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The gender distribution among foreign academics in the Norwegian HE system (0174)

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### Background

International research cooperation and mobility are increasingly important in the competition between nation states and institutions for the best brains, but also for the enhancement of individual academic careers. For smaller national systems, such as the HE system in Norway, the pressures to internationalize and attract foreign researchers is often even greater, in efforts to achieve a critical mass and bring in high level academic capacity for key subjects (such as STEM subjects). This paper investigates attempts to go beyond assumptions that more 'international brains' are a straightforward good and a influence to increase diversity in HE. It problematizes the issue by considering the overlaps in trends for increased internationalization and patterns regarding the gender distribution within the academic profession.

The overall share of those working as researchers in Norway born outside of the country has increased rapidly - from 14% in 2001 to 22% in 2009 (Børing & Gunnes 2009), and remains on strong upward trajectory. There have been considerable efforts to internationalize the HE sector and attract foreign academics, but at the same time Norway has also been making major efforts to improve the gender balance in academia, and increase the representation of women in key subject areas which have traditionally been male dominated (such as maths and technology). While Norway is generally one of the leading countries in terms of overall rates of female academics (see SHE figures) there remain significant gender differences among academics regarding their patterns of international activity (CAP data).

These broad demands for more foreign researchers, views of mobility as a simple good and of academics who move as a new 'global elite', can neglect issues of positional and occupational hierarchy and gender segregation. Recent research indicates that patterns of gender inequality in academia are reproduced within new global landscapes of academia, with women less likely to take part in international research cooperation and mobility (Arthur et. al 2007, Metcalfe et. al 2012, Santiago et. al 2012, Smykla and Zippel 2010, Vabø 2012, Vabø et. al 2012,). Female academics also tend to occupy lower ranks / hold fewer upper-level scientific or administrative positions (Bain and Cummings 2000; Marschke, et al. 2007).

While research into researcher mobility at the international and national levels have been subject to a lot of tracking research using large scale surveys of mobility at very aggregate levels (e.g. the MORE study) there has been little in-depth investigation into the impact of mobility on gender balances or its impact on disciplinary sub-sections of nationals systems. In contrast, studies looking at gender balances in academia tend to proceed through micro-studies.

## Approach/methods

More fine grained analysis on large scale data is therefore needed, that takes account of hierarchical and fragmented academic world, and can link these research areas addressing internationalization and gender distribution.

Data from NIFU's Register of Research Personnel (RRP) and matched employer-employee register are used to achieve this. The data set covers all persons working as researchers in the higher education sector sector in Norway in 2001, 2003 or 2005, and 2009. The data allows us to look at foreign researchers (those born outside of Norway) in some detail regarding their country of birth, their disciplinary area and their position in the academic hierarchy; we can then compare them to patterns among Norwegian-born academics on these issues.

## **Preliminary results**

These data are analyzed to shed light on overall gender balances among Norwegian and foreign academic populations in Norway; while both groups have seen an upward trend in the share of women, this has been slightly greater among Norwegian researchers.

Further analysis of the foreign research group shows very marked differences in the gender balance based on regional background. Some regions show a similar share of women to Norway (Nordic countries, Europe, North America), while others are extremely male-dominated (Africa and Oceania).

This suggests one way in which internationalization could influence gender distributions in the academic population. Another emerges when comparing Norwegian and foreign groups within disciplinary areas. A fairly typical gendered distribution by subject areas is found, for both Norwegian and foreign populations, but foreign researchers actually show a better gender balance than Norwegians in the key areas of mathematics, natural sciences and technology.

When we compare the patterns of gender and position in the academic hierarchy between foreign and Norwegian groups, we find few major discrepancies, although it is interesting to note that foreign academics show a slightly better gender balance at the senior levels of associate and full professor than Norwegians. As expected, the share of women at the 'top' level of professor, are still relatively low. As in the trends on overall share of women, the Norwegian population shows a slightly more rapid increase in the share of women since 2001 in the case of professors.

## Implications/conclusions

Differentiated studies of internationalization and mobility are lacking, especially studies that consider gendered structures within academia. This paper provides such a perspective on the Norwegian system.

The results show that foreign researchers in Norway have differing gender patterns regarding subject area, regional background, and position in the academic hierarchy. If there are aspirations to improve the gender balance and internationalize Norwegian HE, these patterns need to be considered; however, increases in the proportion of foreign researchers in Norway should not be assumed to work with or against efforts addressing gender in academia. Despite Norway having a relatively gender-balanced academic system on aggregate, the potential influence of foreign researchers within disciplines or subjects, and based on regional flows, may vary considerably. In the case of foreign researchers in maths, science and technology, increased internationalization may provide more women for these fields.

The patterns and trends identified deserve greater attention, and provide a good opportunity for further collaboration or comparative work on these questions, especially in light of ongoing strong trends for increased international recruitment in the Norwegian HE system. This underlines the limitations of approaching internationally mobile researchers as a single block, and overlooking patterns of stratifications in terms of rank, regional flows and gender.