Inequality in Longevity and Redistribution in DI and OASI Programs: Evidence and Policy Implications

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Focal and Program Areas

The proposed research speaks to the **distributional issues related to OASI and DI programs** by studying redistribution in these two programs due to increases in life expectancy. The project also offers lessons from **other programs serving similar populations** by studying this issue in the context of Austria.

Abstract

The aim of this project is to study the extent – and policy implications – of redistribution in DI and OASI systems resulting from increases in life expectancy. Our research is motivated by two facts. *First*, life expectancy has been (and still is) strongly increasing over time. The economic value of this increase is enormous.[1] *Second,* life expectancy varies strongly across the income distribution and the gains in life expectancy have been very unequally distributed.[2] Increases in longevity therefore have distributional consequences through DI and OASI programs with potentially important policy implications for DI and OASI reforms.

To document the extent of redistribution due to longevity, we focus on the experience of Austria, where rich administrative data are available. These data include the social security register data (ASSD), reporting earnings histories since 1972 and employment histories since 1949 for the universe of Austrian private sector workers. The data also report take-up of DI, OASI and other social benefits over a worker's life cycle.

There are two reasons why, from a US perspective, Austria is an interesting case. On the one hand, the patterns of life expectancy (and life expectancy gains) along the income distribution in Austria closely follow the patterns observed in the US.[3] On the one hand, the institutional features of Austria's DI and OASI programs, while differing in the details, share many features of the programs in the US. Like in the US, Austria's DI program is part of OASI and financed by a payroll tax on earned income. The formula for computing DI and OASI pensions is the same and consists of a pension coefficient, which varies by labor market experience, multiplied by averaged indexed capped earnings over the working life. OASI and DI pensions are the main income source for the disabled and retirees and replace about 65-75 percent of the last gross wage up to a maximum.

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[1] Murphy and Topel (2006) estimate the yearly social gain of longevity since 1970 to $3.2 trillion per year, equal to about half of GDP over this period.

[2] Chetty et al. (2016) shows that life expectancy is about 10 years longer for an individual in the 95th percentile compared to an individual in the 5th percentile of the income distribution (where an individual's position in the income distribution is measured by his or her percentile at age 40). Chetty et al. (2016) also show that the gains over the period 2001-2014 in the top quartile of the income distribution were more than twice as large in the top compared to the bottom quartile of the income distribution (+2.8 vs +1.2 years for males and +3.2 vs +1.4 years for females).

[3] In an ongoing cross-country project (coordinated by R. Chetty, C. Cutler, and M. Stepner), we find that life expectancy along the Austrian income distribution is almost identical to the US, except for the bottom 20 percent of the income distribution. Just like in the US, life expectancy gains in Austria were substantially higher in the top compared to the bottom of the income distribution.

The project will provide an empirical analysis life expectancy gains and how these gains translate into life-cycle take-up of DI- and OASI-benefits along the income distribution. We then discuss the implications of our empirical evidence for DI and OASI reforms, including possible lessons for the US.

References

Chetty et al. (2016), The Association Between Income and Life Expectancy in the United States, 2001-2014, *JAMA* 315: 1750-1766.

Murphy Kevin (2006), The Value of Health and Longevity, *Journal of Political Economy* 114: 871-904.