Social Network and Labor Supply by gender: an Experimental Analysis

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Abstract

This paper extends the standard labor supply model per gender by allowing social interactions through social networks. In Manski’s (1993) nomenclature, our linear-in-means model allows for social conformity effects (i.e., impact of peers’ average labor supply) and contextual effects (i.e., impact of peers’ average characteristics). Our model is tested using experimental data with exogenous social networks (set by the experimentalist). We analyse two types of social networks: one in which participants interact recursively and one in which they interact simultaneously. The recursive social network involves two treatments. In the first treatment, individuals are isolated, perform tasks (multiplications) and are paid a wage rate per task which randomly varies across individuals and periods. In the second treatment performed later, other individuals receive information about their reference group from the first treatment (e.g., their average wage rate, nonwage income, gender, age, and education), before performing similar tasks. The recursive nature of the treatments allows to solve the standard Manski’s identification (reflection) problem. In the simultaneous social network, individuals are arrayed on an undirected line and receive information on peer(s) to which they are connected. At each period, individuals play a number of rounds until the model converges to a Nash equilibrium. Given the structure of the network, this model is also identified (see Bramoullé, Djebbari and Fortin 2009). Preliminary results show that the linear-in-means model is not rejected. Labor supply of men is positively influenced by their own wage and negatively by their own nonwage income (normal leisure). Also it is positively affected by their peers’ average performance and negatively by their peers’ average wage rate. However, none of these variables influences female labor supply. This suggests that individual financial incentives and conformism considerations have a stronger effect on male than on female labor supply decisions.