Welcome to InFRE's June, 2015 Issue of Retirement Insight and Trends

Retirement InSight and Trends is the quarterly newsletter for the International Foundation for Retirement Education's Certified Retirement Counselors® (CRC®s) to help retirement professionals with the practical application of new retirement readiness, counseling, planning and income management concepts for the mid-market. Find out more about the CRC® and InFRE here.

One *free* CRC®, CFP®, ASPPA, and the American College's Professional Recertification Program (CLU ®, ChFC®, CASL) CE credit (click here to pay $15.00 reporting fee for CFP CE, included for Professional Development Memberships) can be earned upon completion of the corresponding 10-question Continuing Education Exam (see the "Continuing Education Exam" link at right and choose the newsletter issue desired, or click here). An email will be sent to you and InFRE upon successful completion (score of 70% or more) of the CE exam. You are responsible for reporting your CE hours for ASPPA recertification and the American College's Professional Recertification Program (CLU®, ChFC®, CASL).

Looking for additional CE opportunities? Visit the continuing education section of the Retirement Resource Center store to find hundreds of additional professional development and continuing education options by leading experts, the way you want to learn, at the level that's right for you.

June, 2015 InFRE Update: InFRE in the News

The International Foundation for Retirement Education® (InFRE) is a non-profit 501(c)(3) organization founded in 1997. Our mission is to raise the retirement readiness of the American worker through:

- Retirement-specification certification for professionals
- Retirement income and plan administration education
- Professional development/continuing education and training, and
- Retirement readiness research and tools for consumers/employees.

We are committed to protecting the general public by advancing recognition among retirement planning professionals of the need for continuing education, a code of ethics, and professional certification for retirement plan counselors. To this end, InFRE strives to increase the recognition of the Certified Retirement Counselor® (CRC®) certification in the financial industry and with consumers.

In the last couple of months, the CRC® and InFRE were not only mentioned, but a focal point of several articles.

- *Credential to Look for in a Financial Adviser, Wall Street Journal, May 21, 2015*. In this article to educate consumers about how to choose an advisor to help with retirement income planning, the CRC® was called out as one of the top three designations among over 50 with the words “senior” or “retirement” in their names.
- In *A Well-rounded Retirement Planning Education, LifeHealth Pro, May 22, 2015*, author Ed McCarthy interviewed InFRE’s Managing Director, Kevin Seibert, and describes how the CRC® provides a more holistic, approach to enable advisors to provide comprehensive pre- and post-retirement planning.
- In *Retiring? You have 401(k) options, USA Today, June 6, 2015*, Robert Powell interviewed Betty Meredith, InFRE’s Director of Education and Research, to respond to a reader’s question about what he should do with his 401(k) account since he was on the verge of retirement.

InFRE is currently in the middle of a major revision to its Retirement Readiness tool and research for use by plan sponsors, consumers and employees. Stay tuned for an update on these initiatives in the September, 2015 issue of *Retirement InSight and Trends.*

Estimating the True Cost of Retirement

retirement-insight.com/estimating-true-cost-retirement/

By David Blanchett, CFA, CFP®, AIFA® – Head of Retirement Research, Morningstar

Editor's note:
This presentation was delivered in live webinar format in 2015. David's comments have been edited for clarity and length.
*You can view a **YouTube** brief of the original presentation here.*
*You may also choose to take the **full length course** to earn 1 CRC®, CFP®, and/or PACE CE credit.*

David Blanchett, CFA, CFP®, AIFA – Head of Retirement Research, Morningstar

Think about what retirement costs. It's obviously a very complex consideration, and it's important to put it in perspective.

Retirement is the most expensive purchase you're ever going to make. The average cost of a home today in America is about $250,000. Retirement for most people will cost over $1 million, to provide them with income for life, adjusted for inflation. For a lot of individuals, that's covered through things like Social Security or pensions, but still retirement is the most expensive purchase someone's ever going to make.

When thinking about the actual cost of retirement, there are really two different sides to the equation. One side that gets the most focus in research is the asset side; what do I do with my assets to fund retirement? The other side though is just as important, and that's the liability side. The liability is effectively the funding of your income goal in retirement. How much are you going to spend each year for the 30 or 40 years of the duration of retirement? For example, for those of you that work with defined benefit pension plans, it doesn't matter what that portfolio does. That defined benefit plan is mandated to make a payment to a beneficiary every year for life. If the assets do well or if the assets do poorly, it doesn't affect what is actually due to the individuals. A lot of professionals build a portfolio that is accumulation-focused and independent of the liability. But in reality, for most retirees, these are two different, but related concepts.

What Does It Really Cost To Retire?

So when thinking about the assets, we're talking about things like your portfolio, your 401(k), your IRA, your taxable accounts, the monies that you have saved to fund retirement.

Now when we do projections about assets, the past is usually our guide. I've done a lot of research on this topic with Wade Pfau and Michael Kitces. The U.S. stock market historically has been a phenomenal wealth creation engine for investors. It has been one of the best places to invest historically. So I think if we start from this place of, well the past is a guide, we have to ask ourselves how valid is it for the future?

This is really important for investors today because this radically affects the definition of what is a safe strategy for retirement. What is the key perspective on what is a safe withdrawal rate? Well, we've all heard of the 4 percent rule. I think that sometimes people get this wrong a little bit because the 4 percent rule only tells you about the

withdrawal rate in the first year of retirement; in the first year of retirement, you can take out 4 percent of your initial account balance, and you increase that amount by inflation every year for 30 years.

In reality, it's not the 4 percent rule. It's really a 25 times rule, where you need 25 times your initial income goal when you first retire. This approach has been backed up by a variety of different research.

The Replacement Rate

There are some common assumptions we use when it comes to estimating that retirement liability.

The idea behind a replacement rate is to say, "Hey, what changes when I retire? If I'm making $50,000 today and then I retire tomorrow, what do I need to replace in retirement from an income perspective?"

The idea of saving for retirement is based upon what's called consumption smoothing. An individual works for say 40 years and they save for retirement so that when they retire, they don't all of a sudden have to have this radical shock to their lifestyle. They can keep enjoying the same things they had before they retired. It's also called the life cycle model.

Another thing is that expenses change at and during retirement. I mentioned the idea that once you retire, you're no longer obviously saving for retirement. You aren't paying certain taxes on your income. There are other things that make your tax situation more advantageous when you retire.

There is also this idea of income differences. What I mean here is that for different people who make different levels of income, they can have radically different tax situations before and after retirement. So one example of this is Social Security; how much of your pre-retirement income is replaced from Social Security based upon different income levels? If you know about the way the formula works, the more you make, the less you have replaced. So if you only make $25,000 per year when you are working, you'll get about a 60 percent replacement rate from Social Security.

As your individual income surpasses $100,000 or even up to $200,000, the replacement income you get from Social Security decreases significantly. What changes too is these benefits become taxed at different levels. So that kind begs the question, what is the right replacement right for different individuals? Here are four different household examples.

Replacement Rates for Various Households

$25k Primary / $12.5k Spouse

Post-Tax %	Pre-tax % 3%	9%	15%
0%	84%	79%	74%
6%	78%	73%	68%
12%	72%	67%	62%

$100k Primary / $50k Spouse

Post-Tax %	Pre-tax % 3%	9%	15%
0%	81%	75%	70%
6%	73%	68%	62%
12%	66%	61%	55%

$50k Primary / $25kSpouse

Post-Tax %	Pre-tax % 3%	9%	15%
0%	84%	78%	69%
6%	77%	68%	62%
12%	67%	61%	55%

$150k Primary / $75k Spouse

Post-Tax %	Pre-tax % 3%	9%	15%
0%	81%	76%	70%
6%	73%	68%	62%
12%	65%	60%	54%

In the upper left you see a household where the primary worker makes $25,000 per year, and the spouse makes $12,500 per year.

If you move to the bottom left, the combined income for household is $75,000, upper right its $150,000, and bottom right is $225,000. What I'm showing you here is how the replacement rate varies based upon different levels of pre-tax and post-tax savings. Think of it as saving pre-tax in the traditional 401(k), post-tax in a ROTH 401(k). What you see here is that there really isn't one number for everyone. 80 percent gives a reasonably average across the scenarios, but if there are extremes.

For a relatively low-income household that isn't saving much for retirement, 84 percent is their replacement. A higher-income household, because they don't receive much from Social Security, has to save a lot more for retirement. A 54 percent replacement rate actually makes sense. But it needs to be even more complex if you factor in, "When are you going to pay off your mortgage? What expenses may also go away in retirement that you are paying during accumulation?" The moral here is it really makes sense to figure out what is the desired amount of income for a particular situation.

Retirement Consumption

There's been this noted effect in research called the retirement consumption puzzle. Either at retirement or during retirement, people don't tend to increase their consumption by inflation. This takes place to some effect at retirement; mostly because people that retire tend to make more meals at home versus eating out.

But a more important effect is how consumption changes during retirement. On average, as people age, they tend to slow down. So they transition from the go-go years, to the slow-go years and the no-go years. They tend to spend less, they tend to be less mobile, so that obviously affects their overall consumption.

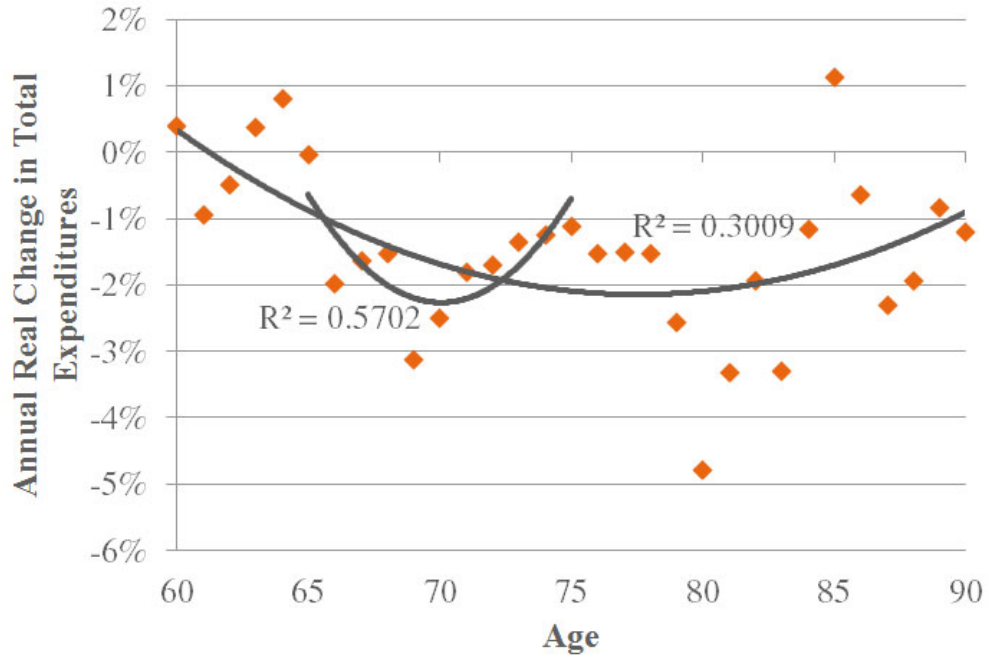
But they're spending on different things. A research database called the Health and Retirement Study (HRS), tracks households over time. For the same exact household, it ask, "What did you spend this year? What did you spend in the prior years?"

So how do these levels of consumption actually change when you look at the same households over time? We would expect that the real change in expenditures should be 0 percent. If it's 0 percent, it means that they are increasing their consumption by inflation every single year. What I found was that the actual change tends to be

negative. A negative change means that if inflation goes up say 3 percent in the year, they'll only spend maybe 2 percent more the following year.

In the graph below, you'll see two things I call the "retirement spending smile". It suggests is that younger retirees tend to actually increase their consumption a little bit more, or it tends to go down less, than middle-aged retirees.

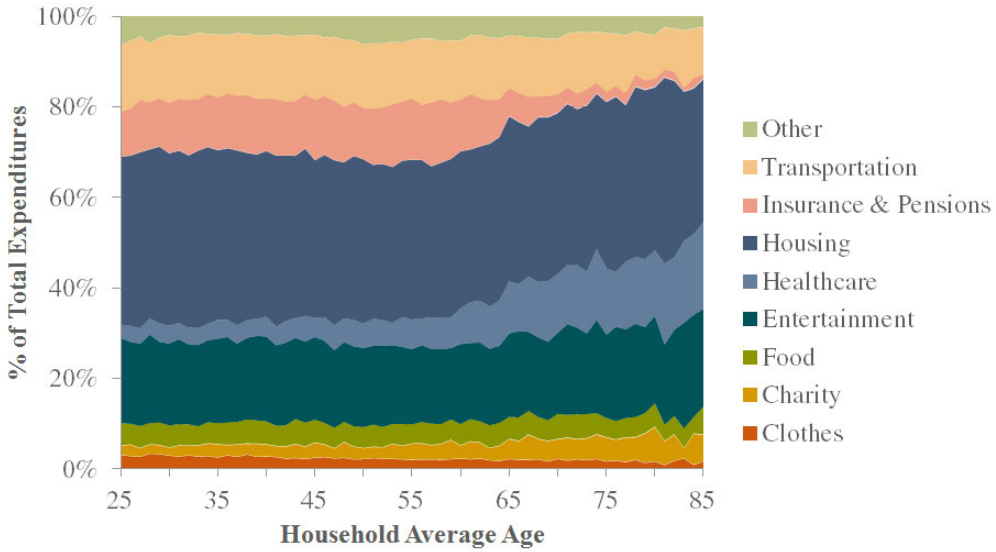
Real Change in Expenditures for Retirees



So between the ages of say 70 and 80, it tends to bottom out. Expenses tend to tick back up after age 80 because of healthcare costs.

There are nine major consumption baskets that vary over the average household's lifetime, and are relatively static, except for two things. The first is insurance and pensions. Up until retirement, it's a relatively constant percentage. After retirement, it drops significantly. Healthcare tends to increase significantly during retirement.

Expenditures as a Percentage of Total Consumption by Age



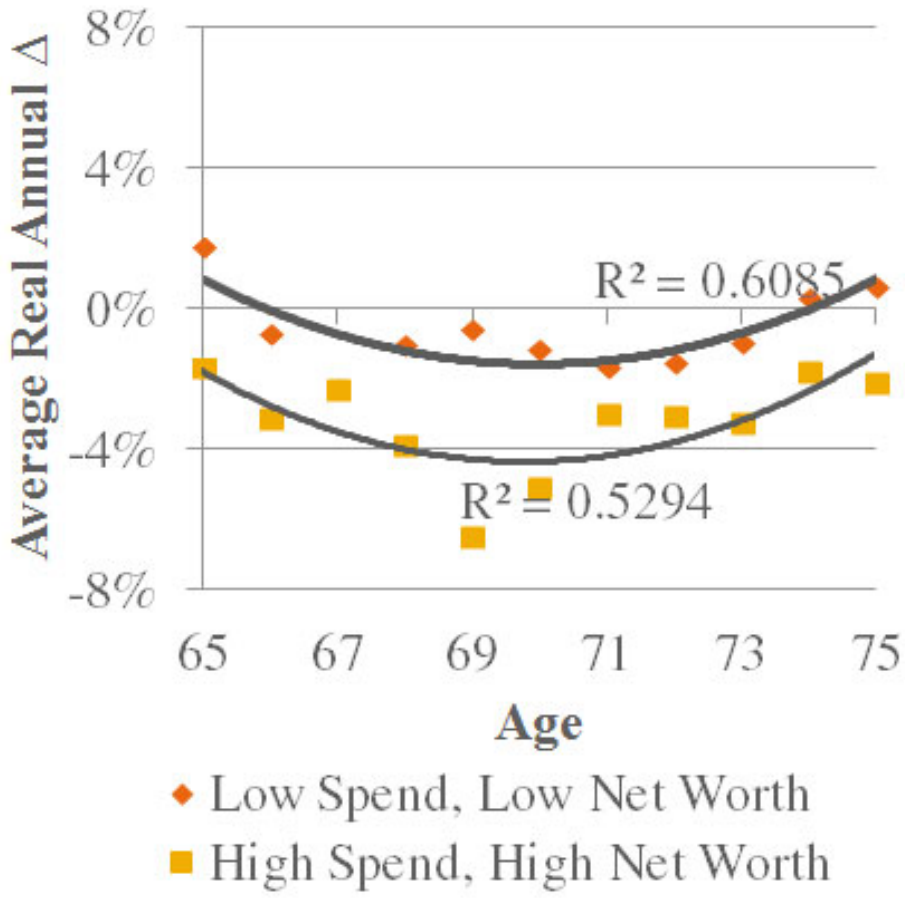
For the average household at age 65, regardless if they are high income, middle income or low income, they spend

about 10 percent at age 65 of their total consumption on healthcare. That same household who is age 85 will devote 20 percent on average of their total consumption to total healthcare. What's interesting though is that there isn't a big difference in low income, middle income and high income groups to how much they actually spend on healthcare on average.

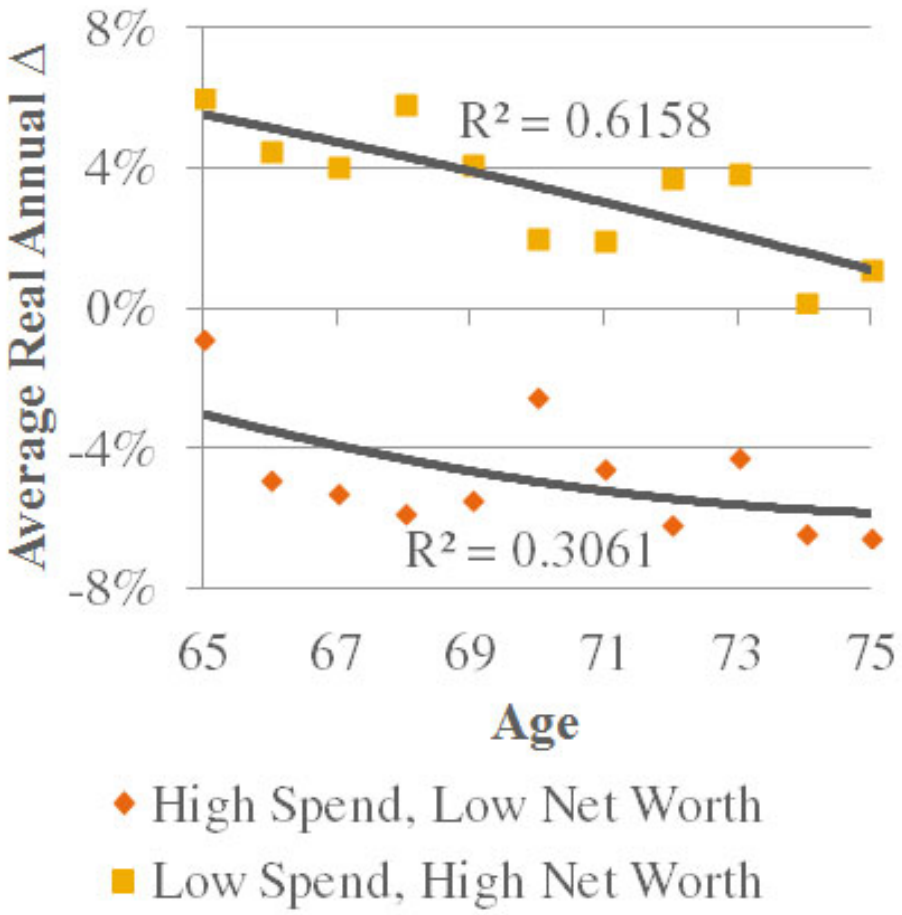
Why do households tend to spend less as they age? There are two obvious answers here. One reason is they are choosing to spend less because they just don't need to buy a new car as often, new clothes, etc. The other possibility is necessity. If you read the news, we've all heard about a "retirement crisis"; but I don't think it's a crisis. So I ran some additional tests. What happens if I change this test route, and group households into the following four buckets?

1. Matched spending and wealth
    1. Low spend, low net worth
    2. High spend, high net worth
2. Unmatched spending and wealth
    1. High spend, low net worth
    2. Low spend, high net worth

Matched Spending and Wealth



Matched Spending and Wealth



One bucket is matched spending and wealth. What that means is, for example, you have a lot of wealth, and you're also spending a lot of money. Another example is you're not spending much, but you have a relatively low net worth. You see the same effect for the matched spending; you see the same smile.

The other example is what I call mismatched spending. These individuals have a low spend and high net worth. You actually see this effect of decreased consumption for the mismatched more than the matched.

Using this somewhat simple perspective on how different households could choose to consume, it still suggests that some of this is by choice. This begs the question, what does this do to portfolio success rates? Think about the spending curves (smiles). If you're doing a Monte Carlo simulation for a client, you're probably going to assume that if they spend $1 today, they're going to spend that same $1 thirty years from now, adjusted for inflation. What does it do to a retirement income projection if instead of assuming they spend that same $1 increased by inflation, if they spent based upon these curves? How does that change in assumption affect success rates?

What you see is a very large difference in what would be considered a safe withdrawal rate from a portfolio. If you were to use this assumption that people tend to increase their consumption every year by inflation, you might say that a 4 percent withdrawal rate hypothetically is safe. If you model actual inflation, in terms of how the consumption changes for retirees, what you'd see is that 5 percent is the right number because in reality, if you do decrease your consumption over time, you don't have to have as much saved for retirement. So changing this model, I think, can radically affect what you do for retirees.

Length of Retirement

When we're thinking about retirement, there's this idea of longevity risk, which is living a long time. Of all the risks in retirement – return risk, inflation risk, sequence risk, health risk – longevity risk is the biggest danger that retirees face. Funding a retirement that lasts 5 years versus 40 years leads to two very, very different perspectives about

how much you have to have saved for retirement. The model we use today for retirement is incredibly inefficient from an income perspective.

In the past, one of the key means that individuals used to fund their retirements were through defined benefit plans. Defined benefit plans are incredibly efficient from the retirement income perspective. Within a defined benefit plan, that risk of living too long is pooled. For every person who lived to say age 95 or age 100, someone else would die at age 65, age 70, age 73, age 78, etc. Now though, as we've moved towards defined contribution plans, there is no more risk pooling. Every single person has to plan to live to age 100 or age 95. That's very inefficient because as we know, most people won't live that long.

Now for better or for worse, the only way to guarantee income for the length of retirement is through some type of annuity or some type of guaranteed income. How that works is called mortality credits, where if you survive up to age 95, as part of buying that annuity, you're not only receiving some interest and return of premium, but you're also receiving benefits based upon those who have passed away before you.

I don't work for an insurance company. I don't sell annuities. Annuities are a very contentious issue. I completely understand that. They're often missold. There's no fiduciary standard by and large. But the only way you can guarantee income for life is with guaranteed income. Social Security is the best annuity around. Anyone who is realistically thinking about wanting more guaranteed income, the absolute first place you have to look is Social Security. It is impossible to buy an annuity with this same type of rate of return.

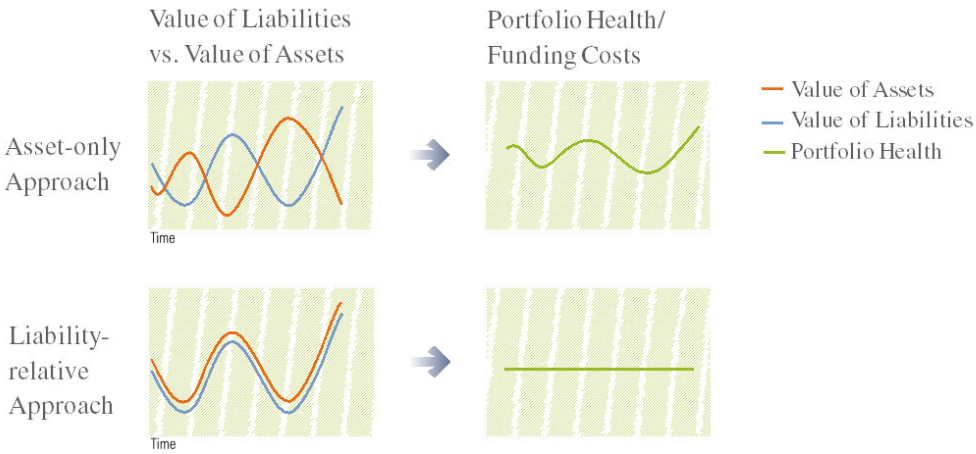
Annuities should not be purchased for their returns; they are a risk management tool. An annuity is priced based upon two main factors. The first factor is how long you're going to live, and the second factor is what the insurance companies earn on the funds they've invested. Social Security is only based upon one factor. It's based upon how long they think you're going to live.

More Efficient Retirement Portfolios

For those of us who build portfolios, too often we take what I call an "island perspective" when it comes to asset allocations. You have your inputs, you have your expected returns, your standard deviations, your correlations, etc. If you put those in, out pops this beautiful portfolio with the efficient frontier, and it says you should allocate 12 percent to small value, 15 percent to small growth, etc.

The problem though with that perspective is that you're ignoring everything else. Because in reality, the portfolio is only one piece of someone's total economic worth. A question then becomes, what is the risk of a portfolio that exists to fund a liability such as the goal to have $40,000 per year of income for 30 years? If you do a traditional mean variance optimization, you would define the risk of standard deviation because from a client's perspective the risk is volatility. But it's not the only risk. Risk for retirees is also not funding the goal. For a retiree, if they want income for life, adjusted for inflation, inflation is a very important risk characteristic that should be thought about in the optimization process.

All this leads to this idea of what's called liability-driven investing or LDI, or "liability relative investing". The goal for this portfolio for a retiree should be to track that liability over time.



Look at the upper left hand panel (assets only). You see an orange line and a blue line. The orange line is the value of your assets. We'll call that your 401(k) balance. The blue line is the guide to liability. So we'll call that the net present value of the cost of retirement over time. What you'll see in that upper left panel is this zig and zag, where as the orange line goes up, the blue line goes down, etc.

Were the market to go down one year by 10 percent, and inflation was a positive 5 percent, your realized return as an investor in this instance is negative 15 percent. Because your assets went down in value, but your liability increased in value, *so the assets are mismatched to funding retirement costs (liability) over time.* In sum, for a retiree, the goal is not wealth maximization. The goal is to make sure that they're going to have their retirement income need paid for when they retire.

With a liability relative approach, if the fundamental goal of the portfolio is to have income for life adjusted for inflation, you want a portfolio that when inflation is low, the portfolio doesn't have to do as well. But if inflation is higher, the portfolio will need to outperform. That's what you see in that lower left hand panel, where you've smoothed those funding costs over time.

What this leads to is this idea of different efficient frontiers. What are the risks of the goal you're trying to fund? How do those risks affect the optimal portfolio allocation? For example, you can have two portfolios that are both efficient, but they're efficient using two different definitions of inflation. One example is that if inflation is a risk to protect against, it has correlations that vary by asset classes. TIPS have a higher correlation to inflation than most bonds do, so TIPS are going to be more efficient at hedging inflation risk than the average nominal bond. There's other assets like real estate as well.

At Morningstar, we have accumulation portfolios and we have retirement portfolios. For someone who is under the age of 50 or 55, they get an accumulation-focused portfolio. Asset-only portfolios, focused on accumulation, look very different than liability portfolios. Asset-only portfolios are really better geared towards younger investors because younger investors have an excellent inflation hedge through their human capital. But older investors need this inflation hedge via their portfolios, so it really makes a lot of sense to have two different sets of models, one model that is geared towards investors who are in accumulation, and another model geared towards investors who are in retirement.

Key Conclusions

Takeaways for advisors:

1. You need to use expected returns and simulations. You really shouldn't use historical returns for modeling future projections. I've gotten into quite a few debates with advisors about this. If you change your model from long-term averages to one based upon expectations, you get an incredibly different perspective on what is a safe withdrawal rate.

2. Think about increasing the length of retirement in your models. Your clients are not the average American. The average American, they smoke, they may have some disease or cancer. Your clients, if they're healthy, and they're going to live a long time, and most likely they're wealthier than most. So what this means is that if you've got a couple who are both age 65, you should at least use 30 years as the period. Potentially even 35 years.
3. Think about modeling different spending levels in retirement, where inflation-adjusted consumption decreases with the retiree's age. This really does do a better job reflecting the actual consumption of retirees.
4. Creating different portfolios for accumulation is not the same thing as efficient portfolios for retirement. There's different risk factors, things like inflation, which really can lead to different outcomes. One way to easily do this for clients is to have two different sets of models. Have your efficient accumulation portfolios and your efficient retirement portfolios, and allocate them based upon where they are in their overall life cycle.

Takeaways for clients:

1. First and most importantly, retirement is the most expensive purchase you're ever going to make, so you have to know what it costs. If you buy a new phone or a new car, you do all this due diligence on where you can buy it the cheapest. Do the same for retirement, and know it is obviously incredibly complex.
2. True failure is not just having any money over a fixed period. It's not having any money over 30 years. It's having nothing left when you're still alive.
3. Retirement is far more complex than accumulation, and it really makes sense to bring in a professional when you are thinking about retirement and figuring out what these things cost.

About the author:

David Blanchett,CFA, CFP®, AIFA® is the head of retirement research for Morningstar Investment Management. In this role, he works to enhance the group's consulting and investment services. He conducts research primarily in the areas of financial planning, tax planning, annuities, and retirement plans and he serves as the Chairman of the Advice Methodologies investment subcommittee.

His research has been published in a variety of academic and industry journals and has been featured in a variety of media publications. His research won the Journal of Financial Planning's 2007 Financial Frontiers Award, the Retirement Income Industry Association's 2012 Thought Leadership Award, and the Journal of Financial Planning's 2014 Montgomery-Warschauer Award. In 2014 Money Magazine named him one of the five brightest minds in retirement and in 2014 Investment News included him in their inaugural 40 under 40 list as a "visionary" for the financial planning industry.

David Blanchett, CFA, CFP®, AIFA – Head of Retirement Research, Morningstar

He is a RetireMentor for MarketWatch and an Expert retirement panelist for the Wall Street Journal. He holds a master's degree in financial services from the American College and a master's degree in business administration from the University of Chicago Booth School of Business. He is currently taking classes toward a doctorate in personal financial planning at Texas Tech University.

Retirement Speakers Bureau

The Longevity Challenge: Housing Wealth Strategies that Improve Portfolio Survival

retirement-insight.com/longevity-challenge-housing-wealth-strategies-improve-portfolio-survival/

By Bruce McPherson, CRMP

Editor's note:
This presentation was delivered in live webinar format in 2015. Bruce's comments have been edited for clarity and length.

You can view a **YouTube** brief of the original presentation here.

You may also choose to take the **full length course** and earn 1 CRC®, CFP®, and/or PACE CE credit.

Bruce McPherson, CRMP – Reverse Mortgage Expert

A growing percentage of baby boomers and seniors have an unacceptably high risk of outliving their retirement portfolios. This is due to various trends such as increasing longevity and rising healthcare costs. For this reason, a recent survey showed that boomers and seniors fear running out of money more than they fear death.

For the past few years researchers in the financial planning field have begun to vocalize concern that housing wealth has been ignored in the financial planning process, despite the fact that housing wealth is a significant asset that can relieve pressure on the retiree, as long as it is used correctly.

How Retirees Can Access Their Housing Wealth through a Reverse Mortgage

The federally insured reverse mortgage program, which Congress created in 1989 and improved in recent years, is the safest way for a retiree to access his housing wealth without giving up his home. Congress named it the Home Equity Conversion Mortgage, or HECM. This is the reverse mortgage that is chosen by roughly 95 percent of homeowners today.

The HECM is a financial tool which scholars in your industry have found to provide significant portfolio survival protection, especially when a HECM strategy is implemented early in retirement, and especially when that strategy begins with the creation of a HECM line of credit as soon as the client reaches the qualifying age of 62.

If you look at the retiree segments on a hypothetical bell-curve, you can see that our traditional clients used to be only the clients who were house rich and cash poor. This is because the mainstream media has always described the HECM as a loan of last resort. It is also because HECMs used to always have very high up-front costs. But now, scholars in your field have quantified the benefits of proactive, strategic use of HECMs by the middle group of retirees, the so-called mass affluent.

Retirees in this group are not massively affluent. Rather, they are the great mass of people who are not quite affluent. This group of roughly 11 to 15 million people tend to own a home and a modest investment portfolio. For this group, the primary focus is to avoid outliving their assets. These are the people who can benefit from the strategic use of a HECM, because funds received from a HECM are loan proceeds, therefore they are not treated

as income.

How the HECM Programs Work

Before I explain the strategic benefits of a HECM, let's first take a look at the HECM program and how it works. The HECM program was created by Congress in 1989 to provide older homeowners with a safer alternative to the reverse mortgages that were available at the time. HECMs provide solid guarantees and some very flexible options that earlier reverse mortgages did not provide. This is why HECMs can be useful in a wide range of circumstances.

The HECM program is regulated by the US Department of Housing and Urban Development, and all HECMs are insured by the Federal Housing Administration, which is part of HUD. To qualify for a HECM, the client must be age 62 or older. Money can be borrowed as a lump sum, or as a payment plan that provides level monthly payments, or the client can choose to leave the money sitting in a line of credit to be accessed as needed. The client can also choose any combination of these options, and the client can switch between options later on. Debt service is never required. In other words, the client is never required to make monthly loan payments. All principle and interest can be deferred, which causes the loan balance to grow over time. The loan balance does not have to be paid back until the last remaining borrower has died, sold the home, or vacated the home for 12 consecutive months. A HECM is non-recourse, meaning that the homeowner and their heirs are not personally liable for the debt.

The debt is secured only by the home. This is a nice guarantee in case the home is upside-down when the borrower moves out or passes away. The only way to default on a HECM is through technical default. In other words, doing things that put the property at risk, such as failing to pay property taxes, failing to maintain hazard insurance, or letting the property fall into disrepair.

Consumer Safeguards in the HECM Program

Let's take a look at the consumer safeguards that are embedded into the HECM program. If the client chooses to receive monthly payments or chooses to have a HECM line of credit, both of these are guaranteed, regardless of what happens to home values, etc. Remember, this is federally insured. The borrower continues to own the home. One of the many myths about HECMs is that the lender will take the house, but this is just a myth. As long as at least one of the borrowers resides in the home, there is no maturity date for the loan. Debt service is never required. Assuming that the client chooses not to make any debt service payments, it is important for the client to understand that the more he borrows from the HECM over time and the longer he lives, the larger the loan balance will grow, due to the deferred interest.

Because of this fact, mandatory third-party HECM counseling is required before the client can sign an application for a HECM. The counseling is simply a phone call with an independent, HUD approved, non-profit housing counseling agency. The lender provides the client with a list of HUD approved agencies that offer the HECM counseling. The client chooses an agency from the list and schedules the counseling. The counselor provides basic information about the HECM program during the counseling. This is information that the client will already know if the client has consulted with a responsible reverse mortgage salesperson. There are never any pre-payment penalties. The borrower can pay down their balance, pay off the balance, refinance, or sell the house without any pre-payment penalty. In fact, it is possible to refinance a HECM into a new HECM in order to get more money if home values have increased substantially.

What Happens When the Owner Dies?

If there is equity remaining when the borrower moves, sells, or dies, the remaining equity belongs to the borrower or their estate. The lender is not entitled to anything other than the loan balance. What is most important about this feature is that the homeowner has secured the mortgage only with the property and the HECM is non-recourse. This means that if the home is underwater at the end, no deficiency judgment may be taken against the borrower or his estate. This is true even if the FHA no longer exists.

So let's take a look at the options for the heirs after a HECM borrower passes away. Ownership of the home passes to the estate according to the client's will or living trust. The estate will be notified regarding the amount of the HECM loan balance that is coming due, and an independent appraisal of the property's value will be performed in order to determine whether or not there is equity remaining. If the debt is less than the appraised value, in other words there is equity remaining, then the options available to the estate are as follows:

1. Keep the home by paying back the debt, typically through a refinance. If the heirs choose this option, they are given at least three months, and they can typically get an extension.
2. Sell the home and keep the net proceeds from the sale after the loan balance is repaid, just like when a home is sold that has any type of mortgage on it. The estate typically has nine months to do this, sometimes longer.
3. If the home's value at the end is less than the loan balance, in other words the debt is greater than the home value and there's no equity left, then the estate still has options. The heirs can keep the home by paying back 95 percent of the home's value, instead of having to repay the entire loan balance to keep the home. Or, they can deed the home to HUD. Either way, the debt is erased thanks to the non-recourse provision. There is no effect on anyone's credit score or credit history. In fact, HECMs do not even show up on my clients' credit reports, because it's only secured by the home, and no one has any personal responsibility for the debt. The lender relies solely on the FHA to make the lender whole if the debt is greater than the home value.

Qualifying for a HECM

All persons on title must be at least 62 years old. A common question that I receive is, "What if the client is a married couple and only one spouse meets the age requirement?" The answer is that the older spouse can qualify for the HECM, but only if the spouse who is under the age of 62 removes herself from title. In this case, the younger spouse is known as, "the non-borrowing spouse." Obviously there is risk associated with being a non-borrowing spouse. Fortunately, HUD created new rules last year which provide some protection to non-borrowing spouses. Under the new rules, the HECM loan balance will not come due when the borrower passes away, as long as the non-borrowing spouse has continued to live in the home. The loan will not come due until both spouses have permanently vacated the home or passed away. This is a welcome improvement to the rules. However, a non-borrowing spouse will not be allowed to draw funds from the HECM after the borrower has passed away. Therefore, it is typically best to wait until both spouses are age 62 before getting a HECM.

Only primary owner-occupied residences qualify. The residence can be a house, or a two, three, or four unit property, or a HUD approved condo. No liens can remain on the property. Any mortgage or other liens must be paid off at closing. Typically, it is the HECM money that is used to extinguish the mortgage or other liens. In other words, the homeowner replaces their mortgage with the HECM. What if the HECM cannot provide enough money to pay off the client's mortgage? In this case, the client does not qualify for a HECM unless they are willing and able to bring some of their savings to the closing to cover the shortfall.

The last rule is a brand new rule that HUD put into effect this week after about two years of working on this rule. It is called the "financial assessment." Lenders are now required to review the applicants' income, assets, and credit history, to determine the applicants' ability and willingness to meet their obligations of home ownership, namely their property taxes, homeowner's insurance, routine home repairs, and their HOA dues if they live in a condo. If the applicant fails the financial assessment, the lender will be required to set aside some of the client's HECM funds to cover future property taxes, homeowner's insurance, etc. These funds that are set aside are not borrowed. They do not increase the debt. They are simply set aside in the same way that money sitting in a HECM line of credit is just sitting there not borrowed yet. This set aside rule will prevent some applicants from being approved due to the following simple math: if an applicant who fails the financial assessment also has a mortgage on their home, and if the HECM will not provide enough money to pay off the mortgage and fund the set-side, then the application will be denied.

The final rule is, you cannot qualify for HECM if you own another home that has an FHA mortgage.

Types of HECMs

Let's take a look at the types of HECMs that are currently available. The first type is a fixed-rate HECM. With a fixed-rate HECM, funds can only be received as a single lump sum at closing. There are no other ways to receive the funds. This is because in lending, if it's a fixed rate, it's pretty much impossible to offer a fixed rate and still offer open-ended credit.

Adjustable rate HECMs are much more flexible. The borrower can choose to receive monthly payments, they can choose to have the money just sitting available in a line of credit, they can take a lump sum, or they can choose any combination of these options. They can also switch between these options at any time.

There are two types of adjustable rate HECMs. The first is the monthly adjusting rate HECM. This is the type of HECM that has existed ever since 1989 when Congress created this program. The interest rate is the one month LIBOR, plus the lender's margin. Lenders' margins currently range between two percent and three percent.

The annually adjusting rate HECM was introduced last year. This HECM provides significant protections against rising rates. To begin with, the rate adjusts annually instead of monthly. Also, the lifetime cap on the interest rate is much lower than it is with the monthly adjusting rate HECM. It is only five percentage points above the starting rate, instead of 10 percentage points above the starting rate. There is also a two percent annual cap on the interest rate, if the customer chooses an annually adjusting rate HECM.

What Does a HECM Cost?

Let's first take a look at the out-of-pocket cost to get a HECM. Simply $300 out of pocket goes straight to the appraiser, and also the HECM counseling agency will charge anywhere between $100 and $150. That is it.

Now let's take a look at the finance closing costs. These costs can be paid up front, but no one ever chooses to do that. So they are typically just added to the loan balance. In other words, they are financed. Thanks to a rule change recently, the FHA's initial MIP (mortgage insurance premium) is now significantly lower in most cases. As long as the borrower agrees to take less than 60 percent of the total amount available within the first year, then the FHA's MIP is only one half of a percent instead of two-and-a-half percent. This is a big improvement.

The third party closing costs are the same as they are with any refinance transaction. Here in San Diego County, they're around $2,000 to $2,400. The lender's origination fee depends on the interest rate. It could be as high as $6,000, or it could be negative; in other words, a lender credit.

Different Ways to Take the Money

There are three different ways to take the money: lump sum, line of credit, or monthly payments.

If the borrower chooses to receive monthly payments, there are two different types of monthly payment plans. 10 year payments are guaranteed to continue for as long as at least one borrower remains in the home, up to age 120. Term payments depend on the term chosen by the borrower. It can be any length of time. The shorter the term, the larger the monthly payments. The borrower can switch from a monthly payments plan to a line of credit at any time, or switch between 10 year payments and term payments at any time.

Now let's take a look at the HECM line of credit. This unique line of credit cannot be frozen or arbitrarily reduced, and remember this is federally insured. This is one of the many reasons why this can be such a useful financial planning tool. Amazingly, all of the unused credit will actually grow for the client based on the credit line growth rate. This growth is guaranteed even if home values fall. There is also no limit to this growth. The credit line growth rate is the same rate at which the loan balance is growing, which is the LIBOR plus the lender's margin plus the

FHA's 1.25 percent MIP. The FHA adds that 1.25 percent MIP on top of the interest rate for every type of HECM.

Since the line of credit is guaranteed and growing, it reduces the necessity of holding cash reserves. This could be treated as revolving credit. If the client chooses to pay down the loan balance, the available credit increases accordingly, just like with a regular line of credit. The client can convert some or all of his available credit into monthly payments at any time. There is no cap on the credit line growth, even though the loan balance is capped by the HECM's non-recourse provision. In other words, if we have another Great Recession or Great Depression and home values collapse, the credit line is guaranteed to be there and guaranteed to keep growing based on the credit line growth rate, even though the amount that will have to be paid back, if the borrower passes away, is capped by the home's value, no matter what that home value is.

What is the Difference Between an HECM and a HELOC?

Let's take a look at a HECM line of credit versus a HELOC (home equity line of credit). With a home equity line of credit, the credit line can be frozen or cancelled. This cannot happen with a HECM line of credit. A HECM line of credit is easier to qualify for, because the borrower never has to make monthly loan payments. Therefore, we do not have to do underwriting based on the ability to make monthly payments.

With a HECM line of credit, there is no required debt service. With a HECM line of credit, you will not have clients who experience payment shock, because there's no such thing as monthly payments resetting to switch from interest only to principal and interest. And of course with a HECM line of credit, the available credit is guaranteed to grow for the client every month at the credit line growth rate. The loan to value ratio for HECMs is very dependent on the 10 year LIBOR swap rate at origination.

Loan to value (LTV) ratios are inversely related to something that is called the "expected average interest rate" at the time of the origination. If the expected average interest rate is below 5.06, then the LTV ratio will be the highest loan to value ratio possible. But if it is above 5.06 at the time that the client gets their HECM, then the lower the LTV will be. So for adjustable rate HECMs, the expected average interest rate equals the lender's margin plus the 10 year LIBOR swap rate. For fixed rate HECMs, the expected average interest rate is simply equal to the fixed interest rate. The fixed rates currently available to choose from are between 4.25 and 5.56. The age of the applicant also affects the LTV, but interest rates affect it more.

Here's an example: a 62-year-old who qualifies for 50 percent LTV today but delays getting a HECM until he is five years older, will qualify for only 33 percent LTV if the 10 year LIBOR swap rate has increased a modest two percentage points while he delayed. Today's rates are one reason for the mass affluent to secure a HECM sooner rather than later and why it makes sense to get a HECM line of credit as soon as the client reaches the age of 62, even if he might not need the money for years or even decades.

HECM Strategies

The dangers posed by sequence of returns, risk, and reverse dollar cost average are at the heart of two studies published in 2012 in the Journal of Financial Planning. Investigators quantified the effects of substituting home equity draws for portfolio draws, in order to avoid selling portfolio assets in a poor market environment.

The first paper was published by Barry and Stephen Sacks. They tested the long-held conventional wisdom that retirees should only get a reverse mortgage after they have depleted their assets. You might have seen this so-called wisdom espoused by financial writers such as Jane Bryant Quinn and Ron Lieber of the *New York Times*. The only problem with their widely-read advice is that it turns out to be completely wrong. Like many other financial writers, these writers never did the math. In 2012, Drs. Barry and Stephen Sacks compared three different reverse mortgage strategies for their groundbreaking research paper, which they cleverly titled, *Reversing the Conventional Wisdom*.

The first strategy that they analyzed is the old passive conventional wisdom of waiting and getting a HECM only as a

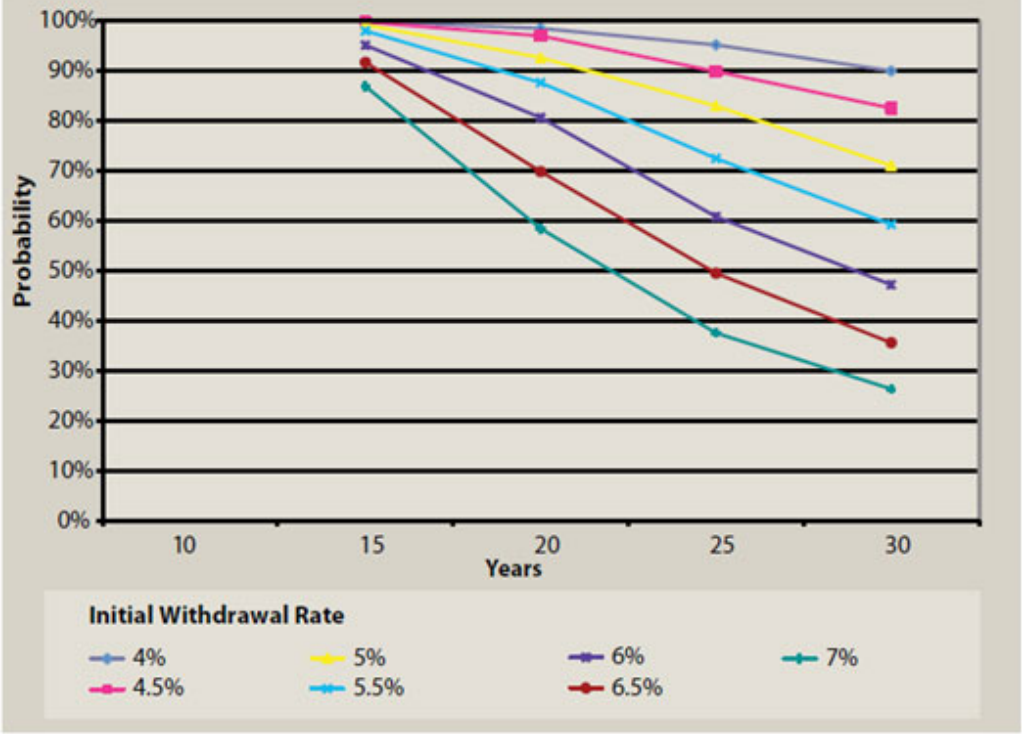
last resort after the portfolio has been depleted. In other words, this first strategy, if it can be called a strategy, is simply a passive strategy. The other two strategies are proactive. They involve securing a HECM line of credit as soon as a client has reached the distribution phase of their financial plan. The age that the researchers used in their study is age 65, but it would be even smarter for a client to secure a HECM line of credit as soon as they reach the qualifying age of 62.

Of the two proactive strategies that the researchers studied, the first one is called the "coordinated strategy". This is a strategy of drawing from the HECM line of credit instead of from the portfolio during periods when share prices are depressed. This is the most strategic of the three strategies. It minimizes the use of HECM draws while still protecting the portfolio.

The other proactive strategy, which the researchers labelled the reverse mortgage first strategy, is an exact reversal of the conventional wisdom. In this simple strategy, the client immediately begins living off of regular draws from their line of credit and does not take any distributions from the portfolio until the line of credit has been completely exhausted. It should be noted that a client who wishes to implement this strategy could just as easily choose to receive term or tenure payments from their HECM instead of choosing a line of credit. Either way, it turns out that this strategy is far superior to the passive conventional wisdom of only getting HECM as a last resort after depleting the portfolio. But the coordinated strategy works even better, as you will see.

Before we look at the effects of the three strategies, let's first take a look at the effects of different initial withdrawal rates on cash flow survival probabilities without any HECM strategy. For this chart and the following chart, the researchers ran 1,000 portfolio simulations covering 30 years.

Figure 1: Cash Flow Survival Probability (Withdrawals from Account Only)

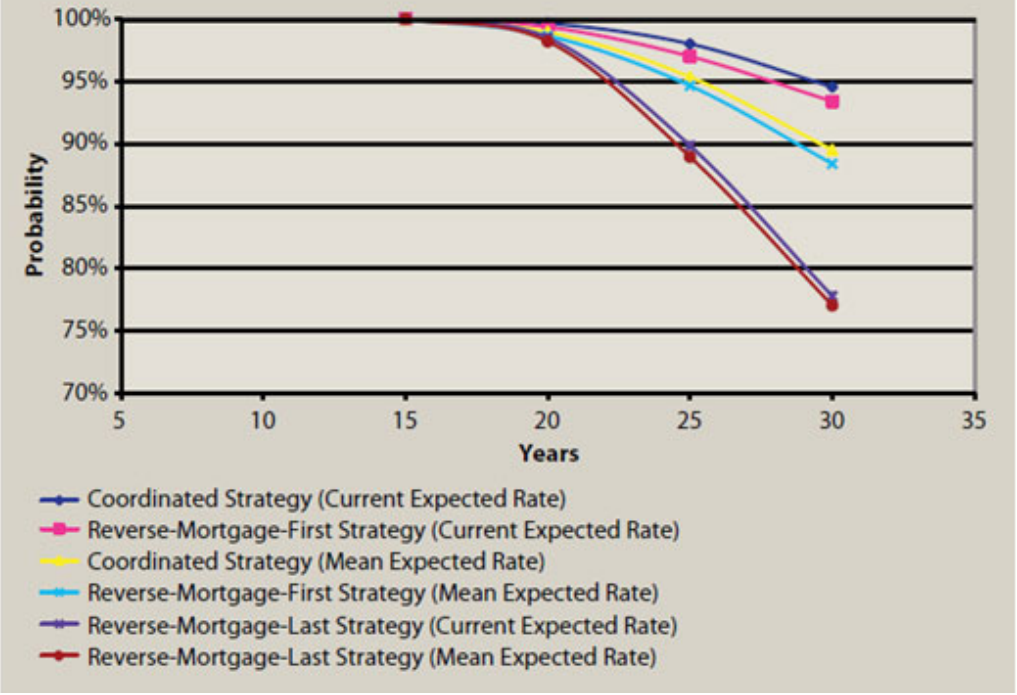


At the four percent withdrawal rate, the probability of success after 30 years is 90 percent. That's the top line in this graph. In other words, the portfolio succeeded for 30 years in 90 percent of the simulations. At higher withdrawal rates, the probabilities of success rapidly declined.

This next chart shows that the conventional wisdom of getting a reverse mortgage as a last result provides the worst

outcome. These comparisons are for a five percent initial withdrawal rate. The results are even more dramatic for withdrawal rates greater than five percent. The horizontal axis is the number of years up to 30, the vertical axis is the probability of cash flow survival. Note that this is the probability of cash flow survival, not just survival of the portfolio. In other words, the probability of survival of all cash flow, including cash from the reverse mortgage.

Figure 2: Probability of Cash Flow Survival (5% Initial Withdrawal Rate) for Three Reverse Mortgage Credit Line Strategies, Current and Mean Expected Rates



For each of these strategies, two lines are plotted on the graph. One line is based on the HECM being obtained during a period of low interest rates, resulting in the largest possible HECM line of credit. The other line is based on the HECM being obtained during a period of higher rates, resulting in a smaller line of credit. Remember that the amount of money that any HECM can provide depends a lot on what the expected average interest rate is at the time of origination.

Therefore in today's low-rate environment, clients are able to secure the largest HECM line of credit possible. As you might expect, the size of the line of credit had an effect on how many of the simulations succeeded.

So let's take a look at the bottom two lines, the dark purple and dark red. These represent the conventional wisdom of just waiting and getting a reverse mortgage only after the portfolio has been depleted. As you can see, the probability of success after 30 years is only around 77 percent. And again, this is based on a five percent initial withdrawal rate. In other words, roughly 23 percent of the simulations failed to provide enough cash flow for 30 years. The two lines at the top, the dark blue and pink, represent the two proactive strategies based on securing a HECM line of credit while interest rates are low in order to get the largest HECM line of credit possible. The yellow and blue lines in the middle represent those same two strategies if the client got their HECM during a period of higher interest rates, and therefor they received a smaller line of credit.

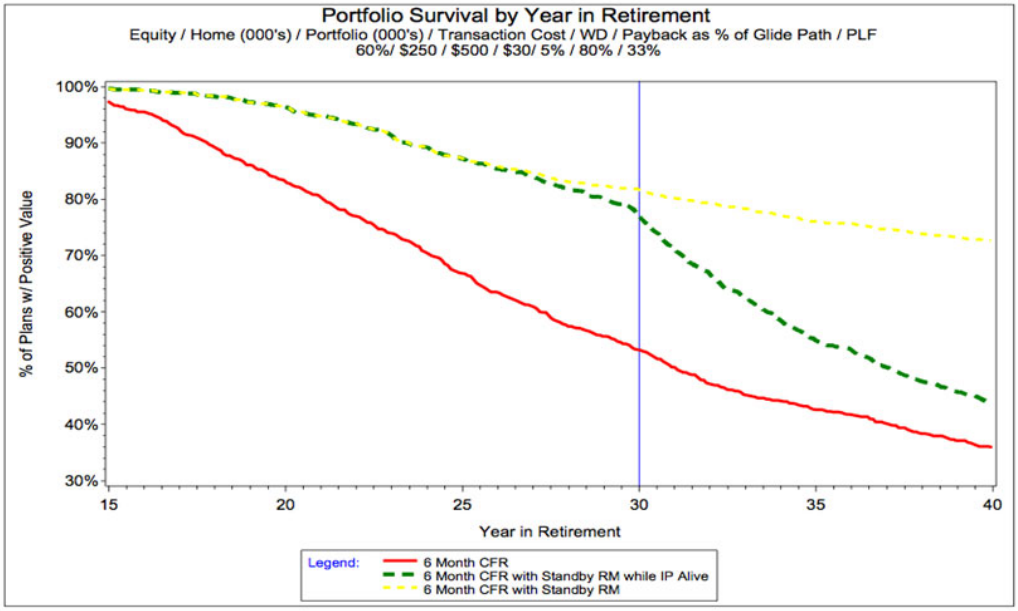
The interest rates that were used for those scenarios would be the mean average rate over the past, I think, 47 years. As you can see, the coordinated strategy performs slightly better than the strategy of exhausting the line of credit before taking portfolio distributions. Both strategies perform far better than the passive non-strategy of exhausting the investment portfolio before tapping into the home equity. The researchers concluded that for initial withdrawal rates between 4.5 percent and seven percent, we have found substantially greater cash flow survival

probabilities when the reverse mortgage credit line is used in either of the two active strategies, rather than in the conventional passive strategy as a last resort.

We have also found that use of these active strategies is likely to result in a higher residual net worth after 30 years, compared to the conventional strategy. Residual net worth is defined as the value of the retiree's portfolio and the remaining home equity after 30 years. So what they found is that the superiority of the proactive strategies over the passive strategy does not come at the expense of residual net worth.

The second study confirming the power of a HECM line of credit was published in August of 2012. John Salter and Harold Evensky were so impressed by the HECM line of credit and its immunity against being frozen or cancelled that they undertook a study to determine if their two bucket retirement distribution approach would be enhanced by a third bucket. They called the third bucket the "standby reverse mortgage," and it consisted of the HECM line of credit. One of the benefits of this strategy was immediate. By adding the third bucket, they were able to reduce the cash flow reserve bucket from a two year reserve to a six month reserve. Therefore, less money is tied up in the cash flow reserve bucket, and more money is dedicated to the investment bucket. This is an improvement on opportunity cost. Dr. Salter and Mr. Evensky modeled home equity draws substituting for investment portfolio withdrawals during volatility troughs when the portfolio value was not high enough to sustain the preferred glide path.

This chart compares the two bucket cash flow reserve bucket strategy with the three bucket stand-by reverse mortgage strategy.



Using the three bucket stand-by reverse mortgage strategy, HECM draws are substituted for portfolio withdrawals when the portfolio is performing below the glide path. When the market recovers enough for the portfolio to perform better than the glide path, shares are sold in order to pay down the HECM loan balance and replenish the HECM line of credit. Looking at the graph, you can see that the two bucket strategy, the one without the HECM, which is the red, six-month cash flow reserve strategy, produced significantly fewer surviving plans at 30 years. You can see that roughly 50 percent survived at the end of 30 years compared to 80 percent for the three bucket stand-by reverse mortgage strategy. The yellow line demonstrates added protection if the client continues to draw from the stand-by reverse mortgage for an additional 10 years or so after the investment portfolio is depleted.

Dr. Salter and Mr. Evensky concluded that the stand-by reverse mortgage strategy is appealing for four reasons:

1. It diminishes the need for the cash bucket and thus the opportunity cost of holding cash
2. It provides flexibility in that the investment bucket is not sold during bare markets

3. It allows the retiree to decide how much home equity is used to meet their needs, and
4. It increases the life expectancy of an investor's nest egg.

In other words, don't feed the bear; draw from the portfolio only when portfolio returns are positive.

What is a Purchase HECM?

The purchase HECM, which is also known as the HECM for purchase, or the purchase reverse mortgage. The purchase HECM allows the client to finance the purchase of a new primary residence by getting a HECM on the new home as part of the purchase transaction, instead of having to qualify for a regular mortgage and make monthly payments and instead of having to pay all cash.

The purchase HECM was created a few years ago, and it solved a problem where clients could only get a HECM on a home that they were already living in. But what about clients who wanted to buy a more appropriate home for their needs, or move to a better neighborhood, or move closer to their children? So HUD addressed this need by introducing the purchase HECM.

So if the client is age 62 or older, they can finance the purchase of a new primary residence by getting the HECM on the new home as part of the purchase transaction, instead of getting a traditional mortgage or paying all cash. As with a regular mortgage, the HECM money goes to the seller at the close of escrow. However, this is still a HECM, so there are significant benefits to the buyer – no debt service requirement, and it's easy to qualify for.

Remember that the LTV for a HECM is conservative. The client will need to bring a down payment of roughly 25 to 50 percent, depending on their age. And the remaining 50 to 75 percent will be financed by the purchased HECM. So now the client has purchased the right home for the retirement, and has withdrawn a lot less money from their portfolio than they would have if they were a cash buyer, and they will never face the burden and risk of required monthly payments. Put another way, the client is able to leverage his down payment, buy the house he really wants, and never have to make monthly loan payments and no debt repayment is required until he has permanently vacated his home or transferred title or passed away.

Here's an example of the math. This is an example of downsizing. So the client sells his old home for $500,000, and subtracts out the realtor's commission of $40,000, so his net proceeds are $460,000. He purchases a new home. This top part of this chart is without HECM financing.

Purchase HECM Example: Downsizing, 66 Year Old

Without HECM Financing	
Sales Price for Departure Home	$ 500,000
Less Selling Costs (Commission, Fees)	$ 40,000
Net Proceeds from Departure Home	$ 460,000
New Home Price, Paid in Cash	$ **350,000**
Funds Remaining for Retirement Needs	$ **110,000**
With HECM Financing	
Sales Price for Departure Home	$ 500,000
Less Selling Costs (Commission, Fees)	$ 40,000
Net Proceeds from Departure Home	$ 460,000
New Home Price	$ **350,000**
Financing Available from HECM	$ 180,000
Cash Down Payment Needed	$ 170,000
Funds Remaining for Retirement Needs	$ **290,000**

So if he purchases a new home he's paying cash, so he only has $110,000 left to put in his portfolio.

Now let's look at the HECM financing option. So he sells the home, and he nets $460,000. The new home costs $350,000, the HECM in this example provides only $180,000, so this client is rather young. He's 66 years old. So therefore the down payment is only $170,000 instead of $350,000. Therefore, $290,000 is going into his retirement portfolio instead of just $110,000.

Here's another example. This example is an upsizing instead of downsizing, where the client is buying the home for $600,000 after selling his old home for $500,000.

Upsizing, 66 Year Old

Without HECM Financing	
Sales Price for Departure Home	$ 500,000
Less Selling Costs (Commission, Fees)	$ 40,000
Net Proceeds from Departure Home	$ 460,000
New Home Price, Paid in Cash	$ 600,000
Withdrawal from Assets to Accomplish Cash Sale	$ **(140,000)**
With HECM Financing	
Sales Price for Departure Home	$ 500,000
Less Selling Costs (Commission, Fees)	$ 40,000
Net Proceeds from Departure Home	$ 460,000
New Home Price	$ **600,000**
Financing Available from HECM	$ 310,000
Cash Required from Net Proceeds	$ 290,000
Liberated Funds Remaining, to be added to Portfolio	$ **170,000**

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So in this example, he's having to withdraw money from his portfolio, $140,000, in order to complete the purchase. But with the HECM financing, when you get down to the bottom line, he's actually able to put $170,000 into his portfolio instead of withdrawing $140,000. So in other words, that's a net improvement to his portfolio of $310,000.

Takeaways for Advisors

The takeaways for advisors regarding HECMs are:

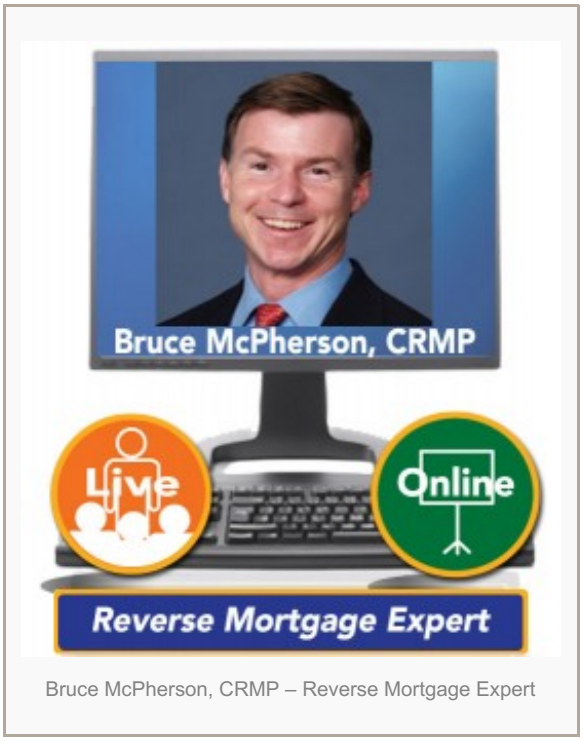
1. Consumer safeguards protect the housing asset.
2. The HECM can protect the investment portfolio by improving cash flow survival probability and enhancing residual wealth.
3. The HECM line of credit provides benefits that home equity lines of credit do not.
4. The HECM line of credit insures access to housing wealth in the future.
5. It is guaranteed.
6. It cannot be cancelled or it cannot be frozen or arbitrarily reduced.
7. In the current low interest rate environment, it makes sense for someone who is 62 to get a HECM line of credit now, even if he's not going to need it for many many years.
8. And finally, the purchase HECM is a good way to protect the portfolio.

About the author:

Bruce McPherson is a a Certified Reverse Mortgage Professional (CRMP) with Security One Lending, America's largest full-service Reverse Mortgage company. He has specialized in the FHA Home Equity Conversion Mortgage (HECM) since 2003, which is the safe, flexible, federally-insured version of a reverse mortgage.

Bruce has helped 900 San Diego residents achieve a more comfortable and secure retirement, by properly structuring the right HECM solution for their long-term needs.

In addition to educating seniors and their families about this often misunderstood program, Bruce also enjoys educating financial planners, attorneys, accountants, fiduciaries, and realtors.



Bruce McPherson, CRMP – Reverse Mortgage Expert

Retirement Speakers Bureau

Retirement Happiness: Planning for a Successful Transition

retirement-insight.com/retirement-happiness-planning-successful-transition/

By John E. Nelson, Purposeful Retirement Advocate, Author & Coach

John E. Nelson – Purposeful Retirement Advocate, Author & Coach

Editor's note:
This presentation was delivered in live webinar format in 2015. John's comments have been edited for clarity and length.

*You can view a **YouTube** brief of the original presentation here.*

*You may also choose to take the **full length course** and earn 1 CRC®, CFP®, and/or PACE CE credit.*

Retirement happiness is a fascinating topic. First out of college, I started out as a financial advisor and then quickly moved into the pension area, designing, consulting and managing qualified retirement plans for employers. Pretty quickly, one of the things that I realized was that retirement finance is about people. One learning objective for this course is an idea and understanding of the relationship between income and happiness.

We toil away as individuals for decades and we work as advisors to help people establish a healthy and sufficient retirement income. What's the relationship between income and happiness? We assume there is one, and of course we assume the more income, the happier we are. But let's look at the science on that. The second learning objective by the time we finish today is that we'll have an idea of what the main types of happiness are from research.

Types of happiness sounds funny but that will make more sense when we look at the kinds of research that psychologists have been doing – and economists – to look at the approaches and the pathways that people can take to be happier in life. That really comes to bear as we approach retirement.

The third learning objective is Harry Markowitz and Modern Portfolio Theory, which I've used as a springboard to understanding how to create retirement happiness also using a portfolio method. We'll touch on are what the stages of retirement life are and how that translates into retirement. Making those transitions is a risky time in life because things change, so we'll touch on what those risks can be.

And lastly – and this gets really to the heart of this idea of a successful transition – is that post-retirement, after that transition, people literally can have a different sense of identity, a different sense of self, and the life roles and social roles that they fulfill can change.

Part of what we talk about today is in the current edition of *What Color is Your Parachute? For Retirement,* but I'm working on the third edition, and most of today's presentation will be in the upcoming edition, which won't be out until next year. So this is a peek ahead into the future of the next version of this book.

The Relationship Between Income and Happiness

The reason that I made this transition from working just on the financial side of retirement preparation to this

broader life planning idea is that, like you as a professional, I saw people who did all the right financial things, transitioned to retirement, and they had a fantastic life. They were happy, they were socially engaged, they had a sense of meaning and purpose, and they were active. Not only were they enjoying life, but they were actually doing something positive, constructive, that in fact, life after their career was the peak of their time in life; that they were, in fact, the best self that they had ever been.

On the other hand, I saw other people who did all of the same financial preparation, but they got to retirement and even though they had done the right financial things and they were financially secure, that next stage of life was not a success. For a variety of different reasons, they were not living the best version of their lives. Sometimes they were aware of being pretty unhappy in many ways; life, in fact, was better for them while they had been working. That was a paradox for me. While financial preparation is essential, there is no retirement without it, how can they design their life to be more successful?

If we ask people what will make them happy, get them to project into the future and do some life planning in advance and say what will make them happy, the first answer we get a lot of the time is simply “not working”. If you have a really bad job then not working is enough. When we invented retirement about 100 years ago, most jobs were dirty, dangerous, hard work. And simply the absence – the relief – of not having to do that dirty, dangerous work anymore was enough. But most of us don’t have jobs like that now. We may not love our work, but it’s truly not toil. It’s not that the absence of work by itself will bring happiness.

So if we try to go a little bit deeper and say instead of retiring FROM your job – which is how many people look at it – what would you be retiring TO? People say: I’d like to travel. I’d like to take up a hobby. I have a hobby. I’d like to spend time with friends. Travel, hobbies, friends; I don’t want to make light of these activities because they are important, but these answers are usually just an indicator that people haven’t really thought about it. This is the equivalent of when you have kids in school and you say, “How was school today?” And they say, “Fine.” It’s an answer that doesn’t really have thought behind it.

How do we get people beyond this, at a deeper level? One reason why it is helpful from a financial perspective is because the more time that people put into planning their life can actually, in many people, stimulate better financial planning; it’s all a package. We are learning from science that we’re often not good at predicting what will make us happy. We fantasize activities in the future that are wonderful in our imagination but they’re divorced from reality. Once we do them, we discover that they really weren’t that happy or fulfilling or engaging. They weren’t what we imagined.

Anecdotally, a good example of that is I happened to be, a couple of years ago, looking on Craigslist for a used car for my son. And I ran across this interesting post: “Jayco Popup Camper. My wife and I decided to give camping a try so we purchased a new popup camper. We went to Devil’s Lake and camped out for one night, then put the unit into the storage building for the last year and a half. It’s virtually new. The price for a new unit like this is $10,000; I’m asking $7,500 or best offer.”

Larry and his wife had this beautiful vision. They imagined and dreamed about the wonder of camping, so the way that they explored that is that they went and spent $10,000 for a new camper. They used it for one night and discovered that this wasn’t for them at all. So here’s the question. This is a trivial example – not that $2,500 for one night at the campground is trivial; you couldn’t afford to do that over and over. But it’s symbolic of example what we do as humans: We imagine something and the reality doesn’t match up. What are the processes that we can use to stimulate people to think at a deeper level using kind of a scientific approach to understand how they can understand themselves, and to prepare better for this stage of life that they spend literally 30 or 40 years of preparation.

The Main Types of Happiness

Enter the happiness researchers. About ten years ago I was attending a conference in Washington, D.C. hosted by the Gallup Organization – the national polling and management consulting firm – and I had a once in a lifetime

opportunity. I spent an evening with these two guys: Daniel Kahneman and Martin Seligman. This was a conference of researchers conducting actual scientific research into what makes people happy.

Marty Seligman, called the Father of Positive Psychology, was the pioneer who took university-based research psychology and instead of just studying all of the mental illness unhappiness that psychology had been studying for decades, secured the funding and attracted the researchers to start doing large scale experimental studies into what makes people happy, how people thrive.

Marty Seligman had been the president of the American Psychological Association just a couple years before, and he was an eminent researcher at the University of Pennsylvania for 25 years at that point. I was taking a coaching-training program with him and was invited after the presentations that day to an evening event in a suite at this hotel.

He had invited the keynote speaker for this conference to join us for that evening, Daniel Kahneman. Kahneman is a professor at Princeton and is the only psychologist to ever win a Nobel Prize. In 2002 he won a Nobel Prize in economics. Kahneman, along with his longtime collaborator who had passed away a few years before, essentially created the field we now call behavioral economics or behavioral finance. He's a genius among geniuses, the guy who started the whole behavioral economics phenomenon.

These two guys knew of each other but they didn't conduct any research together. Over the course of a couple of hours in this hotel suite with essentially a small group of people, two of the leading geniuses in the world talk about the nature of happiness and how to approach both the study of happiness as well as helping people to be happier.

Kahneman's view was really about looking at what people already do and using research techniques to uncover the relationships between how people think and the resulting happiness or well-being that they have in their lives as a result. Behavioral economics and behavioral finance is about the gap between people's immediate perceptions, their rules of thumb about doing things, and how divorced or different that is from a rational approach when it comes to thinking about financial or economic decisions. It's the split in the human mind between thinking rationally and just using rules of thumb to make quick, rapid decisions that are often economically not the correct way to go. His interest in happiness was similar. He looked at some of the questions of what do we actually experience in the moment as happiness or unhappiness, and then how we, by our thinking, change that in some way or alter it. We'll look at a landmark study that he was part of that is foundational to anyone in the retirement or financial planning world.

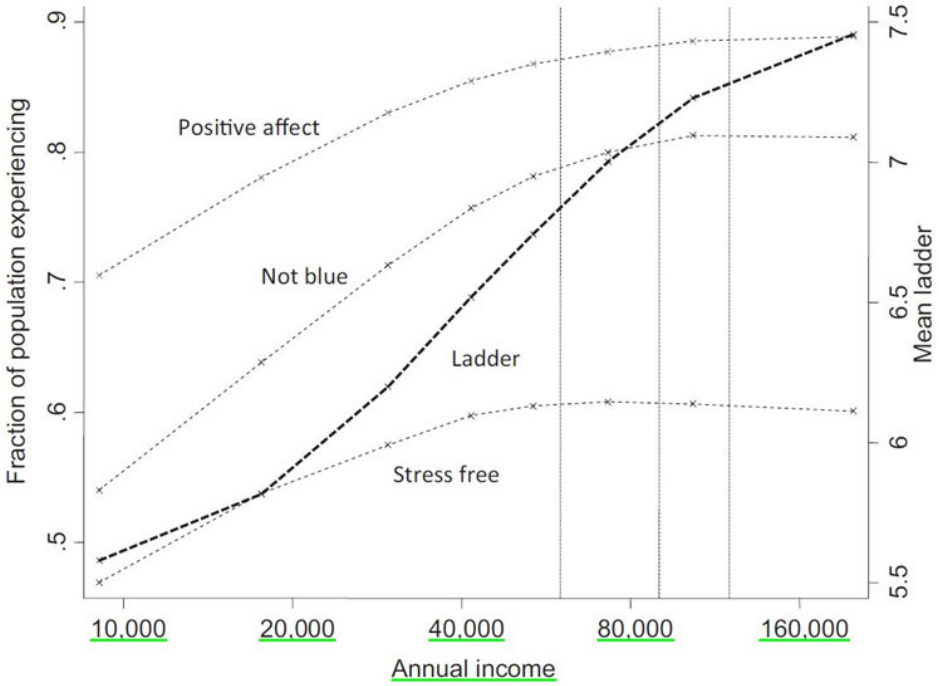
Marty Seligman was studying processes that people can use to make themselves and other people happier, especially studying what works to increase happiness in life.

Let's look at an underlying assumption that we have been using our whole careers. The game of 'Life' was a board game introduced in the early 60s, not quite as popular as 'Monopoly', but very popular for a long time. The game of 'Life' contained the twists and turns we take with the things that happen to us. It won't surprise you to know that a lot of this game, like 'Monopoly', is financial. You need money to play the game, and at the end of the game, you end up in one of two places with no in between. It's all or nothing: You're either in Millionaire Acres or the Poor Farm. And it goes without saying that if you end up at Millionaire Acres, you're happy; and if you're in the Poor Farm, you're sad – the game of 'Life'. We have automatically linked more money with more happiness and lack of money with less happiness. That's largely true. The question is, how is it true or when is it not true?

That's what Daniel Kahneman figured out for us. There would be a lot of studies going forward on this topic, but a particular one that we're going to look at here is a landmark. I would suggest that for your job, this might be the single, most important data chart or figure that you could study and understand to have a sense of the purpose of your work in the world.

What Kahneman did, with the help of the Gallup organization, is telephone over 1,000 Americans every day for a year. They ended up with over 400,000 responses for this study. They asked a number of questions, with some

having to do with the emotions that people had experienced. From Kahneman's research, we know that the longer you wait to ask people about their happiness, the less accurate their answer will be. The polls asked people about their experience of the prior day and about their income level – these were not retirees but from all strata of society, income levels, and age bands. What does this chart tell us?



Look at the bottom where you can see, left to right, that the simplest part is income bands, people making $10,000, $20,000, $40,000 a year annual income up to beyond $160,000. The data on the left axis is the fraction or percentage of the population experiencing which affect in the prior day. Why is this important? Let's look at the first one.

The first result here is positive affect, what most people would call happiness; that is positive emotions in the moment. People were asked to what extent did they had feelings of happiness or joy, or did they enjoy themselves yesterday? And as we can see, these people – even the people only with $10,000 a year of annual income – 70 percent of those people said that they had experienced these causative emotions or positive affect the prior day.

But sure enough, at $20,000, $40,000 there was a greater likelihood, or a greater proportion of them, had joy and happiness in their lives. But we notice a plateau. The people at $160,000 of income didn't have many more positive emotions than people at $80,000. $80,000 to $160,000 is doubling of income with almost no increase in positive emotions. If people pushed and worked and tried to get their income up from $80,000 to $160,000 a year, just like that person buying the Jayco camper and discovering after one night that it wasn't their thing, people who focused on increasing their income – most of them – are not actually going to have more positive emotions in an actual, regular day than somebody making $80,000. There are all kinds of other probable benefits, but positive emotions is not probably one of them.

Let's look at the next one. This is the other side of that coin which is the absence of negative emotions. In fact, people have positive emotions and negative emotions in the same day. This was asking people about not feeling blue, about not having those negative motions. Of people earning $10,000 a year, only 55 percent of them could say that they had not had blue or negative emotions the prior day. That is pretty amazing in itself: over half of them didn't report feeling negative emotions. And that got better as we went up but we still got that same plateau. After about $75,000 annual income it didn't improve people's opportunity to avoid those negative emotions.

Thirdly, they asked people about stress: to what extent yesterday was your day stress free? And of course as humans, we didn't score near as well on this one. Because in general, for people at $10,000, only about 45 percent of them could say they had a stress free day. But the same phenomenon continued. Reducing stress peaked at about $45,000 of annual income. People at really high incomes ($160,000) may have more stress than people at moderate incomes of $40,000 or $50,000, with $80,000 being the least stress reported the prior day, in that study.

When we look at this we may say: what is money good for? What is higher income good for if it doesn't necessarily bring about more positive emotions, reduce negative emotions, and especially if it doesn't reduce stress that much for higher income levels?

There's one part of this study that is really eye opening because it's so different from the actual experiencing of emotions that Kahneman identified. Kahneman's specialty is looking at these divisions in the human psyche. The emotions that people reported as of yesterday is fresh, good data. They have a memory of what they did and felt yesterday.

But let's use a scale that's been used since the 60s called "the ladder of life satisfaction." This takes the overall view that people have of their lives in the big picture, not yesterday, what they experienced as data, but how they feel about their experience of life.

The question literally goes like this: Imagine a ladder with steps numbered from 0 at the bottom to 10 at the top. The top of the ladder represents the best possible life for you, and the bottom of the ladder represents the worst possible life for you. On which step of the ladder would you say you stand at this time? When you evaluate your life satisfaction on this ladder, is it a zero, a ten, or somewhere in between? How satisfied are you with your life?

Here's what the survey showed. On the left you can see that of people with only about $10,000 of annual income, almost half of them thought life wasn't that bad; it was about a 5. That's amazing. What's really amazing about this, though, is that this effect, this evaluation of life – this life satisfaction – did not plateau as early or as quickly or as remarkably as the actual emotions. There was a disconnect. People with higher incomes didn't have better emotions but they had more life satisfaction. Kahneman would say that more income did not improve their experience over about $75,000 of income, but did improve their evaluation and satisfaction with their lives.

That is what I think you are doing for your people in your work as a financial planner, benefits counselor, plan administrator. By helping them build secure retirement income, ultimately you are helping them to evaluate their own life more favorably. When they get to retirement, their satisfaction with life will be better with more income. So this goes way beyond the functional aspects of all the things we do with money.

It shows us that prosperity and good health are merely the foundations for happiness. They do not create happiness. But not having sufficient income hurts people's opportunity to be happy. Not having good health hurts people's opportunity to be happy. So what we're doing is helping them build the foundation. We'll look at two approaches that go toward the creation of approaches that people can use to plan a life to be happier in retirement.

Seligman says that most of us have an automatic knee jerk reaction that happiness comes from pleasure. He identified that pleasure is just one way of being happy. In fact, there are three paths to happiness, with two other approaches that are not as obvious: engagement and meaning.

Pleasure doesn't take effort or skill or require anything of you. But engagement is using our skills and strengths and abilities toward a positive challenge, especially one we choose and we value; one we think we can be good at. Most of us, if we're lucky, are likely to have engagement in our job if we're in the right job doing the right work using the right skills. In retirement we lose that. An engagement as a path to happiness is something we need to cultivate for retirement. Pleasure is what we think about; having fun. It's like retirement is a vacation. Engagement is like retirement as work but positive work, positive challenge. That's what engagement means.

The third path, meaning, involves being of service to something beyond ourselves. In our working career, our sense

of meaning and purpose may come from doing a good job at work, of being part of the team, serving the world in some way. Our sense of meaning and purpose might revolve around being a good breadwinner and supporting our family, helping our family members, raising kids.

As we enter the retirement stage of life, meaning and purpose can be in jeopardy. If the kids are grown and we don't work anymore, what is our sense of meaning? This is Seligman's simple formula breaking down the three paths to happiness in to very simple, discreet, effective analyses.

When it comes to planning retirement, people think about retirement as pleasure and enjoyment, a vacation. But they can't do this for 20 or 30 years with engagement and challenge. People don't think about this because from the outside, engagement and challenge from the outside looks like work. So finding things that look like work in retirement, people may shy away from that.

The secret is this: If you're using your unique skills and abilities, you can accomplish things that seem impossible to other people, but not for you. You get a state of enjoyment and flow and you're totally occupied. Finding these sources of engagement in retirement is the key.

Meaning and purpose: There was an article years ago in the *Washington Post* about a geriatric psychiatrist who worked specifically with elderly people with mental health issues, mostly depression. Based on his years of working with people who had been long retired, and their mental and emotional problems, he summed it up that they just want to feel that they and their life matters. Once we retire, will we matter? Most commonly, our sense of meaning and purpose comes from what we value most deeply to give us a sense of meaning and purpose. How do we find these things?

How to Create a Retirement Happiness "Portfolio"

What we do is we build a retirement happiness portfolio. Harry Markowitz said that you build a portfolio by finding investment assets that don't have the same kind of volatility. By putting fundamentally diverse elements together, it makes the whole portfolio stronger than it would be by these disparate or diverse elements in the same portfolio. This is the idea of a modern portfolio theory combination.

There's another way to use the financial way of thinking that helps: The famous "Morningstar Style Box," in this case the equity's version, which says that we can easily categorize these equities by their capitalization – small, mid or large cap – and by their investment style: value, growth, or blend. And again, building a diversified portfolio – by being able to understand and cover the appropriate boxes that it gives a stronger, more diversified portfolio. That's the theory.

Can we do this with happiness? To Harry Markowitz, Nobel Prize winner, it's a pretty good idea. Can we translate this to planning our lives? The answer is yes. On the left side of the chart below are the three paths to happiness that Martin Seligman identified. At the bottom we have the first path or approach to happiness that retirees usually have no problem finding on their own: enjoyment and pleasure.

MEANING & PURPOSE	Write memoir of gardening with parent.	Plant vegetables with grandchild.	Volunteer with civic garden club.
ENGAGEMENT & CHALLENGE	Create garden plan.	Plant garden with partner.	Participate in produce stand.
PLEASURE & ENJOYMENT	Read gardening books.	Visit botanical garden with friend.	Register for group garden tour.
	By Myself	With Another	With a Group

On the left hand side in the middle is that next step up: engagement and challenge. Those are the activities that require skills that require strengths and abilities to perform. The sense of accomplishment and competence that we get in life. The third has to do with meaning and purpose: retirement life planning activities that help us align with and be of service to something greater than ourselves. Across the bottom we split or organize those activities based on the social connection that we're making because beyond Seligman's three paths to happiness, the single greatest indicator of human happiness is social connection.

The more social interaction and social connection we have, the happier we are. The three columns are activities in the next stage of life in retirement that you can do by yourself, activities that you would do with another person, and then lastly activities with a group.

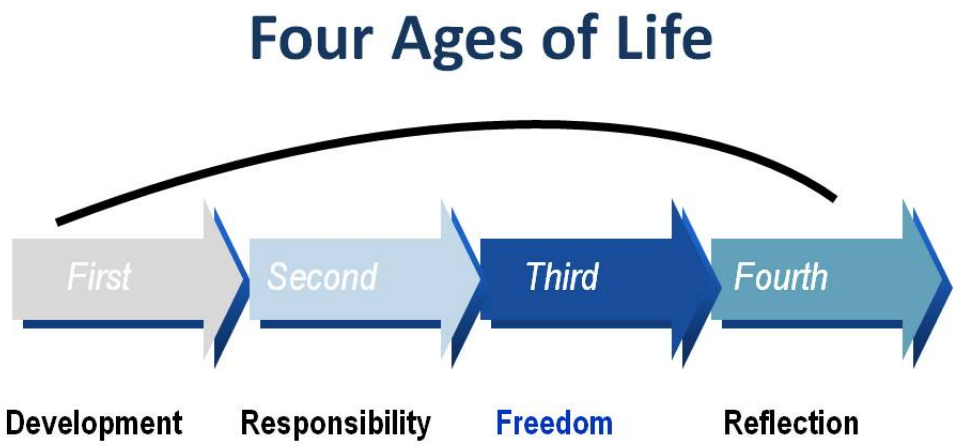
Let's take a simple example about gardening to illustrate how this works. One thing people can do for pleasure by themselves would be to read gardening books. It doesn't take any skill and can be done by oneself. But to rise up a level for engagement and challenge would be to research and create a garden plan for the next year, figuring out how different ground covers and plants could work together in the garden. And for sense of meaning and purpose, something you'd do on your own, perhaps, would be to write your thoughts or stories about gardening with your parent. That gives a lot of people a sense of meaning and purpose is to know where they came from and being part of a larger family.

How about an activity with another person? Pleasure and enjoyment would just be visiting a botanical garden with a friend, which doesn't take any skill. To go up a level one would plant a garden with a partner. How about meaning and purpose? That might be planting vegetables with a grandchild and passing on and being of service to someone, something beyond ourselves.

Lastly, pleasure and enjoyment in a group might be registering and joining with a whole garden tour and being part of a larger group of people, where you get to know some of those people. Engagement and challenge. In this example, to achieve the highest sense of meaning and purpose, would be joining a gardening club which regularly meets with other people who have similar interests and values because they are working in public gardens for the greater good of the community.

We can take people by the hand and lead them through this as a portfolio of choices, important because as people age they find there are some things they can continue to do, and some they can't. It's the portfolio aspect of this that gives people the ability to weather those changes in life.

People when they retire have to figure out who they are now. A better way to think about where people are in life is this model by Peter Laslett from Cambridge University years ago, who talked about life as having four ages.



The first age is about development, being a child whose main focus is to develop for the life ahead. The second age of life is to take on responsibility, being a spouse, parent, caregiver, worker. The people in this second age of life make commitments in their lives and they get it done. The next age of life for most of us in retirement is about freedom from all of those responsibilities. The world opens up and we are free to engage, sometimes for the first time, in what we consider to be most important in life when our health is still good. The fourth age is the latter part of retirement when our health ability to do things, and our social connections. The purpose of that fourth age is to make sense of life and reflect on the other three ages.

Here's the important thing. As we go through these ages of life – the four ages of life – our roles change; our social roles, our life roles. So, if you only took away two things from this, the first is that, similar to an investment portfolio, it's literally possible for people to create a happiness portfolio of diversified activities across all the three paths to happiness that give the resilience, flexibility and ability to weather the future storms of life. And second, instead of seeing the transition to retirement as losing the essential roles and identity, people can take this time to consciously explore and choose new roles for the next stage of life. Doing these two things, especially with a specific process, make it possible to actually plan ahead and to be better at predicting what's going to make you happy.

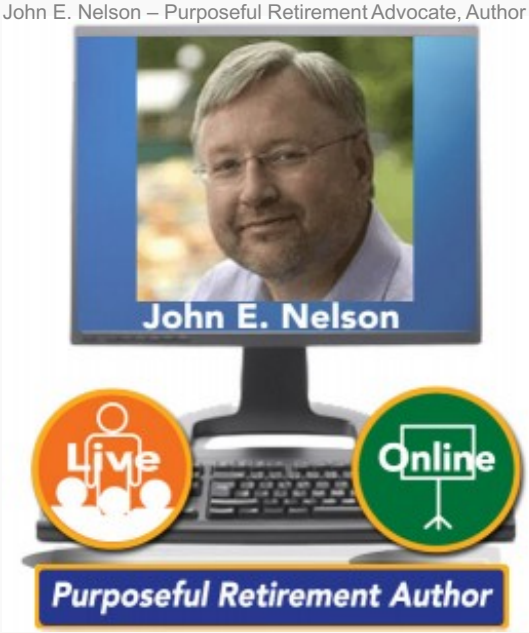
John E. Nelson is a career and retirement coach and speaker. He is coauthor of the best-selling and award-winning book, What Color Is Your Parachute? For Retirement.

His work integrates research from psychology, economics, medicine, and other fields. John's Well-Being model has been used by the federal government, professional associations, AARP, the United Way, FORTUNE "100 Best Companies to Work For" employers, and others.

John and his work have appeared in TIME, The Wall Street Journal, The New York Times, USA Today, Business Week, and other publications.

John taught at the University of Wisconsin while completing the coursework for a PhD. But he wrote the Parachute book instead of a dissertation — even though he knew it wouldn't count! The book is available here on Amazon.

John E. Nelson – Purposeful Retirement Advocate, Author &



Coach

Retirement Speakers Bureau

Still a Better Bang for the Buck: An Update on the Economic Efficiencies of Defined Benefit Pensions

retirement-insight.com/still-better-bang-buck-update-economic-efficiencies-defined-benefit-pensions/

By William B. (Flick) Fornia and Nari Rhee

National Institute on Retirement Security (NIRS)

Editor's note: Benefit generosity is a separate question from the economic efficiency of a retirement plan. While either a defined benefit or a defined contribution plan can offer more or less generous benefits, DB plans have a clear cost advantage for any given level of retirement benefit. The following is an excerpt from this paper, published by the National Institute on Retirement Security (NIRS). It may be found in its entirety here.

Over the past three decades, private employers have shifted away from defined benefit (DB) pensions that provide employees with a steady retirement income stream, towards defined contribution (DC) retirement accounts—such as 401(k) plans—in which individual workers manage their own investments. By and large, public employers have faced growing pressure since the 2008 financial crisis to make a similar change. Contrary to popular belief, however, DC retirement accounts are not inherently less costly than a pension, and switching from a DB to a DC system saves money only if it involves substantial benefit cuts.

In fact, DB pensions feature critical efficiencies that make them significantly less expensive to provide a given level of retirement benefit compared to DC plans. This was documented by the National Institute on Retirement Security (NIRS) in its 2008 study, "A Better Bang for the Buck: The Economic Efficiencies of Defined Benefit Pensions."[1] The study found that a typical large DB pension plan provides a given level of retirement benefit at about half the cost of a 401(k) style plan, because of three factors:

- The pooling of longevity risk in DB pensions enables them to fund benefits based on average life expectancy, and yet pay each worker monthly income no matter how long they live. In contrast, DC plans must receive excess contributions to enable each worker to self-insure against the possibility of living longer than average.
- DB pensions realize higher net investment returns due to professional management and lower fees from economies of scale.
- DB pensions are able to maintain portfolio diversification over time, while DC participants must shift to lower-risk, lower-return investments as they age. This means that over a lifetime, DB pensions earn higher gross investment returns than do DC accounts.

In summary, when it comes to providing retirement income, DB pensions are more efficient because they pool risks across a large number of individuals, invest over a longer time horizon, and have lower expenses and higher returns.

While these facts have not fundamentally changed since 2008, this study updates the comparison of retirement benefit funding costs based on an enhanced methodology that takes into account key changes in the DB and DC plan landscapes with regard to investment strategies and fees. We compare a typical large public sector DB pension to two kinds of DC plans—an individually directed DC plan with industry average fees and reduced investment returns based on typical investor behavior, and an "ideal" DC plan with fees well below industry average and asset class investment performance as strong as that achieved by professionals. Both DC plans are modeled with a target date fund (TDF) asset allocation pattern.

All three plans—the typical DB plan, the individually directed DC plan, and the ideal DC plan—are modeled with the

same underlying demographic and economic assumptions regarding employee wage growth, retirement age, life expectancy, target monthly retirement income, inflation, and projected rates of return for each asset class. We also assume that all plans receive consistent, adequate contributions required to fund target benefits. In addition, we study the cost impact of annuitizing the account balances in the DC plans.

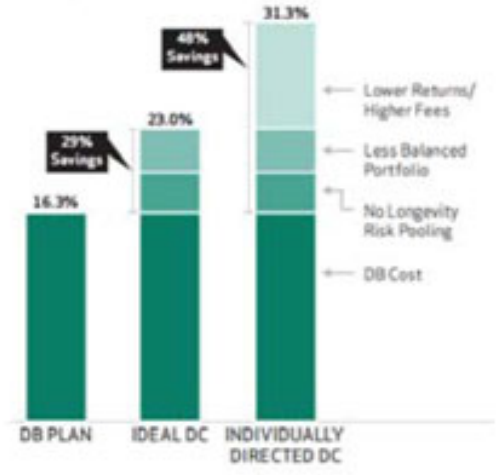
Even with updated assumptions and methodology, we still find that DB pensions offer substantial cost advantage over DC plans (see Figure 1 below).

- A typical DB plan, with advantages based on longevity risk pooling, asset allocation, low fees, and professional management, has a 48 percent cost advantage compared to a typical individually directed DC plan.
- A DB pension costs 29 percent less than an "ideal" DC plan with below-average fees and no individual investor deficiencies.
- Annuitizing DC account balances—that is, converting the account balance at retirement into an insurance contract for lifetime income—does not erase the DB pension cost advantage. This is because insurance companies use a more conservative asset allocation and charge much higher fees than a DB pension. Annuities purchased at historical average interest rates only modestly decrease DC benefit costs, while annuities purchased at 2014 rates would increase benefit costs.

In other words, a typical DB plan provides equivalent retirement benefits at about half the cost of a typical DC plan, and 29 percent lower cost than an ideal DC plan modeled with very generous assumptions.

Conversely, it would be 91 percent and 41 percent more expensive for a typical DC plan and an ideal DC plan, respectively, to deliver the same level of retirement income as a typical DB plan. Thus DB pensions continue to offer a significant cost advantage. While shifting from a DB pension to a DC plan offers a way to reduce the investment risk borne by employers and taxpayers, this comes with an unavoidable tradeoff—either increased benefit costs or, more likely, significant retirement benefit cuts that are larger than the savings realized by the employer.

Figure 1:
Cost of DB and DC Plans as a Percentage of Payroll



Defined Benefit, Defined Contribution and Hybrid Plans

Employers who offer retirement benefits can consider two basic approaches: a traditional defined benefit (DB) pension plan and a defined contribution (DC) retirement savings plan. The DB plan is designed to provide predictable retirement *income* throughout a worker's retirement years. Assets are pooled, and investments are managed by professionals who are responsible for acting in the best interest of participants. The DC plan, in contrast, is focused on accumulating retirement *wealth* expressed as a lump sum, with individual participants ultimately responsible for garnering adequate investment returns and managing their own accumulated wealth throughout their retirement years. This would entail estimating how much they can safely withdraw each year of retirement without running out of money, attempting to evaluate the best annuitization alternative in the open market, or some combination of the two.

Each type of plan has certain distinguishing characteristics that influence its cost to employers and employees.

How DB Plans Work

While employers have a large degree of flexibility in designing the features of a DB plan, there are some features all DB plans share. DB plans are designed to provide employees with a predictable monthly benefit in retirement. The amount of the monthly pension is typically a function of the number of years an employee devotes to the job and the worker's pay—usually at the end of their career.[2] For example, the plan might provide a benefit in the amount of 1.5 percent of final average pay for each year worked. Thus, a worker whose final average salary was $50,000, and who had devoted 30 years to the job, would earn a monthly benefit of $1,875 ($22,500 per year), a sum that would "replace" 45 percent of her final average salary after she stops working. This plan design is attractive to employees because of the security it provides. Employees know in advance of making the decision to retire that they will have a steady, predictable income that will enable them to maintain a fairly stable and predictable portion of their pre-retirement standard of living.[3]

Benefits in DB plans are pre-funded. That is, employers (and, in the public sector, most employees) make contributions to a common pension trust fund over the course of a worker's career. These funds are invested by professional asset managers whose activities are overseen by trustees and other fiduciaries. A typical DB pension fund's asset allocation policy—i.e., the share of holdings allotted to different asset classes such as stock, bonds, and treasuries—is based on a careful analysis of plan demographics and liabilities as well as short- and long-term financial market projections.[4] The earnings that build up in the fund, along with the dollars initially contributed, pay for the lifetime benefits a worker receives when she retires.

How DC Plans Work

DC plans function very differently than do DB plans. First, there is no implicit or explicit promise of retirement income in a DC plan. Rather, the level of retirement income that an account will provide depends on a number of factors, such as the level of employer and employee contributions to the plan, the investment returns earned on assets, whether loans are taken or funds are withdrawn prior to retirement, and the individual's lifespan.

While DC plan assets are also held in a trust, that trust is comprised of a large number of individual accounts. DC plans are typically "participant directed," meaning that each individual employee can decide how much to save, how to invest the funds in the account, how to modify these investments over time, and how to withdraw the funds during retirement.

Retirement experts typically advise individuals in DC plans to change their investment patterns over their lifecycle. In other words, at younger ages, because retirement is a long way off, workers should allocate more funds to stocks, which have higher expected returns but also higher risks. As one gets closer to retirement, experts suggest moving money away from stocks and into safer but lower return assets like bonds. This is to guard against a large drop in retirement savings on the eve of retirement, or in one's retirement years.

The high degree of participant direction makes DC plans very flexible in accommodating individuals' desires, decisions, and control. Unfortunately, a substantial body of empirical and experimental research indicates that this flexibility tends to lead to adverse outcomes. First, too many workers fail to contribute sufficient amounts to the plans.[5] Second, individuals' lack of expertise in making investment decisions can subject individual accounts to extremely unbalanced portfolios with too little or too much invested in one particular asset, such as stocks, bonds, or cash.[6] One team of researchers thus concluded, "The likelihood of investment success increases as the participant's involvement in investment decisions decreases."[7]

Another important difference between DB and DC plans becomes apparent at retirement. Unlike in DB plans, where workers receive regular monthly pension payments, in DC plans it is typically left to the retiree to decide how to spend down their retirement savings. Research suggests that many individuals struggle with this task, either drawing down funds too quickly and running out of money, or holding on to funds too tightly and enjoying a lower standard of living as a result.[8] In theory, employers that offer DC plans could provide annuity payout options, but in practice they rarely do.[9]

Hybrid Retirement Benefits

There is growing interest in “hybrid” retirement benefits that combine some of the features of DB and DC plans, and ostensibly offload some risks onto employees while maintaining some of the retirement security offered by traditional DB pensions.

There are two main types. One type is a “side by side” or “stacked” hybrid, in which the core retirement benefit consists of a combination of a DB pension (typically with less generous benefits) and a DC plan. The other is a “blend” between DB and DC such as a cash balance (CB) plan. Under a CB plan, each employee has a notional account balance, as the employer credits each employee with a set percentage of her annual pay plus an interest rate that is either predetermined or tied to an index. A CB plan is legally a DB plan—benefits are guaranteed, albeit as a lump sum, and assets are pooled in a trust and managed professionally. However, CB plan benefits typically are less generous than a traditional DB pension, and generally participants do not obtain longevity protection.

Importantly, the relative costs of hybrid plans depend largely on benefit structure. To the extent that hybrid benefits emphasize DB-like characteristics, they can be more cost efficient. To the extent that they off-load risks onto individual workers, they will be less cost efficient.

DB Plans Reduce Costs by Nearly Half

Our analysis clearly demonstrates that DB plans are far more cost-effective than DC plans. We find that to achieve roughly the same target retirement benefit that will replace 53 percent of final salary, the DB plan will require contributions equal to 16.3 percent of payroll, whereas the individually directed DC plan will require contributions to be almost twice as high as the DB plan—31.3 percent of payroll. Even the “ideal” DC plan, generously modeled with the same fees and investor skill as the DB plan—provides benefits at a substantially higher cost of 23.0 percent of payroll.

We find that due to the effects of longevity risk pooling, maintenance of portfolio diversification, and greater investment returns over the lifecycle, a DB plan can provide the same level of retirement benefits at about 29 percent lower cost than an ideal DC plan and about 48 percent lower cost than an individually directed DC plan.

Table 1 breaks down the cost savings realized by the DB plan relative to the individually directed DC plan.

First, the longevity risk pooling that occurs in the DB plan accounts for 10 percent cost savings. Second, DB plans’ ability to maintain a more diversified portfolio drives another 11 percent cost savings. Third, superior net investments returns across the lifecycle generate an additional 27 percent reduction in cost compared to an individually directed DC plan—bringing the total cost savings to 48 percent.

Table 1: **Tallying DB Plan Cost Savings Compared to Individually Directed DC Plan**

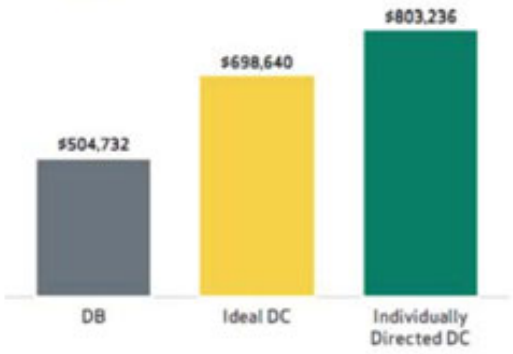
Source	Savings
1. Longevity risk pooling	10%
2. Maintenance of portfolio diversification (staying invested in equities)	11%
3. Lower fees and professional management	27%
All-in cost savings in DB plan	**48%**

Our results also indicate that DB plans can do more with less. That is, they can ensure that all individuals in the plan (even those with very long lives) are able to enjoy an adequate retirement benefit that lasts a lifetime, at the same time that they require less money to be contributed to a retirement plan and fewer assets to accumulate in the plan. We calculated the amount of money that would be required to be set aside for each retiree in each type of plan, to provide a modest retirement benefit of about $2,700 per month. As shown in Figure 7, at retirement age, the DB plan requires only about $500,000 to be set aside for each individual, whereas the ideal DC plan requires about $700,000 and individually directed DC plan requires about $800,000. The difference—about $200,000 and $300,000 for each and every employee under ideal DC plan and individually directed DC plan, respectively —illustrates that the efficiencies

embedded in DB plans can yield large dollar savings for employers, employees and taxpayers.

Conclusions

Figure 7:
Per Employee Amount Required at Age 62
DB Plan vs. DC Plan



Despite notable changes in the retirement benefit landscape since 2008, including some improvement in DC performance and fees, DB pensions retain their cost advantage as a means of providing retirement benefits to workers. In this study, we compared the cost of providing equivalent benefits through a typical large public sector DB plan, an ideal DC plan, and an individually directed DC plan. Even compared to the ideal DC plan with no disadvantage in terms of fees and investor skill, the DB plan reduces costs based on longevity risk pooling and the maintenance of portfolio diversification. And when we examine the individually directed DC plan with more realistic assumptions regarding fees and investor skill, the DB plan realizes a hefty additional cost advantage due to its low expenses and professional management of assets.

The sources of cost savings in DB plans reflect, at a very basic level, the differences in how DB and DC plans operate. Group-based DB plans provide lifetime benefits and feature pooled, cost-efficient, professionally managed assets. These features drive significant cost savings that benefit employers, employees, and taxpayers. While well-designed DC plans can theoretically mimic some of these advantages—for instance, employers may select low-fee TDFs as a default investment option for their workers—DB plans would still retain their advantages of longevity risk pooling and long-term portfolio diversification. Using private annuities to convert DC account balances at retirement into a lifetime income stream does not close this gap because such annuities are expensive, especially when they include the kind of inflation protection offered by public DB plans.

When considering our results, it is important to keep in mind that in our effort to construct an “apples to apples” comparison, we made a number of simplifying assumptions that actually reflected more favorably on DC plans. For instance, we did not model any asset leakage from either the ideal or individually directed DC plan before retirement through loans or early withdrawals. We also assumed that individuals followed a sensible “Goldilocks-like” withdrawal pattern in retirement— not too fast, not too slow, but just right. We used conservative estimates of the difference in actual investment returns between DB and DC plans. And, we used 80th percentile life expectancy to project required accumulations in the DC plans, rather than “full” life expectancies.

Thus, if anything, our analysis underestimates the cost of providing benefits in a DC plan and thereby understates the cost advantages of DB plans.

Due to the built-in economic efficiencies of DB plans, employers and policymakers should continue to carefully evaluate claims that “DC plans will save money.” As discussed, benefit generosity is a separate question from the economic efficiency of a retirement plan. While either type of plan can offer more or less generous benefits, DB plans have a clear cost advantage for any given level of retirement benefit. Consequently, shifting from a DB plan to a DC plan and maintaining the same contribution rate will generate significant cuts in retirement income. Considering the magnitude of the DB cost advantage, the consequences of a decision to switch to a DC plan could be dramatic for employees, employers, and taxpayers.

Finally, policymakers should consider proposals that can strengthen existing DB plans and promote the adoption of new ones. When viewed against the backdrop of workers’ increasing insecurities about their retirement prospects and the economic and fiscal challenges facing employers and taxpayers, now more than ever, policymakers ought to focus their attention and energy on this important goal. The very features that make DB plans attractive to employees drive cost savings for employers and taxpayers. In this way, DB plans represent a rare “win-win”

approach to achieving economic security in retirement that should be recognized and replicated.

[1] B. Almeida and W.B. Fornia, 2008, "A Better Bang for the Buck: The Economic Efficiencies of Defined Benefit Pension Plans," National Institute on Retirement Security, Washington, DC.

[2] The benefit factor could also be a function of a worker's earnings over their entire career (a so-called "career average plan.") Or, the factor could be a flat dollar amount: for example, the plan will pay a monthly benefit equal to $50 per year of service, so that a 30 year employee would have a benefit of $1,500 per month. "Flat dollar" plans are primarily seen among blue-collar workers in the private sector.

[3] Inflation protection varies among DB pensions. Private DB pensions typically do not offer Cost of Living Adjustments, while public DB pensions usually offer some level of inflation protection.

[4] R. Jung and N. Rhee, 2013, "How Do Public Pensions Invest? A Primer," National Institute on Retirement Security, Washington, DC.

[5] While not incorporated into our model, the lack of sufficient contributions can be a problem for DB plans and is a widespread problem for voluntary DC accounts. The median 401(k) contribution rate among participating workers peaked at 5.2 percent in the early 2000s, and stood at just 5 percent in 2010. (See Table 6, p. 44 in B.A. Butrica and K.E. Smith, 2012, "401(k) Participant Behavior in a Volatile Economy," CRR WP 12-24, Center for Retirement Research at Boston College, Chestnut Hill, MA.) In addition, 29 percent of private sector wage and salary employees who have access to a 401(k) type plan do not participate (U.S. Bureau of Labor Statistics (BLS), 2013 National Compensation Survey Employee Benefit Survey, BLS, Washington, DC, http://www.bls.gov/ncs/ebs/benefits/2013/ownership/private/table02a.htm.)

[6] There is a wealth of research on behavioral biases in retirement saving and investing. See for instance S. Benartzi and R. Thaler, 2007, "Heuristics and Biases in Retirement Savings Behavior," Journal of Economic Perspectives, v21n3: 81-104. For an accessible overview of research in this field, see S. Benartzi, 2007, "Implications of Participant Behavior for Plan Design," Alliance Berstein.

[7] J.C. Chang, S.W. Simon, and G.K. Allen, 2005, "A Step Beyond Erisa Section 404(c): Improving on the Participant Directed 401(k) Investment Model," Journal of Pension Benefits, v12n4.

[8] C. Copeland, 2007, "How Are New Retirees Doing Financially in Retirement?," EBRI Issue Brief. No. 302, Employee Benefit Research Institute, Washington, DC; D. Love, P.A. Smith and L. McNair, 2007, "Do Households Have Enough Wealth for Retirement?" Finance and Economics Discussion Series. 2007-17, Federal Reserve Board, Washington, DC.

[9] P. Perun, 2007, "Putting Annuities Back into Savings Plans," In T. Ghilarducci and C. Weller, eds., Employee Pensions: Policies, Problems, and Possibilities, Labor and Employment Relations Association, Champaign, IL.

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