benefits
MAGAZINE

PU138020

pdf/1113

Measuring Benefit Adequacy:

How Employers Can Support HR Policy

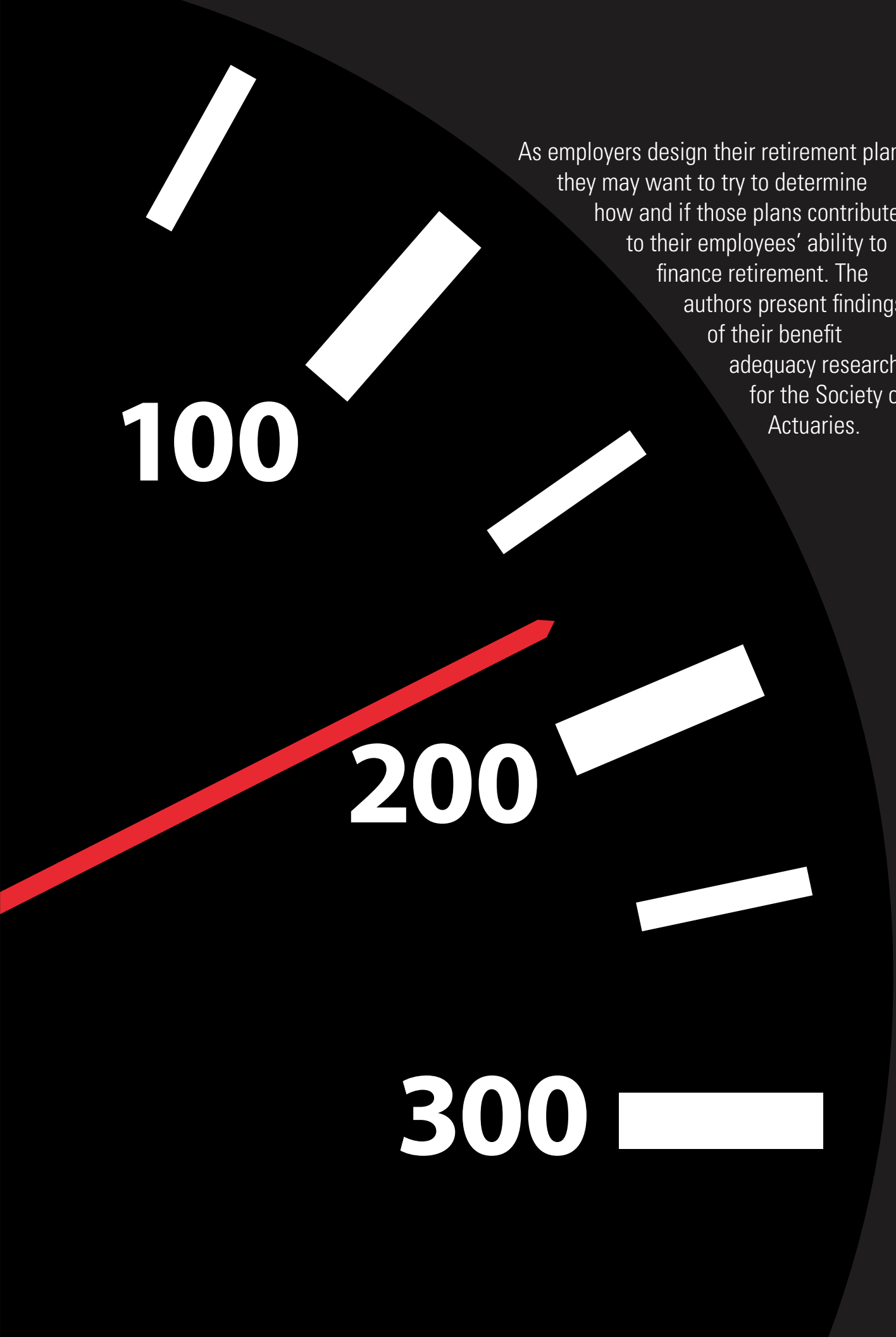
Employee benefits, traditionally a primary portion of the total rewards package, have become even more important in recent years. As employers offer benefits, they must balance appealing to employees and meeting their needs with corporate cost and risk management. Part of managing and designing retirement plans is the consideration of whether benefits will be adequate to meet employees' future income needs. A new Society of Actuaries (SOA) study provides unique insights into retirement benefit adequacy.[1]

The study describes three different approaches to measuring benefit adequacy, looks at each from diverse stakeholder's perspectives, and considers their uses and limitations.

1. The *replacement ratio* is most often used by employers in not only designing their plans but also comparing them to plans of other employers.
2. A *minimum needs measure* generally is used by policy makers. The SOA study uses the Elder Economic Security Index (EESI) to outline national averages for minimum needs for various household types and specific geographic areas. This measure can help employers to understand whether what is provided supports a minimum standard of living. If employees' resources do not meet the EESI standard, they cannot afford to retire without significant financial deprivation.

by | **Anna M. Rappaport, Vickie Bajtelsmit, Ph.D., and LeAndra Foster**

As employers design their retirement plans, they may want to try to determine how and if those plans contribute to their employees' ability to finance retirement. The authors present findings of their benefit adequacy research for the Society of Actuaries.



3. *Cash flow analysis*. A detailed, personalized cash flow forecast is the best way for individuals to prepare for and manage their retirement needs. Normally, employers would not use this approach directly but might embed it in employee education or tools offered to employees. Understanding this approach is helpful if the employer wants to provide advice with regard to the postemployment period to employees and is evaluating alternative providers or sources of advice.

Research Approach

The SOA research focused on measuring retirement benefit adequacy in light of both expected and unexpected expenses in retirement and linking the measurement to the needs and objectives of different stakeholder groups.

The report begins with a conceptual discussion of benefit adequacy and the various ways it has been and can be measured. Adequacy measures examined include replacement ratios, projected expenditures and minimum societal standards. Both income needs and lump-sum equivalents are considered. Different measures are better suited to the needs of different stakeholders and at different life stages. Under each of these methods of defining *adequacy*, there are similar issues in converting income needs to "a number"—the lump sum needed to fund the required income.

To investigate the impact of various risks on retiree welfare, the researchers developed a simulation model of retirement spending, incorporating standard-of-living goals as well as investment, inflation, life, health and long-term care risks. This approach builds in uncertainty and enables the user to better understand the combined impact of multiple risks.

In addition to presenting the results of a base case model, the researchers also tested several common retiree decisions that are expected to impact adequacy, including reducing the postretirement standard of living, buying an annuity, buying long-term care insurance, delayed and early retirement, and paying off a home mortgage prior to retirement. The results include the probability of having remaining wealth at death and its amount, as well as the number of years income is insufficient and the amount of wealth that would have been sufficient to meet needs.

Important Findings

The highlights of the findings and research, along with potential employer actions, include:

- Many of the next generation of retirees may face a significant drop in their standard of living when they retire.
- The median American married couple at retirement earns approximately $60,000 a year and has approximately $100,000 in nonhousing wealth (based on the 2010 *Survey of Consumer Finances*, adjusted for wage inflation and recent market performance). (In the model in the base case, this is Employee A.)
- The model shows there is a 29% chance median households (Employee A) will have positive wealth at death. The assets needed to meet cash flow needs 50% of the time would be approximately $170,000 compared to approximately $685,000 for a 95% success rate (see the base case, below). Results are presented for two additional income levels and two wealth levels for each situation tested.
- Delaying retirement can significantly improve the likelihood of having adequate retirement income. Additional years of work can increase savings and reduce the number of years of retirement funding needed. This is the most effective risk management strategy for the median income household. Employers can make it possible for employees to delay retirement by offering different job options and opportunities for retirees to continue work on a limited basis. This is something to consider as employers develop human resources policy.
- Retirement planning often focuses on investment risk. However, catastrophic illness and major episodes of long-term care have a much greater potential to derail retirement plans, especially for low-to-median income/wealth households. The tendency to focus on averages is problematic because it disguises the impact of shock events. The best strategies to preserve assets without shocks may not be the best strategies once shock events are considered.
- Planning is not easy. There is no "one-size-fits-all" or best measure of benefit adequacy for different users. The employer needs to decide how much education and what types of support it will offer. Or the employer may wish to point the employee to resources from third parties. Some resources are provided by independent not-for-profit organizations and are not connected to any products.[2]
- As they structure their benefits, employers should focus on understanding shock events. Employee benefits

TABLE I

Sample Employees for Base Case Analysis Using Model; Married Couple, Husband Aged 66 and Wife Aged 63

	Annual Household Income	Household Financial Assets
Employee A	$60,000	$100,000
Employee B	$60,000	$200,000
Employee C	$105,000	$250,000
Employee D	$105,000	$500,000
Employee E	$150,000	$500,000
Employee F	$150,000	$1,000,000

TABLE II

Simulation Results, Remaining Wealth at Death of Both Spouses; Married Couple, Husband Aged 66 and Wife Aged 63

	Probability of Having Wealth Left at Death of Both Spouses	Remaining Wealth in Average Situation (50% of Outcomes)	Remaining Wealth in Best-Case Situations (Best 5% of Outcomes)
Employee A	29%	$0	$235,000
Employee B	81%	$360,000	$1,525,000
Employee C	8%	$0	$90,000
Employee D	68%	$445,000	$2,435,000
Employee E	14%	$0	$385,000
Employee F	82%	$1,465,000	$6,035,000

The average situation represents the median (50th percentile) of all simulated outcomes. The best-case situation represents the best 5% of all simulated outcomes and is useful to understand variability due to adverse shocks (investments, health, long-term care). Amounts are rounded to nearest $5,000.

TABLE III

Simulation Results, Measures of Income Sufficiency; Married Couple, Husband Aged 66 and Wife Aged 63

	Average Situation (50% of Outcomes)		All but the Worst Situations (95% of Outcomes)	
	Number of Years Prior to Death That Income Is Insufficient to Meet Needs*	Wealth Needed to Meet Retirement Income Needs	Number of Years Prior to Death That Income Is Insufficient to Meet Needs*	Wealth Needed to Meet Retirement Income Needs
Employee A	five years	$170,000	21 years	$685,000
Employee B	0 years	$170,000	12 years	$685,000
Employee C	11 years	$545,000	24 years	$1,010,000
Employee D	0 years	$550,000	13 years	$1,070,000
Employee E	ten years	$950,000	22 years	$1,490,000
Employee F	0 years	$950,000	nine years	$1,525,000

The average situation represents the median (50th percentile) of all simulated outcomes. All but the worst situations represent 95% of all simulated outcomes. Amounts are rounded to nearest $5,000.

*Assumes base case assets.

takeaways >>

- As they design retirement benefits, employers may want to know whether employees are likely to have enough retirement income.
- Looking at goals for a standard of living, as well as risks in investments, inflation, life, health and long-term care, provides a better understanding of how multiple risks might affect retirement income adequacy.
- When to retire and when to begin receiving Social Security are important decisions.
- Employers can help make it possible for employees to delay retirement, which can greatly improve chances for a more financially comfortable retirement.
- Employers need to decide how much education to offer and can point employees to additional resources.
- Employers may want to offer voluntary benefits that can cushion employees from shock events in retirement, such as serious health problems or early entry into long-term care.

may protect against some shocks, and the employer may be able to offer employees and retirees access to risk protection products that are paid for by the employee. The employer may be able to get employees access to better products than they can buy on their own.

- Retirement planning needs to continue after retirement as situations change. Individuals should also take a "holistic" approach that incorporates the interactions between various decisions and events. There is a huge opportunity for employers to help their employees think about sensible planning and to offer planning support.
- It is important to keep Social Security financially strong since it is a critical component of income for many retirees, especially those who are most at risk. Social Security significantly reduces the risk of income shortfall for the median income household (the $60,000 income scenario). There is a very large difference in Social Security monthly income depending on retirement age. In many cases, the best financial strategy is to claim Social Security later, but most people claim early. Employers can encourage employees to evaluate the options.
- Moderate and higher income households can successfully retire with 20% less savings if they are willing to cut their budgets by 15%. Reduced spending does not significantly reduce the impact of depleting assets for the median family because shocks are the major driver of asset depletion.

Base Case

Tables I through III summarize the base case simulated retirement outcomes for six income/wealth combinations used in the study. The results show that an employee with a household income of $60,000 and investment wealth of only $100,000 at retirement (Employee A) faces a high probability of now having enough retirement income to meet his or her needs. The median income employee has wealth left at death only 29% of the time, which implies a 71% chance of shortfall.

The employee with $105,000 of household income and $250,000 of investment wealth (Employee C) has a greater chance of retirement income shortfall, because Social Security replaces relatively less of that employee's household income. He or she has an 8% chance of having wealth left at death and a 92% chance of a shortfall. Employee C needs to begin retirement with $545,000 to have assets left to death in the average situation, and $1,010,000 to have enough assets to cover all but the very worst situations.

The extreme differences between the average (50th percentile) and worst- or best-case scenarios (95th percentile) illustrate the problems associated with focusing on averages. Even if retiree households have sufficient income to meet their needs on average, there is still at least a 5% risk that they will have a long period of shortfall (nine to 24 years, depending on wealth and income). Although not apparent from these tables, extreme high-cost and unexpected events, such as early onset long-term care needs, investment declines (particularly in the early years of retirement), inflation risk and unusually high health costs, all contribute to the likelihood of retirement income inadequacy. Not surprisingly, higher wealth at retirement improves the odds of making it through retirement without financial difficulties.

Appropriate Measures of Retirement Benefit Adequacy for Different Stakeholders

The researchers found that the definition of *retirement benefit adequacy* depends on the type of stakeholder: plan

sponsor/employer, financial planner/individual, public policy maker or financial institution.

Plan sponsors/employers need a one-size-fits-all measure that does not depend on individual characteristics. Measurement of benefit adequacy is one component of the overall retirement plan design, although other factors will play a role. Employers are interested in measures that help them understand and compare the benefits produced by their programs for employees with different demographic characteristics. They also may be interested in knowing whether career employees with certain levels of participation in their plans should be able to afford retirement, or they may want to encourage more savings to ensure that employees are on target to meet retirement goals.

For these purposes, replacement ratios are the best measure of adequacy because they easily can be used to compare benefit plan outcomes across employees and to those of competitors. Retirement projections based on replacement ratios also can help employees better understand the consequences of their savings decisions and the impact they will have on retirement income adequacy. Since employers have information on their employees' preretirement income but little other financial information, replacement ratios are actually the only practical way for them to evaluate adequacy. Although replacement ratios cannot take individual circumstances into account, employers only need to be "right" on average. Also, the relationship with the employer generally ends at retirement.

Financial planners/individuals need an approach that can take personal preferences, needs, risks and special circumstances into account. They need to produce a plan that will work for one person or family. The best approach for individuals is a detailed income needs forecast and conservative drawdown period plan that can be adjusted with changing circumstances. The plan should also be revisited periodically and adjusted as needed. Unlike other stakeholder groups, individuals and their advisors need to be more concerned with downside risk.

Policy makers have a variety of different concerns depending on the area of policy. They are most concerned with providing an appropriate safety net, reducing the risk of elderly poverty, and reducing reliance on Medicaid for long-term care costs and health costs beyond Medicare. Policy makers are concerned with tax policy and want to be sure that the limits for tax-preferred employee benefits are appropriate. Policy makers are also concerned with the design and

<< bios

Anna M. Rappaport, FSA, is an actuary, consultant, author and speaker, and is a nationally and internationally recognized expert on the impact of change on retirement systems and workforce issues. She is a member of the GAO's Retirement Security Advisory Panel. Rappaport is a past president of the Society of Actuaries and chairs its Committee on Post-Retirement Needs and Risks. She formed Anna Rappaport Consulting in 2005 after retiring from Mercer Human Resource consulting after 28 years with the firm.

Vickie Bajtelsmit, Ph.D., is a professor in the Department of Finance and Real Estate at Colorado State University. She has written three personal finance textbooks, *Personal Finance: Skills for Life* (2006), *Personal Finance: Managing Your Money and Building Wealth* (2008) and *Visualizing Personal Finance* (2013). Bajtelsmit serves on the boards of directors for the Jump$tart Coalition for Personal Financial Literacy, the Griffith Insurance Education Foundation and Junior Achievement of Northern Colorado and participates in several Society of Actuaries research groups. She holds a Ph.D. degree in insurance and risk management from the University of Pennsylvania's Wharton School of Business and a J.D. degree from Rutgers University School of Law.

LeAndra Foster, ASA, serves as vice president of client development at Della Parola Capital Management, where she focuses on the retirement arena. She also teaches finance and statistics as an adjunct professor in the Department of Finance and Real Estate at Colorado State University, where she earned an M.S.B.A. degree in financial risk management. Previously, Foster worked as an actuarial pension consultant for JPMorgan after earning her B.S.B.A. degree from Drake University.

learn more >>

Education

32nd Annual ISCEBS Employee Benefits Symposium
September 22-25, Boston, Massachusetts

For more information, visit *www.ifebp.org/symposium.*

Retirement Plan Basics
October 4-5, Seattle, Washington

For more information, visit *www.ifebp.org/certificateseries.*

Overview of Retirement Plans

For more information, visit *www.ifebp.org/elearning.*

From the Bookstore

Money for Life: Turn Your IRA and 401(k) Into a Lifetime Retirement Paycheck

Steve Vernon. Rest-of-Life Communications. 2012.

For more details, visit *www.ifebp.org/books.asp?8935.*

Ready or Not: Your Retirement Planning Guide, 40th Edition

Elizabeth McFadden. MEI Publishing Inc. 2013.

For more details, visit *www.ifebp.org/books.asp?8948.*

affordability of social benefits and the distribution of taxes for social benefits. It is desirable for them to understand how different policies drive behavior on the part of other stakeholders.

In addition to these three main stakeholder groups, the financial services industry supports employers, plan sponsors, individuals and financial advisors by developing products, services and software that meet the needs of each group. The industry is particularly interested in understanding needs and purchase behavior with regard to annuities, long-term care insurance and supplemental medical insurance for older persons.

Conclusions

A focus on adequacy can help employers design their own programs, and it can help them help their employees. This study shows that some of the most important decisions that employees make are when they retire and when they claim Social Security. It also shows that shock events are very important and that risk management is important. Employers have opportunities to use this information in structuring benefits and providing support to employees.

Endnotes

1. The authors were the research team for and wrote the Society of Actuaries study, *Measures of Benefit Adequacy: Which, Why, for Whom and How Much*. The study is available at www.soa.org/Research/Research-Projects/Pension/measures-retirement.aspx.
2. Several good neutral sources for information include the *Issue Briefs for Retirement Decisions* from the Society of Actuaries, Department of Labor resources including *Taking the Mystery Out of Retirement Planning*, the Women's Institute for a Secure Retirement (WISER) and the Actuarial Foundation.