UIC Science Showcase Podcast Series

Transcript for "Use of microsimulation models to predict the impact of policy change: Modeling income in the near term"
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Announcer: Thank you for visiting the University of Illinois at Chicago's Health & Recovery Science Showcase. The following recording comes to you from the UIC Center on Integrated Health Care and Self-Directed Recovery. Visit our online Science Showcase to obtain free information about research on health, self-direction, and employment in the behavioral health field.

Hello, my name is Dr. Jane Burke-Miller. Welcome to the University of Illinois at Chicago Center on Integrated Health Care and Self-Directed Recovery Science Showcase podcast on the use of microsimulation models in research. Microsimulation is a social science method of modeling policy outcomes using large survey data. This podcast will describe a microsimulation called Modeling Income in the Near Term, or MINT, designed to inform federal Social Security Administration retirement policy. Links to the studies and online resources cited in this podcast are available in the transcript.

Microsimulation is used to estimate how changes in social programs, like welfare or disability programs, might affect program participants and what these programs cost. This is done using population demographics and behavior observed in surveys and administrative data. The Urban Institute defines social science microsimulation models as computer programs that simulate the operation of government programs and these programs' effects on enrollees. For each individual included in the data, the computer program simulates their behavior and outcomes based on current policies or proposed changes. The results for that individual are weighted in order to provide nationally representative aggregate predictions.

Modeling Income in the Near Term, or MINT, is a microsimulation which was designed to better understand the effects of policy on the future use and cost of Social Security retirement benefits. This microsimulation uses data from several large data sets described in our Center's Science Showcase Large Data Set Compendium for Mental Health Research, as noted at the end of the podcast (https://www.center4healthandsdc.org/large-data-set-compendium-for-mental-health-research.html).

The MINT microsimulation project was developed almost 20 years ago by the Social Security Administration (SSA) working with researchers from the Brookings Institution, the RAND Corporation, and the Urban Institute. The first MINT predicted the impending retirement behavior of the baby-boom generation. This MINT combined data from the Census Bureau's Survey of Income and Program Participation with data from the Panel Survey of Income Dynamics and matched those data with SSA administrative records on earnings, benefits paid, and mortality. The MINT predicted year and amount of SSA retirement and surviving spouse benefits, based on models of baby-boomers' life expectancy, current and future marital status, expected lifetime earnings, likelihood and timing of pre-retirement work disability, and estimates of non-SSA retirement benefits and assets. Details on the complex data, equations, and

projections made in the MINT are available online from the SSA Office of Research, Evaluation, and Statistics (https://www.ssa.gov/policy/docs/workingpapers/wp91.html).

The MINT has been updated since 2001 in several iterations for younger generations. The current version is MINT 7. MINT 7 is based on the same data and procedures as the original MINT, but also enhanced by data from other large surveys including the Health and Retirement Study (HRS), the Survey of Consumer Finances (SCF), and the Medical Expenditures Panel Survey (MEPS).

Although the MINT microsimulation estimates the likelihood and age of disability onset when calculating lifetime earnings, the MINT is not equipped to model the effect of changes to Social Security Disability Insurance rules, such as Social Security Disability Insurance adjudication and return-to-work incentives (https://www.ssa.gov/policy/docs/projections/methodology.html). Nonetheless, the MINT has been used to model changes to Social Security retirement benefits that are likely to apply to adults with chronic mental health conditions or chronic mental health and co-occurring medical conditions. For example, SSA's Office of Retirement and Disability Policy used MINT 6 to examine the impact of proposed changes to the special minimum retirement benefit for long-term low wage earners. The special minimum benefit was intended to increase benefits for long-term low wage earners, but has not kept up with increases in the retirement benefits of other workers. The research finds that the benefit would be more sustainable if it were indexed to wage growth rather than the consumer price index as is the current policy. The research also examines the implications for beneficiaries and program costs of varying definitions of years of coverage, varying eligibility rules, and varying maximum benefit (https://www.ssa.gov/policy/docs/policybriefs/pb2014-01.html).

For more examples of the use of the MINT microsimulation, there is an interactive table available on the SSA web site (https://www.ssa.gov/policy/docs/projections/policy-options/worker-benefit.html). This table shows the projected effects of various policy rule changes on individual benefits. It also includes actuarial projections of Trust Fund solvency in the years 2030, 2050, and 2070. These projections include potential rule changes to retirement age, payroll taxation, survivor benefits, worker benefits, and cost of living adjustments, among others. A related interactive table shows the current rule projected benefits by specific populations, such as Lifetime Low Earners, Early Eligibility Age Beneficiaries, and American Indians and Alaska Natives (https://www.ssa.gov/policy/docs/projections/populations/low-earners-2050.html).

For more information on the large data sets used in development of the MINT and on the use of these and other large data sets in mental health research, visit our Center's Science Showcase. Again, links to the studies and websites cited in this podcast are available in the podcast transcript. Thank you!

Announcer: Thank you for listening. You can obtain additional recordings, or download a transcript, by visiting the Science Showcase on the Center's web site.