Skill-Biased Technological Change and Non-Monotone Labor Force Participation

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Abstract

Does technological progress always encourage labor force participation? This paper studies this question in a search-and-matching model with heterogeneous skill requirements. Under skill-biased technological change (SBTC), productivity gains in skilled positions induce firms to create more such jobs. In the pooled search market, this raises the return to jobs that all participants can perform, but lowers the probability that workers below the skill requirement find a job they can fill. If this job-finding loss outweighs the return gain, SBTC reduces participation, generating a non-monotone participation effect.

Keywords: skill-biased technological change; labor force participation; search and matching; vacancy composition

JEL classification: J22; J23; J64; O33