Is marriage a form of disability insurance?

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Abstract in brief:

This study uses the HRS to investigate the effect of spousal disability on labor force participation, hours worked and earnings. Although we might presume that married persons would compensate economically for the disability of their spouse, the simple correlations reveal that a person with a disabled spouse actually works and earns significantly less than those with a non-disabled spouse. However, both cross-sectional and longitudinal analysis indicates that a primary reason for this is that the spouses of disabled persons are themselves much more likely to be disabled than average. After controlling for own disability and other characteristics, we find little evidence for spousal coordination of labor market behavior (in any direction) with respect to changes in disability status. Thus, not only are disabled individuals often married to similarly disabled spouses, there is little evidence for compensatory labor market behavior by the spouse of the disabled person.

Extended abstract:

Motivation

A largely unresolved question is the extent to which household members (especially married couples) coordinate their economic behavior. In the unitary household model, coordination is an obvious outcome of shared preferences and shared budgets. In bargaining models of marriage, the extent of coordination is less clear. Individuals have private preferences and have to be induced to provide "public goods." The burden of unexpected events may not be shared significantly between partners.

In most marriages, there would seem to be an incentive to share risk through common savings, joint insurance policies, income substitution as response to shocks (the "added worker effect"), the provision of informal health care, and information sharing . Additionally, most life-cycle models of consumption imply that individuals (and households) will try to "smooth" their consumption from year to year, even though their income may vary considerably. Thus, expected declines in income should have minimal impact on consumption, while unexpected declines ("shocks") may cause significant changes in consumption, as well as changes in how labor and leisure are allocated within the household.

This study tries to understand how individuals respond to poor health and weather economic coordination related to health occurs.

Background

The existing evidence on spousal economic coordination suggests that there is significant coordination related to retirement behavior. About 1/3 of couples in the labor force at age 50

retire within one year of each other. The evidence also suggests that the complementarity of leisure is more important than financial incentives (Hurd (1990); Blau (1998); Gustman and Steimneier 2002; Johns and Favreault 2001; Maestas 2001). Coile (2004) finds that men are responsive to their wives financial incentives, but women are not responsive to their husband's incentives.

There is also a small literature that shows that job displacement is usually associated with an increase in the labor supply of the spouse. However this added worker effect is quite small as a percentage of lost household income.

One's own health is a strong predictor of reductions in labor supply (esp. labor force withdrawl and retirement). A few studies have looked at labor force participation and spousal health find a small increase in participation as a response to the disability of the spouse, though since different *dichotomous* measures of disability are used, it is hard to compare the studies. A recent study by Coile (2004) using the HRS finds no added worker effect (with response to health shocks) for women and a small effect for men

Caregiving by women of elderly parents significantly reduces their hours worked and increases their withdrawl from the labor force. No similar effect for men. Caregiving of family members is a common activity of American families. Conservatively estimates that over $11 billion productivity loss occurs each year. Of those who are giving care, a significant percentage (especially of women) have either withdrawn from the labor force, reduced hours, adjusted their work schedules, or had other adverse work outcomes: (Stone *et al. (1987) ;* Enright and Fress (1987) ; Scharlach and Boyd (1987); McLanahan and Monson (1990), Grunfeld, et al. (2004); Wakabaysashi and Donato (2005)). However, these studies treat caregiving as exogenous and cannot, therefore, control for the frequency with which *potential* caregivers choose not to provide care.

Data

Data for this study come from all available waves from the HRS. Preliminary analysis discussed here uses waves from 1992-2002, and the final version will include data from the 2004 survey wave. The original HRS cohort used consists of married couples with at least one partner in the target age range of 51-61. Extensive economic and health information is available in each wave.

Disability measurement

This study constructs a single-dimensional disability index based on a weighted average of four sub-indeces: 1) self-reported health status; 2) functional limitations and activity restrictions; 3) work limitations; and 4) the CESD depression index. Weights are derived from simple factor model on these four indeces. There is strong evidence from the factor analysis that these four scales can be reduced to a single dimension. This scale is constructed for each survey wave.

The employment status of married couples

Table 1 below illustrates the cross-sectional association in the initial wave of the HRS between employment probability and disability status, by age category. For each age group, there is a

sharp negative association between one's own disability and employment probability. There is also a strong negative association between employment and spousal disability for both husbands and wives, usually in the neighborhood of 10-20 percentage points. Clearly, in equilibrium, households are not compensating for lost income associated with disability (the table below shows employment, but a similar pattern exists for earnings, since variation in hours worked is not large across the disability categories)

Table 1: Employment rates by own disability and spousal disability status

MEN						
	50-55		55-60		60-65	
	Own	Spouse	Own	Spouse	Own	Spouse
No Disability	96.4%	93.5%	92.1%	82.2%	73.8%	67.7%
Mild	89.9%	83.3%	88.2%	77.1%	60.4%	49.9%
Moderate	77.5%	83.6%	66.8%	78.6%	39.8%	64.8%
Severe	30.3%	79.2%	23.1%	64.6%	15.6%	46.6%
WOMEN						
	Own	Spouse	Own	Spouse	Own	Spouse
No Disability	76.7%	69.5%	65.8%	60.3%	51.5%	58.1%
Mild	63.0%	66.7%	65.2%	63.4%	53.6%	45.9%
Moderate	53.7%	73.7%	47.9%	48.5%	34.1%	34.7%
Severe	30.4%	50.8%	14.4%	54.3%	11.4%	30.5%

One reason for this negative trend is that the spouses of people with disabilities are not selected randomly from the population; because of assortative mating and many shared risk factors, they tend to have a disability status that is highly correlated with the status of their spouse. We refer to this as "spousal co-disability." Furthermore, the educational level of one's spouses is strongly negative correlated with his/her disability, which is related to both employment probability and earnings.

Regression results

A variety of both cross-sectional and longitudinal regression models are used to measure the impact of spousal disability on employment and earnings. These models control for a variety of demographic factors and include couple-level fixed effects to account for the heterogeneity in the sample.

The general conclusion of these different specifications is that the effect of spousal disability is very small. There is simply not very much coordination going on, at least with respect to responding to disability—including "shocks" to disability that can be captured with the longitudinal nature of the data. The immediate effects of spousal disability seem to raise employment and earnings slightly, but these increases are reversed over time for a long-term effect near zero. We also find that women's responses are lower than men's (consistent with what Coile (2004) has found).