

It is a pleasure to read this paper; it is a thoughtful and interesting essay that addresses a range of issues about older workers in the labor market. As Hurd emphasizes, it does not attempt to make policy recommendations. The aim is rather to survey the literature and to identify a research agenda for the future, something that is especially appropriate as we look forward to the data from the new Health and Retirement Survey.

Like all good papers in economics, this one is about supply and demand. It looks at various aspects of labor market behavior of older workers, trying to identify features that are due to supply, features that are due to demand, and features that come from workers being forced off their supply curves, or at least that interfere with the smooth equation of supply and demand. As is often the case, identification can be controversial, and while it is sometimes easy to agree with Hurd's identification of what is going on, his discussion is a good deal more convincing on some points than on others. This is nowhere more so than when we are discussing rationing, or quantity restrictions. Literature from a decade or so ago, associated particularly with papers by Orley Ashenfelter and John Ham, tried to detect cases where workers were forced off their labor supply curves, and forced to accept wage and hours combinations where, given a free choice, they would have either increased or decreased hours at their current wage. While that literature is technically quite sophisticated, working out all the consequences of quantity rationing, it was perhaps not ultimately persuasive. Partly, the economics profession likes to believe in markets, and is resistant to interpretations in which markets do not work properly, but it was also the case that models of rationing, while offering good explanations of the spillover effects from one market to another, did not by themselves offer a better explanation of hours than that offered by the standard model of labor supply. While it is true that many-perhaps even most-workers report that they work fifty forty-hour weeks each year, there is still a great deal of variation in weeks and hours, variation that is difficult to explain unless a large fraction of workers are free to choose how much they work. There are presumably also a lot of workers who want to work fifty forty-hour weeks, so that it was (and is) far from clear that the labor supply story is beaten out by one in which employers determine hours, and workers take what they can get. As always, it is remarkably difficult to identify a demand-side phenomenon that could not be a supply-side phenomenon, and vice versa. This paper suffers from at least some of these problems of the earlier literature.

Before I turn to specific areas of agreement and disagreement, I should like to make two general points about the interpretation of the evidence. First, when we look at how wage patterns, participation rates, and hours vary with age, especially among older workers, it is important to make sure that cohort effects are properly controlled for. At several points in the paper, evidence is cited for example, on the mild decline in wages among older workers-that is clearly cross-section evidence, where we have no way of knowing whether the decline comes from a real decline in wages with age, or whether what we are seeing is that older workers have lower lifetime wage profiles. The second point is that wage profiles should not be too readily associated with life-cycle variations in productivity. We know from the various theories of wage contracts that firms may tailor income profiles so as to match workers' desired consumption profiles, or there may be incentive reasons to have systematic differences between wages and productivity. Even in academia, where, contrary to what happens in most industries, there is a genuine negative return to years of service, common experience suggests that older workers-senior tenured professors-are paid a great deal more than their marginal product, while junior workers-junior assistant professors-are paid a great deal less. One can think of many reasons for this, and it might not even be true, but it is certainly hard to rule out the possibility that wages and productivity follow different lifetime profiles.

Suppose, however, that we accept the evidence. To what extent can we accept Hurd's interpretation of it, that older workers face a number of rigidities that importantly constrain their choice of jobs? Let me start with some parts of the story that I find less than convincing. The first is the assumption that what workers would like as they grow older is to reduce their hours gradually, so that when we see people switching from full-time to no-time, we are seeing something that comes from the demand side. While this story is certainly possible, I can also think of lots of reasons, particularly health-related, why a major change in hours could come from the supply side. Many people like to work as long as they can, continuing the work and living habits of a lifetime until some event, usually a health-related event, leaves them either unable or unwilling to continue as before. In this situation, we would observe immediate withdrawals from the labor force that have nothing to do with the demand for workers.

The second story that I am less than convinced by is the teamwork explanation. While it is true that it is hard to run an assembly line without all the workers in place, the workers don't have to be the same workers all the time, and substitution of one person for another can allow as much flextime as people want. One example is supermarket checkouts, which have to be manned when the store is open, but where workers are close to perfect substitutes and

where part-time and flextime is common. In cases where there is more human capital, and job-specific human capital, people are likely to be less easily substitutable for one another, and it would be interesting to inquire as to whether retirement patterns can be linked to relevant observable characteristics of the job. Even in those cases where teamwork is important, it is hard to be sure that the phenomenon is only on the demand side. Many people like to spend their leisure time with their spouse, or to play team sports, or to go to the theater, and all these activities are timed to make it easy for people who work standard hours.

It is much easier to agree with Hurd's analysis of the role played by fixed costs, and with the difficulties that they present for those who do not wish to work full-time. Indeed, I have come to think that work-related costs are important for a number of issues in the economics of aging. In recent work on the Family Expenditure Survey in Britain, Richard Blundell and his coworkers have shown that much of the sharp drop in consumption at the time of retirement is associated with the elimination of work-related costs. In the United States, the Consumer Expenditure Survey data on the consumption patterns of one- and two-earner families also suggest that a large share of consumption is associated with these costs, in clothing, in transportation, and in meals away from home.

My final point is in the nature of a quibble, but it ties in with an issue that arises in a number of the papers in this volume. In examining the effects of the Social Security benefits test, Hurd finds that people do not behave as they ought **to**, given that the benefits test is essentially forced saving. He points out that, since the test does not change the net present value of lifetime earnings, life-cycle theory predicts there should be no change in behavior. But of course, this is only life-cycle theory for agents with quadratic, certainty-equivalence preferences. When there is uncertainty, and when there are precautionary motives in saving, money today is worth more than an actuarially fair amount tomorrow, which is in the direction of the results that are reported. Of course, one may also suspect that there is something else going on, perhaps behavioral considerations, or more simply, as Hurd himself suggests, that people do not understand how the test works.

Angus S. Deaton is the William Church Osborn Professor of Public Affairs and professor of economics and international affairs at Princeton University and a research associate of the National Bureau of Economic Research.