Title: The Effect of US COVID-19 Excess Mortality on Social Security Outlays

Authors: Hanke Heun-Johnson, Darius Lakdawalla, Julian Reif, and Bryan Tysinger

Focal areas: Disparities by Race and Ethnicity; Informing Trust Fund Projections

Abstract: The COVID-19 pandemic has resulted in over one million excess deaths among the US population as of March 2022. We propose to estimate the effect of these pandemic-related deaths on the expected future outlays of the US Social Security (OASDI) program. Estimates will be produced separately for different racial/ethnic groups in order to shed light on how the pandemic has affected racial disparities in future outlays, and will account for the effect of the pandemic on retirement benefits, survivors' benefits, disability insurance benefits, and supplemental security income benefits.

Our analysis will combine death-record data with two widely published microsimulation models to quantify the effect of the pandemic on life-cycle mortality and expected Social Security outlays for the US population ages 25 and over as of 2020. Our estimates will account for the age, sex, and race/ethnicity of decedents, along with the following COVID-19 risk factors: obesity, smoking behavior, lung disease, heart disease, diabetes, cancer, stroke, hypertension, dementia, and nursing home residence. The Future Elderly Model (FEM) and Future Americans Model (FAM) are based on the Health and Retirement Study (HRS) and the Panel Study of Income Dynamics (PSID), respectively, along with a host of other supplemental datasets (Lakdawalla et al. 2005; Goldman et al. 2010). The FEM/FAM already model OASDI retirement benefits, disability insurance benefits, and supplemental security income benefits as a function of demographic and health status variables, and have previously been used to project COVID-19 mortality by demographic and health status (Reif et al. 2021). Therefore, it is feasible to use the existing model structure to project the effects of the COVID-19 pandemic on retirement benefits, disability insurance benefits, and supplemental security income benefits. In addition, the FEM/FAM already tracks the health and survival status of spouses. This feature additionally enables us to project the effects of COVID-19 mortality on spousal survivorship benefits. As part of this research, we will extend FEM/FAM to incorporate the presence of minor children, who would also be eligible for survivorship benefits. This extension would leverage information from the PSID and HRS on the presence and age of minor children.

References

Goldman D, Michaud P-C, Lakdawalla D, Zheng Y, Gailey A, Vaynman I. "The Fiscal Consequences of Trends in Population Health." *National Tax Journal*. 2010;63(2):307.

Lakdawalla DN, Goldman DP, Shang B. "The Health and Cost Consequences Of Obesity Among The Future Elderly." *Health Affairs*. 2005;24(Suppl2):W5-R30-W5-R41.

Reif, Julian, Hanke Heun-Johnson, Bryan Tysinger, and Darius Lakdawalla. "Measuring the COVID-19 Mortality Burden in the United States: A Microsimulation Study." *Annals of Internal Medicine* 174, no. 12 (2021): 1700-1709.