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Subject of Degree and Differences in Wages Between Men and Women - A Comparison of Britain, France, and Germany¹

*Patrick A. Puhani (Universität St. Gallen)
und Stephen Machin (University College London)*

Why wages differ for men and women with similar characteristics has been a longstanding and ardent debate for decades. Gender related wage differences continue to raise the interest of both the public political debate and professional economists. It is a well established fact that women earn less than men, even if they have the same education, work experience, and occupation. However, women have caught up with men recently, not only in terms of the gender wage gap, but also in terms of labour market participation in general (Blau and Kahn, 1997; Altonji and Blank, 1999).

Although societal and legal changes may play an important role in narrowing the gender wage gap, simple economic factors may also be at work and provide a more profound understanding of improving labour market opportunities for women during the last few decades. In a recent article, Goldin and Katz (2002) provide empirical evidence for the power of the contraceptive pill in facilitating women's career investments without having to compromise on partnership lifestyle. Their paper points to the importance of education (human capital) as a key factor for improving women's labour market prospects.

Indeed, in a short note (Machin and Puhani, 2003), we demonstrate for the UK and Germany in the year 1996, that – looking at graduates – men tend to study subjects at university that yield a higher wage pay-off in the labour market than 'female' subjects. Hence, studies that do not control for subject of degree will overestimate the degree of 'discrimination' against women by not taking this important difference in degree types into account.

This result raises the question of how human capital changes have affected changes in gender wage differences during the last few decades. In this research project, we intend to dig deeper into the question of how subject of degree impacts on the gender wage gap at a point in time as well as how changes in degree types have affected changes in the gender wage gap thought time. In the light of Goldin and Katz's (2002) results as well as the observation that women are increasingly choosing traditionally male dominated subjects of study, such as sciences and engineering, we will investigate the evolution of subject of degree and the gender wage gap over time.

To this end, we will draw on several data sets: for Britain, the British Labour Force Survey (BLFS) and the General Household Survey (GHS) will be used. For Germany, the German Labour Force Survey (Mikrozensus) offers the required information. The French Labour Force Survey (Enquête Emploi) is also at our disposal. All these surveys contain subject of degree and wage data. However, the time period and codings differ across the data sources. The GHS contains the required information since 1981. The BLFS has wage information only since 1993. As concerns the German Mikrozensus, the years 1989 to 1996 are generally available and contain the required information. The earlier waves of this data set also provide subject of degree and income information, but these data are not generally available in the

¹ DIES IST EINE BESCHREIBUNG UNSERES JETZIGEN FORSCHUNGSPROJEKTES, ZU DEM ES BEREITS EINE ERSTE KURZ-STUDIE GIBT, DIE IN KÜRZE IN *Economics Letters* ERSCHIEINT (Machin und Puhani, 2003).

required form (individual data). Therefore, we have asked the German Federal Statistical Office (Statistisches Bundesamt) in Wiesbaden for a special permission to use the required data. In the French case, the necessary information is available since 1990, although we also have the Enquête Emploi since 1983 at our disposal (these earlier years do not contain a subject of degree variable).

One reason why our research question has been under-researched so far is probably the fact that the standard data sets in the United States do not give information on subject of degree (or field of major as it is called there).

By providing this information, the European surveys mentioned above promise new insights into our research question. By using British, German, and French data, we are covering major industrialised countries and hope to gain robust answers to whether subject of degree has been playing a major role in improving women's labour market position during the last two decades.

The question to be addressed by our research project has obvious policy implications. If subject of degree is very important, equal opportunity laws in the workplace may not be the best policy to provide labour market equality for women. The reason is that if women are treated equally to men given their specific qualification, their labour market potential will not improve if they do not invest enough into rewarding skills (such as science, business, and engineering). Hence, informing young girls in schools on this matter may be more effective than equal opportunity laws, although one policy does not exclude the other.

Machin, Stephen
Department of Economics, University College London (UCL)
Gower Street
GB-WC1E 6BT London
Fax +44 207 916-2775
E-Mail S.Machin@ucl.ac.uk

Puhani, Patrick
SIAW, Universität St. Gallen
Dufourstr. 48
CH-9000 St. Gallen
Tel. +41 71 224-2341
Fax +41 71 224-2298
E-Mail Patrick.Puhani@unisg.ch