



# Working across time zones: Exporters and the gender wage gap<sup>☆</sup>

Esther Ann Bøler<sup>a, b, c</sup>, Beata Javorcik<sup>b, d, \*</sup>, Karen Helene Ulltveit-Moe<sup>b, e</sup>

<sup>a</sup>Imperial College Business School, United Kingdom

<sup>b</sup>CEPR, United Kingdom

<sup>c</sup>CEP, United Kingdom

<sup>d</sup>University of Oxford, United Kingdom

<sup>e</sup>University of Oslo, Norway

## ARTICLE INFO

### Article history:

Received 3 July 2017

Received in revised form 12 December 2017

Accepted 27 December 2017

Available online 10 January 2018

### JEL classification:

F10

F14

F16

J16

### Keywords:

Exporters

Globalization

Gender wage gap

## ABSTRACT

This study argues that there is a systematic difference in the gender wage gap (GWG) between exporting firms and non-exporters. Exporters may require greater commitment from their employees, such as working particular hours to communicate with partners in different time zones or travelling at short notice, and may therefore disproportionately reward employee flexibility. If women are less flexible, or perceived as such, exporters will exhibit a higher GWG than non-exporters. This hypothesis is examined using matched employer–employee data from the Norwegian manufacturing sector for 1996–2010. The results suggest a firm's entry into exporting increases the GWG by about 3 percentage points for college educated workers. A lower overlap in business hours between the Norwegian exporter and its foreign markets and a greater need for interactions with foreign buyers are associated with a higher GWG.

© 2018 Elsevier B.V. All rights reserved.

## 1. Introduction

The link between globalization and income inequality has received a lot of attention in economic research as well as in the

popular press. However, the debate has tended to ignore one important dimension of inequality, namely, the gender wage gap (GWG).<sup>1</sup> It is a well-documented fact that women earn less than men, even in relatively equal societies such as the Scandinavian countries. This is true after controlling for observable worker characteristics, hours worked and occupation, and especially so in the private sector.<sup>2</sup> In this paper, we set out to explore one channel through which globalization may affect gender inequality – the relationship between exporting and the GWG.

We argue that by virtue of being exposed to higher competition and doing business with partners located in faraway countries, exporters require greater commitment to work and greater flexibility of their employees. For instance, working for an exporting firm may

<sup>☆</sup> We thank the seminar participants at the University of Bergen, University of Oxford, University of Cambridge, Central European University, Center for Global Development in London, and the conference participants at the European Research Workshop in International Trade (ERWIT) 2014, 10th Joint ECB/CEPR Labour Market Workshop, ETSG 2013, Annual Meeting of the Norwegian Association of Economists 2014, GEP Post-graduate Conference 2014, Nordic Workshop on Matched Employer–Employee Data 2014, Nordic International Trade Seminar (NOITS) 2014 conference and SNF Sinergia/CEPR Conference on Economic Inequality, Labor Markets and International Trade (ILMIT) and one anonymous referee for the helpful comments. We thank Stefania Albanesi, Erling Barth, Andy Bernard, Juan J. Dolado, David Dorn, Andrea Ichinio, Kjell Erik Lommerud, Monika Merz, Peter Neary, Mari Rege, Olga Solleder, Kjetil Storesletten and Tony Venables for their valuable discussion. This paper is part of the research activities at the Centre for the Study of Equality, Social Organization, and Performance (ESOP) at the Department of Economics at the University of Oslo. ESOP is supported by the Research Council of Norway. Data received from Statistics Norway has been essential for the project and for the paper.

\* Corresponding author.

E-mail address: [beata.javorcik@economics.ox.ac.uk](mailto:beata.javorcik@economics.ox.ac.uk) (B. Javorcik).

<sup>1</sup> A notable exception is the work on the impact of trade policy on gender differences in schooling (which are likely to lead to future earning differentials) in the context of India's 1991 trade liberalization. Edmonds et al. (2010) find that as the loss of tariff protection led to a relative rise in poverty in affected rural districts, families reduced investment in children's schooling with girls bearing a disproportionate share of the burden. Edmonds et al. (2009) demonstrate a similar pattern for urban districts.

<sup>2</sup> See Blau and Kahn (2000), Barth et al. (2017) and Goldin (2014) for overviews.

require working particular hours and taking late night phone calls to communicate with customers in different time zones and may involve international travel arranged at short notice. The employees may be expected to be available around the clock 7 days a week in case of unexpected problems with customs clearance or shipments being delayed. If women are less flexible, or are perceived as such, exporting firms will exhibit a higher GWG than non-exporters, particularly among skilled workers.

Although the relationship between internationalization, new work models and gender has received scant attention in the economics literature to date, our argument is supported by sociological studies on the impact of internationalization and competition on work organization and work practices. Kvande (2009) studies firms with a global reach and states that technology, which awards flexibility by increasing employee autonomy over time and place of work, leads to increased expectations with respect to availability via phone and e-mail and a need to adjust working hours to international business partners. Formal contracts regulating working hours appear to be replaced by moral obligations and time norms that demand total commitment.<sup>3</sup> Blair-Loy and Jacobs (2003) interview stock brokers, and conclude that “the majority report that the pace of work has increased in recent years, in part due to the increased competition and new opportunities wrought by new technologies and globalization. [...] These work demands likely also serve as a barrier to women’s entering or staying in the occupation.” According to employer surveys, women are perceived as more family oriented than men, less committed to their work, and less reliable than men.<sup>4</sup>

To investigate the link between the GWG and exporting, we exploit a matched employer-employee data set covering the universe of joint stock firms in the Norwegian manufacturing sector and their full-time employees between 1996 and 2010.<sup>5</sup> The richness of the data allows us to control for observable, time-varying characteristics of the workers and firms that might otherwise confound the effects of interest. The panel structure allows us to take account of unobservable features of the worker-firm match that otherwise would bias our results. Norway provides a suitable setting for our study. It has a flexible labour market, as reflected in being ranked in the 9th place in terms of labour market efficiency in the most recent Global Competitiveness Report prepared by the World Economic Forum. It has high quality data which offer the possibility of merging the customs exports figures with the linked employer-employee information. The data are not subject to censoring of either trade activities or recorded wages, as is often the case in comparable data sets. Finally, Norway is a small, open economy with a high trade intensity.

We estimate a Mincerian wage regression controlling for a host of worker and firm characteristics. When we control for observable worker characteristics, but do not account for unobservable heterogeneity, the GWG appears to be smaller in exporting firms than in non-exporters. Hence, working for an exporting firm is associated with a smaller observed GWG. However, once we also control for unobservable heterogeneity related to the worker-firm

matches, this result is reversed. We find that exporting firms exhibit a higher GWG than non-exporters with the difference between the two types of firms reaching about 3 percentage points. As expected, this effect is present only among college graduates. In other words, college educated women earn higher wages at exporting firms than at non-exporters, but they are underpaid given their unobservable characteristics. This result is robust to controlling for selection of firms into exporting with firm-year fixed effects. Firm-year fixed effects also absorb any firm-level characteristics (observed or unobserved, time-varying or not) that could confound our results, such as productivity shocks or changes to the management of the firm.

Exporters vary by size as well as complexity and geography of their operations. These are the features that are likely to affect a firm’s need for commitment and flexibility from its workers. Therefore, they should matter for the GWG. We investigate the role of heterogeneity among exporters by analysing the effect of export intensity, the number of export destinations and the number of product varieties on the GWG. Again we condition on both worker-firm and firm-year fixed effects. We find that an increase in the number of export destinations, the share of output exported or the number of exported varieties are all associated with a higher GWG. To account for heterogeneity in geography, we calculate the overlap in business hours between the Norwegian firm and its export markets.<sup>6</sup> Based on our hypothesis, we expect the need for client communications outside of normal business hours to matter and to depend on the geography of the firm’s export markets. In line with our expectations, a smaller overlap in the business hours between the Norwegian exporter and its foreign markets is associated with a higher GWG. Since there is a negative correlation between the distance from Norway and the attitudes towards females, we check whether our results are robust to controlling for the extent of gender equality in the export market. We find that this does not seem to matter, suggesting that our results capture aspects related to physical distance and different time zones rather than the ability of females to function in the destination country.

Our conclusions are confirmed by several robustness checks. First, we show that the overlap in business hours between the Norwegian firm and its export markets has a greater impact on the GWG among workers under 45 years of age. Women in this age group are likely to have small children which limits their flexibility with respect to working hours. Thus this additional evidence is also in line with our hypothesis. Second, we show that our results hold when we control for the occupational code and when we allow the GWG to differ across occupations. Third, instead of classifying workers by their level of education we split the sample along the occupational lines. We find that the overlap in business hours matter for the GWG in the subsample of managers, professionals and technicians, but not in the subsample encompassing the remaining occupations.

A possible alternative explanation for our findings is based on Becker’s theory of taste-based discrimination, which predicts that more profitable firms are better positioned to engage in costly discrimination (Becker, 1957). We conduct robustness checks to rule out that this possibility is driving our results. Namely, we show that our findings are robust to allowing the GWG to vary with firm profitability as well as other correlates of profitability, such as firm size and multinational status.

In summary, our findings suggest that firms with a larger exposure to foreign markets and thus a greater need for communications with partners located in different time zones, exhibit a higher GWG. Our findings are reminiscent of Goldin (2014) who

<sup>3</sup> An employee of a global company reported that “[d]epending on what country he is working with, he has to adjust his time for fathering. When he was working with Malaysia he lost time with his children in the mornings, because he had to be online with their [Malaysian] time. When he is working with Austria the time with the kids in the afternoon and evening has to be adjusted to the working hours in Austria.” When asked whether he sees his job as boundless he agrees: “Yes, and for me it is also very concrete, or physically, because wherever I go I always take my PC and my mobile phone. [...] This weekend, for example, when we were on our Sunday walk in the woods, someone phoned, and then I had to take out my PC and find out something. And with the time difference in Malaysia, which is six actually seven hours before us... it is obvious, isn’t it, it’s boundless.” (Kvande, 2009 pp. 68–69).

<sup>4</sup> See Gislason (2007) and <http://www.slatergordon.co.uk/media-centre/news/2014/08/slater-gordon-highlights-maternity-discrimination>.

<sup>5</sup> The data set covers about 90% of manufacturing output in Norway in 2004.

<sup>6</sup> For firms exporting more than one product to one market, we take the average overlap in business hours across the firm’s varieties (i.e., country-product combinations).

متن کامل مقاله

دریافت فوری ←

**ISI**Articles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات