The Effects of Health Insurance and Self-Insurance on Retirement Behavior

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One of the most important social programs for the rapidly growing elderly population is Medicare, which provides health insurance to individuals that are 65 or older. Prior to receiving Medicare, many individuals receive health insurance only if they continue to work. An important question, therefore, is whether Medicare significantly affects the labor supply of the elderly, especially around age 65. This question is particularly important to those considering changes to the Medicare eligibility age; the fiscal impact of such changes depends critically on their labor supply effects.

Several studies have developed structural models that can be used for such policy experiments. These studies of retirement behavior, however, have arrived at very different conclusions about the importance of Medicare. The different conclusions seem to result from differences in how the studies treat market incompleteness and uncertainty, which affect how much individuals value Medicare. In this paper, we construct and estimate a structural retirement model that includes not only medical expense risk and risk-reducing health insurance, but also a saving decision that allows workers to self-insure through asset accumulation. Including both of these features yields a more general model that can reconcile the earlier results.

Estimating the model by the Method of Simulated Moments, we find that the model fits the data well with reasonable parameter values. The model predicts that workers whose health insurance is tied to their job leave the labor force about 0.47 years later than workers whose coverage extends into retirement. This result, being consistent with several reduced-form estimates, also supports the model.

Next, we measure the changes in labor supply induced by raising the Medicare eligibility age to 67 and by raising the normal Social Security retirement age to 67. We find that shifting the Medicare eligibility age to 67 will significantly increase the cumulative labor force participation of workers whose insurance is tied to their job. We also find, however, that the incremental effect of raising the Social Security retirement age is even bigger, even for workers whose insurance is tied to their jobs. In order to understand why Social Security is more important, we evaluate how much workers value employer-provided health insurance. We find that around 60 percent of the value of the health insurance comes from the way in which it reduces a worker’s average medical expenses, with the remaining 40 percent coming from the way in which it reduces medical expense uncertainty.
We then re-estimate the model with saving prohibited. We find that eliminating the ability to self-insure through saving significantly increases the effects of Medicare and the value of health insurance. We also find, however, that this restricted model provides a worse fit along several key dimensions. These results suggest that self-insurance significantly reduces the effects of health cost uncertainty, so that the effects of Medicare are modest.