The Insurance Role of Household Labor Supply for Older Workers: Preliminary Results

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Previous studies have documented the patterns of employment, wages, unemployment, and other labor market outcomes over the life cycle (see, for example, Maestas and Zissimopoulos 2010). Older workers are generally found to have less favorable labor market outcomes than their younger counterparts. Among other age-based inequalities, the older workers are subject to greater employment risk than younger workers. In particular, while layoffs and displacements are not strongly age-related (see Farber, Hall and Pencavel 1993), the earnings loss associated with displacement increases with age (Rodriguez and Zavodny 2002, Farber 2005, Couch, Jolly and Placzek 2009). Further, older workers experience longer post-job-loss unemployment spells than their younger counterparts (Chan and Stevens 2001). The welfare and policy implications of the relatively high level of employment risk experienced by the older population depend critically on the extent to which older households are able to use either public or intra-household insurance instruments to ex post insure against job loss and the associated subsequent unemployment spell.

Critically, a couple household may be able to adjust the secondary earner's labor supply to cushion the impact of the primary worker's job loss. While not focused specifically on older workers, an existing literature provides empirical evidence on the insurance function of the secondary earner's labor supply. In particular, several studies document an 'added worker effect,' whereby the labor supply of the secondary earner, typically the wife, increases when the primary earner is subject to an earnings or employment shock (see, for example, Mincer 1962, Heckman and MaCurdy 1980, Lundberg l985, Spletzer 1997, Cullen and Gruber 2000).[1] Stephens Jr. (2002) takes a longer-term perspective and shows that a husband's job displacement leads to a prolonged increase in his wife's expected earnings and likelihood of employment. More recently, Blundell, Pistaferri and Saporta-Eksten (2012) demonstrate a consumption-smoothing role for household labor supply.

Given the relative severity of employment risk for older workers, it is important to know if spousal labor supply provides an insurance channel for older households or whether, instead, the aggregate added worker effects reported previously pertain only to younger households. Taking this as motivation, in this paper we explore and compare how older and younger couple households use adjustments in the wife's labor supply to mitigate the effects of negative employment shocks. Beyond the disaggregation according to age, we extend existing work in

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[1] Meanwhile, Layard, Barton and Zabalza (1980) and Maloney (1987) find no evidence of an added worker effect.

two further respects. First, in addition to looking at the wife's employment response, we distinguish between unemployment and non-participation. By looking at how the likelihood of the wife being unemployed changes following her husband's employment shock, we gain insight into the extent that wives are constrained in their responses to their husbands' employment shocks. Combining with the age-based analysis, we compare the extent that older and younger households are constrained by the labor market in their use of the wife's labor supply to smooth the impact of the husband's employment shocks. Second, in contrast to previous work using measures of annual labor supply, we use monthly information about husbands' and wives' labor market outcomes. By doing so, we are able to examine the household labor supply response in the months immediately after the husband's negative employment shock. This analysis informs on the time required before any smoothing effect of the wife's labor supply appears, and on the time that the effect persists.

Our empirical analysis uses difference-in-differences matching methods, applied to a sample of couple households drawn from the 2003-2011 waves of the *Panel Study of Income Dynamics*. Focusing on negative employment shocks impacting men, we estimate the effect of an employment shock on a man's own labor market outcomes and on his wife's labor market outcomes. We find a substantial added worker effect for younger households. However, the wives of older men do not increase employment in response to their husbands' negative employment shocks. Instead, in older households, female unemployment increases and non-participation decreases. The latter results are consistent with older women being constrained by the labor market in the extent to which they can adjust their labor supply to mitigate the effects of spousal employment shocks. In a further round of analysis, we investigate how the wives' adjustment in employment behavior impacts household non-work, defined as the situation where neither spouse is in employment. For younger households, we find that less than half of the added worker effect is located in households in which the husband is not in employment, suggesting that the smoothing or insurance role of wives' labor supply is more limited than that suggested by the added worker effect in isolation. For older households, we see neither an added worker effect overall nor an added worker effect within households in which the husband is slow in returning to employment.

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