Driving Better Outcomes with the TIAA Plan Outcome Assessment®

A guide to measuring employee retirement readiness and optimizing plan effectiveness

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Driving better plan outcomes with the TIAA Plan Outcome Assessment

How do you know if your plan is really working?

Heightened regulatory responsibilities. Rising cost pressures. A changing retirement landscape. More time and energy are spent on managing retirement plans than ever before.

But do you have confidence your employees are on track to replace their income in retirement?

Retirement readiness is the degree to which a participant is on track to retire with sufficient lifetime income, while maintaining a desired living standard. It's a primary goal of any retirement plan. Yet only 13% of plan sponsors measure the truest indicator of retirement readiness: income replacement.[1]

1. Source: 2018 TIAA Plan Sponsor Retirement Survey, June 2018

A comprehensive way to gauge the success of your plan

The **income replacement ratio** provides an effective way to visualize how ready your employees are for retirement. It is equal to a person's after-tax income after retirement, divided by his or her estimated after-tax salary before retirement. For example, assume someone earns $60,000 annually, after tax, before retirement. Further, assume he or she retires and receives $45,000 annually, after tax, of Social Security and other retirement income. This person's replacement ratio is 75% ($45,000/$60,000).

The **TIAA Plan Outcome Assessment (POA)** is a consultative service that measures the degree to which your participants are on track to retire with sufficient income using your plan's overall income replacement ratio. It allows you to analyze and evaluate your plan's goals, design and investment choices, as well as employee demographics and behaviors. It provides a basis for taking steps to strengthen your employee's retirement readiness and optimize your plan's effectiveness.

Highlights of the POA

Focuses on outcomes
It provides you with your plan's overall income replacement ratio, which is a truer measure of plan health and employee retirement readiness. This gives you valuable context for indicators such as contribution rates, asset allocation and plan participation.

Links plan outcomes to employee retirement readiness
By aligning with TIAA's individual retirement plan advice offer, we link plan-level outcomes to personalized, individual engagement.

Connects plan design changes to plan outcomes
We run "what if?" scenarios to evaluate the impact of plan design and investment solution changes on near-term and long-term employee outcomes, as well as costs.

Assesses outcomes to and through retirement
Beyond the active employees in your plan, we also include the lifetime income received by your retired employees—providing a more holistic view of your plan's ability to provide income in retirement to employees and retirees.

Benchmarks plan outcomes against group of similar plans
With a database of 15,000+ institutions and 5 million participants in the nonprofit market, TIAA can let you benchmark your plan's performance against other plans in your space.

Did you know?

53% of plan sponsors chose helping their employees retire on time and maintain their standard of living as their primary plan objective.

Source: 2018 TIAA Plan Sponsor Retirement Survey, June 2018.

50 percent of households are "at risk" of not having enough to maintain their living standards in retirement.

Source: The Center for Retirement Research at Boston College, The National Retirement Risk Index: An Update, January 2018.

Outcomes are at the center of the Plan Outcome Assessment

Your POA results are delivered within a comprehensive yet actionable report that can help you address challenges, make informed decisions and confirm that your plan is meeting its goals and helping employees achieve retirement readiness.

The POA takes plan and participant data to measure and assess your plan through the lens of your employees' retirement readiness.

We use TIAA's advice methodology described below to identify each active employee's unique income replacement ratio based on their actual savings and investing behaviors. For retired employees, we use the amount of lifetime income they received from the plan in the previous calendar year.

Key assumptions in the advice methodology:

- Employees retire at age 67 with estimated Social Security benefits.
- Current investing and savings behaviors remain constant until retirement.
- Leveraging the advice engine from Morningstar Investment Management, LLC, an independent expert retained by TIAA, each employee's portfolio is run through 500 Monte Carlo simulations (70% probability) based on each employee's risk-based asset allocation, ranging from very conservative to very aggressive.
- Income replacement ratios are calculated on an after-tax basis.

Sample plan health and employee retirement readiness summary[1]

94.6%

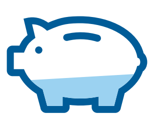
The average income replacement ratio represents how much income your participants are projected to replace in retirement

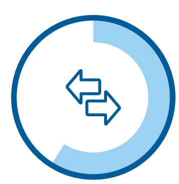
50%

Of participants are projected to meet or exceed their target income needs in retirement

The average total savings rate for your plan including employee and employer contributions

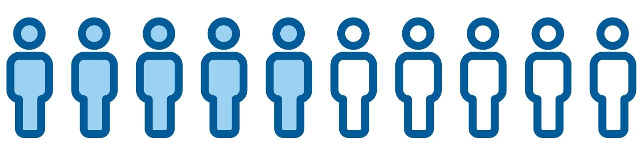
14.2%





13%

Of participants may benefit from a change in their portfolio risk level



54%

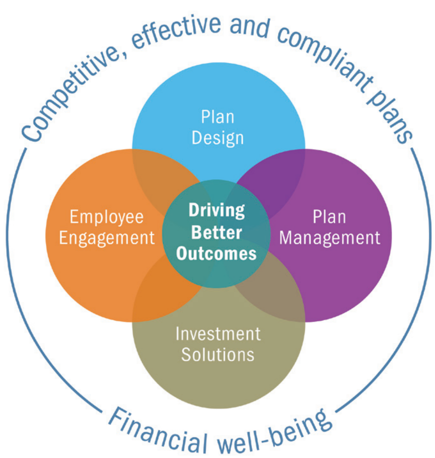
Of employees are making voluntary contributions to the plan

Source: 2018 Retirement Readiness Report. This depicts sample data and is being used for illustrative purposes only.

A framework for assessing and driving better outcomes

You can use the POA to project how effective your plan is at driving better outcomes for your participants. It provides a framework for evaluating whether your plan's design, ongoing management, investment solutions and engagement activities will enhance your chance of meeting both your objectives and your employees' retirement readiness.

Using the POA in combination with the process outlined below can help you assess how well your plan is doing, better address challenges and make more informed decisions to improve plan outcomes.



1. Define plan goals	Whether you have a new plan or are revisiting an existing one, you should be able to articulate and benchmark primary goals like income replacement and how you will go about achieving them. The POA helps you benchmark against those goals.
2. Confirm/evaluate plan design	Keep plan goals in mind as you monitor and manage your plan and use POA analysis to make sure ongoing plan design and investments solutions decisions support them.
3. Project plan effectiveness	Your plan's effectiveness is based in large part, on your employees' engagement with their retirement plan. Your employee's income replacement ratio provides a good measure of this engagement.
4. Enable ongoing assessment	In a rapidly changing environment, ongoing plan management enables you to continually monitor and adjust based on opportunities to enhance plan performance.

Assess performance against your plan's long-term goals

The answers provide the guiding principles behind how you design your plan, monitor and document its effectiveness and, ultimately, communicate its value to key stakeholders. The Plan Outcome Assessment can help address each of these questions from both a long-term and near-term perspective.

As you monitor your plan on an ongoing basis, keep these questions in mind:

- What are the goals of my plan?
- What is my philosophy for achieving these goals?
- Is my plan competitive, compliant and cost effective?

What are the goals of my plan?

A primary objective of any plan is to help employees replace their income when they stop working—so they don't just live, but enjoy living in retirement. The POA projects your plan's ability to support their income replacement and provides an outcomes-based framework for defining goals and assessing progress against them.

The Plan Outcome Assessment:

- Is based on a set of representative assumptions that can be further customized across employee classes, age groups and compensation ranges.
- Considers the unique demographics of your organization like the average starting salary.
- Models various levels of contribution rate and risk-based asset allocation assumptions based on existing plan design and investment menu lineup.
- Shows how your plan is performing today relative to your long-term goals.

What is my philosophy for achieving plan goals?

Nonprofit employers are starting to embrace a philosophy that views retirement readiness as a shared responsibility, incentivizing employees to save, often via a match or auto features. This approach reflects the reality of fiscal and budget challenges and regulatory compliance with more 401(k) features—but perhaps more importantly, responding to research that suggests incentivizing employees to engage in their retirement plan (e.g., electing to choose a match) may lead to better retirement readiness.[1]

There is no “right” approach—but the **POA can help you see how your philosophy translates into outcomes today, as well as how different approaches can impact plan outcomes in the future.**

Is my plan competitive, compliant and cost effective?

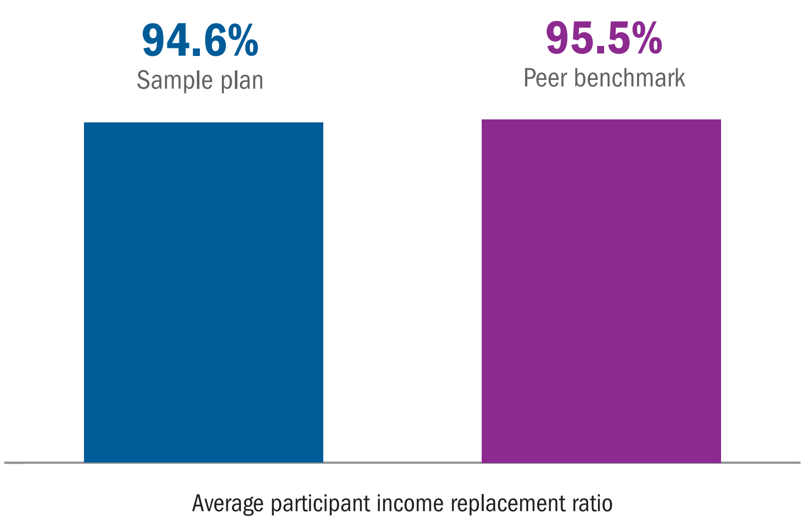
A key component of measuring plan outcomes is benchmarking your long-term income replacement goals. The Plan Outcome Assessment will help you review your plan in light of the competitive market, an evolving regulatory landscape and changing economic realities. And, with access to vast amounts of not-for-profit plan data, TIAA can help you benchmark your plan outcomes against similar institutions.

Did you know?

Forty-three percent of plan sponsors have not analyzed workforce demographics at all, or only to a limited extent. By doing so, plan sponsors can gain important insights to better tailor advice, education and other employee resources.

2018 TIAA Plan Sponsor Retirement Survey

Sample comparison of a plan to its peer benchmark[2]



TIAA can compare your plan to a relevant benchmark comprising similar organizations in terms of type and size, drawing from data gathered from our extensive database of nonprofit institutions.

1. *Employee Benefit Research Institute, “The 2017 Retirement Confidence Survey: Many Workers Lack Retirement Confidence and Feel Stressed About Retirement Preparations,” March 2017, EBRI Issue Brief #431.
2. Source: 2018 Retirement Readiness Report. This depicts sample data and is being used for illustrative purposes only.

Evaluate current and alternative paths to driving better outcomes

Plan design can have a significant impact on driving better outcomes—at the plan and participant level. Beyond trying to optimize savings levels, studies show there are numerous features that increase the odds of achieving better participant outcomes.[1]

When evaluating plan design, ask yourself:

- What design will work for you, given plan goals, economic realities and demographic trends?
- What potential impact would plan design changes, or new features, have to plan outcomes and costs?

What is the key to success?

Make it easier for participants to enroll, increase contributions, allocate investments, and generate a stream of lifetime income.

What design will work for you given plan goals, economic realities and demographic trends?

To ensure your plan continues to track against goals, it's essential to periodically review your plan design. Assessing your plan design can help simplify the plan, drive better outcomes and possibly reduce costs.

The Plan Outcome Assessment can evaluate overall effectiveness, as well as isolate key features or plan design elements for assessment. Because the POA is based on actual employee actions, we can connect plan features to costs as we evaluate effectiveness. What does this all mean? **The POA gives you insight into whether your efforts are yielding the desired outcomes—all in the context of your plan design and employee base.**

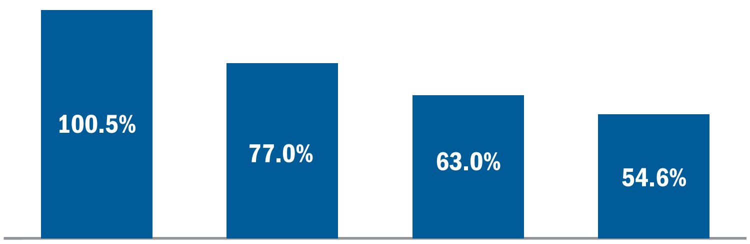
1. Interview with Dr. Brigitte Madrian, Aetna Professor of Public Policy and Corporate Management, Harvard University, December 21, 2011.

What impact would plan design changes, or new features, have on plan outcomes and costs?

Evaluating plan design changes requires understanding the impact these changes could have on outcomes, costs and specific employee groups. What are current behaviors and what's expected based on design changes? For example, we can project the impact of adding auto-enroll, based on current employee contribution rates. If there's a match, we can also show related costs based on expected opt-out rates.

Sample target income replacement for nonprofit plan employees over the course of a career[1]

Average income replacement ratio by employee age at hire



Age of employee at hire	25	35	45	55
Contribution rate	6.2%	6.2%	6.6%	6.9%
Assumed tenure[2]	42 years	32 years	22 years	12 years

Dig deeper into plan design.

Learn more about the myriad options and merits of key plan design features in our white paper: *TIAA's Prepared For A Lifetime: Managing Your Plan to Drive Retirement Readiness*

We know what may work, and how employees tend to respond when new features are introduced.

Based on our database of plan design features across 15,000+ nonprofit institutions, we are uniquely able to model "what if?" scenarios and apply our expertise and insights to:

- Show how plan design changes—like changing contribution rates or vesting schedules, adding a match or auto-enroll—may impact the plan's ability to support income to employees over the course of a career.
- Model the impact of potential changes to employees, including identifying specific employee groups that will be impacted the most.
- Propose alternatives. Perhaps you need to close a budget gap, or meet an income replacement target. Across any number of elements, we can educate you about plan design changes that may help you achieve your goals.

1. This depicts sample data and is being used for illustrative purposes only. It assumes an average starting account balance of $5,000 and estimated retirement age of 67.
2. Assumed tenure equals retirement age of 67 minus age of hire.

Learn how different investment options may impact plan outcomes

When considering your investment menu, ask yourself:

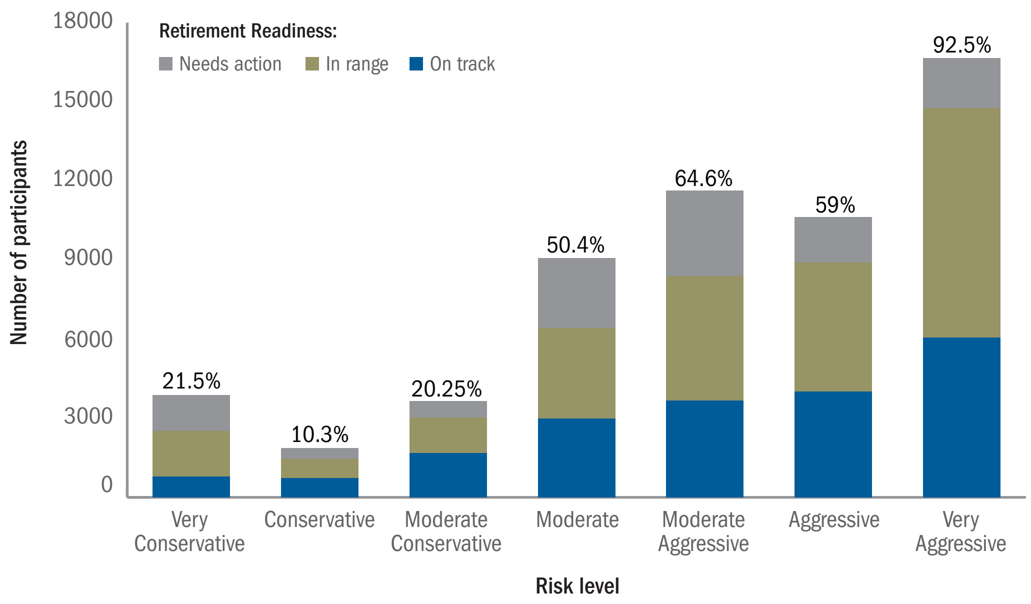
- Is my investment lineup helping employees achieve retirement readiness?
- How much of my employees' retirement paycheck is guaranteed for life?

Evaluating your investment choices in the context of employee behaviors and plan outcomes can be a valuable addition to how you measure and report on the effectiveness of the investments in your plan.

Is my investment lineup helping employees achieve retirement readiness?

The Plan Outcome Assessment not only evaluates how much income employees are projected to replace based on current investing behaviors and plan lineup, it also models how future behavior changes—such as a change in risk level/asset allocation or defaulting into a target-date fund—can improve income replacement potential in retirement.

Sample participant retirement readiness by current portfolio risk level[1]



1. This chart depicts sample data and is being used for illustrative purposes only.

Understanding employees' investing behaviors helps identify communication, education and advice opportunities. It can also inform decisions around qualified default investment alternatives such as target-date funds, custom portfolios and managed accounts.

A key benefit of the POA is the ability to evaluate investing through the lens of TIAA's Advice offer. The POA evaluates each employee's asset allocation profile to determine the risk they are taking—from very conservative to very aggressive—and compares this risk level to what TIAA's Advice would suggest.

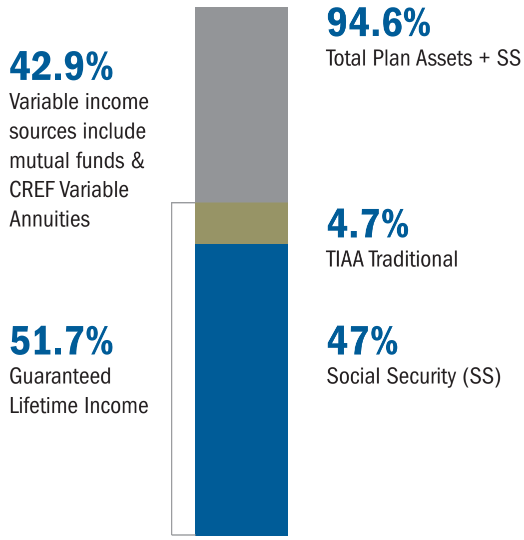
How much of my employees' retirement paycheck is guaranteed for life?

Your plan's ability to replace income your employees earned during their working years is a key part of gauging plan effectiveness. While the actual level of income replacement varies for every employee, covering essential living expenses is the hallmark of a good retirement plan.

The POA can provide you with a clear understanding of the role guaranteed income plays in supporting plan outcomes—including:

- What portion of your employees' income is guaranteed for life?
- How much guaranteed lifetime income may your employees need in retirement?
- What are the guaranteed lifetime income benefits of contributing to an annuity over time?

Sample illustration showing how guaranteed lifetime income impacts a plan's outcomes[1]



Average participant income replacement ratio

Social Security may not be enough

According to the Social Security Trustees Report (2018), the combined two Social Security funds are expected to be exhausted in 2034. If considered separately, the old-age fund will be exhausted by 2035, after which it would be able to pay just 77% of benefits. And the disability fund will be tapped out by 2023, at which point it could only pay out 89% of promised benefits.

When asked about their greatest retirement fears, 52% of employees cite outliving their savings/investments and 48% cite Social Security will be reduced or cease to exist in the future.[2]

1. This chart depicts sample data and is being used for illustrative purposes only.
2. According to the 18th Annual Transamerica Retirement Survey (July 2018).

Understand how personalized communications, education and advice programs may impact plan outcomes

When evaluating outcomes, ask yourself:

- How effective is my plan with current employees?
- How can I best deploy resources to target employees who need help?

Perhaps the most important step in evaluating the effectiveness of your retirement plan is to understand how your plan management, design and investment approaches translate into actual employee retirement readiness. Projecting employee outcomes in the context of actual savings and investing behaviors helps gauge whether the plan is working and how it can be improved.

How effective is my plan with current employees?

The Plan Outcome Assessment provides you with financial retirement readiness projections based on actual and assumed savings and investing behaviors, aligned with TIAA's Individual Advice offer. The POA does not just help affirm decisions and offer insights for plan design changes, but it can also help inform employee engagement programs.

When we look at employee data (age, salary and tenure) and key indicators (plan participation, contribution rates, risk-based asset allocation and ability to cover essential expenses in retirement) in the context of projected outcomes, the POA can provide insights into how retirement-ready your employees may be.

We can help you:

- Know if your plan design and investment menu features are being utilized, and whether this may translate into better plan outcomes.
- Identify specific steps employees can take to help improve outcomes.
- Evaluate how effectively your plan is supporting specific employee groups—looking at specific salary ranges, tenures, departments or other segments.

Of course, true retirement readiness is personal and encompasses more than just an employee's plan assets—so a plan-level assessment should not replace individual Advice or consultation with a professional investment advisor.

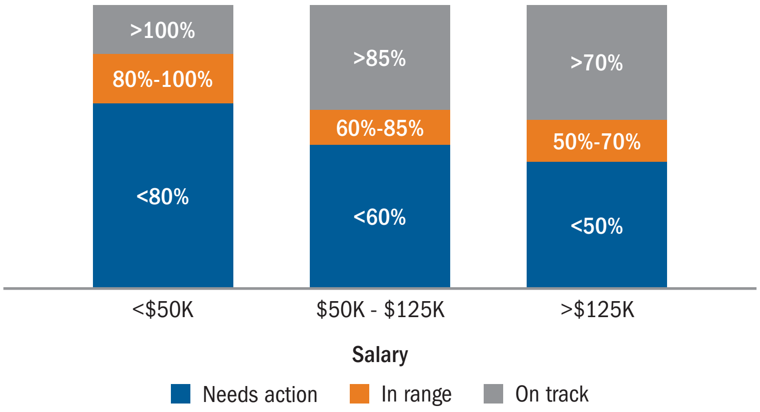
How can I best deploy resources to target employees who need help?

TIAA's employee engagement programs emphasize financial well-being through personalized, life stage-specific communications, real-world topical seminars and actionable, fund-level advice delivered in person or online. When the POA is combined with these programs it can help you:

Project your employees' retirement readiness.
We have developed a high-level "rule of thumb" to help you project your participants' retirement readiness using their average income replacement ratio and preretirement salary. In general, experts agree that retirement income needs vary by preretirement salary level: Lower earners have a larger portion of their retirement income devoted to essential expenses than their higher-earning counterparts.[1]

The POA provides summary views of employee groups based on whether they are in the On Track, In Range or Needs Action category. It also allows you to look at employee retirement readiness across numerous data slices, including life stage segmentation, employee contribution rates, compensation level, asset allocation, age, salary, tenure and gender.

TIAA employee retirement readiness "rule of thumb" measurement using participant average income replacement ratio and annual salary



Healthcare costs on the rise

An average couple, **age 65**, currently **needs more than $273,000** to cover their healthcare costs in retirement.[2]

1. Sources: Aon/Georgia State 2008 Replacement Ratio Study; 2012 EBRI: Expenditure Patterns of Older Americans, 2001-2009; 2014 American Enterprise Institute: Is There a Retirement Crisis?; 2012 Dimensional Fund Advisors: The Retirement Income Equation; 2013 Dimensional Fund Advisors: How Much Should I Save for Retirement.
2. 1 EBRI Notes, December 20, 2017, Vol. 38, No. 10. National average. Savings needed for Medigap Plan F premiums, Medicare Part B premiums and out-of-pocket (median) drug expenses. Does not include long-term care.

Identify specific employee groups for engagements

By aligning the POA with our individual retirement plan advice offer, we can directly link plan-level outcomes with personalized, individual engagement programs. This includes evaluating income replacement ratios, savings rates and plan participation in the context of life stage segmentation, as well as identifying specific employee groups for personal outreach via TIAA's Field Consultant Group and Individual Advisors.

Sample participant retirement readiness by life stage segment[1]

Life stage	Dollar Stretcher	Life Builder	Accumulator	Transitioner	Established
Participants	91,449	171,346	289,805	151,650	62,891
On Track	19,087	98,213	183,240	52,990	31,055
In Range	38,752	56,444	83,284	66,157	22,691
Needs Action	33,610	16,689	23,281	32,503	9,145
Average income replacement ratio	84%	104%	101%	79%	94%
Average contribution rate	7%	12%	15%	18%	18%
Percent of participants making voluntary contributions	50%	47%	55%	60%	59%
Percent of participants who may benefit from an asset allocation change	40%	43%	59%	77%	80%

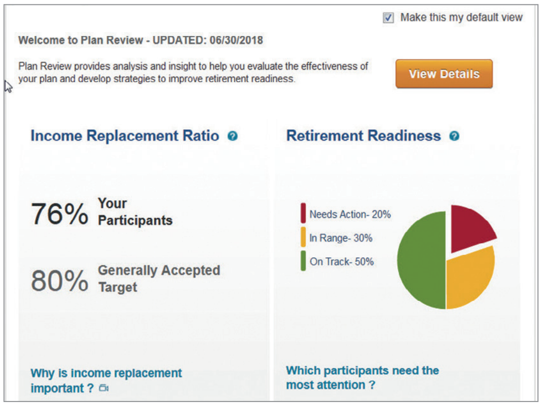
1. This chart depicts sample data and is being used for illustrative purposes only.

See a broader financial picture

Among our client base, approximately 1 in 4 employees have participated in another TIAA recordkept plan during their career—those assets accumulated with prior nonprofit employers and TIAA IRAs can be used within employee engagement efforts. By including all TIAA recordkept retirement assets held by an employee, we can see beyond their current plan assets and get a more comprehensive view of employee retirement readiness.

Project your plan outcomes online, anytime

If you send TIAA participant salary data, you can access your plan outcomes and employee retirement readiness information online via Plan Review on PlanFocus®. This gives you a clear view of how your participants are doing, enables you to take steps to help ensure they are projected to achieve financial well-being in retirement and allows you to identify ways to make your plan more effective.



See how Advice can impact retirement readiness

Increasing the utilization of Advice can be a highly effective approach for helping improve outcomes at both the employee and plan level. We calculate the impact on the projected average income replacement ratio if a percentage, or certain segments, of employees were to act on Advice recommendation(s). For plans that are looking to achieve a plan-level income replacement goal, the POA can help set targets for Advice utilization and show the benefits to both your plan and employees.

The Plan Outcome Assessment helps you estimate how your plan—and your employees—are doing

The better the data, the better your POA.

With actual participant salary data, we can provide:

- Deeper plan and participant-level analysis
- Integrated plan design, plan management and investment solutions
- Personalized employee engagement

The TIAA Plan Outcome Assessment will help you know how well you're tracking against meeting one of the primary objectives of your plan: helping employees replace their income in retirement.

To enhance outcomes and employ best practices, your approach should help you:

1. Identify and benchmark your long-term income replacement goals and the philosophy you will embrace to achieve them.
2. Confirm and/or evaluate your Plan Design and Investment Solutions to ensure they support your goals and philosophy.
3. Project the effectiveness of your plan based on your current employees' actual engagement behaviors in the context of the retirement plan you have created.
4. Continually monitor and identify opportunities to adjust and maximize plan outcomes given a rapidly changing environment.

The POA will not only give you a framework for decision making that puts employee outcomes at the center, but will give you confirmation that you are supporting your employees' and your plan's financial health and well-being.

For more information about TIAA and what we offer, visit TIAA.org, contact your relationship manager, or call the Administrator Telephone Center at 888-842-7782, weekdays, 8 a.m. to 8 p.m. (ET).

Plan Outcome Assessment: Report methodology and assumptions

Participant-related salary, contribution, retirement age and advice assumptions:

- Participant compensation is based on data submitted by the employer through their regular data file submission process. The participant's gross annual income is used for various calculations, including retirement income replacement ratio, estimated Social Security benefits, and estimated federal and state taxes.
- Participant contributions are aggregated for a 12-month period for participants with a balance at the beginning of the period. For participants without a beginning balance, the contribution amount from the last month of the 12-month period is annualized. IRS contribution limits are applied and adjusted for participants eligible for catch-up provisions. Morningstar Investment Management LLC shifts any contribution amount above the annual limit of $50,000 to after-tax contributions for modeling purposes.
- All retirement plan contributions are considered to be dedicated solely for retirement. Assets will not be liquidated for use prior to retirement, and all contributions will end at the Target Retirement Age (TRA).
- The TRA value is defaulted to 67 for most plan participants. Participants aged 66 or higher have a TRA that is set two years from the current age. Life expectancy values are estimated by Morningstar and are based on participant age and gender.
- The participant's balance is aggregated for all selected plans. Amounts are designated as pretax and Roth contributions, as appropriate.
- The participant's asset allocation, for the purposes of this analysis, is categorized into simplified asset classes (i.e., stable value, equities, real estate, fixed-income, multi-asset and money market).
- The advice provided by Morningstar consists of model portfolios composed of target allocations for the asset classes. Based on the target retirement goals, Morningstar will recommend a specific tolerance level designed to adjust over time based on Morningstar proprietary methodology which customizes a risk-level trajectory for the participant.
- The hypothetical advice target for the model is a 100% replacement ratio.

Retirement income replacement ratio calculation assumptions:

- TIAA measures retirement income replacement ratios by calculating the projected stream of distributions from participants' assets and estimated Social Security benefits in current dollars as a percentage of employees' current salaries.
- Using the participant's salary, current contribution rates and asset allocation, TIAA leverages the advice engine from Morningstar, an independent expert retained by TIAA, to perform a sophisticated, Monte Carlo analysis (500 total simulations) to project the retirement income replacement ratio. The results indicate the participant's 70% probability of achieving the retirement goal.
- The plan-level retirement income replacement ratio is determined by calculating the average retirement income replacement ratio of all participants in the plan analysis. All actively contributing participants are included in the analysis, unless the participant has annual compensation of less than $5,000, has contributed less than $300 in the previous 12-month period, has a current balance less than $100, or is less than 18 or greater than 81 years of age.

Important Information

This material is for informational or educational purposes only and does not constitute a recommendation or investment advice in connection with a distribution, transfer or rollover, a purchase or sale of securities or other investment property, or the management of securities or other investments, including the development of an investment strategy or retention of an investment manager or advisor. This material does not take into account any specific objectives or circumstances of any particular investor, or suggest any specific course of action. Investment decisions should be made in consultation with an investor's personal advisor based on the investor's own objectives and circumstances.

The Morningstar tool's advice is based on statistical projections of the likelihood that an individual will achieve their retirement goals. The projections rely on financial and economic assumptions of historical rates of return of various asset classes that may not reoccur in the future, volatility measures and other facts, as well as information the individual provides.

IMPORTANT: Projections, and other information generated through the TIAA Plan Outcome Assessment and the Morningstar tool regarding the likelihood of various investment outcomes, are hypothetical, do not reflect actual investment results, and are not a guarantee of future results. The projections are dependent in part on subjective and proprietary assumptions, including the rate of inflation and the rate of return for different asset classes, and these rates are difficult to accurately predict. The projections also rely on financial and economic historical assumptions that may not reoccur in the future, volatility measures and other facts. Results may vary with each use and over time.

You should consider the investment objectives, risks, charges and expenses carefully before investing. Please call 877-518-9161 for underlying product and fund prospectuses that contain this and other information. Please read the prospectuses carefully before investing.

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