Abstract for Esfandiar Maasoumi and Le Wang

Title: The Gender Earnings Gap: Measurement and Analysis

Abstract: When summary measures of latent concepts such as “the gender gap” fail to be adequately representative, one must seek better definitions and measures. This paper presents a set of complementary concepts and measurements of the gender gap that move beyond the traditional summary comparisons of the earnings distributions. In particular, we propose a new concept of “the gender gap” based on the distance between entire distributions with compelling properties: It is free of outlier effects, is capable of representing populations with heterogeneous gaps at different parts of the outcome distributions, and is invariant to increasing transformations. When the gender gap is different or of even different sign at different quantiles, subjective comparisons become inevitable in any summary, cardinal comparisons. In response, we introduce tests based on stochastic dominance to allow for uniform rankings of the earnings distributions between men and women. Using the Current Population Survey data, we first construct a new series on the gender gap from 1976 to 2011 in the United States. We find that traditional “representative” or moment-based measures underestimate a declining trend in “the gender gap” during this period. More important, these traditional measures do not necessarily reflect the cyclicality of the gender differentials in earnings distributions, and may even lead to false conclusions about how labor market conditions are related to the gender gap at the aggregate level. Second, while we find first-order stochastic dominance in most cases, even for the recent recession where men were hit harder, we also find a few instances where definite conclusions regarding the gender gap cannot be drawn at all or only under more restrictive social evaluation functions. Finally, we conduct full distribution counter-factual analysis which suggests that, in many cases, altering the earnings structure would be more effective in improving women's welfare (reducing “discrimination”) than would changing human capital characteristics.