Firms, Biased Technological Change and Job Polarization

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Abstract:
Job polarization is a widely-documented phenomenon in industrialized countries. However, the role of firms in accounting for this process has received less attention. In this paper, I try to understand how firms have shaped the process of job polarization. Using French administrative data, I document the phenomenon of job polarization in France between 1994 and 2015. Using a simple decomposition exercise, I show that within- and between-firm components are important channels in explaining job polarization. I construct a general equilibrium model to explain the underlying mechanisms behind the decomposition exercise. I quantify the role of routine-biased technological change (RBTC) and supply shocks in explaining the accounting decomposition. I find that RBTC has two effects: it not only induces firms to reorganize their optimal occupational mix but it also makes them more productive. Quantitatively, these two effects offset each other in equilibrium and do not explain the decline of routine occupations in the aggregate. Counterfactual exercises suggest that aggregate job polarization is instead driven to changes in educational composition of the labor force and change in preferences of low-skilled workers to enter routine occupations.