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EVIDENCE ON GENDER WAGE DISCRIMINATION IN PORTUGAL: PARAMETRIC AND SEMI-PARAMETRIC APPROACHES

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In this paper we consider several alternative approaches to analyze gender wage discrimination. Besides the traditional OLS estimator, we use two other approaches to control for sample selection bias problems: the parametric procedure suggested by Vella and Wooldridge, and the Li and Wooldridge semi-parametric estimator. We study the case of Portugal, employing data from the European Community Household Panel. The results reveal that the discrimination estimates are sensitive to the different econometric approaches. In fact, when sample selection bias is taken into account, the discrimination values are reduced and are typically not significant.

1. Introduction

Since the early 1970s, gender wage discrimination has been an extensively studied topic. Almost all studies, for many different countries, confirm the existence of discrimination against women (for a survey, see Weichselbaumer and Winter-Ebmer, 2003). Equal treatment of women has become a global social issue and therefore wage discrimination is a matter of both political and social concern. In order to define adequate policies it is important to produce rigorous estimates of discrimination. These estimates are usually based on wage equations for men and women which have to be consistently estimated (Kunze, 2008). Consequently, it is important to take into account potential problems, such as self-selection into participation.

Many studies estimate the wage equations by ordinary least squares (OLS) (Oaxaca and Ransom, 1994; Vieira *et al.*, 2005; Ng, 2007), without considering possible selectivity bias problems. This may lead to inconsistent estimates and wrong policy recommendations (Heckman, 1976, 1979; Kunze, 2008). Heckman's two-step estimator is the usual procedure used to overcome sample selection bias problems (Miller, 1987; Baker *et al.*, 1995; Neuman and Oaxaca, 2005). However, this procedure is a parametric solution which relies on strong distributional assumptions. If these are not satisfied, the estimators are generally inconsistent. Semi-parametric models are an alternative and reliable estimation strategy as they do not require knowledge of the error distributions (Vella, 1998; Christofides *et al.*, 2003).

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