"An Empirical Model of Wage Dispersion with Sorting,"

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Abstract:

The paper studies contributions to wage dispersion in a model that allows for sorting in firm-worker matches. The model is a general equilibrium on-the-job search model with wage formation similar to that of Cahuc et al. (2006). Workers differ in their permanent skill level and firms differ with respect to productivity. As shown in Lentz (2010), in this setting, positive (negative) sorting results if the match production function is supermodular (submodular).

The model is estimated on Danish matched employer-employee data that cover the entire worker and firm population at a weekly observation frequency. The data allow a detailed view of worker and firm conditional spell hazard heterogeneity, which is at the core of the paper's identification strategy. In addition the data contain match wages which also enter the estimation, however, the estimation does not employ the direct strategy of estimating the correlation between worker and firm wage fixed effects. As shown in previous versions of this paper as well as de Melo 2008 and Lise et al. 2008, this approach fails to identify sorting on worker-firm types in models where wages are possibly non-monotone functions of the fundamental worker skill and firm productivity heterogeneity.

Preliminary estimates point to positive sorting between worker skill and firm productivity, although with modest efficiency gains if the estimated population of jobs and workers are allocated efficiently.