Explaining inter-state differences in disability applications during the COVID-19 pandemic

We plan to examine the underlying factors determining the drastic inter-state differences in the monthly dynamics in the number of applications to the Social Security Disability Insurance Programs (DI, SSI and Concurrent) after the onset of the Coronavirus pandemic. Using State Agency Monthly Workload Data (MOWL), Lahiri and Yin (2000) have studied the monthly seasonal patterns across the states and how they interact with labor market variables like unemployment and unemployment Insurance (UI) claims. We will merge data from the COVID-19 Case Surveillance Public Use data from CDC that contain geographic information on COVID-19 cases and deaths on a weekly basis, and also the Household Pulse Survey of the Census Bureau, which contains detailed information on a number of SSA program-specific information like disability application, health insurance, and many others with an initial sample of over 50,000 households since April 2020. We will also use state level socio-demographic information from the American Community Study.

The work horse of our analysis to generate the counterfactual predictions during the pandemic period since March 2020 will be a Mixed-frequency Spatial Auto-regressive model estimated with seasonal factors that will capture the spillovers from one state to the adjoining ones (see Goulard et al Spatial Economic Analysis, 2017). The multi-period forecasts from this model estimated over 2000-2020 can be readily generated using Stata to act as baseline values. The prediction errors from this model will be used to explain the inter-state differences in disability applications in terms of the monthly dynamics in the COVID-related variables that varied significantly between states. Since UI and COVID-19 fatality data are available on a weekly basis, we will be able to look carefully at the timing and causality of job loss, UI application, disability applications and the progression of the pandemic. The regressive tax policies and amended revenue streams in many states have contributed to the racial disparities in job losses, food insecurity and disability program participation. Based on data from the Urban Institute Tax Policy Center, we plan to identify some of the underlying State policy factors.

Dr. Richard Chard of the Office of the Research and Statistics of the Social Security Administration has agreed to work with us to supplement other useful data that are available in SSA. He is also applying to get applications data at the zip code level having socio-demographics and race/ethnic information on applicants. The final product of the project will be a dynamic short and medium run disability applications model at a monthly frequency for each state and for the US that can help SSA for appropriate resources planning and staff allocations. The sudden surge in UI claims immediately after the lockdown gives us a unique opportunity to identify some of the labor market factors that trigger disability applications. It is well documented that unanticipated surge in applications jeopardizes the disability adjudication process by increasing procession time and backlogs.