

Measuring Selectivity-corrected Gender Wage Gaps in the EU

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Abstract

This study contributes to explaining the difference in earnings by gender and improves the analysis of the factors related to the gender pay gap in the European, focusing on self-selection into market work. Two methodological issues have to be dealt with. First, male and female wage equations have to be estimated consistently. The second methodological issue concerns the appropriate decomposition of the gender pay gap that allows meaningful interpretation of its components.

In this study we propose different techniques to assess the gender pay gap in the European Union while exploring different estimation methods of the wage equation and different decomposition approaches of the wage gap. We decompose the pay gap both at the mean, following Oaxaca (1973) and Blinder (1973), and across the wage distribution, as proposed by Juhn, Murphy and Pierce (1993). As the literature on wage equation estimation is very rich, we concentrate on methods most used in the gender gap literature (i.e. OLS and Heckman) on the one hand, and on the other hand on very recently developed methods (Lewbel 2002 e.g.). The latter allow, at least theoretically, to take account of the three methodological issues mentioned, in original and innovative ways.

The empirical application, based on the European Community Household Panel (ECHP) for the five largest European countries (France, Germany, Italy, Spain and the United Kingdom), shows that at most half of the difference in earnings between the sexes can be attributed to differences in characteristics. However, the size of this endowment effect differs considerably between countries and depends on the choice of estimator. Our results suggest that correcting for self-selection has a significant impact on both the wage estimates and the pay gap decomposition. Furthermore, the results are sensitive to the choice of estimator, that is to the treatment of self-selection in estimation. We recommend the Lewbel approach because it imposes fewer arbitrary restrictions on the model than the Heckman approach, and performs better in terms of predictions with our data. Another main result of the study is derived from the pay gap decomposition over quantiles of the wage distribution. Remarkable differences are revealed within as well as between countries. A further recommendation derived from our analysis would therefore be to pay careful attention to differences over the wage distribution when drawing policy conclusions. Focusing only on the mean pay gap may conceal politically relevant aspects of the problem.