

Access to higher education in Scania and Denmark: 1600s - 1800

Until Scania was ceded to Sweden in 1658 under the Treaty of Roskilde the closest university for the inhabitants in Southern Sweden was the University of Copenhagen. Of the enrolled students, Scanians represented a significant share. In 1683, the Swedish government demanded that the people of Scania accept Swedish customs and laws and forbade them from enrolling at Copenhagen University. Swedish became the only language permitted in Church and in schools, religious literature in Danish was banned, and appointed politicians and priests were required to be Swedish. To promote further Swedish assimilation, the University of Lund was inaugurated in 1666. Using university records (*matrikler*) from Copenhagen and Lund universities with individual-level information about names, birthplace and enrolment the impact of the ban can be analysed in different ways: what did the ban mean for the Danish population's access to higher education (considering that those in Sweden could no longer enrol at the University of Copenhagen)? What did the ban and the opening of Lund University mean for the Scanian populations' access to higher education?

Danish and Norwegian High school graduates (1812-1875): a micro study

Denmark and Norway had the tradition of publishing short biographies of the entire nations' high school graduate cohorts containing individual-level information about the graduates' families, where they were from, details about their higher education, their entire careers, including places worked, travels, achievements, publications, and more. The use of these historical sources enables previously impossible historical comparative analyses of access to formal higher education and practice.

Although Norway entered into a personal union with Sweden after being in a union with Denmark for several hundred years the social and cultural bonds between Norway and Denmark remained. In the aftermath of the Napoleonic wars, new social and industrial structures developed in the two countries. Industries advanced and more technologically specialised industrial branches began to appear. The state bureaucracy and education systems expanded, and cities grew. At the same time, the first wave of people emigrating to America took place, especially from Norway but also from Denmark. Using a pilot database with several hundred Danish and Norwegian transcribed high school biographies with details on the graduates' social and family background, higher education, travels and work careers, memberships etc. the entire lives of high school graduates can be analysed. Who were the high school graduates at the time? Considering the changing social and economic conditions in the mid-19th century, how did high school graduates do in terms of education and career? What role did they play in the emerging industries and state administration? Drawing on micro history and prosopographical approaches, common patterns and differences, among an *educational elite* in terms of practices, cultures and performances can be analysed.

Linking education to industrial and technological change in Norway during the Second Industrial Revolution (1880-1920)

Germany's investment in technical and scientific education is often seen as the primary cause as to why this country took a leading industrial role in what was to become important, science-based and large-scale industries from the late 19th century. Also in Scandinavia, the high school, technical and university education systems expanded over the 19th century. The numbers of schools and students increased, yet we know little about the links between education, scientific knowledge and industry.

Questions about the value that different employers placed on the recruits' educational attainment or work experience, and whether knowledge was transferred, have not been answered in a satisfactory way. By using a combination of business records and high school and technical school graduate biographies with detailed information about where they studied, travelled, worked and which work positions they held at any given time (at company level), virtually all "skilled" workers can be "followed" into the labour market. Those who were employed in a particular industry, or a particular company at a given time can be selected. Questions concerning whether, and why, firms and industries preferred to hire individuals with certain types of formal education, academic performance (grades) or work experience from certain industries or businesses, and what impact their employment had on business development, can be asked.

Mechanical workshops expanded greatly in Norway and Denmark from the first half of the 19th century. Their economic activities were based on the creative design, manufacture and adaptation of machinery, techniques and services that were purchased and used directly in the operations of other industries. They went through a shift towards the end of the 19th century by becoming more specialised and supplying increasingly complex machinery, such as power stations, electric systems, converters, turbines, engines and ships. How the employers in the mechanical engineering firms valued different types of education and work experience is key to understanding their perception of how to ensure creativity and adaptability, and in turn, how skills were used in production. Archives of mechanical engineering firms from e.g., Aker Mechanical Workshop (located at the Technical Museum in Oslo) can thus be used in combination with the graduate biographies. This archive is very large and includes extensive documentation on staff and employment.

Skilled migration and knowledge transfer

It is often argued that the Scandinavian countries have had a particularly "outward looking" attitude, and the 19th and early 20th centuries are associated with large-scale Scandinavian emigration, in particular to America. Much has been written on Scandinavian emigration, but we know less about the "skilled" migrants, and what they did. From the perspective of the sending countries (Norway, Denmark and Sweden), the loss of skilled labour led to concerns about "brain drain". Yet, skilled migrants who maintained contact with their home country, or who returned to Scandinavia, might potentially have led to "brain gain" instead. What was the background and career trajectory of skilled migrants who left Scandinavia to go abroad? Were there differences in the background, education and work careers between those who went to the United States and those who went to Latin America, for example? For those who returned, was having been abroad an advantage? What did they do when they came back?

High school and technical school biographies from Denmark, Norway and Sweden with information about place of birth, family, education, and details about travels abroad; where they went, where they worked abroad and whether they came back to Scandinavia at a later point in their career, can be used to trace migrants on their professional career paths. Graduate cohorts (years) and Scandinavian country can be selected to be framed for master's theses.

Women's access to higher education in Norway and Denmark (1875-1940)

Denmark and Norway had the tradition of publishing short biographies of their entire nations' high school graduate cohorts containing individual-level information about their names (with pictures),

birthplace, family, details about secondary and tertiary education, the graduates' entire careers, including places worked, travels, achievements, publications, and memberships in societies and organisations. These sources can especially be interesting when investigating the educational opportunities of women. Considering that women in Denmark were allowed to enter university from 1875 and women in Norway from 1882, the impacts of these reforms on young women's attendance at secondary and tertiary education, and how they compared to men, in the two countries can be explored. From then on, women could acquire tertiary education, and perhaps aspire to jobs in sectors and industries they did not have access to before. Did women immediately enter the education system and take higher education after the reforms were in place? For the women who took higher education; did they enter the labour market after their studies? This is a unique opportunity to analyse women's access to education, and the benefits which arose from having an education in a region which is today famous for its gender equality.