

## Comment

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This paper addresses a question at the intersection of two important areas of economic and policy research, the economic effects of health insurance and the retirement behavior of older workers. Because health care use increases with age, it makes sense that the particulars of a worker's health care situation will have a substantial impact on his or her retirement decisions. Moreover, to the extent that Medicare eligibility affects the timing of retirement, policy proposals that would change the age of Medicare eligibility could have significant effects on the ages of retirement. Quantifying these interactions is of evident importance both to those interested in the economics of aging and to Medicare policy analysts.

Before proceeding to the particulars of Madrian and Beaulieu's empirical analysis, it is useful to lay out the central economic issues of the effect of Medicare on retirement. As discussed by Madrian and Beaulieu, there is now a well-developed literature on the retirement behavior of individuals. It is well established that economic incentives have significant and, importantly, predictable effects on retirement rates. For example, defined benefit plans typically induce spikes in retirement hazards at ages of eligibility and at ages in which the present value of benefits increase sharply. Because Medicare can be thought of as another retirement benefit, in light of this literature it would be quite surprising were Medicare eligibility *not* to have an effect on retirement. Rather, the relevant economic and policy question is whether Medicare is valued by potential retirees at more than its marginal cost to the government, or at more than its private replacement cost were retirees instead to purchase health insurance on the private market. This is not implausible if individuals are risk averse about changing medical coverage or if they are unable to obtain suitable coverage because of exclusions on preexisting conditions. If a dollar of government spending on Medicare is valued more on the margin than a dollar of government spending on social security, then it would be welfare improving to reduce social security expenditures and increase Medicare expenditures.

Results already in the literature can be used to obtain a rough estimate of the effect of Medicare on retirement rates at age 65. Consider a couple with employer-provided health insurance, and suppose that private insurance for the couple costs \$6,500 in 1995 dollars. If the couple values Medicare at this private replacement cost, then the availability of Medicare corresponds to an accrual of retirement benefits of \$6,500 when the couple becomes eligible for Medicare. Although the estimates of the effects of a \$6,500 accrual on retirement differ depending on the couple's other benefits and on the model used, a typical estimate can be obtained from the retirement models in table 4 of

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Lumsdaine, Stock, and Wise (1993), which predicts an increase in the retirement hazard by between 3 and 6 percentage points. This corresponds to approximately one-fifth to one-third of the jump in retirement hazards observed at age 65, depending on the data set. One question thus is whether Medicare eligibility in fact produces an increase in retirement rates greater than those predicted by current structural models of retirement. If so, this would be evidence either that the models are misspecified or that individuals value Medicare at more than its private replacement cost.

With these general remarks in mind, now turn to the particulars of Madrian and Beaulieu's paper. In contrast to the parametric, structural model approaches pursued by most papers on retirement, Madrian and Beaulieu take a more nonparametric approach. The thought experiment is to find two otherwise identical couples, one who will bear costs of medical insurance and one who will be eligible for some Medicare coverage. To implement this strategy empirically, one would like to have data on pensions, wages, and social security benefits, by individual. However, these variables are not observed in Madrian and Beaulieu's data set, so additional assumptions are needed to identify the effect of Medicare.

To examine the identification strategy more precisely, it is useful to refer to the authors' initial equation linking the retirement hazard to demographic characteristics, the man's financial incentives, his spouse's financial incentives, and other determinants (the error term). As Madrian and Beaulieu point out, if the spouse has never worked, then the spouse's financial incentives will be restricted to Medicare, which is strictly linked to her age. Present value calculations suggest a particular functional form for the effect on the man's retirement of this benefit as a function of spouse's age. If, furthermore, the difference between husband's age and spouse's age is uncorrelated with any of the man's (unmeasured) financial incentives, then estimation of hazard functions involving this spouse's age effect should reveal the effect of Medicare.

This is a clever idea, and surely some of what it measures is related to the effect of Medicare. One unmeasurable effect is, however, the benefits a couple would get from joint retirement, both financial (possibly some cost reductions, or from moving) and, arguably more important, nonfinancial. It stands to reason that, all else equal, the older the spouse the more likely the husband is to choose retirement, simply so the couple can enjoy their retirement together. Presumably this effect is also nonlinear in both of their ages, although the precise form of the nonlinearity is presumably hard to determine.

It is useful to contemplate a hypothetical data structure that would permit controlling for this joint retirement effect. One would be if some spouses were randomly assigned to be Medicare eligible, while some spouses were randomly denied eligibility; this random assignment would need to be done far enough in advance for the couple to incorporate it into their retirement planning. Thinking of this approach makes it clear that Medicare eligibility has two effects: the direct subsidy at a certain age, but also the disincentive effect

on savings, so that in a world without Medicare individuals would have different preretirement asset profiles. Both these effects will impact the decision to retire.

In summary, Madrian and Beaulieu's idea of quantifying the effect of Medicare eligibility using nonparametric comparisons is appealing, and the evidence they present is consistent with the view that Medicare provides a significant incentive for retirement. Some of the challenges to achieving identification arise from data limitations in the census, and these will be reduced with new data sets with greater information about retirement decisions that will soon become available. However, some of these difficulties are inherent in the nonfinancial issues surrounding joint retirement.

The set of issues surrounding health insurance and retirement are of central importance for analyzing the impact of current policy proposals such as postponing the date of Medicare eligibility and cutting back Medicare and/or social security funding. Related is whether individuals value the marginal Medicare expenditure at more than it costs the government to provide, in which case a dollar taken out of social security would arguably be more acceptable to the elderly than a dollar taken out of Medicare, all else equal. I look forward to seeing further work by Madrian and Beaulieu and others addressing these important problems.

## Reference

Lumsdaine, R. L., J. H. Stock, and D. A. Wise. 1993. Why are retirement rates so high at age 65? Cambridge, Mass.: Harvard University, Kennedy School of Government. Manuscript.