calculations that involve the two combined (j in the formulas) will likely give better predictive results than those involving only interest i or only inflation I .

Taxes

The effect of taxes should also be considered, implicitly or explicitly. During the accumulation period it is advantageous to use interest earnings rates after tax. Otherwise, if taxable investment returns are used, the effect upon remaining income is overlooked. If tax-deferred investments are chosen during the pre-retirement period, the eventual taxation, when benefits are received as retirement income, should be kept in mind. Examples of tax-deferred asset accumulation include pension funds, annuities, and 401(k) accounts. Generally speaking, only money that has already been taxed will be received tax free when drawn as retirement income. Some municipal bonds are free from federal and some state taxes but give lower returns than bonds with taxable income. The taxability of the retirement income is easy to accommodate in setting the level of desired income since we are accustomed to paying taxes on our gross income. Tax laws have a habit of changing. Annuities that avoid taxation during the accumulation period may not always enjoy that advantage. IRAs and 401(k) accounts as well as other "retirement vehicles" have changing rules that must be kept in mind if used in the planning process.

Refinements to the Process

The value of either streams of annual income or annual savings may be modified to reflect monthly payments rather easily. The interest and inflation rates in the formulas given are assumed to be constant for the periods involved. Variations in these rates can be made,

but at the expense of simple formulas. They would be easily handled on spreadsheets. It is important to remember, though, that these are all estimates that need to be reviewed and adjusted frequently. An estimated interest rate that varies year by year is likely no better than one or a series of rates varying infrequently. The possibilities are endless. It is important in the planning process to understand the model being used. Additional refinements may make that difficult.

Summary of Methodology

When quantifying the value of retirement benefits and the funding of those benefits, it is necessary to set a point in time as of which all items are valued. I have chosen the proposed retirement date for that common point. Retirement benefits are discounted to that date, and assets are accumulated to retirement. Different inflation rates may be assumed for different types of income during retirement and, when used, reflect some concept of cost-of-living adjustment (COLA). This is the case with Social Security benefits and some union pension benefits, but the COLA adjustments may vary greatly. Prior to retirement inflation is more likely to be associated with salary performance and reflects changes in the style of living as well as the underlying consumer price index type of inflation. By bringing values to the retirement date the use of different interest and inflation assumptions before and after retirement was simplified.

Other Approaches

The simplest "retirement planning calculator" I found on the Internet⁴ asked for three inputs: (1) the annual income you want at retirement, (2) the number of years to retirement, and (3) the average annual percentage rate you expect to earn until retirement. Then two options for the method of distributing the accumulation were given: living off the interest (conserving principal) or distributing the entire accumulation over a number of years.

A more ambitious Internet⁵ worksheet asked for interest earnings rates both before and after retirement but only a single inflation rate. Based upon the worksheet layout, the inflation rate, if used at all, would apply only

⁴Farmers Insurance Retirement Planning Calculator: <http://www.farmers.com/fi5300.html>.

⁵Retirement Income Plan: <http://www.cscpa.com/retirebu.html>.

to valuing the “annual income to be made up.” Hopefully, the “annual retirement income required” would have been adjusted for inflation prior to retirement. Under the category “AGE” in addition to “Age at Retirement” and “Age Today” it requested “Years Expectancy.” The last term is probably asking for the number of years that retirement benefits are likely to be paid, assuming the individual is alive at retirement. When “life expectancy” is mentioned, it often is referring to the number of years of life for a newborn. Thus, if we say that the life expectancy is now 73 for males, that does not necessarily mean that a 65-year-old is expected to live eight more years. Obviously an 80-year-old doesn’t have negative seven years of expected life to live.

What Happens after Retirement?

This is where the rubber meets the road. How well was the planning done? What was not anticipated? Was there something more that could have been done to cover the after retirement contingencies?

Health care during the working years may be provided largely by the employer. Few employers continue health care to retirees, and those that do so may want to terminate the practice. The cost of health care is very real, but easily overlooked.

Medicare⁶ is a Federal government program designed to assist persons age 65 or older and some disabled persons in obtaining medically necessary health care. Retirees generally have the monthly premium deducted from their Social Security, railroad retirement, or civil service retirement checks. The hospital portion (Part A) has no additional premium for most enrollees, whereas the non-hospital Part B has a monthly premium (\$45.50 in 1999). In addition, private insurance may be purchased to cover the deductibles and coinsurance. This is generally an increasing cost that should be anticipated before retirement. Health care costs have consistently increased at a higher rate than other living expenses.

Medicaid⁷ is a health insurance program for certain low-income and needy people, jointly funded by federal and state governments. Approximately 36 million individuals are covered including children, the aged, blind, and/or disabled, and people who are eligible to receive

federally assisted income maintenance payments. If pre-planning retirement has been unsuccessful, Medicaid may become important.

Continuing care communities provide retirement housing with varying degrees of health care available. These communities generally provide differing facilities for living that range from unassisted living, assisted living, to full nursing care. The method of payment for these facilities should be investigated well in advance. Sizable payments upon admission, along with monthly fees, are not unusual. Large entrance fees need to have legal safeguards to protect against loss. If retirement planning has not left enough flexibility in the access to funds at retirement, a lump-sum payment might not be feasible.

Nursing homes may provide a place to recuperate following hospitalization or illness or when independent living is not an option and adequate care cannot be provided through home health care visits. The cost of nursing home care can vary from \$60 to \$150 a day or more. This can be especially devastating for a couple when the healthy spouse remains at home and still requires most of the retirement income. There are various insurance coverages offered to provide for nursing home benefits. Actual coverage varies widely but may include acute, intermediate, or even custodial care in a nursing facility. Coverage may also include home care, hospice care, or respite care for family caregivers, or day care for seniors whose family caregivers need to work during the day. The contract may provide for different benefit levels and lifetime maximums for the various types of care. The benefits may be level amounts each year or may increase by a given percentage or outside index. Benefits may be limited to the number of years payable. These policies are sold with the presumption of level premiums. If the issuing company can justify that the claims experience is worse than anticipated in the pricing filed with the state departments of insurance, the premium may be adjusted. Long-term care insurance is not too expensive if purchased well before retirement. Waiting until the risk becomes apparent makes the cost prohibitive.

Major illness can result in expenses that are not covered by insurance. Additional resources may be needed beyond the planned retirement income. Disposition of assets, such as a home, antiques, or investments may be needed. A reverse mortgage may solve some of the income need while retaining the home in which to live. A relatively new option for those with insurance policies no longer needed for the eventual death benefit is to transfer the policy for a viatical settlement greater than the surrender value.

⁶Medicare—The Official U.S. Government Site for Medicare Information: <http://www.medicare.gov>.

⁷HCFA—The Medicare and Medicaid Agency: <http://www.hcfa.gov>.

Unplanned Events

Some changes are not commonly anticipated during retirement planning. Insurance may be available to cover some, but not all, of these changes.

Disability during the working years disrupts the ability to save for retirement. Disability income benefits may be available as an employee benefit or from individual insurance coverage. In either case the income provided is intended to be less than that presumed available from employment. The decreased disability income reduces the chance for antiselection but also limits the potential to set aside for retirement. If disability is continued beyond retirement age, most insurance coverages provide level benefits that would result in reduced purchasing power. Social Security disability benefits are adjusted for cost-of-living changes.

Loss of a spouse may necessitate changes not anticipated in the retirement planning. The spouse may have been working to supplement retirement income or providing services such as meal preparation or home maintenance that would need to be replaced at a cost. Life insurance maintained on each spouse can help alleviate the financial impact.

Family changes may affect the ability to accumulate funds for retirement or may strain the retirement budget. Parents may move back into their adult child's home or be helped by their children to stay in their own home. This may increase the adult child's expenses and decrease the child's ability to save for retirement, unless the parents are able to contribute to family income at a rate that meets or exceeds resource consumption. It may be necessary to move to a bigger house or add rooms. It is also more common for grandparents to be the ones responsible for raising their grandchildren. Job elimination and other unplanned events result in adult children moving back to their parents' home, perhaps with their children.

Divorce and remarriage both change the financial picture. Divorce generally results in a redistribution of assets that affect plans. Property loss may be covered by insurance. The loss of a good income-producing asset may be involved or a replacement home could be considerably more expensive. Deteriorating neighborhoods may force

a retirement couple to seek housing elsewhere. A drop in value of the existing home compounds the problem. Business losses may affect either the accumulation period or retirement income. Job loss prior to retirement certainly affects the retirement planning. Assets previously designated for retirement may need to be used for current living expenses. Legal actions can result in judgments affecting savings and even the loss of assets that had been anticipated for retirement. Investments may not perform as expected, because of market volatility or changes in anticipated tax treatment. Other factors affecting either asset accumulation or continued retirement income include natural disasters, riots, and war.

Some of these contingencies can have the risk of loss reduced by insurance coverage. Others leave the retirement-planning process at risk.

Conclusion

Most methods used to provide plans for retirement income have been designed to establish a need for additional funding. Products available from the individual or company doing the planning would then fulfill the "need." When the objective of planning is to determine retirement needs, rather than selling products, a closer look at the goals of the individual(s), as well as investment risk tolerances, is needed. If the need to save more for retirement is greatly exaggerated, the response may be "why bother, I can't do that." Exaggeration of need may come from overlooked income sources. The projected benefits may have included inflation but are automatically inflated again. Yet lack of care in estimating the income needed, or choosing inappropriate interest and inflation assumptions, may result in plans with little merit.

The primary emphasis in retirement planning should be to start planning early. The plan should be reviewed frequently. Actual experience will vary from that originally projected to meet the goals, no matter how carefully the planning was done. In addition, the goals change from time to time, and in-course corrections need to be made.

See the discussion of this paper by Henry Winslow (p. 211).