DYNASIM

Projecting Older Americans' Future Well-Being

Urban Institute
September 2015

Profound social, economic, and demographic changes are transforming how we prepare for retirement. Social Security changes are shrinking the share of pre-retirement earnings that benefits replace. Employer-sponsored pension plans that promise lifelong benefits are fading away, forcing most workers to make hard choices about how much to save for retirement, especially as wages stagnate. Rising costs for health care and long-term services and supports—which help people with basic personal care—are upending retirees' budgets. And the sheer increase in the older population is squeezing younger taxpayers.

But there is good news, too. As women have worked and earned more, the generation now entering or nearing retirement has amassed more retirement savings and rights to future Social Security benefits than ever before. Americans on the cusp of retirement are also better educated and healthier than previous generations, allowing many to work longer and earn more.

How will these conflicting trends play out? How will coming generations of older Americans fare in retirement? How might changes in Social Security, pension policy, and Medicare, as well as financing options for long-term services and supports, improve retirement security?

The Urban Institute's unique Dynamic Simulation of Income Model (DYNASIM) can help answer these questions. Using the best and most recent data available, it projects the size and characteristics of the US population for the next 75 years, assuming current policies and practices continue. DYNASIM provides estimates nationally and for large- and medium-sized states. Projected characteristics include basic demographics, economic outcomes, health and disability status, and spending on acute medical care and long-term services and supports.

DYNASIM can also describe "what if" scenarios, showing how outcomes would likely evolve under various changes to public policies, business practices, or individual behaviors. Because it projects outcomes for a representative sample of the entire population, not just for typical individuals and families, the model can show how different groups will fare over time, who is moving ahead and who is being left behind, and which groups would win and lose under various policy options.

How Does DYNASIM Work?

DYNASIM was originally developed at Urban in the 1970s to analyze the long-run distributional consequences of retirement and aging issues. The model was revised in the early 1980s and overhauled in 2000. Since then, we have been continually updating and expanding DYNASIM with support from federal government agencies (including the US Department of Labor, US Department of Health and Human Services, and Social Security Administration), major foundations (including the Andrew W. Mellon Foundation, Rockefeller Foundation, SCAN Foundation, and Alfred P. Sloan Foundation), and AARP. DYNASIM projections have been featured in dozens of research reports, books, journal articles, and congressional testimonies.

DYNASIM addresses some of the most pressing policy questions affecting our aging nation.

The model starts with a representative sample of individuals and families and ages them year by year, simulating key demographic, economic, and health events. For example, DYNASIM projects that, each year, some people in the sample get married, have a child, or find a job. The model projects that other people become divorced or widowed, stop working, begin collecting Social Security, become disabled, or die. These transitions are based on probabilities generated by carefully calibrated equations estimated from nationally representative household survey data. The equations take into account important differences in how likely various experiences are depending on gender, education, earnings, and other characteristics. Other equations in DYNASIM project annual earnings, savings, and home values. The model uses program rules—combined with projections of lifetime earnings, disability status, and household income and wealth—to project Social Security retirement and disability benefits

and Medicaid coverage. For consistency with Social Security's projections about system finances, we generally use the same assumptions as the Social Security and Medicare trustees.

DYNASIM projects a wide range of policy-relevant outcomes, including the following:

- Demographics: birth, death, education, living arrangements, marital status, sex, state-to-state migration

- Economic: annual hours of work, employer pension coverage, federal and state income taxes, financial assets (inside and outside retirement accounts), home equity, hourly wage, job changes, other household assets, payroll taxes, pension benefits, Social Security disability insurance benefits, Social Security retirement benefits, total household income, union coverage

- Health and disability: cognitive impairment, difficulties with basic personal care and household chores, health insurance coverage (including Medicare and Medicaid), home care, medical conditions, nursing home care, overall health status, spending on medical care and long-term services and supports, work-limiting health problems

DYNASIM evaluates the adequacy and fairness of our retirement system.

What Can DYNASIM Do?

DYNASIM addresses fundamental questions about the adequacy and fairness of our retirement system. Our projections, for example, reveal the share of older adults who may be unable to live as comfortably in retirement as they did while working and describe the characteristics of those at greatest risk of being left behind. The model illustrates how shifting demographics, such as changing marriage, divorce, and widowhood patterns, will affect future retirement incomes. And DYNASIM is designed to address some of the most pressing policy questions affecting our aging nation. For example, recent and ongoing studies use the model to tackle the following issues:

- Social Security reforms: The Social Security trustees project that, by the mid-2030s, the system will no longer be able to pay all scheduled benefits, requiring Congress to raise taxes or cut benefits. How might benefit cuts affect retirement security? If taxes rise, would Social Security

still be a good deal for most workers? Could program changes better protect low-income seniors? Could they encourage work at older ages?

■ Pension policy: How will the shift toward 401(k)-type retirement plans affect retirement security? Do the billions of dollars spent each year on tax breaks for employer-sponsored retirement plans promote savings? When states require private employers to set up Individual Retirement Accounts for their employees, how much does that boost future retirement incomes for low-wage workers?

■ Medicare and health insurance reform: How much do older adults gain from Medicare, relative to their payroll tax contributions? As health care costs rise, will out-of-pocket medical spending undermine retirement security? What will the impact of the Affordable Care Act be? How would changes in Medicare premiums and cost-sharing requirements affect beneficiaries and system costs?

■ Long-term services and supports: What is the risk that coming generations of older Americans will eventually need help with basic personal care? How much will they likely spend on these long-term services and supports? Who might benefit from new financing options for these services and supports?

Conclusions

The older population is surging as people live longer and the baby boom generation ages, creating significant challenges for the nation. With the number of workers per retiree shrinking, how can we enable people to maintain their living standards after they retire, help them cover the cost of acute medical care and long-term services and supports when they need basic personal care, and ensure all seniors have enough income to cover basic living expenses? Achieving these goals will likely require changes in Social Security, Medicare, and Medicaid, as well as fresh ideas about how to finance long-term services and supports and new housing options that allow older adults to live independently as long as possible. DYNASIM helps sort through the various policy choices. The most comprehensive projection tool available, this state-of the-art model can show how alternative reforms would shift outcomes, estimate the cost and benefits of different options, and identify those groups that would gain the most.

Acknowledgments

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