

## **StatNord – A new database for migration and commuting studies in the Nordic countries**

The first formal incentive to a common Nordic labour market was taken by the Nordic ministers in 1954 by establishing the “common labour market agreement”. Since then the Nordic council of ministers has been the most important forum for policies concerning labour market integration in the Nordic countries. The agreement has continuously being updated during the years. The latest version includes 14 articles and proclaims the fundamental right for citizens of the Nordic countries to “freely be able to work and settle in another Nordic country”. The main propose of this actions is to strengthen the position of the Nordic countries in the global competition. In this work, it is of great importance for the Nordic countries to be integrated into a common competitive region.

The geographical flexibility across the national borders has been of limited proportion for the labour force within the Nordic countries for the last 40 years. This pattern changed considerably at the dawn of the new millennium. Infrastructural investments, especially the Oresund Bridge (2000) and later also the Svinnesund bridge (2005), together with shifts in the economical development have had considerable effects on the rate of integration of the Nordic labour market. An example of this is the 460 percent increase in border commuting between Sweden and Denmark within the Oresund region between 2000 and 2007. Migration within this region has more than doubled during the same period. Commuting and migration between Norway and Sweden does not show the same pattern. During the first years of the twenty-first century the level of cross border commuting between these countries has been relative stable. From 2005 there has been a substantial increase in cross-border commuting from Sweden to Norway. By 2008 about fifty percent more people moved from Sweden to Norway than in the opposite direction.

We can now observe a trend of spatial extension of near-border regional labour markets in the Nordic countries. Creating the positive effects of demographically of larger regions ie. making it easier for people to find new jobs and easier for companies to find skilled labour. These new cross border independencies create new conditions for local governments in these areas. National statistics could no longer contribute with sufficient information needed in local planning. To solve the problem local initiatives where made to start up a bilateral cooperation projects between Statistics Sweden and corresponding institutions of Denmark and Norway. With funding from local governments and EU Interreg financial support two cross-border regional statistical databases where created, ÖRESTAT for the Oresund region and GSA for the regions Västra Götaland (Sweden) and Østfold (Norway). During this period local representatives objected to the central government, pinpointing the unfairness of the fact that border regions had to pay for information needed for planning whereas core regions get it for free.

At a meeting of the Nordic council of ministers in the autumn of 2008 an agreement was made to give the statistical national offices of Denmark, Norway and Sweden the task to construct a multinational database that presents cross-border statistics of migration and labour market in border regions. In late 2008 the work began aiming to stitch together three different national frameworks, producing completely comparable statistics for Denmark, Norway and Sweden within the areas of labour market and migration statistics. The results were published on the 30th of November 2009 by the launch of [www.statnord.org](http://www.statnord.org). A new website that presents flows between, and status of, all 818 municipalities in Denmark, Norway and Sweden.

This paper focuses on the two main challenges of producing the statistics required to complete the task, i.e. the buildup of a reliable system for the production of migration data and data for cross-border commuting.

### **Migration statistics**

One challenge in this project was to coordinate migration data between the Nordic countries resulting in migration statistics between the municipalities in the three countries.

When comparing migration statistics between countries there are always contradictive numbers of how many people actually have moved from one country to another. This is off course due to different population registers in different countries. However, between the Nordic countries there is an automatically data exchange to prevent people from being registered in two countries at the same time. Although we have this data exchange there are still discrepancies in the number of migrants between the Nordic countries. Since the initiator of this project was Statistics Sweden only migration that has been reported to Sweden is included in the database.

When immigrating to Sweden from another Nordic country each person reports from which city he or she has moved from. These cities are not always corresponding to the municipality concept. This is why data exchange is necessary between the three countries. The country of previous residence, in this case Denmark or Norway, completes the data by matching cities to the corresponding municipality.

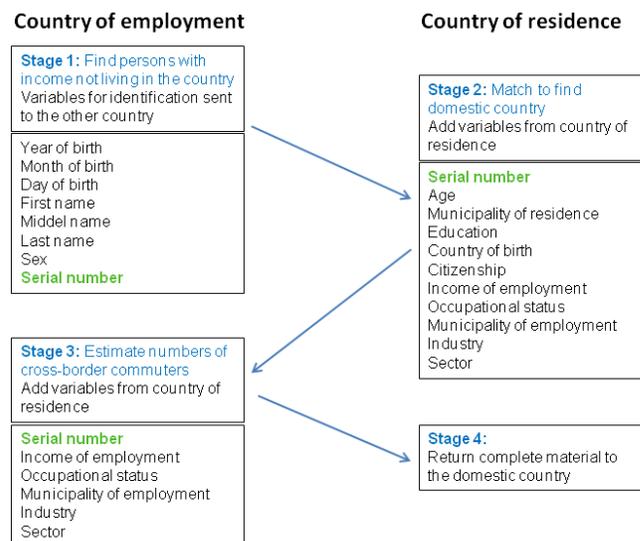
When emigrating from Sweden to another Nordic country the tax-board in Sweden receives information on the new residence address in the other country. These addresses are difficult to match to the municipality concept in the destination country. This is why an even greater data exchange is necessary in the emigration data compared to the immigration data. In most cases the addresses in the destination country corresponds directly to a municipality but when this is not the case the country of destination (in this

case Denmark or Norway) must match the addresses to a municipality. The data exchange in this case is about several thousand addresses for which corresponding municipalities haven't been found. Denmark and Norway completes the list of corresponding municipalities and this data is then sent back to Sweden.

**Cross-border commuting**

Another crucial part of the project has been to measure cross-border commuters. These persons play an important part in the labour market in the cross-border regions but do not appear in national official statistics. The method to measure cross-border commuting requires cooperation and data from two countries, country of employment and country of residence. The method can be divided into four stages, see figure 1 below:

*Figure 1 Method for exchanging data for cross-border commuting*



The Nordic countries have well-developed administrative systems for population and taxation records which is the basic condition for our method. These administrative systems use unique civic registration numbers to identify people. The civic registration number is not coordinated among the Nordic countries. However, all countries have information on date of birth, sex and name in the registers, which are used as identification when creating the data set. The procedure starts in the country of employment by sending data to the country of residence to see how many of the employees live in that other country. The data set includes persons who have had income in the country of employment but are not included in that country's population registers, see stage 1 in figure 1.

For identification date of birth and name are matched in the country of residence with that same country's population register to identify those who are registered there. By doing so we find out how many people in the country of residence have had income in the country of employment. A data set with demographic information and information on any employment in the home country is then produced for these people; see stage 2 in the figure. This data set is then sent back to the country of employment with a serial number as identity.

When the data set is returned to the country of employment, it is supplemented with data about the person's work in the country of employment. It is then possible to find out in which country the person has carried out his/her main work and we can determine who should be classified as cross-border commuters, see stage 3. The classification of commuters is made by the statistic office in the country of employment. The method for classification differs slightly among the three countries though they are based on each country's national methods.

When the statistics in stage 3 are completed and the classification is made a copy of the data set is returned to the country of residence and the data can be used to produce statistics on cross-border commuting in the Nordic countries.

### Results

The 30<sup>th</sup> of November 2009 the common database ([www.statnord.org](http://www.statnord.org)) was launched which gave a positive response across the Nordic regions. One important response is that Finland has shown interest in participating in the project. A much valued part of the database is where the user can navigate through a map in order to obtain basic information about a region such as population, employment rate, industry structure and education. The database is available in four languages, Danish, Norwegian, Swedish and English.

One of the main goals of the database is to supply municipalities with a high proportion of cross-border commuters with more accurate figures regarding employment. In fact, the new database has meant that some regions have increased their estimated employment rate by up to ten percent when the cross-border commuters are included.

The data base enables studies of migration on a detailed level between municipalities in the border regions. It is now possible for the municipalities situated near the border to another Nordic country to get detailed information on where the immigrants had their previous residence in the other country.

Thanks to hard work and great cooperation, the project has been a success. In addition to the results in the form of a statistical database, the project has meant the exchange of experiences between the three countries. This has

resulted in new knowledge and provided new opportunities which have been useful in the production of the national statistics.