

BIDIMENSIONAL MATCHING WITH HETEROGENEOUS PREFERENCES: EDUCATION AND SMOKING IN THE MARRIAGE MARKET

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Abstract

We develop a frictionless matching model under transferable utility where individuals are characterized by a continuous trait and a binary attribute. The model incorporates attributes for which there are heterogeneous preferences in the population regarding their desirability, that is, the impact of the traits cannot be summarized by a one-dimensional attractiveness index. We present a general resolution strategy based on optimal control theory, and characterize the stable matching. We then consider education and smoking status, further specify the model by observing that there are more male than female smokers above each education level, and derive additional predictions about equilibrium matching patterns and how individuals with different smoking habits “marry down” or “marry up” by education. Using the CPS March and Tobacco Use Supplements for the period 1996 to 2003, we find that the hypotheses based on our model predictions are borne out in the data. (JEL: D1, J1.)

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