A projection of health and disability for the US, based on a dynamic microsimulation accounting for education, race and ethnicity

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Proposal for Focal Area 1: Trends in Disability

The proposed project aims at adapting a dynamic microsimulation model for the US to project age-specific health and disability measures. The analysis is embedded in an internationally comparative framework, comprising European countries and Canada. The model produces health and disability projections that account for changes in cohorts ' educational attainments and the dynamic effects of education, and the changing ethnical or racial composition of the population on health and disability. The project builds on recent and current microsimulation work at the Austrian Institute of Economic Research (WIFO; models are documented at www.microWELT.eu), which develops a comparative model on population ageing, health, and long-term care for various EU countries and Canada. The proposed project also builds on a current NBER-RDRC project (NB21-17) in which the authors focus on the link between health and employment. This research reveals the importance of the changing ethnic or racial composition of the US population in health projections. In the proposed project, we aim to extend the model for changes in the ethnic composition of the population; also, we would investigate how the receipt of disability benefits is linked to health measures incorporated into the model.

The model can be used to contrast what-if scenarios and allows an assessment of how sensitive health and disability projections are to underlying assumptions. The microsimulation model is based on microdata (CPS and HRS). It uses information such as age, gender, education, race, ethnicity, health, disability, and the receipt of disability benefits. Given the pronounced recent change in the age-specific incidence of disability, the project includes a retrospective projection of trends. This allows to assess the contribution of composition effects on observed aggregate trends and informing our projections into the future.

Our proposal conforms with recommendations developed by TPAM. Trust Fund projections are primarily based on a top-down methodology which places high demands on ensuring

consistency between the various assumptions (TPAM 2019; SSA 2019). TPAM recommends using microsimulation techniques that are more bottom-up and may be better placed to assure internal consistency of assumptions when conducting projections. Moreover, the Technical Panel highlights the need to model dynamic impacts and what-if scenarios to gain insights on the potential effects of policy changes on macroeconomic indicators.

The output from the project will consist of a technical report with comparative what-if scenarios. A non-technical summary will accompany this technical report. The proposed research could also be made available to the SSA via open-source codes that could be developed further for future research projects.

References

SSA (Social Security Administration), 2019, Long-Range OASDI Projection Methodology. Intermediate Assumptions of the 2019 Trustees Report, Office of the Chief Actuary, https://www.ssa.gov/OACT/TR/2019/2019_LR_Model_Documentation.pdf.

TPAM (Technical Panel On Assumptions and Methods), 2019, Report to the Social Security Advisory Board, September 2019