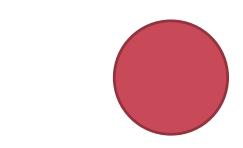


The development of diversity statistics for Norwegian research and higher education





Hebe Gunnes and Ole Wiig

NIFU Nordic Institute for studies in Innovation, Research and Education, Oslo, Norway

INTRODUCTION

The Norwegian Ministry of Education and Research appointed the first Committee for Gender Balance in Research (KIF) in 2004. The KiF committee has been pushing for the development of detailed gender statistics in research and higher education. In 2014, the committees mandate was extended to diversity, covering gender, immigration, mobility etc. A study stating that "Being an immigrant is no advantage" was issued (Maximova-Mentzoni et al 2016), and NIFU and Statistics Norway were given the task of developing regular statistics on diversity in Norwegian research and higher education institutions. This resulted in the working paper "Mangfoldstatistikk. Statistikk om innvandrere og etterkommere av innvandrere i norsk forskning og høyere utdanning" (Gunnes et al 2016 and 2017), which is the basis for this poster.

We will present the main results from the diversity statistics for Norway. We also addresses some methodological issues related to the definition of diversity. To an international audience, the study my be of interest in the discussion of developing mobility indicators.

METHODOLOGY

The basis for the diversity statistics is laid by merging data from NIFU's Register of Research personnel for the years 2007, 2010 and 2014 with Statistics Norway's population statistics and employment statistics.

The Register of research personnel is a database covering personnel participating in R&D at all higher education institutions, research institutes and university hospitals and other health trusts in Norway. The register covers researchers and academic staff, as well as supporting staff with higher education². The register, however, does not contain information about citizenship or immigrant status, so this information is obtained from Statistic Norway's population statistics.

The Kif committee initially wanted information about ethnicity and diversity in Norwegian higher education and research. Ethnicity is a somewhat problematic term, which is hard to measure, unless it is linked to regions/geography. We also considered using citizenship, but as this may change over time, we decided to use the classification of immigrant status, used by Statistics Norway in their official statistics. The diversity statistics applies two of the six categories, i.e. *B*: Immigrants and C:Descendants of immigrants (Norwegian-born with immigrant parents). We also mapped the regional background of the immigrants and descendants of immigrants, i.e. their country of origin.

While compiling the data, we realized that we needed to make a two-fold approach in order to answer to the needs of the Kif committee and the Ministry of Education of Research: One approach was mapping international mobility among staff in research and higher education, and track those who come to Norway with a PhD, or to study for a PhD. This is consistent with the definition used to define mobile students; "students who have physically crossed an international border between two countries with the objective of to participate in educational activities in the country of destination" (see UOE handbook, chapter 2.8), or in this case, with the objective of working in academia. The other approach was tracking immigrants, and descendants of immigrants, among academic staff, who have obtained their education in Norway, i.e. from primary school to tertiary education. These are two distinct populations of researchers with quite different career patterns.

Table 1 Share of women by position and immigrant status 2014

mmigram status: 2014		
	Immigrants and	
	descen-	Other
	dants of	resear-
	immigrants	chers
Full professor	29 %	26 %
Associate professor	42 %	46 %
Post doc	41 %	56 %
Research fellow	47 %	60 %
Researcher in the		
institute sector	38 %	40 %

MAIN FINDINGS

Immigrants and descendants of immigrants accounted for 25 per cent of the researchers at Norwegian higher education institutions, research institutes and health trusts in 2014. This is a higher proportion than in the total population, the total work force with higher education and the student population, see figure 1. The share of immigrants and descendants of immigrants among researchers has increased from 17 per cent in 2007, which is a somewhat higher increase than for the total Norwegian population.

Approximately 85 per cent of the immigrants in Norwegian research and higher education institutions in 2014 had their higher education on ISCED level 7 or 8 from abroad. These are classified as internationally mobile researchers in the diversity statistics.

Most of the immigrants and descendants of immigrants at the Norwegian research institutions in 2014 were men. Table 1 shows that 29 per cent of the full professors with immigrant background in 2014 were women, while 26 per cent of the other full professors were female. For all other selected positions, the share of women was lower among the immigrants and descendants of immigrants than among the other researchers. Figure 3 shows that the majority of the immigrants and descendants of immigrants were affiliated with the major universities, situated in the largest cities of Norway.

The post doctor position had the highest share of immigrants and descendants of immigrants in 2014, 49 per cent, followed by research fellows with 40 per cent. Among full professors, the immigrants and descendants of immigrant accounted for 23 per cent, and for associate professors, the share was 20 per cent. Natural sciences and engineering and technology had the highest share of immigrants and descendants of immigrants among researchers and academic staff in 2014. The lowest share was found within the social sciences. This implies that immigrants are employed in different fields of science than the other Norwegian researchers, see figure 4.

Of the female full professors, 25 per cent had immigrant background in 2014. The same applied to 23 percent of the male full professors, see figure 2. Nearly half of the female postdoctoral fellows in 2014 did not have an immigrant background, while 37 percent came from the EU, USA, Canada or Oceania and 15 percent from the rest of the world. Among the male postdoctoral fellows, 40 percent came from the EU, USA, Canada or Oceania, while 25 per cent came from Asia, Africa or Latin-America, and 35 per cent were not classified as immigrants.

CONCLUSIONS AND FURTHER DEVELOPMENT

The share of international mobile researchers in Norway is increasing. This is partly due to a more international labour market in academia. We also see that some institutions have strategically recruited female full professors from abroad. There is a desire from the Kif committee to monitor the situation, and thus develop the diversity statistics further. They would like to know more about where the mobile researchers come from, and to what extent they stay in Norway and have an academic career here. Hopefully, there will be an update with the 2017 data from the Register of Research personnel.

The two-fold approach to the diversity statistics showed that the majority of the immigrants were internationally mobile researchers. Only 15 per cent of the immigrants and descendants of immigrants had obtained their education in Norway. The number of persons in this cohort is too low to present detailed statistics, but we nonetheless need to monitor this group, in order to identify challenges or obstacles in their career paths.

International studies or statistics on mobile researchers would be an asset for comparing the Norwegian data to other countries, but there are issues related to the definition of mobile researchers that need to be addressed.

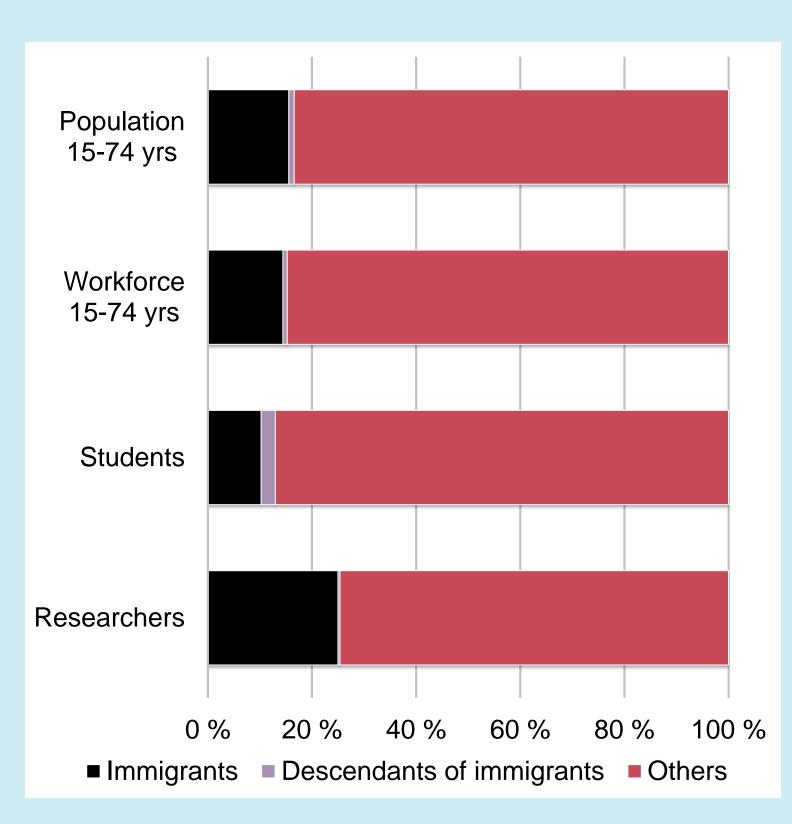


Figure 1 Share of immigrants and descendants of immigrants in Norway: 2014.

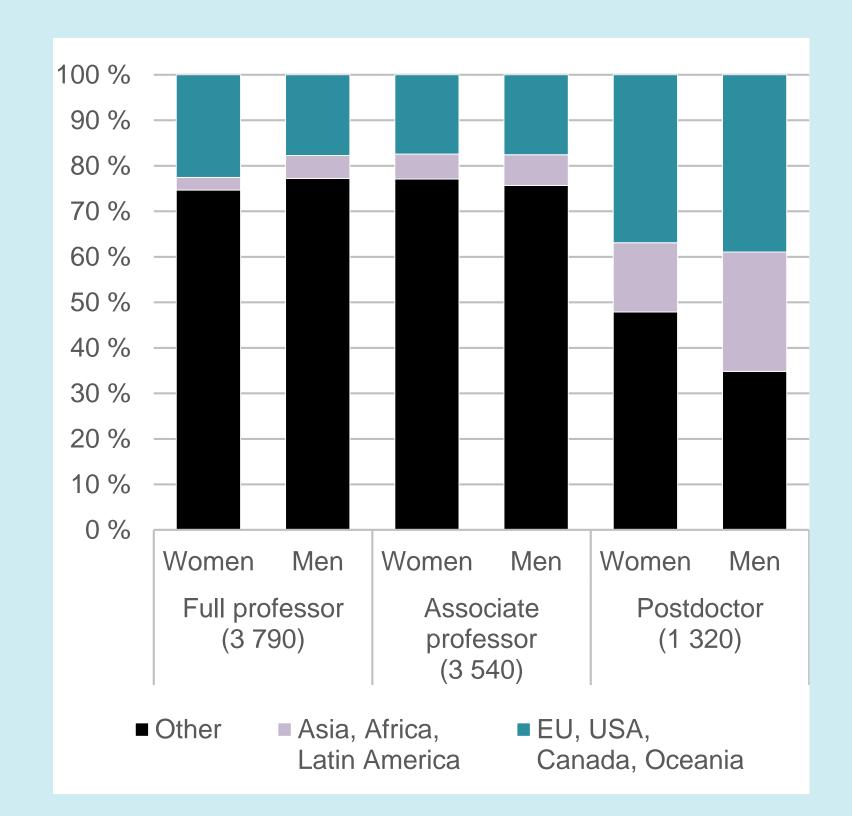


Figure 2 Women and men in selected positions by gender and region of origin: 2014.

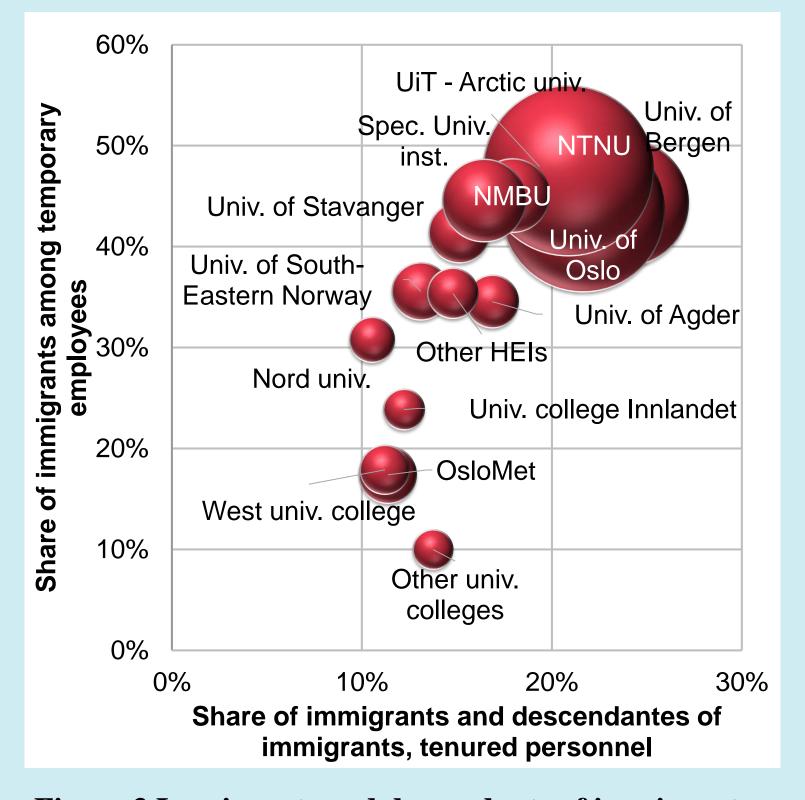


Figure 3 Immigrants and descendants of immigrants by institution of employment: 2014.

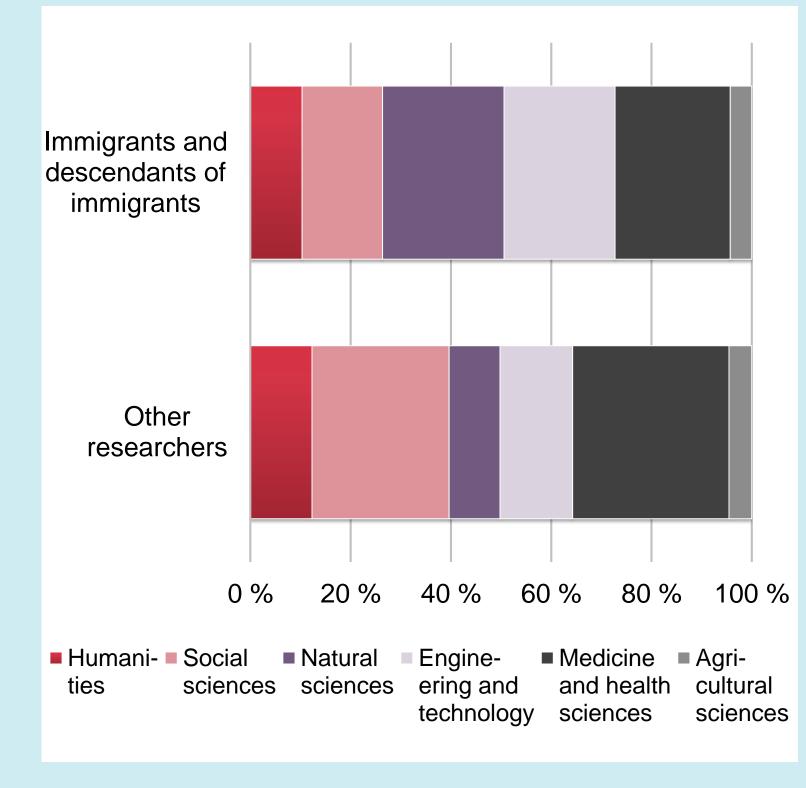


Figure 4 Research population in Norway by immigrant status and field of science: 2014.

Source: NIFU & Statistics Norway

is an independent social science research institute, organized as a non-profit foundation.

NIFU aims to be a leading European research organization for studies of innovation, research and education at all levels. We collect, analyze and disseminate national statistics and indicators for R&D and innovation, and are active participants in statistical cooperation at the European and international levels. Our research and statistics offer a solid base from which policymakers can develop integrated knowledge policies.

NIFU's research is funded through research contracts for public and private clients, allocations from national and international research programs and a basic grant from the Norwegian Research Council.

Our main research areas are:

- Primary and secondary education,
- Higher education,
- Research and innovation,
- Statistics and indicators

NIFU Contact info: hebe.gunnes@nifu.no

References

Gunnes, H., Nordby, P, Næsheim H. and Wiig, O. (2017): Mer mangfoldstatistikk. Statistikk om innvandrere og etterkommere av innvandrere i norsk forskning og høyere utdanning. Oslo, NIFU Working paper 2017:4.

Gunnes, H., Nordby, P, Næsheim H. and Wiig, O. (2016): Mangfoldstatistikk. Statistikk om innvandrere og etterkommere av innvandrere i norsk forskning og høyere utdanning. Oslo, NIFU Working paper 2016:17.

Maximova-Mentzoni, T., Egeland, C., Askvik, T., Drange, I., Støren, L. A., Røsdal, T. and Vabø. A. (2016): A være

utlending er ingen fordel. Karriereløp og barrierer for innvandrere i norsk akademia. Oslo, Work Research Institute report 2016:3.

¹Only available in Norwegian. In English: Diversity statistics: "Statistics on immigrants and descendants of immigrants in Norwegian research and higher education"

²Variables present in the register is gender, age, academic position and work place affiliation (university, faculty, department and field of science), education on ISCED 7 level and PhD. The register goes back to 1961 and is mainly used for statistical purposes. It is a part of the Norwegian R&D statistic's infrastructure.