DEFINED CONTRIBUTION Insights

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IN EVERY ISSUE

Not Your Dad's Retirement Plan

Or at least it better not be.

By Timothy H. Scherman

Every day it seems a new study is published documenting the very significant percentage of U.S. employees who admit they will not be prepared for retirement, or who plan "never" to retire, or who euphemistically plan to "simplify" their lifestyle in retirement. Baby Boomers who watched their retirement portfolio balances take enormous hits in the downturns of 2008 and 2011 tell stories of drastically altered plans, while more recent studies show the children of the Boomers, who began their savings in real estate, now casting about in their late 30s for a new way to build the nest egg. Everywhere we hear of a "retirement crisis" that, far from being exaggerated, is likely underestimated.

"However real the crisis will turn out to be, hand wringing never solved any problem," says Kevin Coppola, President of The Compass Institute, an organization dedicated to retirement strategy research. "In fact, retirement plan participants can — and should — increase their expectations. Rather than saving what we can and hoping for the best, we need to take a sober look at how well our current plans are heading us for a financially secure retirement." In lieu of any agreed upon operational definition of Retirement Income Security, a recent Compass Institute publication defined *"true" Retirement Income Security as a retirement account, conservatively invested, allowing one to receive an amount of money equivalent to your final salary, every year of your retirement, for as long as you live.* If you or your employees are making faithful contributions to their retirement savings with a fair match, and that is not where things are headed, perhaps you need to reconsider your investment strategy.

New Costs, and a New Standard

If the "common yardstick" of one's yearly retirement needs has been 60%–85% of one's final working salary available to the retiree for 15 to 20 years, with a retirement plan balance equal to roughly 8 times final salary in total savings,[1] over the past decade or more, that yardstick has clearly lengthened. The new costs are numerous, but health care is now widely acknowledged as the new double-edged sword cutting into any retiree's savings. On the bright side, living a longer life as a result of a more active lifestyle, healthier diet, and new medical technologies is an undeniable plus; but living longer means more years to pay for in retirement, likely along with more health care expenses in later years, at ever-increasing costs. Studies by Fidelity Investments and the Employee Benefits Institute estimate health care costs for a 65 year-old couple retiring in 2009 might be between $240,000 and $376,000, for starters — costs that can hardly be defrayed by the maximum of $3,000 per year each individual can stash away in a tax-free Health Savings Account.[2]

Another study postulates that a 50 year-old today planning to live only four years longer than expected would have to save an additional $160,000 to pay for it.[3]

Given these more robust (and realistic) expectations for Retirement Income Security, it becomes clearer why so many Boomers feel they are failing to attain it. Average investment return rates for self-managed retirement plans range from *negative* 2% to 5% annual return (or loss in some cases) overall, but as a recent SunAmerica study shows, fewer and fewer Americans are trying to manage their retirement accounts alone. And since more recently, plan sponsors have begun more regularly to offer their participants investment advice, professionally managed accounts, Target Date Funds, etc., why hasn't this led to better results for the majority of Americans?

[1] E. S. Browning, "Retiring Boomers Find 401(k) Plans Fall Short," March 1, 2011, The Wall Street Journal online.
[2] Patrick Regnier, "Your health care costs in retirement — $240,000?" March 30, 2009, More Money online.
[3] Charles Passy, "The Cost Of Living Longer-Much Longer," Feb 20, 2012, SmartMoney Online (Cover Story).

A Fair Test Case

Consider a young woman who finally lands her first career job with a salary of $45,000 per year at age 28, and in the meantime has saved $10,000. She hopes to retire at age 65 as her parents did, so she enrolls immediately in her company's 401(k) plan, begins contributing 6% of her salary to her retirement savings account and is lucky enough to get a 3% match from her employer. Although she does not consider herself wealthy enough to hire a financial advisor, her company has followed Federal guidelines by investing her money by "default" into a Target Date Fund (TDF).

Her situation and background are not unreasonable, nor is the actual performance of her investment. Given the rising costs of health care, especially, along with the fact that her parents and many of her relations have lived into their 90s, our employee is concerned enough about Retirement Income Security to consider twenty times her final salary her savings goal. And since she has begun her saving as soon as it became possible for her, she sees no reason why she would not succeed.

And yet she will not — not by a long shot.

Given the fact that her goal of Retirement Income Security is based on a multiple of her final salary, we can postulate for our example a modest series of regular inflation-based increases and promotions that average out to 3% a year, giving her a final salary, at age 65, of $130,000. Multiply that number by 20 and we find her goal to be a nest egg of $2,600,000. And yet beginning at age 28, contributing a total of 9% of her salary toward retirement and investing it at 6% per year — a conservative yield for Target Date vehicles — she will have amassed only $872,000, short of her goal by well over 1.7 million dollars. At that rate, in fact, she would have to work until age 94 to amass what she had needed for Retirement Income Security at 65. Even considering an ideal circumstance where she could ensure retirement at the peak of a bull market with the corresponding expected 8% long-term return on her TDF investment, she would still fall over $1.2 million short and need to work 11 years beyond her desired retirement age of 65.

Of course this end result doesn't seem very fair to our young employee. She started early, made regular contributions, invested wisely, and her employers seem to be doing their part as well. What's going wrong?

Formulaic Asset Allocation and Its Fatal Limits

The concern is the return. Since Harry Markowitz's Modern Portfolio Theory was converted from theory to practice in the late 1980s, the most common investment vehicles for retirement plan participants — like our employee's TDF — are guided by *formulaic asset allocation* (FAA). Particular forms of FAA products have emerged over the past decades, including managed accounts, Life Cycle, Balanced and other "pie-chart" funds which may adjust their balance of asset classes over time (loading up on bonds, for example, toward the date of the participant's retirement). But in all FAA products, percentages of each primary asset class are *predetermined*, with the "balance" of equities and debt securities designed to hedge against major losses in times of market volatility, supposedly insuring the plan participant that even if his metaphorical ship makes the trip across the ocean more slowly with reefed sails, at least no storm will upset it, and it will arrive intact.

One immediately understands the problem with such a reassuring metaphor if one names that ship "The Mayflower," and places it on the ocean in the 17th century. Indeed, if *that* ship made the crossing of the Atlantic too slowly, it would run out of provisions, its passengers would starve, and it would never make it to Plymouth Rock. Likewise, MPT-guided products, committing to a formula by which a portfolio will always include an asset that works against others in the portfolio, fate themselves never to achieve the returns necessary for true Retirement Income Security.

The Risk No One's Talking About

One of the key insights of the recent research at the Compass Institute follows. Investment options guided by Modern Portfolio Theory consistently outperform self-guided investing, but in the current environment, will always fail to provide Retirement Income Security, for the simple reason that their main goal of avoiding *Investment Risk* (the possibility of losing a large part of your nest-egg in a bear market) completely obscures *Retirement Income Security Risk* — the possibility of running out of money before you die, or becoming unable to support yourself and your dependents.

Making the Crossing: the Promise of Adaptive Asset Allocation™

It is the "Mayflower" metaphor of retirement savings that actually suggests the key to moving beyond MPT-guided strategies and their limited returns, especially if we begin with the obvious fact that the Mayflower's captain was not sailing by formula. Rather, he was sailing according to what the weather allowed, only shortening his sails when necessary for the passengers' safety. What the metaphor suggests is that rather than pre-determine and maintain the mix of assets in a retirement portfolio, or hope that the "glide path" of asset adjustment formulated in advance "lands" on the right market when it's time to retire, the only strategy that can avoid the most fundamental risk — that of running out of money in retirement, or never reaching

one's necessary destination — is one that *adapts itself* to the "weather" of the market.

A "common sense" approach to investing, this concept is not exactly new.[4] In 2009 William Sharpe, Stanford's Professor of Finance, Emeritus and the winner of the 1990 Nobel Memorial Prize in Economic Sciences, described it as "an alternative approach, in which an asset allocation policy adapts as markets move, taking into account changes in the outstanding market values of major asset classes."[5] Predating Sharpe by nearly seven years, the Compass Institute in 2002 distinguished what it began calling Adaptive Asset Allocation™ (AAA)[6] as superior to the formulaic approach of MPT, in two ways:

- AAA reviews and modifies an investment mix more frequently (what Adam Butler and Mike Philbrick have more recently dubbed "rebalance frequency")
- AAA determines asset allocation in a given portfolio based on current market realities rather than on a fixed and arbitrary ratio of stocks to bonds determined by an investor's answers to a "risk tolerance" profile (what Butler and Philbrick call "rebalance input").[7]

In these two characteristics, performance and safety are effectively combined. Where the returns of MPT-guided strategies are compromised by the necessity of always carrying some assets moving *against the market*, AAA's freedom to adjust asset allocations on a regular basis so that a retirement plan portfolio is moving consistently *with the market* brings the average annual return of AAA products beyond the double-digit returns required to reach the seemingly astronomical sums necessary for Retirement Income Security according to more recent experts.

Moreover, by encouraging investors to monitor their accounts on a regular basis,[8] AAA strategies will avoid the losses of prolonged down markets (or by loading up on bonds, even turn them into gains) and begin positive runs from higher account balances, leading to larger overall gains over time. Butler and Philbrick find the results of AAA so promising, they conclude their article with the claim that financial managers who embrace this adaptive strategy "will increasingly dominate traditional managers; those who fail to adapt will, inevitably, face extinction."

It is not that AAA can avoid or predict the housing market crisis of 2008 or the European Debt crisis of 2011 (anymore than the Mayflower captain can avoid a sudden squall). In fact, in some cases, formulaic asset management will outperform AAA in the short term. But without the requirement of "staying the course," no matter what happens, or the assurance of long-term inattention, both audited research data and actual results of investors (see below) demonstrate that AAA's freedom to *change course* when such crises do occur — even a matter of weeks after a major downturn — will almost always produce better results in the long run.

Measured Performance 1: Audited Back-Tests

In 1998, research initiated at the Compass Institute to find an alternative to MPT resulted in a series of algorithms for the analysis of the optimum combination of available mutual funds in any retirement plan portfolio over a limited time period. Back-tests of retirement plan management based on these algorithms were initiated, and the results were promising enough to begin marketing their product commercially in 2003 through an affiliate, Compass Investors, under the brand name Horizon™.[9]

Using the algorithms resulting from the Institute's five years of intensive research, Compass Investors has calculated returns for the Adaptive Asset Allocation™ strategy on 40 sets of actual mutual fund portfolios available to various corporations, private individuals and state pension systems across the country between 1997 and the present day. Figure 1 represents the average performance of an initial $100,000 investment in all fund groups back-tested using the Compass Institute's computer model compared to that same amount invested in a money market fund, the S&P 500 Index, and the best and worst performing Fidelity Freedom funds (as proxies for the performance range of an MPT-guided strategy).

As the independently audited[10] back-test reaches its 16th anniversary, the average annual return remains over 12%.

To return to our hypothetical case, we find that as impossible as it seemed for our 28 year-old making $45,000 a year in salary to accumulate the $2,600,000 she needed for Retirement Income Security at age 65, in fact with Adaptive Asset Allocation™ that performed along the lines of the Compass Institute research, yielding just 11%, she not only attains her goal but exceeds it

[4] Dimitri Vayanos and Paul Woolley, "A Theoretical Analysis of Momentum and Value Strategies," White Paper, July 5, 2012. Shannon Zimmerman, "Big Mo," October 9, 2012, Morningstar Advisor.

[5] William F. Sharpe, "Adaptive Asset Allocation Policies" (November 2009) (www.stanford.edu/~wfsharpe/retecon/wfsaaap.pdf).

[6] For an overview of Adaptive Asset Allocation™ strategies initiated at the Compass Institute, see http://www.adaptiveassetallocation.net/.

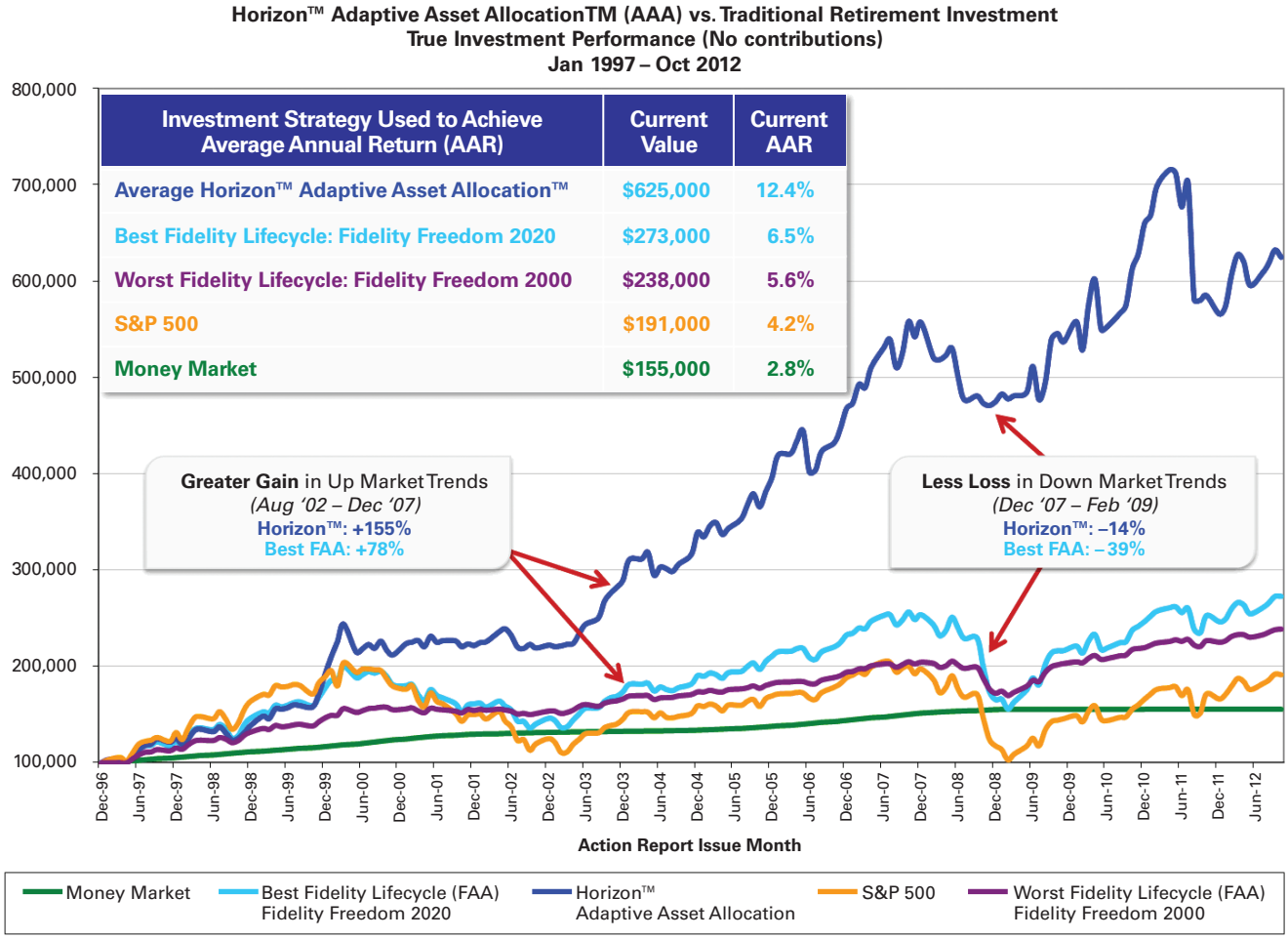
[7] Adam Butler and Mike Philbrick, "Adaptive Asset Allocation: A True Revolution In Portfolio Management," May 12, 2012, Advisor Perspectives.

[8] For Butler and Philbrick, every four weeks. Research at the Compass Institute concludes that investors should schedule a review of their portfolio every four to six weeks.

[9] The Compass Investors Horizon™ Service is now available at www.compassinvestors.com.

[10] The Compass Investors Horizon™ computer model and back-test results have been independently audited by Ashland Partners & Company LLP.

Figure 1: Horizon True Investment Return Strategy Comparison



by $246,000 and could even enter her golden years a little earlier at age 63.

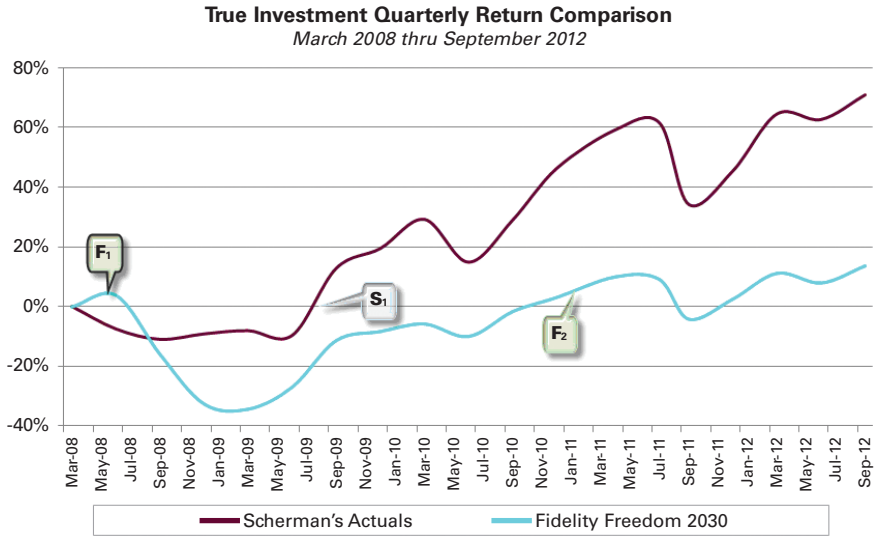
Measured Performance II: Actual Performance of AAA vs. FAA in the Downturns of 2008 and 2011

Of course, innovation is inevitably accompanied by skepticism. Audited back-tests, hypothetical cases, and illustrative metaphors may be convincing to some, but these do not involve actual investments made with anyone's retirement savings. As one of the leaders in risk management at a major investment firm put it to me, "after 2008, all people want to find out is how you did in the crash, and why going with you means they won't take a hit like that again."

If that's what readers want to find out, I can oblige. As a state employee whose self-managed retirement account options at Fidelity closely resemble those of a very large number of plan participants in the U.S., a comparison of my actual results, which derive from using the Horizon™ Adaptive Asset Allocation™ service, with those of the Fidelity TDF that others my age would have been guided towards — the Freedom 2030 Fund — might be instructive. And since both AAA's vulnerability to market volatility and its capability of weathering the recent market downturns in the market in 2008 and 2011 are in question, we can take a look at quarterly data points from early-2008 to the last reported quarter of 2012, and then focus particularly on the investment performance of the Freedom 2030 TDF and my actual portfolio around two key moments, June 2008 and July 2011, comparing where balances returned from their ensuing precipitous drops.

As indicated in Figure 2, between June 2008 (marked F_1 on the chart) and March 2009, Freedom 2030 lost 37% of its value and did not return to its June 2008 value until January 2011 (F_2). Using an AAA strategy developed at the Compass Institute, during that same period my own account was never down more than 11% and began the month of July 2009 (S_1) on a footing to make new gains — some seventeen months earlier than the Freedom 2030 fund.

Figure 2: Scherman Actual Comparison[11]



In the downturn of 2011, Freedom 2030 performed better, losing only 9% of its value between June and September 2011 and returning to its June 2011 level by March of the following year. This time, my AAA portfolio took a greater hit, losing 17% between July and September 2011, but it also returned to its July 2011 level by the end of March 2012, again ready to advance (and at a faster clip) no later than had I been in the TDF.

All of these gyrations are interesting, but most important are the longer-term results. Having recovered from the 2008 crash 17 months ahead of Freedom 2030, my AAA-governed retirement portfolio realized much greater overall growth during the 54-month period between March 2008 and September 2012: over 70% true investment return in my portfolio, as compared to just a 14% gain in the Freedom 2030 Fund over the same time-frame.

Recommendations

Research at the Compass Institute should give investors and employers alike some hope that their existing retirement plan can in fact provide true Retirement Income Security and that all is not lost — that the retirement crisis is not a *fait accompli*, or that all but the most fortunate will have to live their "golden years" in dire straits. Avoiding the shipwreck will require action that can be summarized as follows:

1. **Adopt Strict Realism**
   Plan Sponsors should educate and encourage their plan participants to adopt realistic estimates for the total savings required to achieve *Retirement Income Security* and seriously consider 20 times final salary as a minimum standard. Fiduciaries should encourage employees to investigate the real costs of retirement and to soberly consider the consequences of easy answers to a financial situation that for younger employees may seem too distant to worry about.
2. **Focus on the Endgame**
   The focus on Investment Risk that informs MPT-guided investment strategies should be replaced by the broader and most critical concern of *Retirement Income Security Risk,* or the possibility of retirees running out of money before they die.
3. **Be Active**
   This new focus requires investors to be more vigilant and more active in their portfolio management. For investors planning not to "settle for less" in their golden years, the days of "set it and forget it" are over.
4. **Demand Performance**
   Individuals and plan sponsors should seek out providers with expertise and investing strategies that allow plan participants to grow their retirement accounts both safely and effectively, focusing on long-term annual returns that consistently exceed the expected 6–8% average annual return of MPT-guided managed accounts and funds (balanced, Target Date, Life Cycle).
4. **Make Options Available**
   Plan fiduciaries should investigate the cost/benefit, in terms of both potential fiduciary liability and worker productivity and morale, of directing third-party providers to offer active *Adaptive Asset Allocation*™ investment advice and programs as required and prudent supplements to MPT-guided portfolio options.

To request a copy of the detailed and expanded version of this article entitled "Breaking Bad for Boomers" or to learn more about Adaptive Asset Allocation™, please send an email to reports@compass—institute.org

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[11] Unaudited, real return — excluding contributions made. Freedom 2030 values are derived from the Compass Institute's audited back-tests.

PSCA Member Benefits

The Plan Sponsor Council of America offers many benefits to its members to assist in the administration of their defined contribution plans. Here is a list of just a few of the benefits PSCA membership offers:

Conferences and Training
National and regional conferences designed for defined contribution plan administrators and sponsors.
Providing education from industry leaders and peer networking.

Media Involvement
Articles and reports on profit sharing and 401(k) plans.
PSCA continually works to provide and promote accurate, concise and balanced coverage for profit sharing and 401(k) plans.

401(k)/403(b) Day
An annual event promoting plan participation, communication and education.
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An interactive, online community of plan sponsors, administrators, and service providers.
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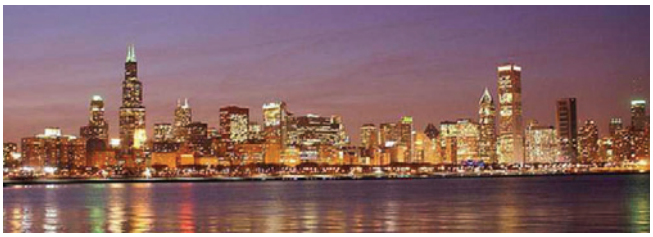
For PSCA member benefits questions, please call us at 312-419-1863, ext. 207.

This Issue's Member Benefit Highlight:

Join Us for PSCA's 2013 Midwest Regional Conference

One of PSCA's most popular events is the Midwest Regional Conference. In 2013, PSCA will host the annual Midwest Regional Conference on March 6 in Chicago, Illinois.

This conveniently located one-day conference offers both general sessions and nine workshops that provide attendees with valuable information about the latest industry trends. Industry-recognized experts speak on a variety of topics including plan administration and design, compliance, investment strategies, and participant communications. The format allows provider companies the ability to engage in a dialogue with plan sponsors on a one-on-one basis to explore potential new business opportunities.



Check our website at www.psca.org/events for agenda details.If you are interested in speaking at our sponsoring the Midwest Regional Conference, please contact Jen Rogers at jennifer.rogers@psca.org.

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Additional PSCA Information

PSCA on the Web

- www.psca.org — Everything you need to know about employer-sponsored defined contribution plans.
- 401k.org — PSCA's Web site for plan participants.
- 401kday.org — See PSCA's 401(k) Day Web site with new games and materials.

Toll-free technical assistance helpline for members only.
Please call 1-800-255-2710.

Join a PSCA committee! See the "Upcoming Dates & Events" below for meeting dates and locations. Call PSCA at 312-419-1863 to sign up.

Also Available

- 401(k) Day materials, including Spanish versions.
- *Take Control of your 401(k)*, by David Wray (available at a discounted rate for members.)
- Artwork to reprint PSCA's *Take Control!* brochure, which discusses the importance of saving for retirement through profit sharing and 401(k) plans. Customize the brochure with your company's name and logo! Preprinted brochures are available for purchase at a nominal fee.
- *55th Annual Survey of Profit Sharing and 401(k) Plans*, reflecting the 2011 plan year.

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Upcoming Dates & Events

Education and Communication Committee Meeting
December 13, 2012

Education and Communication Committee Meeting
March 5, 2013 • Chicago, IL

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March 6, 2013 • Chicago, IL

Western Regional Conference
April 3, 2013 • Dallas, TX

Board of Directors Meeting
May 1–3, 2013 • Santa Fe, NM

PSCA's 66th Annual National Conference, 2013
September 9–12, 2013 • Scottsdale, AZ