Thinking differently about helping your clients measure retirement success

April 2018

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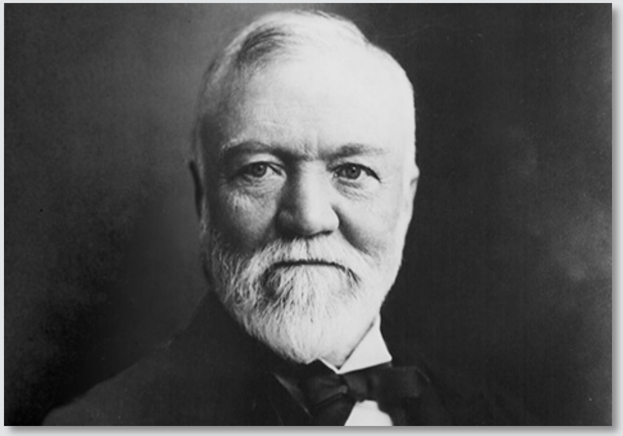


"No man becomes rich unless he enriches others."

— Andrew Carnegie, Founder (1835–1919)

Retirement plan trends are shaping innovative opportunities

Regulations like the **DOL Fiduciary Rule** emphasize the responsibility providers have to help drive better outcomes

Increased **competition pushes providers to offer a solution** that will improve employee outcomes

Focus on **lifetime income** contributes to the development of innovative investment solutions

Creating opportunities for consultants and providers to help drive and improve retirement outcomes through:

- Investment menu design with lifetime income
- The next evolution of default strategies
- Employee engagement strategies
- Retirement plan policy statements
- Plan design

A changing landscape is creating a need for a new generation of retirement plans

There is an increasing need for dependable lifetime income – as a greater number of American's are approaching retirement[1]

The number of defined benefit plan participants has declined 90% in 30 years[2]

Employees anticipate working past normal retirement age, potentially leading to productivity declines and hampering ability to recruit talent[3]

Healthcare costs are rising faster than inflation[4], and the average amount a healthy couple will spend on **healthcare during retirement is $366,000**, impacting the expenses of retirees[5]

1. Source: Employment Projections Program, Bureau of Labor Statistics, 12/8/2015, **https://www.bls.gov/opub/mlr/2015/article/occupational-employment-projections-to-2024.htm**.
2. Source: nasbo.org, Summary: Fall 2015 Fiscal Survey of States, **nasbo.org/sites/default/files/Report%20Summary%20-%20Fall%202015%20Fiscal%20Survey.pd**
3. Source: O'Meara, KerryAnn (12/2015). Flexible Workplace Agreements: Enabling Higher Education's Strategic Advantage. TIAA Institute, **tiaainstitute.org/public/pdf/flexible_workplace_agreements.pdf**
4. Source:Retirement Health Care Cost Index by Healthview Services, Investment News, March 28, 20144, **https://www.statisticbrain.com/health-insurance-cost-statistics/**.
5. **https://www.statisticbrain.com/health-insurance-cost-statistics**/

Today's retirement plans are not fully accounting for key retirement risks facing the workforce

TIAA

Longevity

By **2050**, the number of Americans who are **85 or older** could triple to **almost 20 million**.[1]

Market

1980–2000: S&P Index up 1,100%
2000–2010: S&P Index up 15%

Inflation[2]

1980	1990	2000	2010	2017
$1	$1.59	$2.09	$2.65	$2.95

Interest Rate

A **3% increase** in yield will result in a **17.6% decline** in price.[3]

Withdrawal

25% of participants expected to be able to withdraw more than 10% of their retirement savings annually.[4]

Cognitive

45% of the population between 80-84 is experiencing some form of impairment which could impact their ability to manage financial situations.[5]

1. Source: U.S. Census, May 2010
2. Source: CPI Calculator, Bureau of Labor Statistics, 2017.
3. (Seven-Year Treasury Constant Maturity Yield), May 2017.
4. Source: Lifetime Income in Defined Contribution Plans: A Fiduciary Approach, 2012 Drinker Biddle LLP.
5. Source: Cognitive Aging and the Capacity to Manage Money, January 2017, Number 17-1, Center for Retirement Research at Boston College.

Americans are not saving enough, creating a retirement income gap

Most Americans underestimate their life expectancy…

Among 65-year-old men, **more than half** will live beyond **age 85**, and **one-third** are expected to live to at least **age 90**.[1]

Among 65-year-old women, **nearly two-thirds** are expected to live to **age 85**, and **almost half** will live to **age 90**.[1]

In nearly two-thirds of married 65-year-olds

at least **one spouse** will live to **age 90**[1]

and nearly **two in five** will live to **95**[1]

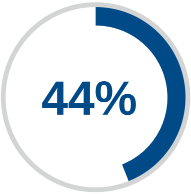
…and may not be saving enough to last throughout retirement

America's Retirement Income Gap

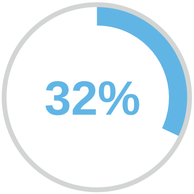
The difference between what retirees **ought to have saved** and what they **actually have saved**[2]

1. These data are based on calculations for non-smoking individuals with average health using the Actuaries Longevity Illustrator developed by the American Academy of Actuaries and the Society of Actuaries, available at www.longevityillustrator.org.
2. Pension Rights Center, Nation's Retirement Income Deficit Now $7.7 Trillion, March 2015.

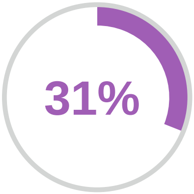
Concerns over the financial security of retirement plan participants are well founded



is average among millennials who have no retirement savings or pension[1]



of Gen X are confident they will reach their long-term financial goals[2]



of middle-income baby boomers feel well- or very well-prepared for retirement, dropping from 41% before 2007[3]

1. Source: Cohen, Cathy, Luttig, Michael and Rogowski, Jon, The GenForward Survey: A Report on the Lived Economic Lives of Millennials (6/2017) is a nationally representative survey of more than 1,750 young adults ages 18-34 conducted bimonthly. 44% was the average among millennial responses to question "What type of retirement savings or pension do you have?" The answer of "no retirement savings or pension" responses were broken out as follows: 41%—African-Americans, 39%—Asian-Americans, 53%—Latino/as, and 42%—Whites. For more information, go to **genforwardsurvey.com/assets/uploads/2017/06/Millennials-Economic-Lives.pdf**.
2. Source: Lifehealth.com, *"Gen X: Only 1 in 3 Will Reach Their Long-Term Financial Goals*", 7/13/2017, **lifehealth.com/gen-x-1-3-will-reach-long-term-financial-goals**.
3. Source: Barney, Lee, PLANSPONSOR "Many Middle Income Boomers Lost Hope After Financial Crisis", **8/2017, plansponsor.com/Many-Middle-Income-Boomers-Lost-Hope-After-Financial-Crisis/**.

The importance of guaranteed lifetime income in retirement

Let's think beyond accumulation

Accumulate savings *for* retirement	Manage those savings *in* retirement	Guarantee income that lasts *throughout* retirement

Annuities are:	
▪ Key investment vehicles for guaranteeing income in retirement	▪ Largely missing from the U.S. private retirement system

Guaranteed income is in demand

49%

of Americans say their No. 1 goal for a retirement plan is to provide guaranteed monthly income in retirement.[1]

68%

of Americans would first choose a retirement "paycheck" that lasts as long as they live, when given a choice of income options.[2]

Fixed annuities can deliver guaranteed income while working (interest earnings) and during retirement (lifetime income payments).[3]

1. Source: TIAA's 2016 Lifetime Income Survey, 9/14/2016.
2. Source: TIAA's 2016 Lifetime Income Survey, 9/14/2016.
3. Fixed annuities provide minimum guaranteed rates of interest during the accumulation phase and may provide the potential for additional interest. If additional interest is paid for a particular period by an insurance company, it may not be guaranteed for future periods. Guarantees are based upon the claims-paying ability of the issuing company.

Generating lifetime income in retirement is critical

Retirement income is a better yardstick of success

> "…investment value and asset volatility are simply the wrong measures if your goal is to obtain a particular future income. Communicating with savers in those terms, therefore, is unhelpful—even misleading."

Robert Merton,
Nobel Economist of MIT Sloan School

The Crisis in Retirement Planning,
Harvard Business Review, July/August 2014,
Yale Center for Clinical Investigation.

Issues impacting retirement plan design and lifetime income

Guaranteed lifetime income solutions play an important role in **ensuring a secure retirement**

The current legal landscape creates **incentives for employers to exclude** such lifetime income solutions from workplace plans

Specific policy changes can **restore the critical role of guaranteed lifetime income solutions** in ensuring Americans will not outlive their retirement savings

A one-year delay in retirement age may **increase annual workforce costs** by an incremental 1.0%–1.5% to employers' costs[2]

"Retirement income planning is a really hard problem … the hardest problem I've ever looked at."

- Dr. William Sharpe, Economist, Nobel Laureate[3]

1 http://www.napa-net.org/news/managing-a-practice/industry-trends-and-research/report-cites-big-employer-price-tag-for-delayed-retirements/.
2 Source: "Closing the Guarantee Gap", 2017, TIAA

The U.S. lags on guaranteed lifetime income

America's retirement system continues to focus more on *accumulating* assets for retirement than on *preserving* assets in retirement.[1]

Many developed countries have reformed private retirement savings systems[1] to help ensure retirees build lifetime income streams—so they don't outlive their savings in retirement.

It's time the U.S. took steps to do so, too.

1 Source: "Closing the Guarantee Gap", 2017, TIAA

Guaranteed lifetime income protects against longevity risk

Annuities provide regular income during retirement

Annuities are investment vehicles that guarantee the payment of a stream of income in retirement.

Fixed annuity	Variable annuity
A contract between an individual and an insurance company that guarantees periodic payments to the individual or designated beneficiary in return for an investment.	A type of insurance contract that has a value that changes based on an underlying investment portfolio (which may include mutual funds) or based on a performance index.
Payment amounts either do not change or they change at stated intervals.	Funds held in the annuity accumulate tax deferred.
May be used to cover fixed expenses in retirement.	May be used to help income keep pace with inflation.

Any guarantees are subject to the issuer's claims-paying ability. Fixed annuities are guaranteed insurance contracts and not an investment for federal securities law purposes. Payments from variable annuities will rise or fall based on investment performance.

Saving for retirement and living in retirement

Accumulation Phase

- Participants put money in while they work.
- Fixed Annuities -- Contributions earn a minimum rate of interest.
  - There may be a potential for additional amounts of interest above the minimum that may be declared periodically.[1]
- Variable Annuities –- The rate of return is not guaranteed and is based on the performance of the underlying investments in the annuity.[2]
- Participants may be able to transfer money to and from annuities.
  - Some annuities may have restrictions on transfers and/or withdrawals.
    - In some cases, it may take a period of years to fully transfer or withdraw.

Retirement Income Phase

- Participants take money out when they retire.[3]
- Income options may include some or all of the following:
  - Income for the participant's life or that of the participant and a spouse or partner (with or without a guaranteed period).
    - Fixed Annuities –- Income will never fall below a certain guaranteed level.[1]
    - Variable Annuities –- Income varies based on the performance of the underlying investments in the annuity.[2]

    Note: Participants give up control of the amount they've converted to begin lifetime income. The decision can't be revoked and the type of income stream can't be changed once they've made the election.
  - Non-lifetime income options (e.g. lump-sum, or recurring withdrawals, if available).

1. Any guarantees under fixed annuities are subject to the issuing company's claims-paying ability. Interest in excess of the guaranteed amount is not guaranteed for periods other than the period for which it is declared.
2. Variable investment options are not guaranteed. Account values will fluctuate based on performance. It is possible to lose money in them, including principal.
3. When annuities are used within an employer-sponsored plan, payout options are also subject to the terms of the plan. In addition, withdrawals prior to age 59½ may be subject to a 10% federal tax penalty, in addition to ordinary income taxes.

Retirement savings and guaranteed lifetime income products

Consider the value of an annuity—using "retail" or "in-plan" annuities can influence fees and costs.

Retail annuity

An annuity sold in the open marketplace directly to investors, available to anyone.

The retail annuity industry has been criticized for its high fees, excessive surrender charges, and abusive, commission-based sales practices.[1]

In-plan annuity

An annuity offered to employees through a workplace retirement plan.

Group in-plan annuities have typically not been sold on commission, and therefore can cost far less than individual annuities, both retail and in-plan.[2]

1. Source: Money, "Why Are Annuity Fees So High?"; CNBC, "Annuity Illustrations Aren't Always What They Seem", November 2016; *The Wall Street Journal*, "How to Avoid Paying High Fees for Variable Annuities", March 2016.
2. Source: Society of Actuaries, "The Next Evolution in Defined Contribution Retirement Plan Design", September 2013.

The role variable annuities can play

Have the power for potential wealth accumulation based on market returns

Can help pay for retirement expenses beyond essentials

Can be converted into a lifetime income stream

Can act as a potential inflation hedge in retirement

Deliver flexible income options to match retirement goals

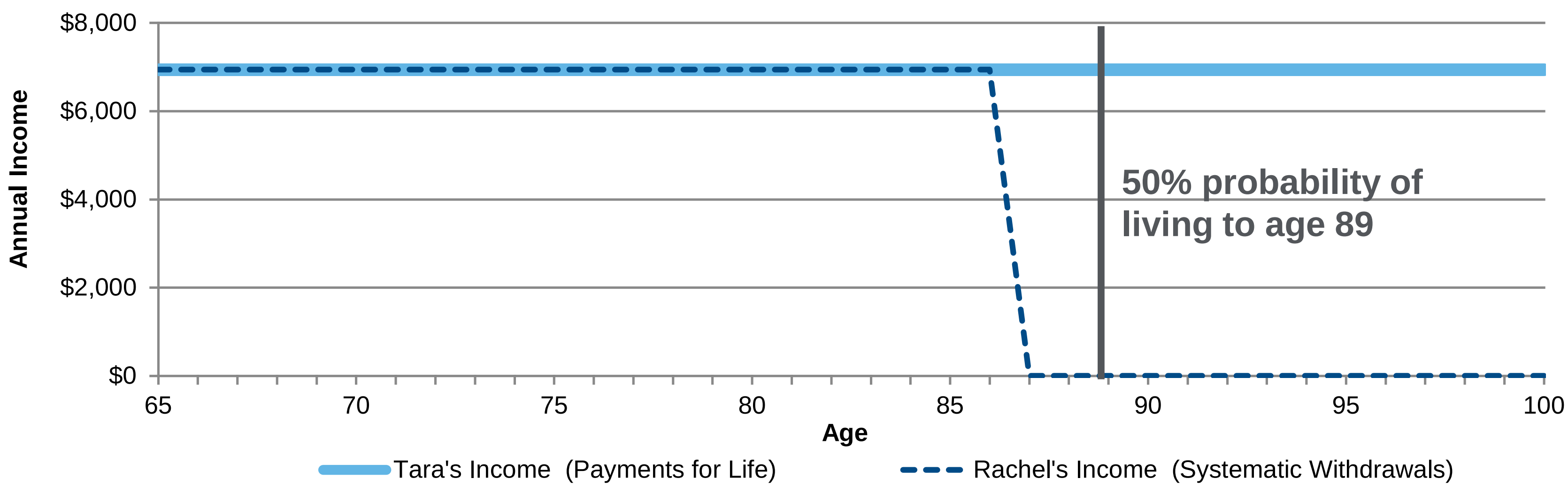
There are risks with investing in variable annuities, including the possible loss of principal.

Twin sister challenge #1
Lifetime income vs. systematic withdrawals

Twin sisters Tara and Rachel retire at age 65, each with $100,000:

- Tara converts her balance to a stream of income for life, while Rachel takes the same payment using the systematic withdrawal feature. Annual income for each is $6,950.[1]
- They both earn the same exact 4.50% return.
- **Rachel will run out of money by age 87**, while there is a greater-than-50% chance of still being alive. This will be true in all return scenarios, including in both up and down equity markets.

Annual Income - Lifetime Income[1] vs. Systematic Withdrawals

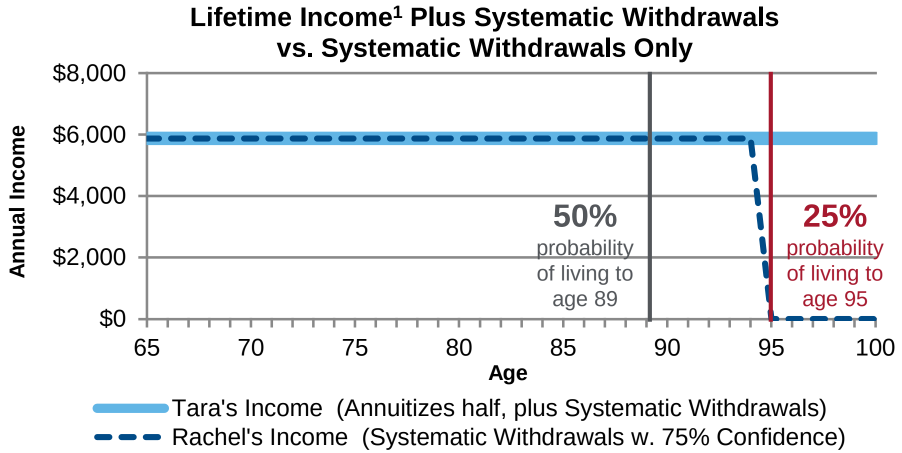


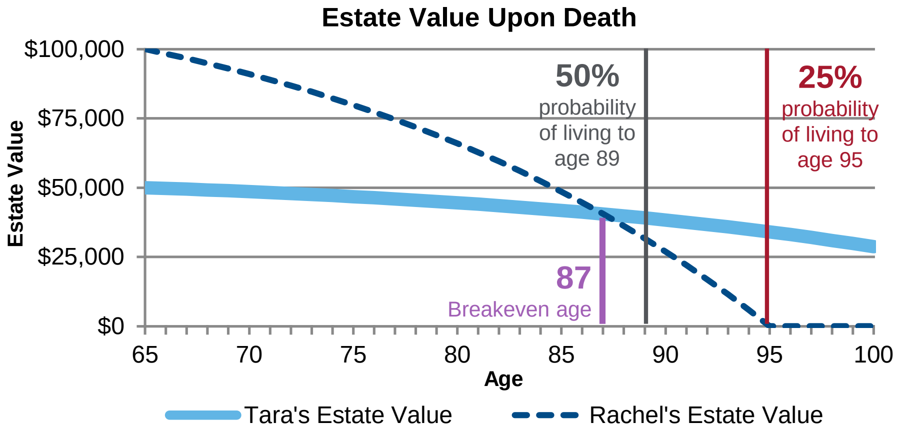
1. Source: TIAA Actuarial Department. Life annuity payment is based on 2017 TIAA dividend mortality tables, and a single-life annuity paying 4.5% interest.

Twin sister challenge #2
Life annuity plus systematic withdrawals vs. systematic withdrawals at 75% confidence

Twin sisters Tara and Rachel retire at age 65, each with $100,000:

- Rachel assumes she will earn 4.50%, and takes a payment so that she is 75% sure she will not outlive income. ($5,800 annual income).
- Tara annuitizes **half** her accumulation and withdraws any shortfall from the non-annuitized portion so that her total income, based upon a fixed annuity of $100,000, is the same as that of Rachel ($5,800).[1]
- They both earn the same exact 4.50% return.
- **Tara has income for life**, while Rachel does not, since she will run out of money at age 95.
- In addition, **Tara will leave the larger estate more than 50% of the time.**





1. Source: TIAA Actuarial Department. Fixed annuity of $100,000. Life annuity payment is based on 2017 TIAA dividend mortality tables, and a single-life annuity paying 4.5% interest. In this example, Rachel is invested in an annuity and Tara is invested in a mutual fund.

A model defined contribution plan is built on a lifetime income objective

Income replacement

Investment options that **generate lifetime income** at retirement that cannot be outlived

Adequate savings

Proven long-term investment strategies that help **build sufficient savings** and manage risk

Guaranteed products[1]

Lifetime income stream generated by annuity options

Engagement strategies

Targeted Communication and education program about how savings are transformed into lifetime income, coupled with advice

Flexible distribution options

Distribution options that offer **immediate or deferred guaranteed income** in retirement to make it easy to transition from saving to receiving income

1. Guaranteed income from annuities is subject to the issuing insurance company's claims paying abilities

Payments from variable annuities will rise or fall based upon investment performance..

Addressing today's challenges and fortifying retirement plans, while looking ahead to the future

Addressing today's complex set of dynamics

- Organizational financial constraints
- Rising healthcare costs
- Aging U.S. demographics
- Changing definition of retirement
- New construct of the nuclear family

Designing plans for today and tomorrow's workforce

- Retirement readiness must be a central objective
- Practice and policy tools for consultations with clients
- Tools and resources to evaluate processes and practices to drive operational efficiency, mitigate risk and reward human capital

Utilizing the latest in innovative solutions

- Guaranteed lifetime income solutions/QDIA[1]
- Retiree healthcare solutions
- Expanded digital management and administrative resources for plan sponsors
- Expanded digital planning and advice resources for participants

1. Guarantees are based on the claims-paying ability of the issuing companies.

Q&A

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