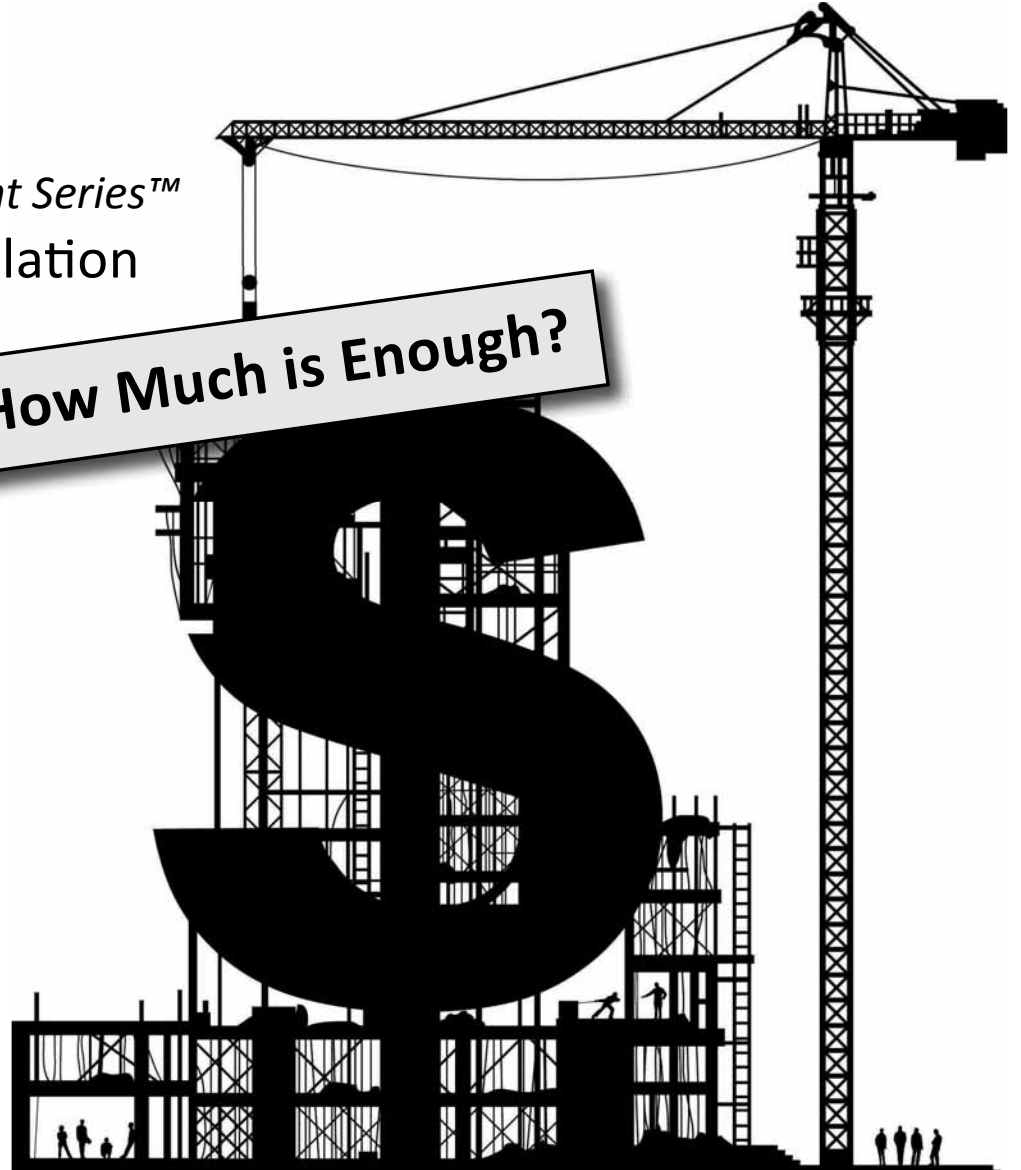


The Successful Retirement Series™
Phase One: Accumulation

How Much is Enough?



The Retirement Challenge

The market crash of 2008-2009 has raised awareness of the nation's looming retirement crisis. That crisis has three main elements:

- Traditional sources of retirement income have either largely disappeared (pensions) or are economically at risk (both pensions and Social Security).
- The long-term savings rate of most American households is far below what is needed to accumulate sufficient capital for a secure retirement.
- The combination of rising longevity and long-term inflation means today's retirees will need much greater financial resources in retirement than did their parents or grandparents.

Most Americans lack the financial resources for a successful retirement, both because they do not save enough during their working years and because they typically make poor investment decisions with the dollars they do save. Few Americans have access to the sophisticated planning resources needed to accurately define their capital requirements and manage retirement investment portfolios to meet long-term cash flow needs in retirement.

Retirement: Fantasy vs. Reality

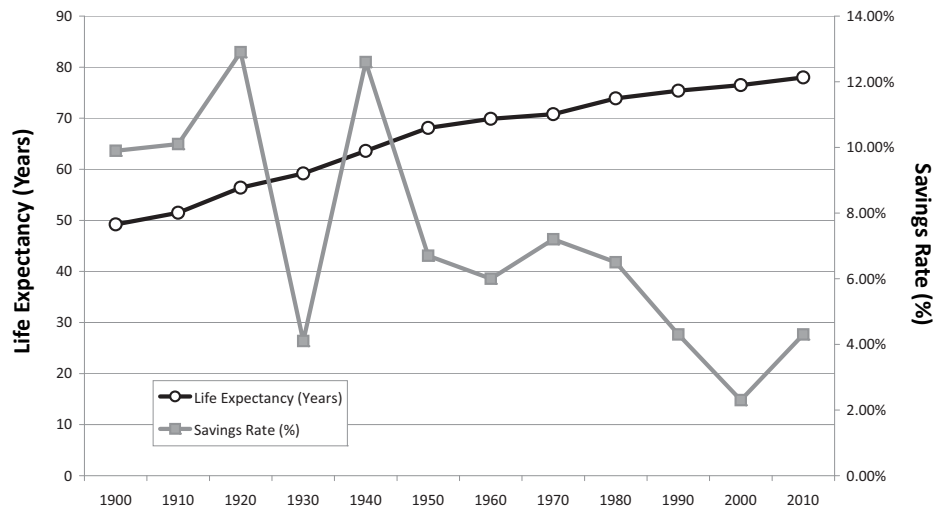
Studies suggest there is a huge gap between the picture most Americans have of their retirement and the reality of the retirement they will actually experience.

Fantasy. Our fantasy of retirement was formed by the typical experiences of our parents' and grandparents' generations. The golden age of American retirement was from the 1960s through the 1980s. Back then, the expectation was to retire after a lifelong career at a single large institution (corporation, government or academic) and receive both a pension and Social Security, both of which were understood to be financially secure beyond question. Once Congress passed Medicare in 1964, retirees could also look forward to

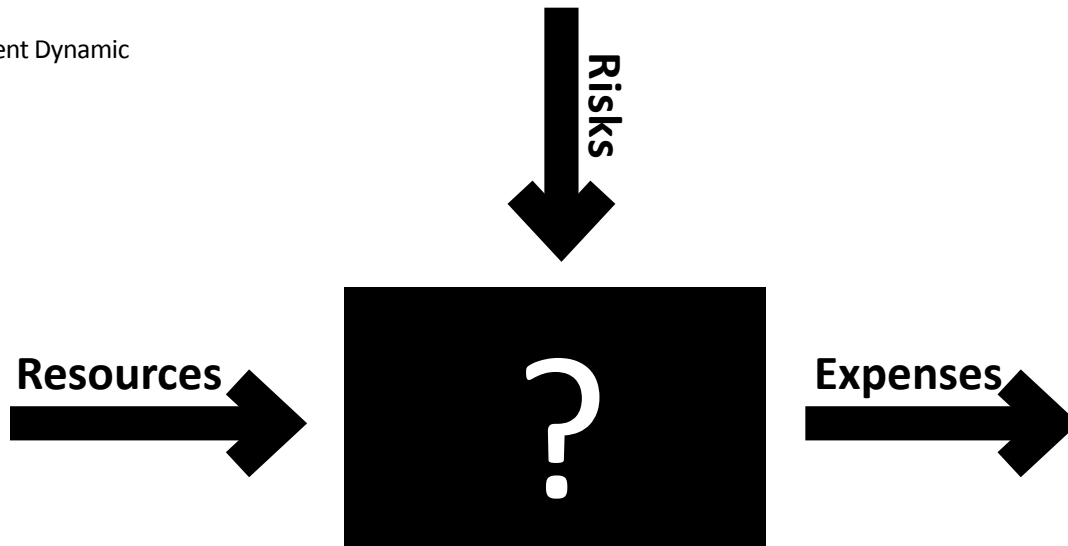
adequate health care, with supplemental health care costs often fully-paid by former employers (think General Motors).

Reality. Today both Social Security and private pensions face structural funding challenges. Few of today's private-sector employees can look forward to receiving a pension. Yesterday's defined-benefit plans (pensions) have been replaced by today's defined-contribution plans (401k and 403b savings plans). Promised payments of retiree medical costs are at risk (think General Motors again). The responsibility to save for retirement, and the necessity of making prudent investment decisions, both now rest with the individual employee. The combination of increasing longevity and inflation can be devastating to retir-

Chart 1
Longevity vs. Savings Rate (United States)



Graphic 1
The Retirement Dynamic



The Retirement Dynamic conceptually illustrates the key variables that determine financial success or failure for retirees. To achieve a successful retirement we must accumulate financial resources, manage risks and spend responsibly after we retire.

Resources	Expenses	Risks
<ul style="list-style-type: none"> • Social Security • Pension • Part-time work • Investments (retirement plans, brokerage accounts, mutual funds and bank deposits) • Other (inheritance, rental or royalty income, trust distributions, etc.) 	<ul style="list-style-type: none"> • Living expenses: <ul style="list-style-type: none"> - Mandatory (food, shelter, medical care, clothing) - Discretionary (travel, dining out, entertainment) • Mortgage payments¹ • Healthcare costs not covered by Medicare • Long-term care expenses² • Transfers or economic support for dependents and quasi-dependents • Taxes 	<ul style="list-style-type: none"> • Portfolio losses from recent market crash • Uncertain investment returns (% and sequence) • Inadequate investment returns (wrong portfolio mix) • Underfunded government programs • Inflation • Longevity

¹ We separate mortgage payment(s) from general living expenses because mortgage payments are a potentially vanishing expense. For example, you can choose your mortgage term so that you will make your last mortgage payment right before you retire.

² Less than 5% of all long-term care costs are covered by Medicare. Most are covered by personal assets and income, private insurance or Medicaid.

ees who over-spend, in particular if their portfolios lack sufficient long-term growth assets.

As advisors with over thirty years of experience working primarily with retirees and those planning for retirement, we have developed innovative tools to help individuals to clarify their goals, quantify their capital needs, and track their progress toward building enough wealth to enjoy a financially secure retirement.

Avoid The Cliff™

Studies suggest that the lifestyle most Americans want in retirement will require 80% to 120% of pre-retirement income. Yet the reality is that less than 10% of Americans will ever accumulate sufficient capital to fully fund their pre-retirement lifestyle after they retire.

So what do they do? *They keep spending at their accustomed level until they exhaust their savings*³. Afterwards they are limited to their monthly Social Security payments, and they must live on less than their desired income level for the balance

of their lives.

The fundamental challenge at the retirement transition can be visually illustrated by Chart 2. *The Cliff™* is the difference between your after-tax *spendable* cash flow while working, and your *sustainable* cash flow after retirement. Note that both the pre-retirement income and sustainable cash flow lines slope upward, reflecting the necessity of increasing cash flow to offset the effects of inflation. *Avoiding The Cliff™* is the essential goal of retirement accumulation planning.

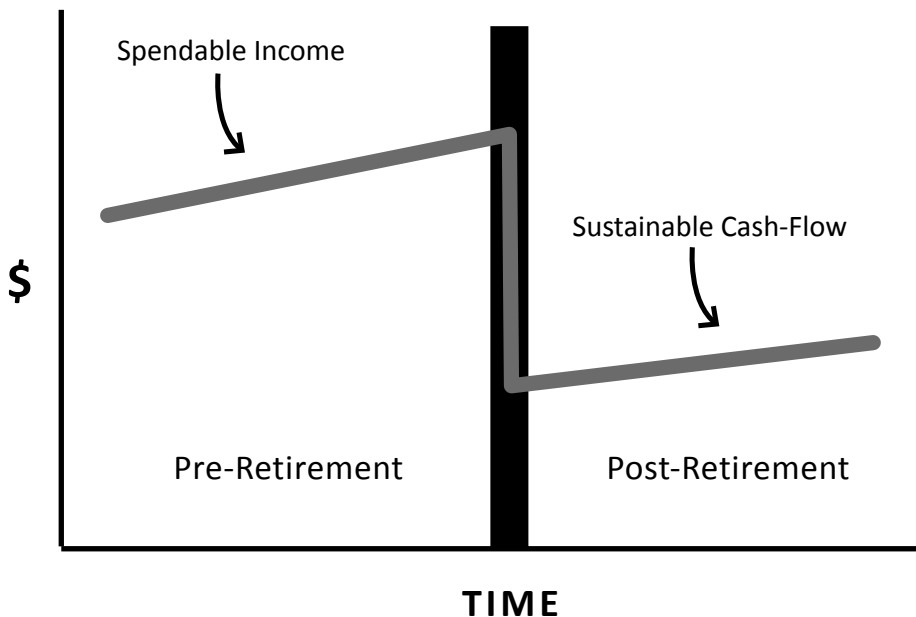
The most powerful tool for avoiding *The Cliff™* is income-shifting; using retirement plans to decrease taxable income during the working years, thus reducing taxes, in order to build wealth that will be used to provide cash flow in retirement.

The Successful Retirement Strategy™

Now that we have identified the key moving parts of the retirement crisis, we need to move toward a solution – what we define as *The Successful Retirement Strategy™* – an integrated, multi-factor model that focuses on the three phases of retirement – *accumulation* (pre-retirement), *transition*, and *lifetime security* (post-retirement).

This *White Paper* focuses on the

Chart 2
The Cliff™



³According to *Pension Issues: Lump-Sum Distributions and Retirement Income Security* by Patrick Purcell, many recipients of lump-sum distributions use all or part of their distributions for current consumption rather than depositing the finds into another retirement account.

accumulation phase of retirement planning, in which we must answer the key question, *how much is enough?*

How Much is Enough?

- How much capital will you need to be financially secure in retirement?
- What is your financial net worth today, compared to the wealth that you will need at your retirement date?
- How will you bridge the gap between today's assets and what you will need to retire with security?

All of these are questions of fact susceptible to mathematical analysis. By using best-practice financial modeling, we can provide clarity about what you need to do, both today and in the future, to move toward a confident and financially-secure retirement.

Our analysis starts with a complete inventory of your existing situation and a focused discussion about your retirement goals. One key variable is your desired after-tax income in retirement, but our analysis could also include a move to a new residence in a warmer climate, purchase or sale of a vacation home, creation of a trust

to fund your grandchildren's education, etc. Based on our fact-finding, we perform a baseline analysis of your projected financial situation.

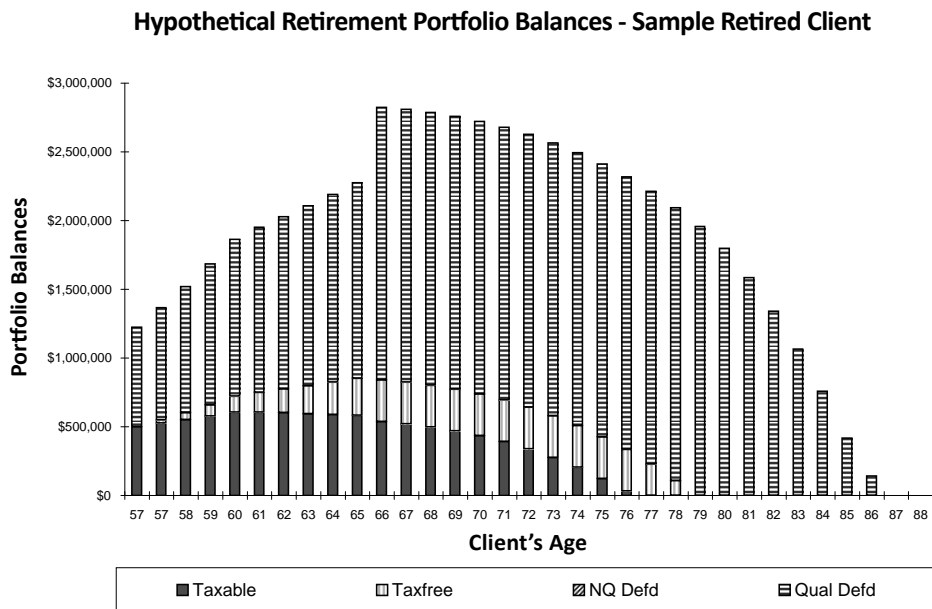
Our initial analysis is a linear retirement cash flow analysis, which answers a single question: *"Will I run out of money before I die?"* Chart 3 shows the linear analysis of a successful retirement scenario. Observe the gradual buildup of capital, addition of lump-sum distribution at the retirement transition at age 66, and then the gradual draw down of capital, with just over \$100,000 at the projected mortality age of 86.

This type of linear analysis is helpful but necessarily incomplete. *The one thing that we know, for certain, about any linear financial calculation is that it is not correct.* You will *not* earn a precise 6.32% return per year on your investment portfolio, inflation will *not* equal exactly 3.5% each year, and you are highly unlikely to die *precisely* on your 85th birthday.

We know that each of the key variables in our calculation will change from year to year. Even if our projections of the *average* investment return or inflation rate are dead-on accurate, our analysis could still be entirely wrong, depending on the *sequence* of returns. Consider two scenarios:

Scenario #1: You retire and begin withdrawing cash flow from your

Chart 3
Calculating Capital Needs: A Successful Linear Analysis



This hypothetical report is not indicative of any security's performance and is based on information believed to be reliable. Future performance cannot be guaranteed and investment yields will fluctuate with market conditions

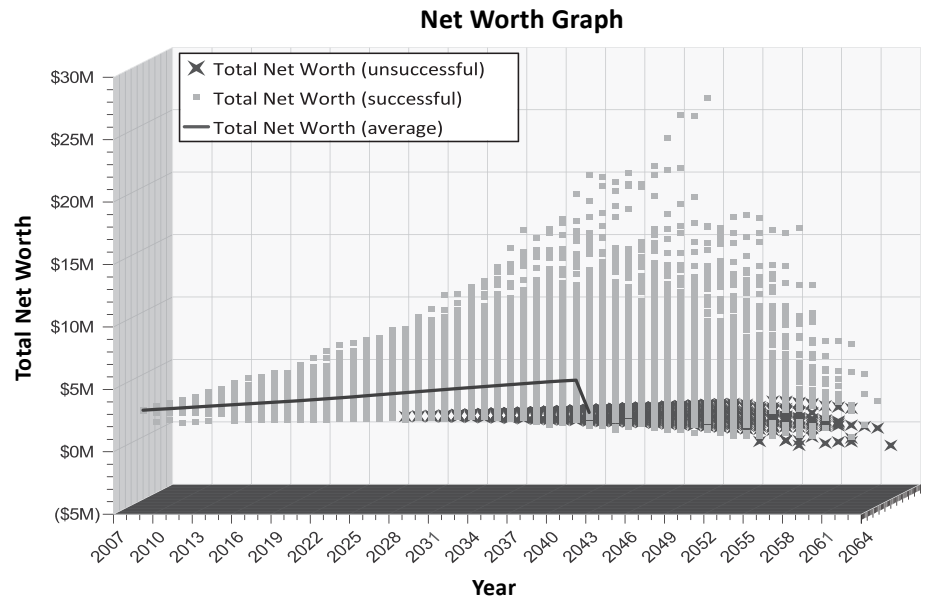
portfolio. Each year you withdraw an amount equal to 10% of your original capital. For the first ten years of your retirement, the market goes up 20% each year. For the second ten years of your retirement, the market goes sideways and returns 0% per year. *On average, the market has returned 10% per year.*

Scenario #2: You retire and begin withdrawing cash flow from your portfolio. Each year you withdraw the same 10% of initial capital. For the first ten years of your retirement, the market goes sideways and returns 0% per year. For the second ten years of your retirement, the market goes up 20% each year. *On average, the market has returned 10% per year.*

In both scenarios, the market's average return is 10% per year, close to the long-term historical norm. While these two scenarios seem similar, in the first, you have more money after ten years than when you started. In the second, you are dead broke before the end of your first decade in retirement. *The sequence of returns matters profoundly, and is highly unpredictable.*

As planners, we need to better understand the impact of uncertainty on financial outcomes. Monte Carlo

Chart 4
Calculating Capital Needs: Monte Carlo Model



analysis is a tool that calculates the probability of successfully attaining defined financial goals, taking uncertainty into consideration. We project each client's financial outcomes by randomizing variables (i.e. investment returns, volatility and inflation) based on both historical data and capital market assumptions (see Chart 4).³ The analysis also takes into account the effects of longevity by randomizing life expectancy.

By performing hundreds of trials, a wide variety of outcomes are produced, some of which are successful, others not. The Monte Carlo analysis gives us a range of

possible outcomes, stated as the percentage probability that the financial objectives of the client will be met over time. *We consider a success rate of 70% the minimum acceptable result.*

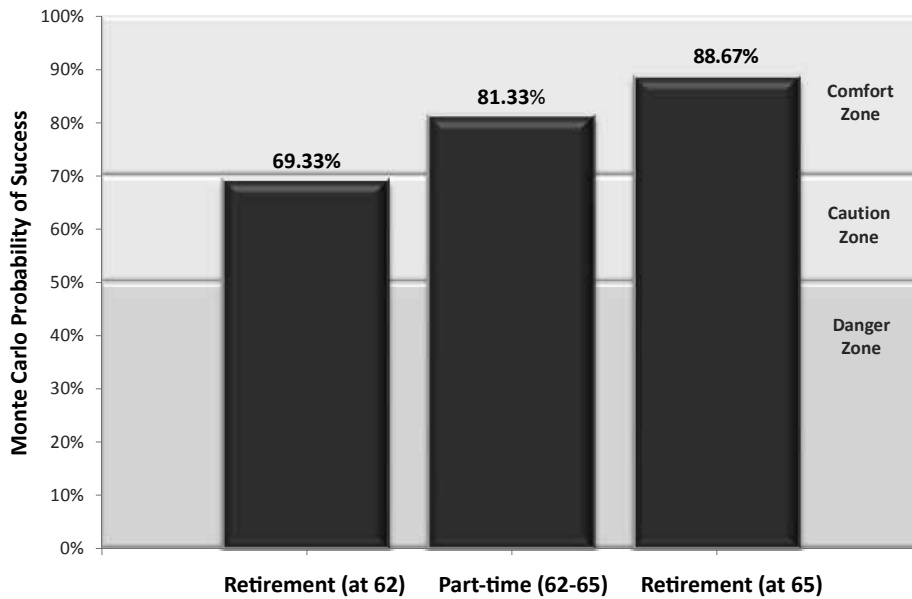
Building the Plan

Once we have completed our initial analysis, we are in a position to answer the key question: *Does the set of facts and projections we have assembled support with sufficient confidence a successful retirement scenario?*

³ Our Monte Carlo analysis differs from the typical practice because we use prospective capital markets assumptions, not simply historical data sets, to project baseline investment returns. We believe this reduces the serious problem of end-of-period bias caused by reliance on historical data sets. Using historical returns will lead to projecting *higher-than-normal* returns at the end of bull markets (just when economic returns are likely to be lowest), and projecting *lower-than-normal* returns at the bottom of bear markets (when economic returns are likely to be superior going forward).

Chart 5

The effect of retiring early or working part-time
(based on Monte Carlo analysis of alternative scenarios)



Sometimes the initial retirement scenario we construct doesn't work. Financial resources run out before expected mortality, or our confidence level is lower than we are comfortable with. On the other hand, sometimes the client's financial picture is stronger than they realize, and we are in a position to examine some positive alternatives, such as buying a vacation home or spending more each month. In either case, successful pre-retirement planning often requires examining alternative scenarios, such as:

- What if I delay my retirement date for five years, or accelerate it by two?
- What if I receive a \$500,000 inher-

itance when I am 70 years old?

- How would working part-time for three years after retirement affect my long-term financial security?
- What if I save more each year?
- What if I sold my vacation home and invested the proceeds to produce more income?
- What if I choose a higher-risk investment portfolio with the potential for higher returns?
- What about a lower-risk, less volatile portfolio?

Designing a successful retirement cash flow strategy is an itera-

tive process, in which we examine multiple trade-offs between financial outcomes and quality-of-life issues, before finally arriving at a solution that is both realistic and actionable.

Chart 5 illustrates the effect of working part-time for three years before retiring at age 62, versus fully retiring at either 62 or 65. In this case, the part-time option represents a feasible alternative to continuing to work full-time until age 65.

Keeping Track

"A goal without a measure is just a wish."

Japanese business maxim

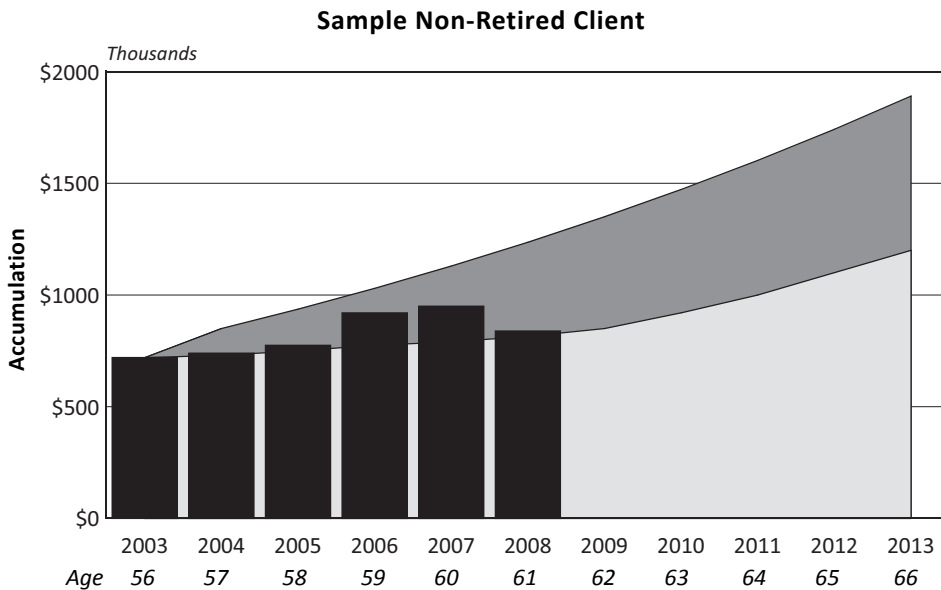
Once we have settled on a realistic retirement scenario, we need to track progress toward the capital accumulation targets we have established. We do this using a proprietary tracking tool, *The Financial Independence Monitor™* (see Chart 6 on the next page).

The *Minimum Accumulation Target™* represents resources sufficient to provide cash flow for your actuarial life expectancy, with your last dollar spent at your projected mortality date.

The *Optimal Accumulation Target™* represents capital sufficient to provide your desired cash flow for as long as you live, while keeping the real (in-

Chart 6

The Financial Independence Monitor™



flation-adjusted) value of your portfolio constant. (We sometimes call this the “live forever” scenario, because your portfolio is not consumed during your lifetime.) The *Portfolio Value* bar shows the actual value of your investment portfolio as of the date of your *Annual Progress Report*.

Your annual contributions, not your investment results, are the key driver of your accumulation of wealth. Consider a couple aged 50, who have already accumulated \$1 million out of a target \$2.5 million in assets, and who are saving \$30,000 per year to their 401k. The normal fluctuation of the markets could easily add or

subtract \$200,000 from their investment net worth in any one year, a much greater change than any single year’s contributions. Yet over ten or twenty years, those yearly portfolio fluctuations should largely balance out, and it will be their savings rate that determines their accumulation of wealth. In engineering terms, the year-to-year market fluctuations are the noise, which can easily drown out the signal — the annual contributions that will determine long-term success or failure. We help you to track your annual contributions, using *The Portfolio Contribution Tracker™*, another proprietary graphical tracking measure.

All of our efforts, including the tracking resources and portfolio strategies we have developed to assist our clients, are designed to do one thing — *help our clients build true financial independence that lasts a lifetime.*

How We Can Help

Our senior advisors each have over thirty years of experience working with families and individuals planning for retirement. If you are genuinely committed to building lifetime wealth and you are in the market for experienced and objective advice, we would welcome the opportunity to meet with you.

ABOUT THE FIRM

TGS Financial Advisors is a wealth management practice located in Radnor, PA. Since 1990, we have helped successful families to build, maintain and preserve lifetime wealth. We accept new clients primarily by referral. If you or a friend, relative or colleague would like more information about TGS Financial Advisors please e-mail us at questions@tgsfinancial.com or call us at (610) 892-9900 or (800) 525-4075.

Please remember to contact TGS Financial Advisors if there are any changes in your personal or financial situation, or investment objectives for the purpose of reviewing, evaluating and revising our previous recommendations and/or services. Please also advise us if you would like to impose, add, or to modify any reasonable restrictions to our investment advisory services. A copy of our current written disclosure statement discussing our advisory services and fees continues to remain available for your review upon request.