Segmenting the Middle Market:

Retirement Risks and Solutions

Phase II Report

Sponsored By
Committee on Post-Retirement Needs and Risks

Prepared by
Noel Abkemeier
Milliman

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Segmenting the Middle Market: RETIREMENT RISKS AND SOLUTIONS - PHASE II

APPROACHES FOR THE MIDDLE MARKET:

RETIREMENT RISKS AND SOLUTIONS PHASE II REPORT

EXECUTIVE SUMMARY

This report identifies basic issues and potential solutions that are important as mid-level net worth households in or near retirement address the financial risks they face in contemplating retirement. It outlines a process that begins with the recognition of a series of key decisions that must be made both before and during retirement. This is followed by an evaluation of income needs and sources and the necessary assets to fill the gap. Key issues for this evaluation are identified. Finally, assets are identified that are compatible with the financial situation of the retiree. All this is then summarized in 12 user-friendly reference profiles of the preretirees and retirees identified in the Phase I Report that segmented the Middle Mass and Middle Affluent markets by age, net asset level and household status.

The analysis of the consumer segments indicates that at the midpoint of each segment, the Middle Mass segments are generally on a path for a retirement that is primarily funded by Social Security and requires additional pension or earned income to either meet minimal living standards or move up to a moderate lifestyle, but that investments should be conservative. The Middle Affluent segments have been able to better prepare for retirement and can afford a moderate lifestyle and some additional risk in investing; but the single households may need additional lifetime income or earned income to enjoy a better lifestyle.

The major indication for all segments of mid-level net worth households is that in most cases it will be necessary to convert home value into cash at some point.

Examples of the analyses of the segments at their midpoints and a few illustrations of variations from the midpoints are shown in the full report.

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Much of retirement planning advice is focused on investing well and building assets, and is primarily applicable to higher net worth individuals. The author recognizes that while it is very important to invest well and build assets, the reality for many middle income Americans is that they do not have substantial financial assets beyond Social Security and pensions. This report focuses on the financial situation of middle income Americans and in doing so is different from much of the other financial planning literature.

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PREFACE

The Society of Actuaries' Committee on Post-Retirement Needs and Risks has been studying post-retirement risk, what the public knows, in-depth understandings of risk, and strategies for managing risk for more than 10 years. For much of this period, we have been asked questions like "*What is the Best Solution?"* and "*When Should Different Products be Used?*" It has been clear that, while the public badly needs advice, there is no agreement about the best answers, and that there are trade-offs to be made in making choices. This **research** project explores a path to solutions, and offers a perspective on how to think about sensible directions for broad groups of people.

For this project and all Society of Actuaries research projects, the project has been managed using a Project Oversight Group and a research team. There have been several reviewers along the way. That process has again served to make it clear that knowledgeable people do not agree on the best solutions or the ordering of the process.

This report reflects the opinions of the researcher, without unanimous agreement from all of the reviewers. It is hoped that this work will help further the dialogue about solutions and help the community of people structuring advice and products in moving ahead to better solutions for middle Americans.

In reading the report, it is important to remember that it is a research report and that it is not advice to individuals. It does not consider all factors of importance or individual risk preferences and circumstances. A particular caution is in order with regard to taxation. The tax code and taxation of different products and paths vary and the variation can interact with the situation of the individual. Consideration of a number of tax issues is beyond the scope of this work.

We are looking forward to more dialogue on solutions and believe that this work is an important step in that direction.

Anna Rappaport
Chair, Committee on Post-Retirement Needs and Risks

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REPORT OVERVIEW

The Society of Actuaries' Committee on Post-Retirement Needs and Risks sponsored research to identify consumer segments among mid-level net worth households (Phase I), and also to define a basic approach that could lead to a set of answers or "solutions" that addresses the retirement risks faced by each segment (Phase II). A second objective of Phase II is to provide insight regarding the nature of the retirement risks faced by varying segments of consumers and suggestions for solutions that address those risks.

The Phase I report, *Segmenting the Middle Market: Retirement Risks and Solutions*, was released in March 2009. That report identified six "Middle Mass" and six "Middle Affluent" segments that comprise the 25th through 85th percentiles of wealth among households headed by 50- to 75-year-olds.

This Phase II report will describe a process for identifying needs, discuss key issues that have a significant impact, and identify important characteristics of the middle market that often are overlooked or poorly understood. The process will be applied to the median of each of the 12 segments identified in Phase I in order to highlight differing solutions for differing needs. It is recognized that variations in financial situation within each segment can be significant and could suggest quite different solutions. Moreover, the process used is a simplified one to highlight the considerations involved and to give both consumers and advisors a basic feel for what is involved. More comprehensive and individualized analyses to actually plan and manage retirement finances for any individual are beyond the scope of this research report. Rather, it is hoped that this report will move forward the dialogue around building effective solutions.

Acknowledgments

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OVERVIEW OF RETIREMENT INCOME PLANNING PROCESS

Many retirement income planning tools are readily available either through financial planners or on the websites of retirement product vendors. These vary in quality and may or may not provide adequate insight and solutions for an individual user. Often approaches focus insufficiently on income structuring and post-retirement solutions. Different tools can help with answering different questions. The approach taken in this report is intended to provide overall insight into retirement income needs. The discussion that follows is not intended to be a planning tool in itself but rather is intended to identify issues and approaches that should be better recognized. These can then be incorporated into existing or new planning tools.

Retirement planning is a combination of financial planning, planning for health and engagement in various activities. This report, however, focuses only on the financial aspects of retirement planning, but in practice all aspects must be considered together. As a frame of reference for actions that may be involved in retiring, the following table provides an overview of the financial decisions that may be involved in the implementation of a retirement plan.

Decision	Timing	Irrevocable?	Problems with waiting	Comments and interaction with other decisions
Work-Related Decisions				
Retirement from long-term job	Age 55–70, may result from special one-time offer from an employer or health problem	Yes	Generally, none Under some plans, unused benefit value is lost if retirement occurs later than full benefit eligibility.	Less funds needed if retire later because shorter remaining lifetime Decision may be affected by need for medical coverage, if no retiree medical and not yet Medicare-eligible
Work part-time during retirement	Can make decision to seek work at any time; depends on availability of work	No	Less likely to get work at older ages and as time out of work passes	May be linked to financial need, personal desires, benefit issues Can affect Social Security benefit if work and receive benefits before Full Retirement Age

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Decision	Timing	Irrevocable?	Problems with waiting	Comments and interaction with other decisions
Claiming of Benefits Decisions				
Timing of claiming Social Security	Age 62 to 70 —benefit is about 75% higher at 70 than at age 62	Yes, but benefits can be repaid without interest and reapplied for at an older age. However, as a practical matter, it is rarely done. Also, benefit can increase if benefit stopped due to earnings test prior to normal retirement age.	Forgo income Financial result better for early claiming if die young and better for late claiming if die old	Key issue for many retirees Special issues for lower-earning or younger spouses Spouses of similar earnings can increase lifetime income benefit by delaying at least one's benefits until age 70.
Method of receipt of benefit from pension plan (lump sum vs. various annuity options)	At time of retirement or other termination of employment	Yes		Personal and spouse income needs and emergency fund needs must be balanced. There are major planning challenges for individuals, particularly if lump sums are offered, or if income benefits are and exceed federally insured amounts and the financial status of the plan sponsor is weak.
Method of distribution from 401(k) plan or other defined-	At time of retirement or other termination of	Yes There may be specific time limits for		Rollover investment options may vary. Income election should fit cash-flow needs.

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Decision	Timing	Irrevocable?	Problems with waiting	Comments and interaction with other decisions
contribution (DC) plan	employment	making a rollover to an IRA.		Important to review beneficiaries Important to review payout options for spousal and other beneficiaries
Use required minimum withdrawals for income strategy	Year by year	Flexible, but must take at least required minimum distributions (RMDs) from age 70 ½	Penalty for not taking RMDs	Consider balance of withdrawals from qualified and nonqualified sources Allocate withdrawals to most efficient sources
Insurance Related Decisions				
Long-term care (LTC) insurance purchase	Any adult age, but premium lower if purchased earlier	No, but premiums paid provide minimal benefit if coverage dropped	Premium goes up May lose insurability May need LTC services	May be better deal if purchase through an employer is feasible LTC policies include many options such as inflation protection, different types of coverage and varying benefit periods. In 2010, new options became available as a result of the Pension Protection Act. Specialized help is important.
Single premium immediate annuity (SPIA) purchase	At retirement or later	Yes	Must invest assets in the meantime Assume full investment risk that asset value to annuitize will be there when	For couples, must decide if joint and survivor Involves loss of liquidity and control in exchange for lifetime income guarantee If desired, inflation

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Decision	Timing	Irrevocable?	Problems with waiting	Comments and interaction with other decisions
			needed Annuity cost depends upon current investment yields at purchase	adjustment and various guaranteed living benefit riders can be purchased Consider laddering annuity purchases
Deferred start income annuity purchase (aka advanced life deferred annuity (ALDA), "longevity insurance")	Before, at, or during retirement	Yes	Less time accumulating mortality credits Annuity cost depends upon current investment yields	Involves loss of liquidity and control in exchange for lifetime income guarantee Significantly changes income planning and asset management Should retiree die before payouts begin, the investment may be lost; can hedge against the risk of an early demise by purchasing an optional death benefit.
Individual health insurance purchase	On leaving job with coverage or on divorce if using spouse coverage	No, but premiums paid not recoverable if coverage dropped	Premium goes up May lose insurability May incur uninsured medical expenses	Issues entirely different pre- and post-Medicare eligibility Considerations and options will gradually change as Health Reform is implemented
Election to participate in retiree health benefits	At time of retirement	Can drop out later but can't elect in later in most plans		Issues entirely different pre- and post-Medicare eligibility
Life insurance purchase	As needed	No	Premium increases with age at purchase and	Can be part of bequest or spousal income funding

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Decision	Timing	Irrevocable?	Problems with waiting	Comments and interaction with other decisions
			decline in health status May lose insurability	
Investment-Related Decisions				
Investment of retirement assets	Continuous	No	Inflation can reduce purchasing power if too conservatively invested	4% initial annual withdrawal rate adjusted for inflation with 50%+ in equities may reduce much of asset depletion risk Investments too conservatively invested increase risk of early depletion of assets Time-segmented distributions from investing "buckets" make it easier to manage investment risks. Increasing focus on Treasury inflation-protected securities (TIPS) and ALDA
Hiring a financial advisor	As needed	No	May make uninformed decisions	Without an advisor, retirees need to make withdrawal, tax, investing and risk management decisions on their own Better off with written financial plan
Access home equity line of credit	As needed	No	Can be used to smooth short-term income or expense	Can be a low-cost, flexible, short-term emergency fund Bridge resource to

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Decision	Timing	Irrevocable?	Problems with waiting	Comments and interaction with other decisions
			volatility	prevent liquidating assets when markets are depressed Monthly payments will vary and can increase dramatically with rise in short-term interest rates
Make home equity loan	As needed	No, but difficult if proceeds have been spent	Timing and use should be well thought through	A means of accessing home equity for intermediate term income need Will lock in interest rate and payment Need to qualify for monthly repayments
Make reverse mortgage loan	Any time after age 62	No, but almost always held until move-out or death	No, and available loan /income increases with purchase age Loan interest and charges accumulate for fewer years If interest rates increase, loan amount decreases	Beware of turning Medicaid-protected asset into income that can disqualify retiree for Medicaid Can be expensive, so only makes sense if will be in home for long enough to recoup upfront costs Reduces mobility options As a line of credit, can be a higher-cost source of emergency funds that doesn't require repayments or jeopardize Medicaid eligibility

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Decision	Timing	Irrevocable?	Problems with waiting	Comments and interaction with other decisions
Housing-Related Decisions				
Sell house and downsize and/or relocate	Any time, subject to housing market conditions	Yes, but can move again	Less value if home price falls	Creates funds that can be invested or used
Move to Continuing Care Retirement Community (CCRC)	Any time, subject to meeting health requirements of CCRC, but most people do not want to move until advanced ages	No, but cancellation may incur significant penalties	There are health and age requirements for entry.	Restructures ongoing income needs and requires use of some invested assets
Tax Decisions				
Minimize tax consequences				Beyond the scope of this report; tax laws change often

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CORE FLOW

The following discussion focuses on retirement expense needs and financial resources, including Social Security, pensions and other sources of income, required to support those needs. This may be a satisfactory approach for persons with very limited assets and for when a quick gross adequacy check is all that is needed. For persons with any degree of financial flexibility, a more complex planning analysis is suggested. The simpler approach was used in this paper for the sake of conveying concepts, but it is recognized that common retirement planning analyses use stochastic (Monte Carlo, multiple scenarios) approaches that address the probability of successful outcomes or single scenarios with "what if" variations. These more in-depth analyses are valuable regardless of the amount of assets. Concepts concerning adequacy of assets can be applied more meaningfully in a stochastic modeling environment that can provide a measure of whether the retirement plan meets the desired probability of adequacy rather than a simple indication of average adequacy.

Retirement financial planning requires a methodical approach that identifies and quantifies each important component that affects the asset accumulation, income management and product selection/investment decision processes. This has been structured as a seven-step approach, which is discussed below. The specific steps discussed are:

I. Quantify Assets and Net Worth
II. Quantify Risk Coverage
III. Compare Expenditure Needs Against Anticipated Income
IV. Compare Amount Needed for Retirement Against Total Assets
V. Categorize Assets
VI. Relate Investments to Investing Capabilities and Portfolio Size
VII. Keep the Plan Current

Examples based on the segments identified in Phase I are given later in the report. Alternative approaches may also be used in examining these issues.

I. Quantify Assets and Net Worth

This step reflects the value of current assets and the value of future anticipated preretirement savings. It is relatively straightforward and begins with categorizing assets as financial or nonfinancial. Financial assets are differentiated between tax-qualified and other for the purpose of recognizing their differing future tax liability. Nonfinancial assets, primarily a personal residence and sometimes a self-owned business, are segregated because of their lower liquidity and different tax status.

The role of a home among retirement assets must be carefully evaluated. For many individuals, their house is their largest asset. Initially it may be an asset that ultimately could provide income to cover living expenses. The methods of deriving an income from the home can vary and have differing impacts on retirement planning.

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- Sell and rent. While this provides funds to cover expenses, it also creates a new expense of rent.
- Sell and move in with family. This provides funds for expenses without creating a significant new expense.
- Home equity loan. This provides funds but also creates a new expenditure of repaying the loan.
- Rent out a room. This provides an income flow while still leaving the home value for future use.
- Reverse mortgage. This provides income either as a lump sum or periodic payments, while not creating a new expenditure. The liquidity may not be as great as could be realized with a sale or a home equity loan.
- Pay off mortgage. This strategy does not derive an income but it helps increase current discretionary spendable income in that expenses go down.

The decision about home ownership cannot be addressed solely in financial terms, although the ongoing cost of housing is often the greatest expense by far. It must be recognized that housing is important in retirement also as a place to live, and its location determines access to family, friends, transportation, community service, etc. The nature of the house is important in that it is a support for the activities of the individual. The downsizing options available for any individual will depend upon the value of being in the current location and the current amount being spent on housing.

An additional consideration with the sale of a home is that personal housing does not count as an asset in Medicaid qualification. The value of the liquidity created by a sale, home equity loan or reverse mortgage must be balanced against the extent to which the freed-up assets will make Medicaid benefits, including LTC benefits, more difficult to receive. Medicaid planning should not be central to retirement planning, but should only be a fallback if it is made necessary by a shortage of resources.

Preretirement savings in either tax-qualified plans, such as a 401(k), or with after-tax amounts can be an important part of accumulating sufficient assets. Income from defined-benefit (DB) pension plans should be viewed as an income source later in the process rather than treating the value of the income stream as an asset. However, the presence of such an income stream may change the desired allocation of investable assets. Finally, any outstanding or anticipated debts must be offset against the retirement assets. In this case, the balance must be recognized between repayment requirements as expenditures and additional resources created by the loan repayment.

When we think of assets and income, we need to remember that assets can be converted to a monthly income and that retirement savings are important as a generator of monthly income or spending power. Likewise, income streams like pensions have a value comparable to an asset. One of the difficulties in retirement planning is that many people are not able to readily think about assets and income with equivalent values and how to make a translation between the two. Assets often seem like a lot of money, particularly when people forget that they will be using them to meet regular expenses.

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II. Quantify Risk Coverage

The presence of insurance coverage for various risks can influence the amount of savings needed, particularly emergency funds, or the lifestyle that can be experienced. Health insurance and property/casualty insurance invariably should be key components of a risk protection program. It should be noted that even with health insurance, a severe illness can lead to significant out-of-pocket expenses because of deductibles, co-pays, out-of-network providers, maximum coverage and uncovered treatments. Disability income insurance is advisable prior to retirement if earnings during those years are key to keeping a retirement savings plan on track, and this should be utilized if made available through an employee benefits program. If this is not available, individually purchased disability income insurance should be considered. However, Social Security disability benefits may reduce the amount of coverage available. If retirees need to work part time during their early retirement years to make their long-term plans work, it is important to also insure income from employment until they are no longer working. A careful review of disability coverage is particularly important for individuals without DB pension coverage that includes continued accrual of benefits during disability. For those with only defined-contribution (DC) coverage, added disability coverage may be needed to continue building retirement savings during disability.

The need for assistance due to physical or mental incapacity is very common in old age. Most such assistance and LTC are provided informally by friends and family, but when it must be purchased in the marketplace, it is very expensive. LTC insurance is an often overlooked coverage, but it can play a very important role in managing risks during retirement, particularly for a person living alone or for the longer-living spouse. LTC can be provided in a nursing home, assisted living facility or through home care. Current costs of LTC in a nursing home average $75,000 annually and can be much more in some areas. This can be a significant drain on the savings of households in the middle income category. If a single person incurs heavy LTC expenses, it can leave him or her with inadequate assets for quality care or with depleted assets that were intended to be left to heirs. In a married household, LTC costs could deplete assets that are needed for living expenses of the healthy spouse.

Households with very limited assets may need to rely on spending down their assets in the event of LTC and relying on care under Medicaid coverage of the expenses. Medicaid coverage varies by state and may become more restrictive as state and federal budgets are under pressure. Households with considerable assets may be able to draw upon those assets to cover LTC costs and still be left with adequate retirement funds; however, even they might find reason to purchase LTC insurance for the purpose of facilitating cash flow for themselves and family members in the event of an LTC need. Households that fall between those two situations should include LTC insurance in their retirement plan. This could apply to households with assets, excluding personal residence value, between $200,000–$300,000 and $2,000,000.

Some employers offer LTC through a group arrangement and often that is a better buy than purchasing individually. Group policies often allow coverage of parents, and this

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could be an option for strengthening a retirement program. Another dimension of efficient purchasing of LTC insurance is the right age to buy. The level annual cost rises steeply with increasing age because the time of most likely need (may also need at an earlier age) is drawing closer and the period over which to pay premiums is shortening. Although there is no single answer, it generally is best to purchase LTC insurance in the late preretirement years.

The Pension Protection Act of 2006 allows the combination of annuity and life insurance contracts with an LTC insurance feature. The tax code has historically been unclear concerning these combinations because annuity payments were considered taxable income and LTC payments were not. Now, if qualifying events trigger the need for LTC services, the policy could begin to pay benefits for those services tax-free. If the LTC payments are less than what would be paid from the annuity, the difference will continue to be paid as an annuity. In addition, the cash value of a life insurance policy can be used to fund an LTC insurance rider without being taxed. The law also required policy makers to clarify the "safest available annuity" standard under the Employee Retirement Income Security Act (ERISA), which means employees should begin to see combination annuities with LTC as distribution options in DC plans.

People who are moderately disabled may not qualify for benefits under an LTC insurance policy but they may still have long-term costs that need to be paid. It is important to recognize that buying insurance only solves part of the problem, and you need to be prepared for expenses beyond the insurance.

Life insurance before retirement generally serves as income replacement to cover family expenses. After retirement, it can provide a valuable supplement to retirement assets upon the first death in a two-person household. This is particularly important if retirement income is expected to go down more than expenses after the first death. Social Security is adjusted after the first death and there might be pensions with reduced survivor benefits or no survivor benefits. Life insurance also can fund bequests to heirs. Although life insurance should be tailored to individual needs, an approach to consider as a start is to continue existing preretirement coverages during the retirement period (although continued premiums can be a problem, and if group insurance is converted, it would likely be quite expensive). This not only provides benefits but also is a valuable investment in the case where the insured has become uninsurable. The amount of insurance can be adjusted as needed, if possible. Having life insurance does little to relieve the need for sufficient assets to support a long life by both household members, because you must plan for a long retirement for everyone, but it can relieve some financial pressure when available assets for survivors are marginal. Products that combine life insurance with LTC may be a risk management and future retirement income approach for many mid-market retirees.

III. Compare Expenditure Needs Against Anticipated Income

Retirement is a period of adjustment to living without a regular paycheck from current work. However, engagement with life remains important. It is a period when there is time

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to pursue dreams, but with the need to manage risks and meet daily expenses. Expenses can be thought of as the minimum needed to sustain a standard of living, plus extra for nonrecurring needs and amounts to help meet dreams. Expenses will change over time as activities change and when assistance might be needed.

An initial comparison of expenditure needs against anticipated income should be made as of the point of retirement. A distinction must be made between basic versus discretionary spending, so that it can be determined whether basic income (such as Social Security and DB pension) covers minimum basic spending (food, clothing and housing; also premiums for risk coverage including medical care, LTC and property/casualty) or if additional income may be needed. Additionally, consideration must be given to unpredictable expenses for which an emergency fund should be developed. These expenses include events like automobile and home repairs that are not covered by insurance, a major illness, and providing unanticipated support for a child. Any less predictable income (such as investment earnings, part-time employment, alimony payments and rent) may be directed toward discretionary spending or saved for the emergency fund or future basic spending.

Spending needs in retirement may be very different from preretirement expenses. This includes regular living expenses at a very minimal level, regular living expenses at a desired level and added discretionary spending. This recognizes choices as well as the possible need to downsize and cut back even on essential expenses. The minimal level of essential living expenses is most important and some consideration should be given to covering it with guaranteed income if there is little or no margin in retirement savings. The need to guarantee this income decreases as the amount of available assets is larger in relation to the income needs.

Spending needs and desires change over time, either by choice or by necessity. Some people choose to downsize or change habits during retirement. Some people find the need to obtain some help and/or to move to specialized housing that includes support services later in life. Much specialized housing is expensive, but if funds are exhausted and a lot of care is needed, Medicaid may be an option. In the early years of retirement, retirees may want to travel to meet their dreams, with some traveling extensively for a year or two.

After the net essential needs are determined, discretionary spending should be estimated. These discretionary expenses, such as leisure travel, are treated separately because they could be one of the first candidates for revision if a proposed retirement plan is not capable of supporting all needs. The plan will be developed with recognition of the discretionary expenditures.

Non-investment income may be primarily Social Security for many, but there may also be DB pension income, although this is becoming less common as more retirement plans are converted to a DC structure. Annuity income from an annuity purchased with either DC plan funds or after-tax savings can also be another guaranteed income source. An additional source of income is earnings from investments such as dividends, interest or revenue from a rental property.

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Another critical income component can be from full-time or part-time employment after retirement; however, it can be a very uncertain component depending upon availability of suitable work and one's health condition. For those people who want to work, it is very important to keep skills up-to-date and to be flexible. For the reasons stated above, there should be only limited reliance on continued employment, both in level of income and length of employment after retirement. Income from work is more likely earlier in retirement.

IV. Compare Amount Needed for Retirement Against Total Assets

Retirement planning is a lifetime venture. Funds need to last throughout retirement. The important number is the amount of assets that, with interest earnings, will fill the gap between future expenditures and future income. The process to determine this amount of assets is to determine a "present value" that converts year-by-year needs into pools of money that will have to provide needed cash over a long time. While many individuals may not be comfortable with such calculations, they are important if one is to evaluate whether personal assets are likely to cover retirement needs.

The "present value of lifetime net retirement needs" is another way of saying "the single amount of assets you need at retirement to cover the future needs if you earn a specified investment return on the assets." There are several very important factors that influence how much is needed.

- The first decision is the date of retirement. This affects both the ability to accumulate assets and the length of the period over which income must be provided. If a retirement plan is found to be inadequately funded, this is a primary decision to be reconsidered.
- The starting point is the excess of annual needs over retirement non-investment income, as was determined in the previous step.
- The gross investment return on future earnings is the gross rate that will be used to discount the future needs. (In a stochastic analysis, this is the rate that is earned on the invested assets.) This must reflect a long-term perspective and not be unduly influenced by current financial market circumstances. The rate should include some conservatism to reflect the uncertainty of returns in both magnitude and volatility, as we experienced in 2008–2009.
- The income tax rate on future investment earnings decreases the effective return on investments. This should reflect both the anticipated tax bracket for ordinary income and lower tax rates that may apply to dividends and capital gains for now.
- Anticipated inflation is very important since it erodes purchasing power. The impact of inflation can be recognized in one of two ways. It can be reflected as an increase in future expenses or it can be reflected as a decrease in the interest rate on the assets that will be used to cover the expense. The latter approach as an offset to gross investment return is easier to apply. The effect of this adjustment, as a reduction in the discount rate, is to recognize future needs in inflation-

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adjusted terms. (In a stochastic analysis, this may be expressed directly as inflation in recurring expenditures.)

- Life expectancy can have a significant impact on retirement income needs. This must be approached from two directions.

    - The most important risk is that of living to a very high age. The planning process must recognize that longevity is an almost open-ended risk. Half of all individuals of a given age will live beyond their life expectancy, possibly by as much as 20 years.
    - For persons with serious chronic health problems, the challenge is balancing a shortened life expectancy against the possible need for extraordinary health-related expenditures not covered by insurance. For this reason, health status should be recognized in determining the period for which future expenses must be provided for. Significantly deteriorated health can shorten life expectancy by large amounts and, thus, create the possibility for lower retirement savings requirements. This impact, however, is partially balanced against potentially higher uninsured medical expenses that are recognized in expenditure needs. On the other hand, in some cases, a relatively healthy retiree can incur more in total lifetime out-of-pocket health expenses versus a retiree with a shortened life expectancy.

Both life expectancy and the probability that someone will live to a high age are often underestimated by retirees. Life expectancy is dynamic in that the projected average age at death continually increases as a person survives throughout life (and shorter-lived persons who were of the same age have died). Also, since life expectancy is an average, some persons will live for a shorter period and some longer, perhaps much longer. It is important to recognize the probability of living a very long life. The following table shows life expectancies (average future life) and the probability of living for a given number of years. Note, for example, that for a female age 75, life expectancy is 13.4 years, but 19 percent will live at least 20 years and 1 percent will live at least 30 years. Similarly, for a couple age 75, expectancy for the second death is 16.3 years, but 27 percent of the time at least one will live for at least 20 years and 2 percent of the time at least one will live for at least 30 years. (The table reflects mortality from a starting point of 2010. Since general mortality levels in the population improve annually, if the same table were calculated from a starting point of 2020, the life expectancies and probabilities would be higher. This means that a person who currently estimates longevity from this table, and then survives 10 years, would find the new longevity projected higher than that shown in this table.)

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Projections of Life Span					
Gender	Age	Life Expectancy	Probability of Living for a Period		
			10 Years	20 Years	30 years
Male	55	28.4 years	94%	80%	50%
	65	19.2	84%	50%	9%
	75	11.4	56%	10%	0.2%
	85	5.8	16%	0.3%	.002%
Female	55	30.2	95%	82%	57%
	65	21.1	86%	58%	17%
	75	13.4	66%	19%	1%
	85	7.3	27%	2%	0.02%
Joint (Probability at least one is living)	55	35.2	99.6%	96%	79%
	65	25.3	98%	79%	25%
	75	16.3	85%	27%	2%
	85	9.2	39%	2%	0.03%

Based on the RP-2000 Mortality Table for healthy retirees. Mortality improves at Scale AA.

- The profile of needed income should reflect the age, sex, marital status and level of income. Due to a higher life expectancy, female retirees require a larger amount of assets than male retirees of the same age to support a lifetime income. Similarly, a couple needs more, but could profile their needs as reducing after the first death, e.g., reduce the assumed need by one-third after the first death.

The present value of lifetime net needs provides a measure of how much is needed to protect against longevity risk, i.e., the risk of living very long and possibly outliving assets. This gives a general indication of how much would be needed if an annuity were used to insure the longevity risk; however, this understates the amount of assets needed if the retiree assumes all financial risk of longevity and depends upon withdrawals from a managed pool of assets. This understatement results from the need to have an extra cushion to protect against the risks that investment returns will be inadequate and that the retiree will live a long life.

If the present value of net needs exceeds the available net after-tax assets, it is an indication that the retirement financial plan is insufficient to support the desired standard of living. In that case, planned expenditures and retirement employment income should be reconsidered for the purpose of bringing balance to needs and retirement assets. If steps such as this are insufficient to solve the imbalance, strong consideration should be given to deferring the retirement age. This could not only provide additional income, but it could also enhance pension benefits and reduce the retirement period.

The described approach that recognizes the present value of lifetime needs is primarily emphasizing the importance of providing for lifetime income. Multi-scenario analyses that recognize structured withdrawals from assets can provide analogous results, although

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the required assets may be larger. In many cases for retirees in the middle market, asset accumulations are limited and there is the risk that basic essential expenditures cannot be met under adverse investment situations. Although structured withdrawals generally are the foundation of any retirement income program, annuitization should be considered to cover essential expenses in cases where there is little room to accommodate adverse investment results.

Another dimension is to identify desired bequests and determine whether there are adequate assets between life insurance and invested assets in excess of retirement income needs.

V. Categorize Assets

Assets should be grouped to fund early, mid- and late phases of retirement. Assets for early retirement should be liquid assets to cover short-term cash needs such as catastrophic out-of-pocket costs for medical care, or major home or car repairs. This will help avoid the need to liquidate longer-term assets at possibly unfavorable prices on short notice. Consider ways to keep assets invested until they are needed and drawn down for emergency use. Possibilities are money market funds, certificates of deposit and a home equity line of credit. Short-term needs vary considerably by individual situation, but could often be estimated as a half year of essential expenses at a minimum. The comprehensiveness of insurance coverage can reduce the need for emergency funds. On the other hand, chronic health problems and maintenance of home ownership can suggest a higher liquidity level.

Mid-retirement phase assets include intermediate term investments such as laddered 5–10 year Treasury bonds, TIPS, laddered fixed interest deferred annuities, balanced investment portfolios, income-oriented equities, variable annuities, etc.

Late retirement phase assets include ALDAs, TIPS, balanced portfolios, growth and income portfolios, laddered income annuities, deferred variable annuities and life insurance.

VI. Relate Investments to Investing Capabilities and Portfolio Size

Investments should be limited to those that are suitable for the retiree, in relation to risk tolerance, investment knowledge and the capacity of the portfolio to accommodate volatility. In short, a retiree should not invest beyond his investment skills (including those of his advisor).

Investing Skills

Investment knowledge (or financial literacy) should be categorized as high, medium or low. High literacy would reflect knowledge of how particular investments operate and have performed historically; medium reflects a general awareness of possible returns; while low literacy reflects a general lack of insight into investments. This knowledge can

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be gained individually or can be acquired through sufficient guidance by a financial advisor. It is possible to work with an advisor on a one-time or ongoing basis. However, advisors are more likely to be available to those with more resources. There is another aspect of planning regarding the selection, use and compensation of advisors that is beyond the scope of this report.

Risk tolerance also should be categorized as high, medium or low. Although categorization is somewhat subjective, high tolerance may reflect a willingness or need to accept significant adverse investing outcomes for potentially higher overall rates of growth in the long term. Medium tolerance may reflect a limited acceptance of adverse results, perhaps accepting returns that cover the effect of inflation and taxes over a significant period. Low tolerance may reflect a need for assured regular returns. Risk tolerance varies by individual, but there is room for being more tolerant in the early retirement years with assets intended to fund the late retirement years.

Risk tolerance and financial literacy should be brought together in a single measure of investor skill that recognizes that investing skills should almost always be greater than or equal to the degree of risk that the retiree should be encouraged to take on. There are other methods to characterize investor skills, but the principle that risk taking should not overreach investing skills must be at the core. It should be noted, however, that investing skills can deteriorate with age. This can lead to the need to reassess an approach or consider continuing the previously developed approach with another person's assistance as an extension of a good practice.

Portfolio Risk

The ability of a portfolio to accommodate assets of varying degree of risk is measured in two dimensions: absolute portfolio size and the amount of cushion there is beyond the assets needed to meet essential income needs.

Asset size can be categorized as low, medium or high on the basis of breakpoints such as $250,000 and $1,000,000. Other more refined breakpoints could be selected. This is intended to differentiate among asset amounts that have very little room for accommodating risk, room for a small amount of risk, and room for moderate risk. The other dimension is the portion of assets that exceeds the amount that is needed to cover desired expenditures. If this excess portion exceeds 25 percent, there may be room to absorb investment fluctuations and, thus, the ability to take higher risk in investment choices. If either the portfolio size or surplus margin is not met, it may indicate a limited ability to accommodate risk.

There is a spectrum of savings products available to retirees, but the products selected should be consistent with the individual's situation, both as to the capacity for the portfolio to handle risk and the investing capabilities of the individual. The following products are listed in groupings that reflect the risks within the products and the investing capabilities needed to manage them comfortably.

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Note: The following are the author's selection and classification of representative products. A more extensive variety of products can be found in the marketplace. Others may also classify products differently.

Low-risk simple products

- Certificate of deposit—This can provide reliable and safe income at the cost of low returns.
- U.S. government bonds—These can provide reliable and safe income at the cost of low returns.
- Money market mutual fund—This can provide reliable and safe income at the cost of low returns.
- Fixed deferred annuity—An accumulation annuity that later may be converted into lifetime income at conservative guaranteed rates, although higher income might be available when the income begins. It is a liquid asset prior to annuitization but then becomes illiquid.
- Single premium immediate annuity (SPIA)—An annuity that provides guaranteed income payments. While it provides security through guaranteed payments, it generally is an illiquid asset in which the current value cannot be accessed (fixed life annuities are subject to default risk, to the extent not covered by guarantee funds, and inflation risk).
- Traditional mortgage or home equity loan—This could create funds for living expenses or an emergency, although it must be recognized that this brings an ongoing expense as a repayment obligation. Of course, maintaining home equity is a type of investment that provides flexibility for emergency funds.

Low-risk more complex products

- Treasury inflation-protected securities (TIPS) —A form of Treasury security that is indexed to the inflation rate. It provides a better return than traditional Treasury bonds if inflation exceeds expectations in the pricing and poorer returns if inflation falls below expectations.
- Equity-indexed deferred annuity—An accumulation annuity that later may be converted into lifetime income at conservative guaranteed rates, although higher income might be available when the income begins. Its distinctive characteristic is that the amount of interest credited is determined on the basis of changes in an index, such as the S&P 500. These annuities provide the potential of interest credits above the rates on traditional fixed deferred annuities but carry the risk that the interest in any year might be as low as 0 percent.
- Reverse mortgage—A mortgage against the value of a residence in exchange for a lump sum or periodic payments. The repayment obligation is principal plus accumulated interest, but the borrower is responsible for no more than the value of the home. This could provide income to an individual who has few other assets or could provide liquidity to an individual with substantial assets. However, the amount available may be only 45 to 65 percent of home value, due to the repayment being limited to home value. Often, these arrangements involve significant charges as a percentage of the loan. Another consideration is that the loan transfers value out of an

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asset that is protected for Medicaid qualification, which could make it more difficult to qualify for Medicaid benefits, such as LTC.

- Deferred start income annuity (aka advanced life deferred annuity (ALDA))—An annuity in which a specified income will be paid beginning at a future date. For example, it could be purchased at age 65 with income beginning at age 85. This can serve as longevity insurance. In the version that provides the greatest guaranteed income for the premium paid, there is no death benefit and no access to the contract value except through annuitization at the specified date, i.e., there is the possibility that nothing will be received in return for the premium. Limited death benefits during the deferral period may be available with a commensurate reduction in the specified annuity income. This is designed to be a small part of a portfolio to cover longevity risk and it complements the investment and liquidity orientation of the balance of the portfolio.

Moderate-risk more complex products

- Mutual funds and variable annuities—The risk level of mutual funds and variable annuities cannot easily be characterized because it depends upon the investment allocation choices made by the purchaser. Various configurations of choices are discussed in this section and the next.

  A variable annuity is a type of accumulation annuity that later may be converted into lifetime income at conservative guaranteed rates, although higher income might be available when the income begins. An advantage of variable annuities over mutual funds is that funds may be reallocated to different investments within the contract without incurring any taxation until funds are withdrawn, taken as income payments, or death benefits are paid. On the other hand, all taxes are assessed at the ordinary income rate and there is no step-up in value at death. This contrasts with a mutual fund, which is taxed annually at ordinary and capital gains rates, as applicable, and provides a stepped-up value to the heir at death. While there is the risk of decreased value, various additional benefits, discussed below, are available with variable annuities and mutual funds to mitigate this risk.
- Mutual funds or variable annuities that are invested primarily in bonds —While these are designed to provide stable income, they face the risks of selling at a loss at a time of high interest rates or losing value because of defaults.
- While a variable annuity or a mutual fund may bring moderate to high risk, additional benefits can be added to limit the risk.
  - Guaranteed minimum income benefit (GMIB)—This is a benefit on a deferred variable annuity that guarantees that when the accumulation value is converted into income payments, the income will be no less than a specified guaranteed level. While the underlying investments can fluctuate with equity and other returns, this guarantees that any investment losses during the accumulation period will be limited and the income stream has a predictable floor. If a larger income can be provided by the accumulation value, then it will be paid. This has an additional cost that is deducted each year from the accumulation value.

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- Guaranteed lifetime withdrawal benefit (GLWB)—This is a benefit on a variable annuity or mutual fund that guarantees a specified amount of annual withdrawals for the lifetime of the annuitant, even if the fund is depleted. While the underlying investments can fluctuate with equity and other returns, this guarantees that investment value will be no less than the value of a specified lifetime income. This provides both a predictable income and longevity insurance. It also provides full access to fund values, although excess withdrawals above the guaranteed amount will reduce future guaranteed withdrawals. This access to funds causes the withdrawal guarantees to be less than an income that would be available from a single premium income annuity. This has an additional cost that is deducted each year from the accumulation value.
- Guaranteed minimum withdrawal benefit (GMWB)—This is a benefit on a variable annuity that guarantees availability of a specified amount of annual withdrawals until they cumulatively equal a stated amount, even if the fund is depleted, e.g., 7 percent of premium withdrawal each year for 14.3 years. This provides a limit on investment losses. This has an additional cost that is deducted each year from the accumulation value.
- Guaranteed minimum accumulation benefit (GMAB)—This is a benefit on a variable annuity or mutual fund that guarantees the fund value will be no less than a specified amount at a stated point in time, e.g., 100 percent of paid-in amount after 10 years. This has an additional cost that is deducted each year from the accumulation value.
- Guaranteed payout annuity floor (GPAF) —This is a guarantee at the time of annuitization that income from a variable payout annuity will not fall below a specified percentage, e.g., 80 percent, of the initial income payment. While the underlying variable income can fluctuate with equity returns, this guarantees that any income decreases will be limited and the income stream has a predictable floor. This has an additional cost that reduces the amount of income that would be received in the absence of the guarantee.

The products described here include a variety of "guarantees." Types of guarantees include:

- Income guaranteed for life
- Payments of a least a certain amount each year
- Payments total at least a certain amount over life
- Guarantee of safety of principal.

All guarantees have some cost attached to them and the cost needs to be weighed against the value of the guarantee. These guarantees are usually provided by insurance companies, and could be subject to some default risk.

- Real estate investment trust—The predictability of returns and degree of risk vary with the condition of the real estate market, the particular investment and the expertise of the management firm. There also are some additional tax reporting requirements that extend beyond simple filings.
- Single premium immediate variable annuity—This provides an income that fluctuates with the returns of accounts in a variable annuity. It provides an income that could

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track equity returns and, consequently, could be an inflation hedge, if equity returns correlate sufficiently with inflation over the long term. It has an advantage over mutual fund systematic withdrawal programs because it eliminates the risk of "selling" shares when share prices are low. A disadvantage is that the income may not track income needs. As with other immediate annuities, there is no access to funds other than the commuted value of the portion of payments that is guaranteed for a certain period. The death benefit is determined by the terms of the income option chosen.

Medium-to-high-risk products

- Individually purchased bonds—While these are designed to provide stable income, they face the risks of selling at a loss at a time of high interest rates or losing value because of defaults. They also lack the diversification that occurs with mutual funds or variable annuities that invest in bonds. A diversified portfolio of individual bonds that mature at specified time segments of retirement can mitigate this risk.
- Balanced mutual funds or variable annuities—These include managed funds, indexed funds and exchange-traded funds (ETF). These provide the potential for the variances in either component (equity or fixed income) to partially offset variances in the other and, thus, stabilize returns to some extent.
- Mutual funds or variable annuities that are invested primarily in equities—These bring the potential for high returns but also face the risk of significant loss.
- Mutual fund with systematic withdrawal program—A structured program of withdrawals from a mutual fund, e.g., 4 percent of initial assets (plus inflation) annually. This is designed to, but not guaranteed to, provide a lifetime income. If a specified income is desired through a withdrawal program, it requires more assets than for an immediate annuity in order to minimize the risk that the assets will be depleted through poor investment results or living a long time. At its core, this is an investment program that must be judged on the risk profile of the underlying investments. Its ability to provide a lifetime income depends upon the level of withdrawals and the underlying investment performance. Even though these products are presented as life income solutions, they do not include guaranteed life income.
- Preferred stock—These provide relatively predictable income but face some risk of default.
- Common stock—These provide opportunity for substantial investment gain but bring the risk of significant loss and large fluctuations in value. Additionally, they lack the diversification available through mutual funds and variable annuities. A diversified portfolio of common stocks can reduce risk.
- Equity options—These investments, such as call options and put options, can enhance yield or limit losses; however, they are very volatile as individual investments and their entire investment value can be lost. They should be considered only as a small part of a large portfolio and only if their potential is fully understood.
- Real estate—The predictability of returns and degree of risk vary with the condition of the real estate market and the particular investment. Direct real estate investment brings the risk of not being diversified.
- Other—such as commodities or commodity funds

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The various investment possibilities are compared in the following table.

Comparison of Investment Options			
Investment	**Risk/Return**	**Guarantees**	**Liquidity**
Low-risk simple investments and financial approaches			
Certificate of deposit	Very low risk/fixed yield	FDIC	High
U.S. government bonds	Very low risk/low yield	Fully guaranteed	High
Money market fund	Low risk/low yield that varies	Short horizon limits risk	High
Fixed interest deferred annuity	Low risk/moderate yield that varies	Guaranty Association protection	High, but generally with withdrawal charges
Single premium immediate annuity	Low risk/yield locked in at purchase	Lifetime income guarantee and Guaranty Association protection	Limited or no liquidity
Traditional mortgage or home equity loan	Risk depends upon loan structure, primarily fixed vs. floating rate, and possibility of falling home prices	Only in fixed rate structure.	Varies, but could be very low
Low-risk more complex investments and financial approaches			
TIPS	Very low risk/inflation determines whether return is high or low	Fully guaranteed	Medium to high
High quality muni bond funds	Better diversification vs. individual bonds; income currently protected from federal tax	Bonds guaranteed by state or local authority	Medium, but need to monitor ratings
Equity-indexed deferred annuity	Low risk/moderate yield that varies with equity index	Guaranty Association protection	High, but generally with withdrawal charges
Reverse mortgage	Rising interest can consume equity	Repayment obligation never exceeds home value	Generally settled at move-out or death
Deferred start income annuity	Risk/return depends upon personal longevity	Guaranty Association protection	Generally, no liquidity

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Comparison of Investment Options			
Investment	**Risk/Return**	**Guarantees**	**Liquidity**
Medium-risk more complex investments and financial approaches			
High quality individual muni bonds	Yield locked in at purchase; currently protected from federal tax	Guaranteed by state or local authority	Medium, but need to monitor ratings
Mutual fund or variable annuity in bonds	Moderate risk/opportunity	None	Generally high, but can be subject to withdrawal charges
Mutual fund or variable annuity with guarantee	Risk/opportunity depends upon investment choices	Varies by design, and floor may be strong or moderate	Liquid, but liquidity may be undesirable if guarantee is providing current value
Real estate investment trust	Risk of default must be measured against the opportunity of higher yields	None	Medium, depending upon resale value in market
Single premium immediate variable annuity	Risk/opportunity depends upon investment choices	Lifetime income guarantee but no investment guarantee	"Certain period" payments are liquid but others are not
Medium-to-high-risk investments and investment approaches			
Individually purchased bonds	Moderate risk/opportunity can be mitigated with diversification	None	Medium, depending upon resale value in market
Balanced mutual funds or variable annuities	Moderate risk/opportunity	None	Generally high, but can be subject to withdrawal charges
Equity mutual funds or variable annuities	High risk/opportunity	None	Generally high, but can be subject to withdrawal charges
Mutual fund withdrawal program	Risk/opportunity depends upon investment choices	None. Also, reliability of income depends upon withdrawal rate	High liquidity
Preferred stock	Moderate risk/opportunity can be mitigated with diversification	None	Medium, depending upon resale value in market
Common stock	High risk/opportunity can be mitigated with diversification	None	Medium, depending upon resale value in market

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Comparison of Investment Options			
Investment	**Risk/Return**	**Guarantees**	**Liquidity**
Equity options	Very high risk/ opportunity, but can serve a hedging purpose	None	Minimal
Real estate	Can deliver high returns but is risky, particularly if not diversified.	None	Can be very illiquid, particularly under adverse market conditions.

Once a retiree's appropriate asset risk level is determined, all assets within or below that level can be considered. Additionally, it is possible that a combination of riskier assets can have uncorrelated risks that combine to a lower and acceptable risk level; however, such combinations must be evaluated on a case-by-case basis and are beyond the scope of this paper.

Consideration should be given not only to achieving good investment returns but also to whether some assets should guarantee an income equal to basic living expenses or some other level of income. The foundation for such a guaranteed income is Social Security and any DB pension income. Additional guaranteed income can be created with income annuities purchased with tax-qualified funds, such as a 401(k) or an IRA, or other personal savings, or by claiming Social Security at a later age. A guaranteed income can also be provided with mutual fund withdrawal programs that have a lifetime withdrawal guarantee added. For portfolios that have little or no assets beyond the bare minimum needed to cover essential expenses, a mix of conservative investments and an income annuity might be considered to balance income requirements and safety. For portfolios with assets well in excess of retirement needs, there generally is room to accommodate significant fluctuations and, consequently, little or no need for annuitization. In any case, consideration should be given to the ability of the investments to address the impact of inflation.

If annuitization is suggested as being appropriate, it should be targeted at covering the most basic expenses rather than all expenses, in order that there be diversity and flexibility in the investments. An inflation-adjusted annuity is desirable, although the initial income amount would be reduced. While annuitization might cover basic income needs, the remainder of the portfolio would allow for flexibility to accommodate changing needs and the opportunity to achieve higher returns. Another possible criterion is that annuitization should not utilize more than 25 to 30 percent of invested assets for the purpose of maintaining flexibility.

The application of this process to each of the middle income segments identified in Phase I of the report is shown later in the report.

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VII. Keep the Plan Current

The process described provides an analysis at a single point in time, and it does not build in changes in circumstances except to the extent that insurance provides risk coverage; however, many events can change circumstances and needs. Some change can be allowed for by use of conservative assumptions in the planning process, such as assuming lower investment returns or targeting a larger emergency fund; however, there are many changes in circumstances that are sufficiently significant that a new plan should be created. Consequently, any analysis should be revisited by advisor and investor jointly on a regular basis and upon occurrence of events such as the following:

1. Health status or health care costs change.
2. Life expectancy—although it is best to plan for an unpredictable life span, if a fixed point has been assumed it may be necessary to adjust when that assumption appears inadequate.
3. Investment returns are differing greatly from what has been assumed.
4. Inflation expectations change.
5. Assumed employment income changes.
6. Expected retirement date changes.
7. Failure to fully realize expected benefits from employer's pension plan/other private pensions.
8. Public policy changes.
9. Death of a spouse.
10. Other change in marital status.
11. Loss of ability to live independently.
12. Unexpected needs of dependents.
13. Change in housing needs.
14. Bequest objectives change.

A wide range of software, much of it for free, is available from different organizations to perform the evaluation of an individual situation. Capabilities vary widely, and the ability to answer different questions depends on the design of the specific software and assumptions used. Most individuals will need software (and potentially an advisor as well) to answer the questions posed by attempting to construct a retirement plan. The Society of Actuaries and The Actuarial Foundation recently sponsored a research report, *Retirement Planning Software and Post-Retirement Risks*, by John A. Turner, Ph.D., and Hazel A. Witte, J.D., that provides insight into commonly available consumer and professional retirement planning software. People using software on their own need to be

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cautious that it deals with the questions they are trying to answer, and they would probably be best off using two or three programs and comparing results.

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KEY ISSUES

The planning process is complex. This section of the report provides a list of some important issues to be considered in the process. The issues are interacting and need to be considered as a whole.

Planning Process

Investment and other scenario analysis is important. A retirement plan needs to be sufficiently robust to perform well in a broad range of different, including adverse, circumstances. Common planning tools will run numerous scenarios with the objective of identifying a plan that has x percent probability of adequacy. The issues discussed in this paper must be integrated into a sound planning tool.

Provide for variability. Variability can be planned for by using a stochastic approach, by using stress scenarios with a simpler method, through conservative assumptions, by buying risk protection, and by use of contingency reserves. These methods can be used in combination.

Planning choices involve trade-offs. No plan is perfect and rarely can one cover all risks. Choices must be made at various levels. Examples of trade-offs include: high investment returns versus safety of investment; investment returns versus predictability of income; income guarantees versus immediate access to assets; income guarantees versus giving up liquidity, control and access to bequests; uncertain asset adequacy versus longevity risk protection; limiting expenditures versus uncertain asset adequacy; and more longevity protection versus larger emergency funds to use for LTC and uncertain health expenses.

Irrevocable decisions versus decisions that can be changed later. Some choices are irrevocable, e.g., retiring from long-term employment, DB distributions, sale of home, purchase of an income annuity, premature sale of depreciated assets and, for the most part, Social Security. Alternate solutions should be considered before making irrevocable decisions. Some irrevocable decisions must be made at a certain time because they are linked to events, but others can be made over a period of time. It is better to take your time and carefully consider these decisions.

The planning horizon should be long and segmented. Because of the longevity risk, any analysis should reach at least 10 years beyond life expectancy. Anything shorter misses the primary issue of assuring a satisfactory retirement in the most uncertain period during a lengthy retirement. However, research shows that many people plan for a much shorter horizon and risk being left with nothing but Social Security. Research also shows that planning for distributions during segmented time periods is easier to execute and manage retirement income and risks.

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Critical analysis of spending. It may be important to reconsider spending and look for ways to reduce spending. Spending too much early may mean the need for drastic cuts in spending later.

Retirement Decisions

Choice of retirement age is important. Although early retirement is an ideal wish for many people, personal finances might dictate that a later retirement would be more appropriate. Choice of retirement age may be one of the most important decisions due to its ability to increase assets and reduce the period for which they must be adequate. This decision interacts with the choice about receipt of Social Security benefits.

Choice of Social Security start age is important. Early receipt of benefits may be desirable to cover income needs, but it bears the cost of a reduced income. For a person in poor health, an early start can maximize the benefits to be received over a lifetime. Deferral of benefits can increase monthly benefits, although it risks lower cumulative benefits in the event of an early death. For a two-income household, early receipt of benefits by the lower earner could help optimize benefits by allowing the higher earner to defer income with an increase in monthly benefits and then replacing the lower benefit with a spousal benefit at the higher amount.

Working after retirement may need to be considered. For many people, work is part of retirement. Even before the current equity market drop, the decrease in prevalence of DB pension plans suggested that delaying retirement or working part time during retirement was worthy of consideration. The current economic circumstances increase the importance of work after retirement, but make it more difficult to get work and make income from work after retirement more uncertain.

Retirement planning is a continuous process. Retiree circumstances continually change and a plan should be revisited when any one of many circumstances changes. While it is not possible for all retirees, it is good to build in some conservatism so a plan does not need to be revised under mildly adverse circumstances; however, this does not eliminate the need to regularly revisit the plan.

Investing

Time horizon, risk tolerance and investing skills dictate investment choices. There are many investment products that could be used; however, it is important to match the investments to the retiree's time horizon, risk tolerance and investing skills or the investing skills of a qualified advisor. This suggests a hierarchy of products that ranges from low-risk, low-return to high-risk, high-return.

Planning and use of risk-transfer approaches depend upon risk tolerance. Individuals with identical retirement income needs may have different asset accumulation and risk management requirements due to differing risk tolerance. It also should be recognized, however, that the result of the benefits of assuming greater investment risk will be a broadened range of both favorable and unfavorable financial outcomes.

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Investment choices should be well understood and suited to circumstances. A retiree must understand the investments chosen, their risks, and their possible outcomes. These skills can either be learned directly or can be acquired through use of a competent investment advisor. Even when using an advisor, it is important to understand the choices that are being recommended.

Personal Situation Influences Decisions

Health status influences retirement needs. Good health can suggest a greater need for retirement assets, but with some mitigation for lower health-related expenses. Poor health indicates the opposite. This is an important factor to recognize because a 75 to 100 percent increase in mortality, which could reflect the impact of smoking, can decrease life expectancy at age 65 by 4 to 5 years, which is approximately a 25 percent decrease in life expectancy. Other considerations are that poor health may make retirement employment less likely, may add to personal care costs, and add expenses of special living arrangements. These uncertainties can also add to the need for liquid emergency funds.

The uncertainty of longevity is a risk. An individual life span is unpredictable, but retirement planning must recognize this uncertainty. Planning only for average life expectancy is insufficient because this overlooks half of the possible outcomes and can lead to financial inadequacy in the event of long life.

Discretionary expenditures must be recognized. It is important to recognize discretionary expenditures in order to fully profile the desired retirement; however, they must be segregated and recognized as early candidates for reduction in the event that accumulated assets are insufficient. The dividing line between essential and discretionary expenses will vary by individual; but the need to decide what must be cut from an unaffordable expenditure budget may ultimately dictate what really was discretionary.

There is a need for flexibility in the use of housing assets. While a home may be the greatest asset for many households in the middle income market, it may provide the greatest challenge for converting into a living income. There are trade-offs among amount of value realized, future obligations, convenience and quality of life related to how this asset is utilized.

Death of a spouse must be considered. Both income and expenditures can change significantly upon the death of a spouse.

Family members may become dependent. Although retirement for many may begin as long-time empty nesters, family members ranging from parents, siblings, children and grandchildren may have needs such that the retiree chooses to help them. This can radically change retirement plans.

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Risk Management

Annuities can provide longevity risk protection. If there are not sufficient assets to provide the needed cushion for longevity risk in a systematic withdrawal program, annuities can provide lifetime guarantees with a smaller amount of assets. If desired, inflation adjustments, income or asset value floors can be included. Income annuities and guaranteed payouts from both mutual funds and annuities have been little used until now. While other investment products will certainly continue to represent the major share of portfolios, more consideration should be given to methods to protect against the longevity risk.

Insurance coverage mitigates the volume of needs. Too often in retirement planning the question is not asked about insurance protection that has been purchased. This can greatly reduce the necessary assets due to reducing the need for emergency funds. Health insurance and property/casualty insurance are obvious needs that are unquestionably utilized. LTC insurance can provide valuable asset protection (some experts suggest it should consume no more than 7 percent of income), and life insurance can help manage desired bequests. Of course, insurance brings a trade-off of predictable cost in retirement planning in exchange for the elimination of uncertainty.

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PROFILING THE RETIREMENT NEEDS OF THE MIDDLE MARKET

The Phase I report identified 12 segments in the middle market, reflecting segmentation by age, household structure and wealth levels. The process described above was applied to the median of each segment, and the results are profiled in the next section. It must be recognized that the median is not equally representative of members within a segment, who are spread across a wide spectrum, and may not be representative in all its characteristics of even a small portion of the segment. Nevertheless, this analysis makes it possible to identify the major issues that relate to each segment. Although the segments are differentiated by preretirement versus retirement status and "middle mass" versus "middle affluent," there is significant commonality among the situations of the segments. Consequently, the results are summarized in the aggregate.

The analysis drew upon the financial characteristics from Phase I and extrapolated some assumptions, such as essential retirement income needed and Social Security income. Other assumptions, including discretionary expenditures, DB pension income and post-retirement earned income, were created to round out an example; however, there are no data to provide a firm basis for these assumptions. In order to allow for the speculative nature of these latter assumptions, additional perspectives were created to recognize the impact if there were several levels of DB pension and earned income during retirement. The result is a profiling of favorable and unfavorable circumstances for the retirees. Additionally, for one segment the impacts of accelerating and deferring retirement were analyzed.

Middle Income Retirement Planning

Retirement age is very important to this group. If we look at retirement ages 66 to 67 (depending on year of birth), the assumed full-benefit Social Security retirement age, we can conclude in our analysis that:

- There is great similarity between single female and single male situations, regardless of whether they are preretirement versus in retirement or middle mass versus middle affluent. Although females have a longer life expectancy, higher medical costs and potentially higher LTC costs (due to lower likelihood of having a surviving spouse), the similarities still outweigh the differences. In many cases it is best to simply consider the difference between married and single.
- The supportable lifestyle varies among the various segments. The comments relate to group medians; consequently, individual situations can be different from these broad observations:
    - Middle mass preretirees and retirees have inadequate savings in the absence of significant retirement income in the form of DB pensions or employment income.
    - Middle affluent single preretirees have inadequate savings in the absence of moderate retirement income in the form of DB pensions or employment income. Although they both may need additional income, females are better prepared than males.

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    - Middle affluent female retirees have adequate retirement savings, while the male retirees have inadequate savings in the absence of moderate retirement income in the form of DB pensions or employment income.
    - Middle affluent married preretirees and retirees have adequate savings.
- Financial assets are limited for all segments in the middle mass and single household segments in the middle affluent. Based on group medians, only middle affluent married have sufficient assets to suggest the purchase of LTC insurance. The other segments should anticipate using personal assets for LTC and possibly spending down and using Medicaid for LTC coverage because of the limited amount of their assets.
- Among the middle mass, key issues will be timing of retirement, and continuing to work and save if they can. Many will need to use their housing assets to generate added resources. All households require an income source in addition to Social Security.
- Among the middle affluent, the married preretirees and retirees and female retirees have adequate retirement savings; male preretirees and retirees and female preretirees could benefit greatly from an income source outside of Social Security.
- The averages for all middle market households show the bulk of their savings is in nonfinancial assets, presumably their home and possibly some businesses. In the absence of pension or other retirement income, they will have to retire later, downscale spending substantially, or find a way to convert that to liquid cash at some point, whether that be by direct sale, forward mortgage or a reverse mortgage. The middle affluent married may be able to avoid this if they have sufficient external income sources such as a DB pension or employment income.

The above analysis focused on retirement age 66. The situation changes if we look at other retirement ages:

- The comparison of retirement asset needs for early retirement (age 62) and late retirement (age 70) for middle mass, married, preretirees (Segment #1) demonstrates the great leverage created by choice of retirement date. The $115,000 needed for retirement at age 66 grows to $464,000 for retirement at age 62 and shrinks to an asset surplus of $39,000 for retirement at age 70. This reflects changes in the amount of Social Security benefits and preretirement savings and changes the length of retirement living. Similar shifts in retirement assets needed would apply to the other preretirement segments.

Summary of all Segments

The middle mass segments are generally on a path for a retirement that is primarily funded by Social Security and requires additional pension or earned income to either meet minimal living standards or move up to a moderate lifestyle. The middle affluent segments have been able to better prepare for retirement and can afford a moderate lifestyle; but the single households may need some pension or earned income to enjoy a better lifestyle.

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The data could not indicate the actual level of pensions, although pension income was included in net income; consequently, retirement savings needs could not be addressed simply. In general, there was an indicated need for pension or earned income. Within each segment, there certainly is a range of situations, such that some may be well prepared and others are not, but the median situation could not capture that.

The major indication for all segments is that in most cases it will be necessary to convert home value into cash at some point. For the middle affluent, in many cases this can be a direct step without complications, although it generally would be appropriate to purchase LTC insurance in order to protect their assets. For the middle mass, the possible need to rely upon Medicaid for LTC coverage or expenses presents a challenge in the process of converting home value to cash. Home value is generally an excluded asset in determining eligibility for Medicaid; consequently, it is best to hold it. However, that presents a dilemma when the home equity is needed when the retiree is in good health.

With the exception of middle affluent married households, financial assets are very limited, with most segments having less than $120,000. Consequently, conservative investing in low risk assets is suggested. The $410,000 of financial assets among middle affluent married households provides an opportunity to assume some moderate risk in investing. Growth and income mutual funds may best address the moderate risk assets.

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PROFILES OF MIDDLE MARKET SEGMENTS FROM PHASE I

The data supporting Phase I did not provide sufficient detail to fully profile the retirement preparedness status within the segment; consequently, certain assumptions had to be made to allow for a financial estimate. Modifications of these assumptions will lead to different results, although the overall conclusions would change in only a limited fashion.

- Preretirees are age 60 and retirees are age 70.
- Both retirement age and the age of taking Social Security are age 66.
- Current income includes earned income, Social Security benefits, DB pension income, required minimum distributions and investment income.
- Financial assets are assumed to be 75 percent tax qualified, e.g., 401(k), and 25 percent after-tax savings.
- Social Security benefits are based on a single wage earner, with recognition of spousal benefits.
- Target retirement living expenses are assumed to be 80 percent of preretirement income. Expenses include insurance premiums and uncovered health care costs.
- For those already retired, target retirement living expenses are 90 percent of those for preretirees. These may exceed the current income of the retirees, but the analysis provides indications of the amount of additional income or the amount of additional assets that would be needed to support this higher standard of living.
- "Essential" living expenses are limited to the range of $25,000 to $35,000 for single households and $40,000 to $60,000 for married households.
- Discretionary living expenses are the excess of target expenses over essential expenses, but in no case less than $5,000.
- DB pension or other earned income is estimated at 0 percent, 20 percent and 40 percent of preretirement income, to provide a range of possible situations.
- Inflation is recognized through a decrease in the discount rate used.
- Emergency funds are recognized at 50 percent of annual essential required income.
- Net After-Tax Assets assume taxes at 15 percent on taxable distributions and no tax on sale of a residence.
- Amounts Needed at Retirement can be positive even if Social Security and pension or earned income exceed retirement needs due to the taxability of some of the income.

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Segment #1: Middle Mass, 55 to 64 years old, Preretirement, Married

Age:	60		
Spouse Age:	60		
Retirement Age:	66		
Preretirement Income:	$75,000		
Financial Assets:	$108,000		
Nonfinancial Assets:	$240,000		
Future Preretirement Savings:	$40,000		
Net After-Tax Assets:	$370,000		
"Essential" Retirement Income Needed:	$60,000		
Discretionary Expenditures:	$5,000		
Additional Emergency Fund:	$30,000		
Social Security Income:	$38,000		
DB Pension or Earned Income:	$30,000	$15,000	$0
Amount Needed at Retirement:	$115,000	$318,000	$521,000

A quick analysis indicates:

- A primary question will be age of retirement. This example shows retirement at age 66, the current normal retirement age.
- The $370,000 of net assets is sufficient to cover the net retirement needs if there is $30,000 of pension or earned income. If there is less pension or earned income ($15,000), it just makes it when emergency fund needs are recognized; and if there is no pension or other earned income, then it will be necessary to reduce expenses, seek employment during retirement or defer the retirement date.
- It will be necessary to extract value from the $240,000 of nonfinancial assets.
- Social Security income covers the "most essential" expenses and the financial assets are limited; consequently, an annuity income to cover essentials may not be practical.
- Nonfinancial assets (home equity) can be relied upon for emergency funds.
- The amount of financial assets ($108,000) suggests LTC insurance may be uneconomic and that Medicaid may need to be relied upon for LTC expenses after savings are depleted.
- Appropriate assets to consider in some combination, based on the limited amount of the financial assets, include:

  <u>Low-risk simple investments and investment approaches</u>
  - Certificate of deposit
  - U.S. government bonds
  - Money market fund
  - Fixed deferred annuity
  - Home equity loan, under appropriate circumstances

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Low-risk more complex investments and investment approaches

- TIPS
- Equity-indexed deferred annuity
- Reverse mortgage, under appropriate circumstances (after age 62)

Medium-risk more complex investments and investment approaches

- Balanced mutual fund or variable annuity invested in bonds or with a guarantee

Medium-to-high-risk more complex investments and investment approaches

- Growth and income mutual fund or variable annuity

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Variations on Segment #1

Testing Alternative Retirement Ages and Their Impact on Retirement Needs

Segment #1: Middle Mass, 55 to 64 years old, Preretirement, Married—Retire Early

Age:	60		
Spouse Age:	60		
Retirement Age:	62		
Preretirement Income:	$75,000		
Financial Assets:	$108,000		
Nonfinancial Assets:	$240,000		
Future Preretirement Savings:	$14,000		
Net After-Tax Assets:	$348,000		
"Essential" Retirement Income Needed:	$60,000		
Discretionary Expenditures:	$5,000		
Additional Emergency Fund:	$30,000		
Social Security Income:	$28,500		
DB Pension or Earned Income:	$30,000	$15,000	$0
Amount Needed at Retirement:	$464,000	$674,000	$884,000

Segment #1: Middle Mass, 55 to 64 years old, Preretirement, Married—Retire Late

Age:	60		
Spouse Age:	60		
Retirement Age:	70		
Preretirement Income:	$75,000		
Financial Assets:	$108,000		
Nonfinancial Assets:	$240,000		
Future Preretirement Savings:	$57,000		
Net After-Tax Assets:	$384,000		
"Essential" Retirement Income Needed:	$60,000		
Discretionary Expenditures:	$5,000		
Additional Emergency Fund:	$30,000		
Social Security Income:	$50,000		
DB Pension or Earned Income:	$30,000	$15,000	$0
Amount Needed at Retirement:	-	$126,000	$290,000

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Segment #2: Middle Mass, 55 to 64 years old, Preretirement, Single Female

Age:	60		
Retirement Age:	66		
Preretirement Income:	$28,000		
Financial Assets:	$36,000		
Nonfinancial Assets:	$75,000		
Future Preretirement Savings:	$10,000		
Net After-Tax Assets:	$116,000		
“Essential” Retirement Income Needed:	$25,000		
Discretionary Expenditures:	$5,000		
Additional Emergency Fund:	$13,000		
Social Security Income:	$15,000		
DB Pension or Earned Income:	$11,000	$6,000	$0
Amount Needed at Retirement:	$108,000	$166,000	$236,000

A quick analysis indicates:

- A primary question will be age of retirement. This example shows retirement at age 66, the current normal retirement age.
- The $116,000 of net assets is insufficient to cover the net retirement and emergency fund needs even if there is significant pension or earned income. It will be necessary to reduce expenses, seek employment or defer the retirement date.
- It will be necessary to extract value from the $75,000 of nonfinancial assets.
- Although Social Security income covers only part of the “most essential” expenses, the financial assets are limited; consequently, an annuity income to cover essentials may not be practical.
- Nonfinancial assets (home equity) can be relied upon for emergency funds.
- The amount of financial assets ($36,000) suggests LTC insurance may be uneconomic and that Medicaid may need to be relied upon for LTC expenses after savings are depleted.
- Appropriate assets to consider in some combination, based on the limited amount of the financial assets, include:

  Low-risk simple investments and investment approaches
    - Certificate of deposit
    - Fixed deferred annuity
    - U.S. government bonds
    - Money market fund
    - Fixed deferred annuity
    - Home equity loan, under appropriate circumstances

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<u>Low-risk more complex investments and investment approaches</u>

- TIPS
- Equity-indexed deferred annuity
- Reverse mortgage, under appropriate circumstances (after age 62)

<u>Medium-risk more complex investments and investment approaches</u>

- Balanced, mutual fund or variable annuity invested in bonds or with a guarantee

<u>Medium-to-high-risk more complex investments and investment approaches</u>

- Growth and income mutual fund or variable annuity

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Segment #3: Middle Mass, 55 to 64 years old, Preretirement, Single Male

Age:	60		
Retirement Age:	66		
Preretirement Income:	$41,000		
Financial Assets:	$36,000		
Nonfinancial Assets:	$89,000		
Future Preretirement Savings:	$15,000		
Net After-Tax Assets:	$133,000		
"Essential" Retirement Income Needed:	$33,000		
Discretionary Expenditures:	$5,000		
Additional Emergency Fund:	$17,000		
Social Security Income:	$19,000		
DB Pension or Earned Income:	$16,000	$8,000	$0
Amount Needed at Retirement:	$111,000	$198,000	$285,000

A quick analysis indicates:

- A primary question will be age of retirement. This example shows retirement at age 66, the current normal retirement age.
- The $133,000 of net assets is sufficient to cover the net retirement and emergency fund needs if there is significant pension or earned income. Otherwise it will be necessary to reduce expenses, seek employment or defer the retirement date.
- It will be necessary to extract value from the $89,000 of nonfinancial assets.
- Social Security income covers the "most essential" expenses and the financial assets are limited; consequently, an annuity income to cover essentials may not be practical.
- Nonfinancial assets (home equity) can be relied upon for emergency funds.
- The amount of financial assets ($36,000) suggests LTC insurance may be uneconomic and that Medicaid may need to be relied upon for LTC expenses after savings are depleted.
- Appropriate assets to consider in some combination, based on the limited amount of the financial assets, include:

  <u>Low-risk simple investments and investment approaches</u>
  - Certificate of deposit
  - U.S. government bonds
  - Money market fund
  - Fixed deferred annuity
  - Home equity loan, under appropriate circumstances

  <u>Low-risk more complex investments and investment approaches</u>
  - TIPS
  - Equity indexed deferred annuity
  - Reverse mortgage, under appropriate circumstances (after age 62)

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Medium-risk more complex investments and investment approaches

- Balanced mutual fund or variable annuity invested in bonds or with a guarantee

Medium-to-high-risk more complex investments and investment approaches

- Growth and income mutual fund or variable annuity

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Segment #4: Middle Mass, 65 to 74 years old, Retired, Married

Age:	70		
Spouse age:	70		
Current Income:	$45,000		
Financial Assets:	$100,000		
Nonfinancial Assets:	$185,000		
Net After-Tax Assets:	$274,000		
"Essential" Retirement Income Needed:	$54,000		
Discretionary Expenditures:	$5,000		
Additional Emergency Fund:	$27,000		
Social Security Income:	$38,000		
DB Pension or Earned Income:	$27,000	$14,000	$0
Amount Needed Currently:	$61,000	$241,000	$434,000

A quick analysis indicates:

- The current income of $45,000 is less than the targeted expenditures and indicates that the retirees are living on little more than Social Security.
- The $274,000 of net assets would be sufficient to cover the net retirement and emergency fund needs for the targeted expenditures only if there were additional income such as pension or earned income.
- It will be necessary to extract value from the nonfinancial assets unless there is a significant additional source of income.
- Social Security income covers the "most essential" expenses and the financial assets are limited; consequently, an annuity income to cover essentials may not be practical.
- Nonfinancial assets (home equity) can be relied upon for emergency funds.
- The amount of financial assets suggests LTC insurance may be uneconomic and that Medicaid may need to be relied upon for LTC expenses after savings are depleted.
- Appropriate assets to consider in some combination, based on the limited amount of the financial assets, include:

  Low-risk simple investments and investment approaches
    - Certificate of deposit
    - U.S. government bonds
    - Money market fund
    - Fixed deferred annuity
    - Home equity loan, under appropriate circumstances

  Low-risk more complex investments and investment approaches
    - TIPS
    - Equity-indexed deferred annuity
    - Reverse mortgage, under appropriate circumstances

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Medium-risk more complex investments and investment approaches

- Mutual fund or variable annuity invested in bonds or with a guarantee

Medium-to-high-risk more complex investments and investment approaches

- Balanced mutual fund or variable annuity

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Segment #5: Middle Mass, 65 to 74 years old, Retired, Single Female

Age:	70		
Current Income:	$18,000		
Financial Assets:	$45,000		
Nonfinancial Assets:	$85,000		
Net After-Tax Assets:	$124,000		
"Essential" Retirement Income Needed:	$22,500		
Discretionary Expenditures:	$5,000		
Additional Emergency Fund:	$12,000		
Social Security Income:	$15,000		
DB Pension or Earned Income:	$10,000	$5,000	$0
Amount Needed Currently:	$58,000	$132,000	$206,000

A quick analysis indicates:

- The current income of $18,000 is less than the targeted expenditures and indicates that the retiree is living on little more than Social Security.
- The $124,000 of net assets would be sufficient to cover the net retirement and emergency fund needs for the targeted expenditures only if there were additional income such as pension or earned income.
- It will be necessary to extract value from the nonfinancial assets unless there is a significant additional source of income.
- Social Security income covers much of the "most essential" expenses and the financial assets are limited; consequently, an annuity income to cover essentials may not be practical.
- Nonfinancial assets (home equity) can be relied upon for emergency funds.
- The amount of financial assets suggests LTC insurance may be uneconomic and that Medicaid may need to be relied upon for LTC expenses after savings are depleted.
- Appropriate assets to consider in some combination, based on the limited amount of the financial assets, include:

  Low-risk simple investments and investment approaches
    - Certificate of deposit
    - U.S. government bonds
    - Money market fund
    - Fixed deferred annuity
    - Home equity loan, under appropriate circumstances

  Low-risk more complex investments and investment approaches
    - TIPS
    - Equity-indexed deferred annuity
    - Reverse mortgage, under appropriate circumstances

  Medium-risk more complex investments and investment approaches
    - Mutual fund or variable annuity invested in bonds or with a guarantee

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Medium-to-high-risk more complex investments and investment approaches

- Balanced mutual fund or variable annuity

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Segment #6: Middle Mass, 65 to 74 years old, Retired, Single Male

Age:	70		
Current Income:	$25,000		
Financial Assets:	$42,000		
Nonfinancial Assets:	$88,000		
Net After-Tax Assets:	$123,000		
"Essential" Retirement Income Needed:	$30,000		
Discretionary Expenditures:	$5,000		
Additional Emergency Fund:	$15,000		
Social Security Income:	$18,000		
DB Pension or Earned Income:	$15,000	$7,000	$0
Amount Needed Currently:	$48,000	$164,000	$266,000

A quick analysis indicates:

- The current income of $25,000 is less than the targeted expenditures and indicates that the retiree is living on little more than Social Security.
- The $123,000 of net assets would be sufficient to cover the net retirement and emergency fund needs for the targeted expenditures only if there were additional income such as pension or earned income.
- It will be necessary to extract value from the nonfinancial assets unless there is a significant additional source of income.
- Social Security income covers most of the "most essential" expenses and the financial assets are limited; consequently, an annuity income to cover essentials may not be practical.
- Nonfinancial assets (home equity) can be relied upon for emergency funds.
- The amount of financial assets suggests LTC insurance may be uneconomic and that Medicaid may need to be relied upon for LTC expenses after savings are depleted.
- Appropriate assets to consider in some combination, based on the limited amount of the financial assets, include:

  Low-risk simple investments and investment approaches
    - Certificate of deposit
    - U.S. government bonds
    - Money market fund
    - Fixed deferred annuity
    - Single premium immediate annuity
    - Home equity loan, under appropriate circumstances

  Low-risk more complex investments and investment approaches
    - TIPS
    - Equity-indexed deferred annuity
    - Reverse mortgage, under appropriate circumstances

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Medium-risk more complex investments and investment approaches

- Mutual fund or variable annuity invested in bonds or with a guarantee

Medium-to-high-risk more complex investments and investment approaches

- Balanced mutual fund or variable annuity

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Segment #7: Middle Affluent, 55 to 64 years old, Preretirement, Married

Age:	60		
Spouse Age:	60		
Retirement Age:	66		
Preretirement Income:	$132,000		
Financial Assets:	$416,000		
Nonfinancial Assets:	$884,000		
Future Preretirement Savings:	$60,000		
Net After-Tax Assets:	$1,306,000		
"Essential" Retirement Income Needed:	$60,000		
Discretionary Expenditures:	$46,000		
Additional Emergency Fund:	$30,000		
Social Security Income:	$42,000		
DB Pension or Earned Income:	$53,000	$26,000	$0
Amount Needed at Retirement:	$714,000	$991,000	$1,258,000

A quick analysis indicates:

- A primary question will be age of retirement. This example shows retirement at age 66, the current normal retirement age.
- The $1,306,000 of net assets is sufficient to cover the net retirement and emergency fund needs in almost all circumstances.
- It will be necessary to extract value from the $884,000 of nonfinancial assets.
- Social Security income covers the "most essential" expenses. It could be appropriate to purchase an income annuity with a portion of the financial assets to cover an additional share of "essential" expenses.
- Nonfinancial assets (home equity) can be relied upon for emergency funds.
- The amount of financial assets ($416,000) suggests that LTC insurance would be appropriate.
- Appropriate assets to consider in some combination based on the moderate amount of the financial assets, include:

  <u>Low-risk simple investments and investment approaches</u>
    - Certificate of deposit
    - U.S. government bonds
    - Money market fund
    - Fixed deferred annuity
    - Single premium immediate annuity
    - Deferred income annuity (ALDA)
    - Home equity loan, under appropriate circumstances

  <u>Low-risk more complex investments and investment approaches</u>
    - TIPS
    - Equity-indexed deferred annuity
    - Deferred income annuity

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- Reverse mortgage, under appropriate circumstances (after age 62)

Medium-risk more complex investments and investment approaches

- Individual muni bonds
- Mutual funds or variable annuities that are invested primarily in bonds
- Real estate investment trust
- Single premium immediate variable annuity
- Variable annuity with GMIB, GLWB, GMWB, GMAB, or GPAF

Medium-to-high-risk investments and investment approaches

- Individually purchased corporate bonds.
- Balanced mutual funds or variable annuities
- Mutual funds or variable annuities that are invested primarily in equities
- Mutual fund withdrawal program
- Preferred stock

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Segment #8: Middle Affluent, 55 to 64 years old, Preretirement, Single Female

Age:	60		
Retirement Age:	66		
Preretirement Income:	$58,000		
Financial Assets:	$116,000		
Nonfinancial Assets:	$299,000		
Future Preretirement Savings:	$30,000		
Net After-Tax Assets:	$429,000		
"Essential" Retirement Income Needed:	$35,000		
Discretionary Expenditures:	$11,000		
Additional Emergency Fund:	$18,000		
Social Security Income:	$23,000		
DB Pension or Earned Income:	$23,000	$12,000	$0
Amount Needed at Retirement:	$245,000	$337,000	$437,000

A quick analysis indicates:

- A primary question will be age of retirement. This example shows retirement at age 66, the current normal retirement age.
- The $429,000 of net assets is sufficient to cover the net retirement and emergency fund needs in most circumstances, although it may be necessary to reduce expenses if there is no pension or earned income.
- It will be necessary to extract value from the $299,000 of nonfinancial assets.
- Social Security income covers almost all of the "most essential" expenses and the financial assets are limited; consequently, an annuity income to cover essentials may not be practical.
- Nonfinancial assets (home equity) can be relied upon for emergency funds.
- The amount of financial assets ($116,000) suggests LTC insurance may be uneconomic and that Medicaid may need to be relied upon for LTC expenses after savings are depleted.
- Appropriate assets to consider in some combination, based on the limited amount of the financial assets, include:

  Low-risk simple investments and investment approaches
    - Certificate of deposit
    - U.S. government bonds
    - Money market fund
    - Fixed deferred annuity
    - Deferred income annuity (ALDA)
    - Home equity loan, under appropriate circumstances

  Low-risk more complex investments and investment approaches
    - TIPS
    - Equity-indexed deferred annuity
    - Reverse mortgage, under appropriate circumstances (after age 62)

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Medium-risk more complex investments and investment approaches

- Mutual fund or variable annuity invested in bonds or with a guarantee

Medium-to-high-risk more complex investments and investment approaches

- Balanced mutual fund or variable annuity

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Segment #9: Middle Affluent, 55 to 64 years old, Preretirement, Single Male

Age:	60		
Retirement Age:	66		
Preretirement Income:	$79,000		
Financial Assets:	$116,000		
Nonfinancial Assets:	$349,000		
Future Preretirement Savings:	$40,000		
Net After-Tax Assets:	$490,000		
"Essential" Retirement Income Needed:	$35,000		
Discretionary Expenditures:	$28,000		
Additional Emergency Fund:	$18,000		
Social Security Income:	$25,000		
DB Pension or Earned Income:	$32,000	$16,000	$0
Amount Needed at Retirement:	$373,000	$495,000	$616,000

A quick analysis indicates:

- A primary question will be age of retirement. This example shows retirement at age 66, the current normal retirement age.
- The $490,000 of net assets is sufficient to cover the net retirement and emergency fund needs if there is significant pension or earned income. Otherwise it will be necessary to reduce expenses, seek employment or defer the retirement date.
- It will be necessary to extract value from the nonfinancial assets.
- Social Security income covers the "most essential" expenses and the financial assets are limited; consequently, an annuity income to cover essentials may not be practical.
- The amount of financial assets ($116,000) suggests LTC insurance may be uneconomic and that Medicaid may need to be relied upon for LTC expenses after savings are depleted.
- Appropriate assets to consider in some combination, based on the limited amount of the financial assets, include:

  Low-risk simple investments and investment approaches
    - Certificate of deposit
    - U.S. government bonds
    - Money market fund
    - Fixed deferred annuity
    - Deferred income annuity
    - Home equity loan, under appropriate circumstances

  Low-risk more complex investments and investment approaches
    - TIPS
    - Equity-indexed deferred annuity
    - Reverse mortgage, under appropriate circumstances (after age 62)

  Medium-risk more complex investments and investment approaches

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- Mutual fund or variable annuity invested in bonds or with a guarantee

Medium-to-high-risk more complex investments and investment approaches
- Balanced mutual fund or variable annuity

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Segment #10: Middle Affluent, 65 to 74 years old, Retired, Married

Age:	70		
Spouse Age:	70		
Current Income:	$93,000		
Financial Assets:	$410,000		
Nonfinancial Assets:	$690,000		
Net After-Tax Assets:	$1,050,000		
"Essential" Retirement Income Needed:	$60,000		
Discretionary Expenditures:	$35,000		
Additional Emergency Fund:	$30,000		
Social Security Income:	$42,000		
DB Pension or Earned Income:	$48,000	$24,000	$0
Amount Needed Currently:	$86,000	$587,000	$1,001,000

A quick analysis indicates:

- The current income of $93,000 exceeds the targeted income needed.
- The $1,050,000 of net assets is sufficient to cover the net retirement and emergency fund needs and would be adequate even in the absence of income beyond Social Security.
- Social Security income covers the "most essential" expenses. It could be appropriate to purchase an income annuity with a portion of the financial assets to cover an additional share of "essential" expenses.
- Nonfinancial assets (home equity) can be relied upon for emergency funds.
- The amount of financial assets ($410,000) suggests LTC insurance would be appropriate.
- Appropriate assets to consider in some combination, based on the moderate amount of the financial assets, include:

  Low-risk simple investments and investment approaches
  - Certificate of deposit
  - U.S. government bonds
  - Money market fund
  - Fixed deferred annuity
  - Single premium immediate annuity
  - Deferred income annuity (ALDA)
  - Home equity loan, under appropriate circumstances

  Low-risk more complex investments and investment approaches
  - TIPS
  - Equity-indexed deferred annuity
  - Deferred income annuity
  - Reverse mortgage, under appropriate circumstances

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Medium-risk more complex investments and investment approaches

- Individual municipal bonds
- Mutual funds or variable annuities that are invested primarily in bonds
- Real estate investment trust
- Single premium immediate variable annuity
- Mutual fund or variable annuity invested in bonds or with a guarantee

Medium-to-high-risk investments and investment approaches

- Individually purchased corporate bonds.
- Balanced mutual funds or variable annuities
- Mutual funds or variable annuities that are invested primarily in equities
- Mutual fund withdrawal program
- Preferred stock

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Segment #11: Middle Affluent, 65 to 74 years old, Retired, Single Female

Age:	70		
Current Income:	$43,000		
Financial Assets:	$160,000		
Nonfinancial Assets:	$320,000		
Net After-Tax Assets:	$458,000		
"Essential" Retirement Income Needed:	$35,000		
Discretionary Expenditures:	$6,000		
Additional Emergency Fund:	$18,000		
Social Security Income:	$23,000		
DB Pension or Earned Income:	$21,000	$10,000	$0
Amount Needed Currently:	-	$150,000	$297,000

A quick analysis indicates:

- The current income of $43,000 exceeds the targeted income needed.
- The $458,000 of net assets is sufficient to cover the net retirement and emergency fund needs and would be adequate even in the absence of income beyond Social Security.
- Social Security income covers the "most essential" expenses and the financial assets are limited; consequently, an annuity income to cover essentials may not be practical.
- Nonfinancial assets (home equity) can be relied upon for emergency funds.
- The amount of financial assets ($160,000) suggests LTC insurance may be uneconomic and that Medicaid may need to be relied upon for LTC expenses after savings are depleted.
- Appropriate assets to consider in some combination, based on the limited amount of the financial assets, include:

  <u>Low-risk simple investments and investment approaches</u>
  - Certificate of deposit
  - U.S. government bonds
  - Money market fund
  - Fixed deferred annuity
  - Single premium immediate annuity
  - Deferred income annuity (ALDA)
  - Home equity loan, under appropriate circumstances

  <u>Low-risk more complex investments and investment approaches</u>
  - TIPS
  - Equity-indexed deferred annuity
  - Reverse mortgage, under appropriate circumstances

  <u>Medium risk more complex investments and investment approaches</u>
  - Mutual fund or variable annuity invested in bonds or with a guarantee

  <u>Medium-to-high-risk more complex investments and investment approaches</u>

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- Balanced mutual fund or variable annuity

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Segment #12: Middle Affluent, 65 to 74 years old, Retired, Single Male

Age:	70		
Current Income:	$54,000		
Financial Assets:	$150,000		
Nonfinancial Assets:	$340,000		
Net After-Tax Assets:	$467,000		
"Essential" Retirement Income Needed:	$35,000		
Discretionary Expenditures:	$22,000		
Additional Emergency Fund:	$18,000		
Social Security Income:	$38,000		
DB Pension or Earned Income:	$28,000	$14,000	$0
Amount Needed Currently:	$101,000	$304,000	$507,000

A quick analysis indicates:

- The current income of $54,000 almost meets the targeted income needed.
- The $467,000 of net assets is sufficient to cover the net retirement and emergency fund needs in most circumstances. The assets would not be adequate in the absence of income beyond Social Security.
- Social Security income covers the "most essential" expenses and the financial assets are limited; consequently, an annuity income to cover essentials may not be practical.
- Nonfinancial assets (home equity) can be relied upon for emergency funds.
- The amount of financial assets ($150,000) suggests LTC insurance may be uneconomic and that Medicaid may need to be relied upon for LTC expenses after savings are depleted.
- Appropriate assets to consider, based on the limited amount of the financial assets, include:

  Low-risk simple investments and investment approaches
    - Certificate of deposit
    - U.S. government bonds
    - Money market fund
    - Fixed deferred annuity
    - Single premium immediate annuity
    - Deferred income annuity (ALDA)
    - Home equity loan, under appropriate circumstances

  Low-risk more complex investments and investment approaches
    - TIPS
    - Equity-indexed deferred annuity
    - Reverse mortgage, under appropriate circumstances

  Medium-risk more complex investments and investment approaches
    - Mutual fund or variable annuity invested in bonds or with a guarantee

  Medium-to-high-risk more complex investments and investment approaches

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- Balanced mutual fund or variable annuity

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