Disability Insurance and Labor Supply: The Role of Health Insurance

In this paper, I study the relative importance of the different types of benefits offered by a suite of social insurance programs. Particularly, I focus on the two major disability insurance programs in the United States – the Social Security Disability Insurance (SSDI) and the Supplemental Security Income (SSI) program. Beneficiaries of these programs receive both cash and health insurance benefits via Medicare and Medicaid, respectively. Different from prior work which has predominantly focused on the role of cash benefits, I study how the health insurance benefits affect participation in these programs and in the labor market, in addition to and separately from the cash benefits. I estimate a conditional logit choice model of labor supply and program application decision using data from the Health and Retirement Study coupled with administrative F831 records which provide data on applications to the two programs. I find that individuals value the cash and the health insurance benefits differently for SSI and SSDI; further there is heterogeneity across education and gender. While the SSI benefits predict participation decisions for high school dropouts who are drawn to the program primarily by the cash benefits, the SSDI benefits predict participation decisions for high school graduates for whom the health insurance benefits drive participation. The magnitude of these results vary by gender. The relative disincentive effects of the two types of benefits on labor market participation is heterogeneous akin to their relative effects on program participation. Based on these findings, I suggest policies that reduce caseloads and costs while increasing work incentives, without depriving the needy of assistance.

Using Subjective Beliefs Data to Characterize Heterogeneity: A Machine Learning Approach (with Danny Barth, Nicholas Papageorge, and Kevin Thom)

This paper applies machine learning (ML) methods to data on macroeconomic expectations collected in the Health and Retirement Study (HRS) to better understand heterogeneity in household beliefs. ML techniques allow us to study the patterns of belief formation in the data without taking a priori positions on them. We identify five belief clusters which classify individuals based on their systematic formation of subjective beliefs. One of the clusters, which we refer to as the “objective cluster”, reports subjective beliefs that are consistent with objective probabilities of macroeconomic events. Individuals in the objective cluster have higher levels of education, genetic endowments that are linked to education attainment, higher wealth, and are less risk averse. Other clusters can be broadly categorized as consisting of either those who randomly report a probability from the available distribution or those who consistently report a certain belief probability, irrespective of the question and the year in which the question is asked. Finally, we describe how our results can be used to better inform macroeconomic models of household behavior.

Understanding Dynamics in Subjective Mortality Beliefs

In this paper, I aim to better understand the dynamics in subjective mortality beliefs. The HRS collects information on subjective mortality beliefs in each wave of the survey. Using the Jensen-Shannon divergence, I calculate the distance between the prior and posterior beliefs about own mortality between every two waves. This distance could reflect private information unobservable to the econometrician, systematic pattern of belief formation, or some combination of the two. The welfare impact of policies of forced savings plans, for example, depends on an accurate interpretation of subjective beliefs. Responses to beliefs questions about macroeconomics events are arguably free from private information. Belief clusters identified in my second essay therefore provide independent information about the pattern of belief formation, and are used to inform how to interpret the dynamics in subjective expectations about mortality, including their relationship to individual characteristics.