

Wages as a driver of high skilled migration: is there gender inequality?

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Aims and contribution

This paper presents results from a unique experimental design to measure differentials by gender in reservation salaries to migrate, defined as the lowest wage rate at which a worker (a medical doctor in our case) would be willing to move and work abroad. Specifically, the paper presents findings from a vignette-like experiment conducted among medical doctors currently working in the cities of Buenos Aires and Madrid.

In line with expectations based on persisting gender wage gaps, our findings show lower reservation salaries for vignettes referring to female prospective migrants in both Argentina and Spain. More surprisingly though, this pattern of gender inequality was also observed among respondents, with female respondents systematically estimating lower reservation salaries, regardless of the candidate's sex. This result suggests that gender inequalities play an important role in shaping migration aspirations and the importance of integrating a gender perspective when analyzing international migration flows.

Framework

There is a growing academic and policy interest in high-skilled migration (HSM) largely explained by its benefits for destination countries: fewer incorporation challenges (Nathan, 2014), lower levels of social spending (Giulietti and Wahba, 2012), contribution to high value productive sectors (Nathan and Lee, 2013), international investments (Pandya and Leblang, 2012) and scientific exchange (Borjas and Doran, 2012). A large part of this literature uses aggregate level data on stocks and flows of HSM and ignores important individual level aspects of migration and the decision to migrate, including gender which, we show, is particularly salient.

Skilled migrants have traditionally been described as motivated to ensure the highest returns to their educational investments (Sjaastad, 1961), although this is now increasingly contested or at least complemented with a large list of non-economic motivations (Khoo, 2014; Hendriks & Bartram, 2016; Verwiebe, 2014). High salaries are the most obvious return to education they aspire to and, thus, the main driver of high-skilled migration (Giulietti, 2014), including for the international mobility of medical doctors (Vujicic et al. 2004).

However, while this is true for the general case, there has been insufficient interest into how these patterns vary by gender given the persistence of gender wage gaps, including among highly paid (Arulampalam et al., 2007) and high-prestige occupations (Magnusson, 2010) such as physicians (Magnusson, 2015). Female doctors face structural discrimination in hospitals, which affect their career progression (Reimann and

Alfermann, 2018). In addition, similarly to trends observed in other occupations with varied skill levels, having a family usually increases the gender wage gap among physicians, although the increase is smaller in countries with family-friendly policies (such as Sweden) than in the US.

Experiment

In this paper we use a unique experimental (vignettes) research design to measure differentials by gender in reservation salaries to migrate, defined as the lowest wage rate at which a worker (a medical doctor in our case) would be willing to move and work abroad. The reservation wages are attributed by respondents (who are themselves medical doctors) after having read a short narrative about a hypothetical prospective migrant described, randomly, as a male or a female.

The experiment was conducted among medical doctors currently working in Madrid (Spain) and Buenos Aires (Argentina), with an ongoing extension in Kiev (Ukraine).¹ The authors contacted managers of hospitals in the metropolitan areas of each city capital. Managers were asked to distribute the link only to medical doctors and not to other sanitary staff such as nurses or auxiliaries. The questionnaire was programmed in Qualtrics® and could be answered from any device including computers, tablets and mobile phones. It was administered in Spanish in Buenos Aires and Madrid from April to July 2018.

The questionnaire started by collecting basic socio-demographic information about respondents and then confronted them with a vignette-like experimental section. The short text (vignette) described the life of another medical doctor living in the city of interview, who was considering the possibility of migrating to Eurandia, a “modern and prosperous” fictional destination country chosen to free respondents from preconceptions about the desirability of real destinations and/or their personal experiences in specific European migration destinations. The vignettes presented the profile of a “standard” medical doctor at the start of their career (candidates were aged 32 years old and had the same current income) and randomly referred to a male or female prospective migrants. Other contextual information remained the same in all vignettes: the costs of living and taxes in Eurandia were similar to their current place of residence and candidates could return to their current workplace if their experience abroad did not work. After having read the vignette, respondents were asked to estimate the reservation wage that would convince the candidate to migrate and work in Eurandia. Answers were collected in pesos in Argentina and euros in Spain.

This research design allows to measure differentials by gender in reservation salaries at two levels. Firstly, we look at differences in the average amounts estimated for female and male prospective migrants. Secondly, we look at how some respondent’s characteristics, particularly age and sex, interplay with the gender of the candidate.

Table 1 shows the sample size for each city distinguished by a) the initial number of respondents, b) those that answered the socio-demographic questionnaire and c) those that completed the experimental part of the questionnaire with vignettes. In both cities

¹ As fieldwork in Kiev was still ongoing at the time the abstract was submitted, results for this city are not presented but will be integrated in the future.

the final sample size is above or close to the initially wanted size that would allow for the identification of significant differences in the salaries of control and treatment groups.

Table 1. Sample size by city of residence

Number of respondents	Madrid	Buenos Aires
A) Initial number	519	446
B) Respondents of socio-demographic questionnaire	440	330
C) Respondents with completed socio-demographic questionnaire and experiment	438	305

Because randomization makes it unnecessary to further control for other confounders or to estimate complex models to isolate effects, the treatment effects are calculated from simple two-sample t-test with equal variances to contrast if the difference in the average reservation wages given by respondents who were exposed to the control and treatment vignettes are statistically different.

Findings and future research directions

The average reservation wages to migrate for candidates according to their sex are presented in Table 2. The results show the existence of a systematic gap in the reservation wage in the two settings: in both cities, women are assigned lower reservation wages, i.e. they are expected to have lower income thresholds to migrate. This gap is relatively narrow compared to the overall gender wage gap in developed countries --for instance, the unadjusted pay gap in Spain was, according to Eurostat estimates, around 15 points in the period in which our data collection took place. However, it is remarkably high if we take into account the fact that in Spain medicine is a strongly feminized academic track and access conditions are extremely institutionalized. These two facts would in principle leave little space for discrimination practices, although existing studies show that this is not the case (Reimann and Alfermann, 2018). Gender inequalities thus play an important role in shaping migration aspirations, and the importance of integrating a gender perspective when analyzing international migration flows is evident.

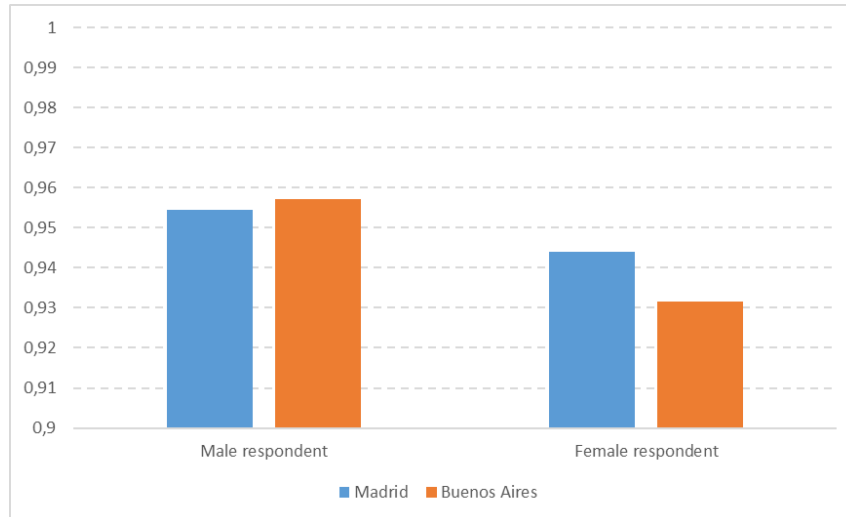
Table 2. Average wage by sex of vignette and city of residence

City	Vignette sex	N	Mean wage	S.Err	Pr(T < t)
Madrid	Female	221	4,133 euros	75,8	0.04
	Male	219	4,347 euros	98,1	
	Ratio female/male wages	440	0.951		
Buenos Aires	Female	171	65,847 pesos	2424,6	0.10
	Male	159	70,345 pesos	2946,5	
	Ratio female/male wages	330	0.936		

We additionally estimated the gender reservation wage gap depending on the sex of the respondent, as shown in Figure 1. In the two cities, female respondents are more inclined to assign a lower reservation wage to prospective migrants, whether men or women, than male respondents. We take this finding as an indication of persistent gender inequalities in the labor market that women face, even in an occupational niche that is highly feminized and with institutionalized access and promotion rules, and of how it translates

into the migratory project. Female medical doctors may consider working abroad as an opportunity to overcome obstacles in their career progression in the current work environment and thus more easily consider making the move.

Figure 1. Ratio reservation wage female/male vignette, by respondents' sex and city of residence



In the paper, we aim to link these consistent gender gaps with two topics. First, how these inequalities translate into migration chances, and whether selection into migration by gender and relevant characteristics associated with gender (such as area of specialization) translate into segregated occupational patterns in destination countries. Second, we discuss the implications, within the broader literature on the gender wage gap, of these results.

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