"Bill Bengen framed a deceptively complex question and crafted an elegantly simple answer that remains relevant two decades later for hundreds of thousands of financial advisers and easily 100 million retirees."

The 4% RULE

It Was 20 Years Ago Today

by Jonathan Guyton, CFP®

The email request popped in from *Journal* editor Carly Schulaka—October 2014 would be the 20th anniversary of Bill Bengen's groundbreaking initial article, "Determining Withdrawal Rates Using Historical Data," about his research into sustainable and safe withdrawals in retirement. Would I offer my thoughts on that original research and its impact on the ensuing 20 years? It took me about two seconds to say yes.

I soon found myself thinking that 1994 was really not that far in the past. And yet, it seemed like eons ago relative to what's changed and happened since then.

Thinking about the retirement planning landscape of the early 1990s, I recalled conversations with prospective clients about the three legs of the retirement planning stool—pension, Social Security, and retirement savings; part-time work was still a few years away from being added to this mix.

Note the order of that day: pensions were first and personal savings last. This isn't surprising since 401(k) contributions via payroll reduction had only been cleared by the IRS 10 years earlier, and about the same time, Congress expanded eligibility for a $2,000 deductible IRA contribution to all employees. To have accumulated $100,000 in household retirement savings by the early 1990s was a big deal. Even so, absent inherited wealth, the role of this savings was to be retirement's icing on the cake.

As for the tools of the trade in those days, only the most serious financial planners had invested in a PC or early laptop. Retirement capital analyses were done with homemade spreadsheets as often as with the latest financial planning software to hit the market. And Harold Evensky's term-coining book, *Wealth Management*, on the investing and managing of client assets, was still a few years away, as was Lynn Hopewell's clarion call for the profession's addition of stochastic (Monte Carlo) analysis to its toolkit.

It was into this world that Bengen launched his financial planning practice in Southern California, having earned his CFP® certification in 1990 after graduating with a bachelor's degree in aeronautics and astronautics from MIT 17 years earlier. Fortunately for anyone reading these words, and literally millions of others, Bengen was not merely a boy who had loved building and launching model rockets. He was also a man who co-authored *Topics in Advanced Model Rocketry*, which MIT Press published in 1973. In some ways, there is nothing else that needs saying!

Except that there is.

Conventional Wisdom Busted

In the early 1990s, empirical research into sustainable withdrawals during retirement was understandably nonexistent. After all, why ponder safe withdrawal amounts when so few retirees had enough savings to matter? It's not that back-of-the-envelope calculations and common-sense approaches weren't being offered. By the early '90s, it was well known that an all-stock portfolio should earn an average, long-term, annual real return of 7 percent, so why couldn't you safely withdraw $7,000 yearly from a $100,000 nest egg and up it for inflation each year?

As late as 1995, stock-picking guru Peter Lynch claimed that a 7 percent withdrawal rate from an all-stock portfolio was appropriate. The flaw in this early conventional wisdom was assuming that the average annual return and inflation rate mattered more than the sequence of annual results that comprised them. Clearly, no one had yet thought that this matter could benefit from the type of approach a former applied rocket scientist might take.

"Applied" is the key. In "Secrets of the Creative Brain," from the July/August 2014 issue of *The Atlantic*, Nancy C. Andreasen, chair of psychiatry at the University of Iowa's Carver College of Medicine, shares empirical research history into the origins of creativity. After guiding us on the long and winding trail of work into the key question of creativity's defining characteristics, she offers this clarifying statement: "The essence of creativity is making connections and solving puzzles." She must have been writing about Bill Bengen.

When you read just the opening page of "Determining Withdrawal Rates Using Historical Data," from the October 1994 *Journal* (access it at www.FPAJournal.org), you quickly note Bengen's imaginative use of scenario planning, his appreciation for the human dimension of advising clients, his connection of past approaches to their real-world flaws, and his sense that objective and data-driven analysis was needed to shed sufficient light on his subject.

In the words of Wade Pfau, Bengen's "exceedingly clever trick was to construct

The 4% Rule

David M. Blanchett, CFP®, CFA
Head of retirement research for Morningstar's Investment Management group

What impact do you think Bengen's original research has had on the planning profession?

It's had a significant impact on the planning profession. It's provided financial planners, as well as the general investing public, a relatively simple heuristic about how much they have to save for retirement—something that I think is incredibly valuable.

Where do you see research on safe withdrawal rates headed?

I think newer research is introducing dynamic models, where the retiree can make changes to a given strategy over time based on what's happened. I also think annuities can provide a valuable role, especially for older retirees.

Harold Evensky, CFP®, AIF®
Chairman of Evensky & Katz

Where were you 20 years ago?

Practicing financial planning in Miami.

Do you recall reading this paper when it was first published in October 1994?

Yes, and I found it eye-opening.

How has Bengen's work impacted you personally?

The basic concept Bill introduced (sequence risk) is at the heart of our retirement planning.

What impact has it had on subsequent research?

I hope it will continue to stimulate such forward-looking thinkers as Kitces, Blanchett, Pfau, and others to continue researching this issue.

The 4% Rule

Peggy Doviak, Ph.D., CFP®
Owner of D.M. Wealth Management Inc.

How as Bengen's work impacted you personally?

I entered the field of financial planning in 2002 and was introduced quite early to Bengen's 4 percent withdrawal rate. I was impressed with the researched and measured tone taken by the paper and how different it felt from the technology hype of the late 1990s and the crash of the early 2000s. Bengen's work seemed more logical than the way the financial services world had been recently acting.

I believe that financial planning is the least effective when the planner overlooks a consideration that impacts the client's financial situation. I spend considerable time trying to account for all of the variables on whether or not the client will be able to meet their retirement distribution needs. Bengen's research provides me with a good list of initial considerations as I determine how much my client can withdraw without running out of money.

What impact do you think it has had on subsequent research on safe withdrawal rates?

Bengen began a conversation that needed to occur, and over the last 20 years, he has not suggested that his original research be accepted without additional thought. His revision of distribution rates through the "layer cake" metaphor of 2006 shows how specific circumstances can change the available safe withdrawal rate. Some recent articles highlighting his 1994 paper have been critical of the fixed 4 percent, some believing it to be too low and others too high. However, Bengen himself showed how distribution rates are a moving target depending on many circumstances.

rolling 30-year periods" from the annual historical data that Ibbotson Associates' provided him. He was thus able to determine the highest initial withdrawal rate that was still sustainable in the worst-case 30-year period going back to a 1926 start date.

In other words, like any good financial planner (and, undoubtedly, any good rocket scientist), Bengen looked broadly at the situation from a sufficiently high altitude before diving into the details to determine how to make the thing fly better.

A Planner's Perspective

In thinking like a CFP certificant about this, by applying a perspective that only comprehensive financial planning can bring, Bengen framed a deceptively complex question and crafted an elegantly simple answer that remains relevant two decades later for hundreds of thousands of financial advisers and easily 100 million retirees.

More than that, his "4 percent rule" remains the starting point for virtually all credible efforts to expand our knowledge of sustainable retirement income generation. Quite simply, Bengen—a man far ahead of his time—owns one of the fundamental questions of retirement planning.

And his contribution did not end in 1994. Recognizing that, like himself, most advisers recommended that their clients diversify their equity assets, he revisited his work in 1997 (while continuing to serve his clients) to find that indeed a diversified equity allocation in a balanced retirement portfolio would allow the maximum safe initial withdrawal rate to be a bit higher.

In mid-2006, again learning from his observations as a practitioner, he published further research in his book, *Conserving Client Portfolios During Retirement*, that considered various special planning situations that can affect safe withdrawal rates, including one of the first policy-based methods showing how sustainable spending levels increase for retirees who can make small adjustments to their withdrawal amount.

A Simple Mission

As useful as this was, I suggest that Bengen's greatest post-1994 contribution came not from the rigorous quality of his research, but from his generous personal qualities that encouraged those of us who would attempt to build on the foundation of knowledge that he established.

He built an invaluable intellectual base and set the example for the applied research grounded in comprehensive financial planning that is most valuable to practitioners serving their clients. By his quiet and unassuming nature, Bengen also nurtured the professional environment that would yield its next generation far more quickly than without his encouragement.

Speaking from my own experience, from his kind invitation to join a dinner party he hosted at an FPA conference near his home, to graciously agreeing to let this recently

The 4% Rule

Wade D. Pfau, Ph.D., CFA
Professor of retirement income at
The American College

What impact do you think Bengen's original research has had on the planning profession?

When Bengen wrote in the 1990s, he brought greater realism to retirement strategies by identifying the importance of sequence of returns risk. With early portfolio losses forcing a retiree to spend a greater percentage of what is left to meet a constant spending goal, the sustainable withdrawal rate can be less than what is implied by a naive assumption that the portfolio will always earn its average investment return. Few still make this mistake. We have Bengen to thank for this improvement in our thinking. Even for those who don't agree with "the 4 percent rule," Bengen's research serves as an essential starting point for any subsequent revisions or refinements for retirement income approaches.

How has Bengen's work impacted your research?

My own work on "safe savings rates" provided an analogue to Bengen's "safe withdrawal rate" by looking at the planning problem more holistically over the lifetime rather than beginning the analysis at the retirement date.

Where do you see research on safe withdrawal rates headed?

I see research as moving further to extend some of the basic assumptions of Bengen's work by looking more at how current capital market conditions can impact sustainable withdrawal rates, the role for dynamic spending and dynamic asset allocation policies in retirement, and the impacts of partially annuitizing assets with single-premium or deferred-income annuities. There is still much work to be done, but we can thank Bengen for getting the ball rolling 20 years ago.

It was 20 years ago today…

Marguerita Cheng, CFP®, CRPC®
CEO of Blue Ocean Global Wealth

What impact do you think Bengen's original research has had on the planning profession?

This seminal paper encouraged thought leadership and research to help planners better explain to their clients the tradeoff off between wealth (accumulation) and income (utilization).

How has Bengen's work impacted you personally?

Clients may not understand how to transition from investing their paycheck in the accumulation years to creating a paycheck in utilization or decumulation years. Referencing the 4 percent or safe withdrawal rule is a good starting point, because many time clients don't understand how much they can actually withdraw from their retirement portfolio.

Where do you see research on safe withdrawal rates headed?

The conversation about safe withdrawal rates will not go away; rather, the focus should be on quality of life in retirement and helping our clients take a more integrated approach. In other words, if clients need to withdraw more than what has been traditionally deemed as "safe," other options will need to be addressed. For example, long-term care insurance, optimizing Social Security benefits, SPIAs, and managing housing wealth will also be part of creating a customized plan for a more fulfilling and secure retirement.

The 4% Rule

Jason Branning, CFP®
Owner of Branning Wealth Management, LLC

How has Bengen's work impacted you and your research?

I have benefited from Bengen's work, as I directly followed his framework for the first decade of my career. I also deeply respect his service to emotion-driven clients; the same goal of serving clients propels my thinking and research. There are so many different methods to help clients generate retirement income. I believe there should be some standardization in retirement income planning advice around certain inviolable premises.

For retirement, the first goal must be income replacement that is stable, secure, and sustainable. The updates to the 4 percent rule (such as Guyton's dynamic rules, Pfau's international safe withdrawal, or Finke's 4 percent rule in a low-rate environment) philosophically fit within the definition of stable, secure, and sustainable for advisers who generate base income from a portfolio. My research affirms the concept Bengen propagated—prepare for the worst case, and be positioned to thrive in the good times.

What impact do you think it has had on subsequent research on safe withdrawal rates?

An unintended consequence of the original research has been anchoring on a specific number. Some have tended to diminish this work into the "4 percent rule," which reinforces a shortcut. Many who used the strategy anchored on a rule for withdrawal and an allocation in an overly reductionistic way, rather than applying principles Bengen was highlighting.

I think other researchers have approached the 4 percent rule with healthy skepticism. Jonathan Guyton, Michael Finke, David Blanchett, Michael Kitces, and Wade Pfau have attempted to broaden, refine, and build upon the original work in meaningful ways.

Where do you see research on safe withdrawal rates headed?

As we experience long-term low interest rates and unprecedented global sovereign intervention through monetary policy, I expect additional works will stress test portfolios by examining them through the lens of possible outcomes: higher-than-average inflation and additional asset class, or off balance sheet asset inclusion (e.g. Social Security), inclusion of adviser fees and other expenses. I also suspect future research will more clearly link a portfolio to an individual's retirement plan itself.

published fellow practitioner join him on a panel at a 2008 NAPFA meeting, to his soft-spoken presence amongst fellow researchers half his age on one of the *Journal*'s roundtables (see "Safe Withdrawal Rates: What Do We Really Know?" from the October 2012 issue), Bengen simply sought—as he wrote in 1994—to contribute to finding a sounder basis for what a client can safely withdraw over a long period of time so that their retirement could be more fulfilling and worry-free.

For as much as our friend—the bright and generous undergraduate rocket scientist—wanted to be "right" for his chosen profession's benefit, what he desired even more was to encourage us to use our collective smarts to do right by our clients for their benefit. He certainly accomplished that and much, much more.

In recognition of all his many contributions, please take time this month to say thank you and to join me in expressing gratitude to Bill Bengen for his safe and long-sustained withdrawal into a bright and well-earned retirement. ■

Jonathan Guyton, CFP®, is principal of Cornerstone Wealth Advisors Inc., a holistic financial planning and wealth management firm in Edina, Minnesota. He is a researcher, mentor, author, and frequent national speaker on retirement planning and asset distribution strategies, and a former winner of the Journal of Financial Planning *Call for Papers competition.*

Tools to Use

Read It Today
Access a PDF of Bengen's October 1994 *Journal* article, "Determining Withdrawal Rates Using Historical Data," on the *Journal*'s website, www.FPAJournal.org, and share your thoughts on this seminal paper on FPAConnect (www.Connect.OneFPA.org).