The gender wage gap in Europe: What can we learn from linked employer-employee data? A workshop report

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A recent IAB workshop on the gender wage gap in Europe stressed the importance of the workplace and the firm in explaining gender inequalities. The workshop presentations showed that linked employer-employee data of all types can help analysts and policy makers understand the mechanisms which lie behind these inequalities, giving insights that cannot be obtained from traditional surveys of individuals and households.

The gender wage gap has narrowed in many countries over recent decades, but today women continue to earn less per hour, on average, than men in every country in Europe according to Eurostat gender pay gap statistics. This is despite women closing much of the human capital gap with men – even overtaking them in the acquisition of academic qualifications.

It is puzzling that the gender wage gap remains so large having accounted for observed personal characteristics. We know from other research that where people work plays a big role in growing wage inequality. So it is possible that it might also help explain part of the
gender wage gap. The problem is that employers are usually unobserved in the household data that dominates research on the issue.

**Firms play a key role in reducing or perpetuating wage gender inequalities**

This workshop – hosted by the IAB and co-organised with University College London and Cass Business School – brought together a group of researchers using linked employer-employee data to better understand the role of employers and employment practices in accounting for the gender wage gap in Europe. The presented papers ranged from those based on large-scale datasets covering a substantial percentage of all workers in a given economy, to those based on survey-based linked employer-employee data with rich detail on the nature of employment within individual workplaces. Each of the presentations showed the importance of the workplace or the firm in explaining gender inequalities.

Two of the researchers used large administrative data on workers and firms to examine the importance of the workplace in contributing to the gender wage gap across the whole economy. For Britain, Carl Singleton presented research (with Sarah Louise Jewell and Giovanni Razzu) using a dataset covering a random sample of one percent of all employees in employment. They find that one-seventh (16%) of the gender wage gap in Britain is accounted for by where men and women worked, rather than who they are. This is lower than previous estimates for other European countries such as Germany (25%), but higher than in France (11%). Pursuing the same issue for Italy, Salvatore Lattanzio and Alessandra Casarico use a linked employer-employee dataset recording the work and wage history of all Italian workers in the private sector from 1995 to 2015. They find that around 30% of the gender wage gap in Italy can be attributed to where you work rather than who you are. The workplace or firm is therefore not the be all and end all in explaining the gender wage gap but it is important, and it holds more sway in some parts of Europe than others.

**Two mechanisms affect the gender wage gap**

Where you work can affect the relative wages of men and women through two routes. First, firms’ internal pay and promotion policies can lead to men and women with equivalent levels of productivity earning very different wages in the same firm. Second, the labour market may operate in such a way that women spend more time in low-paying firms than men – a form of labour market segmentation that operates to the detriment of women. Disentangling these
two components of the overall gender wage gap is important if, for example, one wants to know which policies to pursue to close the gap. If the gender wage gap is largely a within-firm phenomenon, attention should focus on understanding the origins of worker bargaining power and the operation of firms’ wage determination processes. In policy terms, it implies a focus on equal pay legislation and laws mandating firms to reveal information about within-firm pay differentials. If, on the other hand, the gender wage gap is a between-firm phenomenon, such approaches will have no effect. Instead, attention must focus on the processes through which workers are matched to (or ‘sorted’ across) firms, which in turn implies a focus on employees’ preferences and on firms’ hiring practices.

Researchers need linked employer-employee data to establish the weight to be attached to these two mechanisms. In Alessandra Casarico and Salvatore Lattanzio’s study for Italy, around two-thirds of the firm-specific component of the gender wage gap (or 20 % of the overall gap) is due to sorting across firms, with the remaining third (around 10 % of the overall gap) due to bargaining within firms. These findings are similar to the studies for Portugal and France mentioned earlier, which show that sorting also dominates in those countries. So we are beginning to see some repeated patterns emerge in terms of the relative importance of these two mechanisms in European economies.

The process of sorting across firms

Very little is known as to why men and women are segregated across firms, however. That is because few studies examine who applies for which jobs, and how employers treat those applications. Anita Glenny and colleagues are among the few exceptions. They investigate whether gender differences in the types of jobs that men and women hold are driven primarily by differences in the jobs that men and women choose to apply for, or by gender differences in their likelihood of being hired once an application has been made. This would not be possible without their novel data set containing actual job applications made by the universe of Danish unemployment insurance recipients, linked to recipients’ actual job outcomes as well administrative data on the firms they apply to. They find that, in this setting, job seekers’ choice of jobs to apply for is more important than employers’ hiring decisions in determining the gender wage gap. The gender composition of hired employees corresponds closely to gender composition of applications, but there is a clear difference in application behaviour, with women directing a larger share of job applications to low-wage jobs. The study raises questions about how to make better paid work more attractive and accessible to women.
Women’s return to skills

Another strand of the gender wage gap literature examines the returns men and women get from the same skills. Mathias Fjællegard Jensen’s presentation extended this literature by linking information on the tasks performed within occupations to establish the gendered returns to having specific sets of task-based skills. Using a novel combination of job vacancy and register data covering all Danish online job posts from 2010 to 2016, he comes to a startling conclusion: the jobs men and women work in typically require similar types of skills in aggregate, but women face lower returns to a number of specific skills, including literacy, management, finance and IT. This raises a very big question: why? One possibility is that women face discrimination in the labour market which prevents them from receiving the full price for their labour, whereas men are able to command that price and thus receive ‘discrimination free’ higher wages.

A couple of the presentations at the workshop looked right inside firms and workplaces to obtain insights into the way men and women are paid. The presentation by Alex Bryson (joint work with John Forth and Nikos Theodoropoulos) for Britain focused on the gender of corporate decision-makers – those in managerial and supervisory positions – to see whether having a higher share of female decision-makers lowers the gender wage gap and, if so, why. In contrast to the emerging literature on corporate boards such as “Chipping away at the glass ceiling: Gender Spillovers in Corporate Leadership” by David A. Matsa and Amalia R. Miller, they focus on workplace decision-makers. They show that the gender wage gap closes as the female share of managers rises in the workplace, and closes completely once around two-thirds of all managers are women. Various explanations are possible, but one is that women in senior decision-making positions are able to reallocate limited resources from men to women, thereby eradicating past inequalities.

Findings such as these point to the need for a closer examination of wage determination processes, and linked employer-employee data has much to offer here by virtue of having extensive data on pay practices within firms. Stefanie Wolter’s presentation on Germany (with Ann-Christin Bächmann and Corinna Frodermann) uses the IAB linked personnel panel and pointed to the role of performance-related pay in perpetuating the gender wage gap. They showed that the average male employee is not only more likely to work under a performance-pay system but also enjoys a higher wage premium than women when they do. Alex Bryson, John Forth and Nikos Theodoropoulos’ presentation on Britain also considered the role played by performance-related pay systems. They found that such pay systems can work to the benefit of women when the share of female managers is high, again indicating the key role of decision makers.
Policy makers’ effectiveness in promoting equal pay

Across Europe today there are renewed efforts to shape firm behaviour through laws attempting to promote greater pay transparency, with evidence that such laws have led to reductions in the gender wage gap in countries such as Denmark and Switzerland. Giannina Vaccaro (work with Pia Homrichausen) presented preliminary evidence on the introduction of a new pay transparency law in Germany, focusing on the period of potential ‘anticipatory behaviour’ between the announcement and full enactment of the legislation. With many other countries now pursuing similar legislative initiatives, linked employer-employee data will be an important tool in monitoring the ongoing effectiveness of such laws.

More broadly, the challenge facing labour economists and other social scientists is to improve our understanding of wage progression for men and women in the labour market. Linked employer-employee data will be a vital tool for analysts and policy makers in this pursuit, extending our understanding in ways that traditional surveys of individuals and households cannot.

More information

Programme of the workshop