On the Identification of Models of Uncertainty, Learning, and Human Capital Acquisition with Sorting

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Abstract :
We consider the identification of matching models of the labor market in which firms and workers are ex ante heterogeneous in the presence of symmetric uncertainty and learning about worker ability and stochastic human capital acquisition by workers. We allow initial ability and acquired human capital to be general across firms to varying degrees. We establish conditions under which the primitives of these models are identified based on data on workers' jobs and wages. We then investigate the ability of existing measures of assortativeness of matching to detect the degree of sorting implied by the class of models we consider. We propose a new measure of matching assortativeness that accounts for the evolving uncertainty about workers' ability and workers' accumulating human capital. Based on this measure, we assess the extent to which changes in the patterns of labor market sorting, resulting from changes in the distribution of workers' ability, uncertainty about workers' ability, and the returns to human capital acquisition, have accounted for the increase in wage inequality documented the United States over the past 30 years or so.