

# A STUDY OF MIGRATION IN THE PROVINCE OF TROMS 1865-1900 BASED ON THE CENSUSES

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In this dissertation I attempt to map the migration that took place in the province called Troms in Northern Norway during the second half of the nineteenth century, the period when net in-migration turned into net out-migration. With the censuses as my main source material, I estimate the amount of migration both in and out of the province, between its constituent communes and within the communes. Then I describe to what extent the in- and out-migrants differ from other people with reference to characteristics like sex, civil status, occupation etc. My empirical aim is to explain the relative amount of migration compared to other parts of Norway, and what made the different types of migrants move, while other people stayed put in the same place.

## 9.1 New methods

Much effort has had to be put into the development and description of new methodology. The dissertation is the first one entirely dedicated to the study of historical migration in Norway. It is also the first attempt to study the development of an entire province ("fylke") with statistics based on individual level data. In this connection, out-migrants from the municipalities are traced to their new domicile. Moreover, for the first time in Scandinavia, programs for automatic record linkage is used in historical research. The empirical results are summarized in a new migration model based on the concept of the frontier.

## 9.2 The province of Troms

Troms is the second northernmost province in Norway, and all its territory of 26203 km<sup>2</sup> is situated to the north of the polar circle. I use the word province as a synonym for Norwegian "fylke", which is the largest administrative unit under the national level. It is much larger than an English county, and may be more or less populous. The province is divided into communes ("kommuner") which are civil administrative units and may consist of one or more parishes. During the period I study, from 1865 to the turn of the century, the population of Troms grew from 45305 to 74330 inhabitants, that is by 64.1%. This is more than twice the relative population growth in Norway generally, and only Nordland (the province to the south of Troms) had a higher relative increase during this interval. I shall later sort out to what extent this high level of growth was due to migration or to natural increase.

Most parts of the province are intersected by deep fjords, protected against the ocean by a number of large islands. The coastal areas enjoy a relatively mild climate the whole year round. Therefore, most of the population has continuous access to open waters and can participate in various fisheries, which were the major industry in Northern Norway. Normally, the households could supply its own need for fish from the nearby waters. More than half the grown male population made fishing their principal occupation. Most of them would participate in the annual fisheries to the south in Lofoten, to the north in Finnmark or outside the islands of Troms itself. In this connection, of course, much seasonal geographical mobility went on. This did usually not mean a permanent shift of the habitat, and I have therefore not included it in my concept of migration.

The combination of fishing and agriculture has long traditions along the western coast of Norway. Considerable parts of the people of Troms were peasants who owned or rented a farm, and a smaller group of cottagers can also be found. The inland area of southern Troms has little access to the sea, and here the farms were quite big. Farmers migrating from the inland of south-eastern Norway populated this district during the first part of the century. But along the coast the income from the fisheries allowed the farms to be divided between the inheritors. The special agricultural statistics show 51% increase in the number of farms in Troms from 1870 to 1900, while the national figure is 20%. Thus, the number of peasants increased from 4436 to 7027 according to the censuses of 1865 and 1900 respectively. The biggest increase took place in the recently colonized areas in the interior, reflecting the splitting up of fair-sized farms there. We can see that the in-migrating farmers did not stick to the right of succession to the unshared estate for the oldest son. They rather adopted the local custom of distributing the property between the children. During the same period the number of cottagers was quite stable around one thousand (and decreased relatively) while the number of mere fishermen increased from 1061 to 1733. These figures should probably be adjusted according to the fact that fishing was underestimated in the 1865 census. We may, on the other hand, ascertain the increasing importance of farming from the local administrators' reports.

In the second half of the nineteenth century a modern sector of mining, artisanry and commerce was developing. A copper mine was operated in Alta just to the north of Troms from 1827 with a branch in Kvænangen in Troms from 1840-75. The opening up and closing down of these plants meant heavy in- and out-migration from the parishes. Consequently, this northernmost commune in the province had the lowest population growth of all during the period I study. The opposite was the case in Berg on the western coast of the largest island Senja, where a nickel plant employed up to 500 workers from 1872 to 1886. Commerce and the trades developed swiftly in the provincial capital of Tromsø, attracting a heavy influx of migrants also from Southern Norway, until the recession around 1880. From then on the village of Harstad in southern Troms grew faster, being recognized as the province's second town in 1903.

Combining peasant farming with local and remote fisheries, allowed all family members to participate in the breadwinning according to their abilities and customary division of labour. It has been said that the fishing peasant was a married couple consisting of a female peasant and a fisherman. Small boys were shepherds, the older ones helped their fathers with the fishing while the females had the barn and the animals as their special responsibility. And all joined in the seasonal work. The flexible use of the work force in the primary industries was the main reason why most people in Northern Norway postponed the practice of family limitation until the present century.<sup>(1)</sup> The growth in the number of children can be demonstrated both by the Hareven/Vinovski index and by the rising proportion of the population that lived in nuclear families. Since fishing and agriculture remained the principal economic basis, the families became an "expansion tank". This could act as an alternative to migration for the juvenile part of the population. The proportion of people who could marry did not change very much during the period, suggesting that the economy was able to provide jobs for the growing population. At least this was so until the turn of the century. But in this respect there were important differences between the communes.

The phrase "meeting-place of the three tribes" has been coined to describe the ethnic composition of the province. This is a reference to the mixed ethnic composition of the region with people of Sami, Norwegian and Finnish heritage. What areas were traditionally Sami is a matter of great controversy. There can, however, be no doubt that Norwegians during the nineteenth century took over large parts of Troms, formerly used by the Samis. Thus the Norwegians spread from the south towards the north and from the coast towards the inland. The Finnish immigration from Norrbotten (Sweden) and Österbotten (Finland) started in the eighteenth century, but gained real momentum

from the 1830's onwards. In the 1865 and 1875 censuses some 13% of the population was Sami, while 5% to 7% were of Finnish stock. These figures decreased to 9% and 2% respectively in the 1900 census. At the same time the ethnically mixed population grew from 3% to 9%. Recent research confirms the censuses to render genetic ethnic heritage quite correctly, so these figures mirror the intermarriage of the ethnic groups. Mixed marriages between the Norwegian and the Sami group were relatively infrequent, while the Finns married both Sami and Norwegian partners, functioning as a catalyst in the ethnic melting pot. Here I should, however, warn against a general impression of ethnic harmony. Even if individual members of the three ethnic groups could be on good terms, there are numerous reports about conflicts each year, especially between the Sami nomads and Norwegian farmers. A general hostility between Norwegians and Finns can also be found, a factor which might to some extent explain both the disappearance of many Finns from the censuses and their relative absence from Tromsø.

Except in the town of Tromsø, Sami and Finnish people can be found in all communes. Thus the Sami population consisted by no means of reindeer herdsman only. (This group is under-represented in the censuses for Troms because they during the winter, when the census was taken, trekked to their pastures in Sweden and Finnmark.) A substantial proportion of the Sami people lived permanently along the coast, combining farming and fishing in the traditional way. (As did 42% of the Sami heads of households in 1875.) On the other hand, they were hardly present at all in the trades and in the tertiary sector. Geographically, the highest concentration of people of Sami and Finnish descent can be found towards the east and the north. In the commune of Lyngen the Norwegians were a minority of the population, the Sami constituting from ½ to of the population, the Finns from 20% to 5% over time. Since these two groups intermarried freely, according to the 1900 census the ethnically mixed population numbered nearly ½ of the people in that parish.

### 9.3 Historiography

The pioneering Norwegian research into historical migration was Ingrid Semmingsen's dissertations from 1941 and 1950 on all aspects of emigration from Norway to the US. Her great example was unfortunately not followed until the 1970's by investigations into other types of migration. Then the Kristiania and Ullensaker projects headed by Sivert Langholm produced several dissertations in the field of social history, combining the study of internal and external migration with other subjects like social mobility. A couple of articles were entirely devoted to migration studies (Langholm 1975 and 1980), but on the whole migration was not the researchers' main interest. We can contrast this with the situation in Sweden where Sune Åkerman's Uppsala group had migration as its focal point and produced several treatises on migration, often combining insights into both internal migration and emigration (Tedebrand 1972; Norman 1974; Kronborg & Nilsson 1975; Eriksson & Rogers 1978). Also, the Norwegian studies concentrated more on rural-urban migration, whereas the Swedish ones also treat rural migration more fully. The abundance of migration studies in Sweden has been explained by their excellent source material.

Therefore, only a limited part of the literature has a direct bearing on my study of migration in the predominantly rural parts of Northern Norway. Two students' theses deal with the migration from Southern Norway to Troms Inland prior to my period (Granlund 1975; Dørrum 1960), while others have written about similar migration to other parts of Northern Norway (Hanssen 1979; Engen 1980; Gjerdåker 1981). Niemi (1972), Henninen (1972) and Haukedal (1980) all studied the intensive phase of Finnish migration to Finnmark (and Troms) taking place in the half-century from the 1840's onwards.

The report by Åkerman, Johansen, & Ostergren called "Long-distance migration in Scandinavia 1500-1900" (Madrid 1990) deals very little with migration along the western coast of the Scandinavian peninsula. Here a special topography and economic basis were bound to influence the patterns of geographical mobility. The lack of comprehensive work on internal migration in Norway also explains why no references are made to Norwegian research in Page Moch's book on European migration from 1992, while both Swedish and Danish projects are cited.

#### **9.4 Source material**

In nineteenth century Norway internal migration can be studied in the ministerial records and in the censuses. The sources are similar to the Danish ones, and we do not have the longitudinal catechismal church records they have in Sweden. From 1865 emigrants to destinations overseas were registered in special ledgers by the police. These are much more complete than the migrant records kept by the local priests from 1812 as part of the ministerial records. Migrants were supposed to contact the minister before leaving the parish to obtain a certificate. For this he would charge a fee, and this may be the main reason many people never fulfilled the obligation to register, or postponed it. Therefore, more than half the migrants were not entered in the lists, and this holds true both for the records of in- and out-migration. Several studies, including my own, show that the migrant records are biased with respect to social class, distance travelled (short distance migration is especially underestimated) and period studied (the quality gets worse towards the end of the century). In several instances the information about the destination, date of entry or exit, occupation etc can be shown to be erroneous. These records, therefore, are very far from a reliable basis for the production of statistics about nineteenth century migration.

The marriage records usually give the birth place and address of bride and groom, and we can therefore use them to study one aspect of migration. This source would, however, only give a partial and probably a biased picture of migrant people, especially since it was customary for the bride to move to the husband's place. This leaves us with the censuses. Starting in 1801, these did not produce information on place of birth until 1865, the censuses from 1815 to 1855 being only statistical. There were nominal censuses for the whole country in 1865, 1875, 1891 and 1900. Out of these all except the 1891 census have been computerized for the province of Troms, and for many other parts of Norway. The censuses taken after 1907 may not be freely used according to laws regulating the collection of statistical information. The pre-1907 censuses have, on the other hand, been extensively used by many researchers for several decades. In spite of this, none has until now compiled a comprehensive overview of the history, merits and shortcomings of the Norwegian census.

I build my assessment of the censuses on the directions given by the Central Agency of Statistics, the remarks other researchers have made about their validity and the reliability of the census. In addition I compared census samples from Troms with other source material, especially the ministerial records. From this it is easy to highlight several instances of missing persons when comparing the census with alternative, contemporary sources. One can find a lot of incorrect information about age, birth place, the spelling and completeness of names, family relations, occupations and ethnic composition when comparing especially with the records of baptism. Computerization is a potential source of further errors.

All the same I can nail down that the quality of the census is superior to that of the migration records. In the latter source omissions are the rule, in the former they occur only exceptionally. For Troms I do not find the grave instances of missing lists for whole constituencies that archivists and researchers dealing with urban areas in Southern

Norway have detected. My sampling tests show a few persons missing in the 1865 census, whereas in the next one I found no omissions. Most persons have the right age or year of birth as stated in the baptismal records, and most errors are within the one to two year range. Because of an austere instruction, the 1865 census takers gave only one occupation. In my district of multi occupational activities, this is a severe limitation that was fortunately rectified in later censuses. Detailed investigations also show that birth place and ethnic belonging was correctly stated for the overwhelming majority of Norwegian citizens.

As the general level of public enlightenment was improved through educational reforms during the second half of the nineteenth century, the censuses turned into valuable, complete and quite reliable instruments that give good snapshots of the Norwegian population. As far as migration is concerned, its major drawback is not its quality, but the fact that we have to use a cross-sectional material to study a phenomenon that ideally requires longitudinal sources.

## **9.5 Methodology**

To study migration in a province with from 45000 to 75000 inhabitants, I had to develop a range of methods, techniques and computer programs. As already stated, in Norway there exist no straightforward and comprehensive lists of migrants or migratory steps for this period. Neither do we have many reports from the migrants themselves or contemporary observers on migration. Thus the patterns of migration must chiefly be reconstructed from the available censuses, and my results should always be interpreted with an eye to the methodology applied.

We can divide the methods applied into three groups. First I use the published statistics from the Central Statistical Bureau to compare the level of migration in Troms with other parts of Norway. Second I do a cross-sectional study of different groups of migrants by cross tabulating the variables found in the censuses. To be able to compare the communes and the variables over time, this must be based on a renewed, computerized treatment of the census returns. Thirdly, I do automatic record linkage on the census population for three communes in order to follow individual migrants and other residents in more than one source. The second and third group of methods then, constitute the main part of my thesis, and here I combine information about the population of Troms at the individual level.

### **9.5.1 Use of aggregated data**

One series of statistical information was published shortly after each census was taken. Here one will find aggregates based on all the variables found in the censuses: Sex, age, civil status, family structure, occupation, birth place, ethnic affiliation, nationality, denomination and chronic illnesses. There were, however, few attempts to standardize the statistical entities and categories from one census to the next. It varies whether the results can be found for the parish, province or only country level. Also the parish boundaries kept changing while variables like family position and occupation were grouped in numerous ways. Thus, while the general quality of the statistical publications was rising, it is almost impossible to compare the statistical results over time. Cross-sectional comparisons over time are only possible provided the geographical areas and statistical categories are consistent.

The other series of published statistics is called *Vital Statistics and Population Statistics* ("Folkemengdens bevegelse"). In the nineteenth century this was based on the reports from the local ministers to the Central Bureau of Statistics. It contains the number of

births, still births, marriages, deaths and emigrants on the parish level on an annual or five year basis. Since the State Church had a virtual monopoly in religious matters, researchers consider these figures quite reliable, excepting the emigration figures that were counted from the migrant records and therefore are severely underestimated. The results based on the police's emigrant registers after 1865 were better, but these report last residence instead of birth place. That a continuous series of publications on Vital Statistics exists from 1855 on, makes the task of calculating net migration much more practicable.

The Norwegian Social Science Data Services have computerized the published figures described above on the parish level for all Norway and made the results available in their *Municipal Data Base*. The data base also contains census based information about population size and the number of inhabitants born in the parish of residence, other Norwegian parishes and abroad from 1865 onwards. From the data base I imported the figures into a spread sheet and aggregated them to results for the province level. In this manner the effect of the varying parish boundaries is neutralized, and the levels of net migration and in-migration from various types of parishes can be estimated.

### 9.5.2 Cross-sectional analysis

While I based the research described above on aggregated data sets for all the Norwegian provinces, the cross-sectional and longitudinal research that make up the main section of my thesis, is based on individual level data. These can in principle be aggregated to any level right up to the national, but in practice I chiefly describe the development of the population and the composition of the migrant groups on the level of the commune. Commune results can then easily be summarized for the whole province. The censuses divide Troms into 13 communes which can be further subdivided into 25 parishes. In 1875 there were 19 parishes, growing to 23 at the turn of the century. This mirrors a complex and changing system of ecclesiastic and administrative units, which will distort any asynchronous, statistical picture of migratory patterns. To create a consistent system of boundaries I took the 13 communes used in 1865 as my starting point. Since I have census manuscripts on the individual level, I could transfer information about the population of selected farms between data files. In this way the boundaries used in the early 1870's, came into effect for the whole period. A further subdivision into parishes is not practicable, because the census returns do not consistently report the persons' birth places on that level.

As stated above, the Norwegian Historical Data Centre (NHD) has made the censuses from 1865, 1875 and 1900 machine readable for the whole province of Troms and for several other Norwegian districts. The aim of the registration is to mirror the original sources in as great detail as possible. Thus they stick to the original spelling of names, occupations etc, leaving the interpretation of the sources to the researcher using them. Only information that must obviously be wrong is corrected. Routines for proofreading and spot controls have been introduced, to avoid introducing additional errors into the material. Based on these full text files, each census undergoes a computerized encoding process. The NHD originally did the encoding, but I had to repeat and check the entire process, so that the codes for all censuses and communes in Troms follow the same standard. The occupations are coded both with respect to the dimension of hierarchical positions and the dimension of business sectors. Place of birth is given a code for province, and this is specified with codes for parishes.<sup>(2)</sup>

For each commune I first calculate the population increase and the net in- or out-migration for the three intervals between the censuses. Then I give a general description of the composition of the commune's population according to the census variables, comparing 1865, 1875 and 1900 results. Now let us move on to the study of

migration. Here I divide the population into three "migratory groups". The first group is the *resident* part, those who are reported as having been born within the commune where they live. The second group is the *in-migrants*, people born in another commune. *Out-migrants* from the said commune make up the third group. This group is only partial, the definition being that they are found in the census for other communes in Troms. (Out-migrants to other provinces are treated more superficially in a separate paragraph.) Of course, the residents may have been migrants who have returned to their commune of origin, so with a true longitudinal data set the first group would have been smaller while the second and third would be larger. Although I cannot give a full report on the extent of migration, by this methodology I can compile valuable statistics on the composition of the migratory groups.

The three migratory groups are cross-tabulated against information on sex, civil status, family status, occupation and ethnic composition. Also, the mean age for each group is computed. I have done this both for the 1865, 1875 and 1900 censuses, so that the composition of the in-migrant, out-migrant and resident groups can be compared at three different points in time. The occupations have been classified according to a coding scheme that distinguishes between farmers, cottagers / labourers and those employed in the trades and the tertiary businesses as a third group. These three groups are then subdivided according to whether they were also fishermen, with sole fishermen and "others" as the seventh and eighth group. Birth places can be grouped in several ways, for instance I use the categories "Commune of birth", "the rest of Troms", "the rest of Northern Norway" and "Southern Norway".

I cross tabulate some variables for more detailed study, for instance the region of birth against age, the commune of birth against sex, the commune of residence for out-migrants against sex. Out-migrants to other provinces are classified according to their sex and home province or region. These out-migrants can only be traced in computerized censuses. Therefore, the search has to be limited to the province of Finnmark, the northern part of Nordland, the capital Kristiania, the big town Bergen and some other parishes in Southern Norway. A special cross-table provides information on where the children staying with step-migrating parents in the census returns were born.

This cross-sectional analysis is carried out for each of the thirteen communes, resulting in a summary of the same variables for the whole province where I also pinpoint the main differences between the communes. In addition I attempt to distinguish between circular and effective migration.

### **9.5.3 Record linkage**

The information extracted from the census in cross-sectional analysis can be added to by identifying the same persons in consecutive censuses. I do this in a modified type of longitudinal analysis that I call "bitudinal analysis", which is following people in two censuses at the time. The second census is in Målselv and Balsfjord supplemented with the burial registers from the period between the censuses. (The number of people that I find in more than two censuses is too small for a more ambitious record linkage project to pay off.) By analysing the linked files, I can assess the extent of migration internally in each commune between the censuses and characterize the internal migrants. Also, it is possible to get some information on the relationship between geographical and social mobility, both intra- and intergenerational. In addition the extent to which out-migrants step-migrated or moved back home can be appraised.

Linking the population of several parishes manually is a too tedious and laborious process. Another reason for automating record linkage is that I want to be able to document exactly how this part of my research is done. My strategy is to link the 1865

to the 1875 and then the 1875 to the 1900 census. The unit of linkage is each of the three communes: Målselv in the south-east inland, Balsfjord around the central fjords and Karlsøy on the islands to the north-west. These communes had from approximately 2000 to 5000 inhabitants, but in addition the linkage programs take out-migrants from each commune to the rest of Troms into consideration.

I have chosen to develop the software on a PC with MS-DOS, because this is a flexible and powerful programming environment, well suited to the repetitive experimentation involved in developing software for record linkage. The programs are written in Turbo Pascal, with Borland's Database Toolbox for file management. With the detailed manipulation of the data involved, there is little work to save by using fourth generation data base software. I also use ready-made library routines, for example to compute the difference between text strings efficiently.

The machine readable censuses both in the full text and the encoded format are the basis for the automatic linkage. These numeric codes are also very useful in the process of linking, because they make it possible to use the information on family status and birth place in a more uniform way. The preparatory step in the linkage process is to combine the full text and the coded version for a commune into an indexed sequential (ISAM) file. In this file the persons are sequenced in the same way as in the original census, so that family members are kept together. In addition, the program can access each individual directly via the index.

This index is made up of the persons' sex and their first names. That is to say the standardized form of names. A special routine translates both first and last names according to 20 phonetic rules. In addition there is a list of exceptions that an onomatologist made when standardizing the names of 100 000 persons in the census of 1801 manually. This list has been condensed into 1500 names and can for speed reside in the computer's memory during execution. Each name is standardized in both a moderate and a radical way, the main difference being that the radical form keeps only the first syllable of the name and significant parts of the ending. The intention behind this, is that the radical form will make it possible to link a person although his name was written in a very different way in two sources. The role of the moderate form is to be able to differentiate between people whose names are similar.

When ISAM files for each census have been generated, the record linkage program can be started. First the material must be pocketed so that the computer will not run out of memory during execution. In each group that is considered for linkage, I read in all persons who have the same sex and the initial of the radical form of the first name in common. Each record is read from the disk only once, and stays in memory while the group is being treated, a factor which speeds up the program significantly. The program will first try to identify the most certain links. This is done by finding those persons that are unique, as defined from a combination of the first name, the last name, the age and the birth place. If identical records of this type can be found in both files, they are linked and given a maximum score.

Records that did not meet the strict demands of step one, now goes through a match scoring routine. Each record in the sex/initial group from one census is paired with each record from the other census' group. Positive and negative scores are given as a consequence of similarities and differences in name forms, age and birth place. The scores are summed and stored in a matrix. The program then inspects the matrix to find the pairs of records that have the highest scores. When there are several candidates with the same score competing for a link, the program inspects the original form of the names more closely. If that does not settle the matter, a random match is made. Each time a match is made, the two records are marked with each others addresses in the ISAM files. If a record cannot reach a minimum score when matched to any record in

the other file, I consider it unlinkable.

The program is also run with pocketing on sex and the first letter of the last name to find matches that could not be made because the first names had different initials. The last linkage step is to look for couples where the husband or the wife only has been linked. Then the program makes a new try, but with lowered limits for accepting the link. Each link is marked with the score in the ISAM files. In this way it is possible to give special treatment to pairs of records that got a low score.

After linkage coded data from the two censuses are combined into one sequential file so that they can be treated by a statistical package. Because the records are marked according to their linkage score, it is possible to work with the population in census number I, the population in census number II, or the subset of persons that could be found in both censuses. This is the basis both for cross-sectional analysis of the population at the time of the two censuses and for studying the linked persons in the time between the censuses. One can also study how representative the linked sample is by comparing it with the total population in each census.

The linked part of the population does not make up an unbiased sample. The established and permanently resident people are clearly over-represented. There are too many farmers, married people, children and middle aged people and too few landless workers, unmarried and people in their twenties who get linked. I found this in all three communes where I performed record linkage, although with minor variations. This is due both to problems of identification and difficulties in linking migrating people.

## 9.6 Migration models

Migration research is often summarized in formal models. Günther Albrecht (1972) has reviewed many attempts to relate migration as cause and effect to other social phenomena. I limit myself to a summary of four migration models that researchers have developed and employed with historical migration research specifically in mind. The fundamental model that distinguishes between push and pull factors, should also be kept in mind. On this basis I can then ask whether my findings about migration in nineteenth century Troms are compatible with any of these.

**Ellemers** (1964) developed his model in an attempt to summarize Dutch research on emigration. He sees migration as a value added process, where several conditions must be fulfilled before the decision to migrate is taken. The basic condition is "structural conduciveness and *structural strain*", which is a disequilibrium between the potential migrants and their economic, social or cultural environment. The next element is that the emigrant must *experience* this strain to be part of his unsatisfactory conditions. The third element is what Ellemers calls a *migration offer* - both an available destination and information about it that is relevant to the prospective migrant. To this Ellemers adds a personality structure that is disposed in favour of migration and a social environment that is not hostile to migration. Finally there is the trigger effect - the singular event which makes the decision to migrate come off. We may interpret Ellemers' model as a sophisticated version of the push-pull model.

The geographer **Hägerstrand** (1947, 1953) based his migration research on a study of the ministerial records for a parish on the central Swedish plain during the 1827-1944 period. He relates the amount of in- and out-migration to the number of people living in an area and the distance between the point of departure and the destination. Hägerstrand postulates the migration field of a population to mirror its combined interpersonal relations. This makes the extent of the migration field relatively constant over time, although other factors like the communication infrastructure might change.

Chain migration, therefore, is a crucial element in Hägerstrand's model.

**Clark** (1972), in his study of preindustrial migration in three towns in Kent, attempts with his model to juxtapose the variables migration type, distance and social status. He distinguishes between two ideal types of movement: Betterment migration and subsistence migration. The first includes the geographical mobility of people in the more prosperous occupations, who move a couple of times over short distances because it is favourable to their careers. The second includes the poorer sections of society who out of necessity move more frequently and over longer distances. Thus they are mostly driven by push factors, while the more affluent do chain migration driven by pull factors.

**Tilly** (1977) takes the variables distance and extent of the social unit's break with the area of origin as his starting point. He then distinguishes between the migration types local, circular, chain and career. Local migration takes place within the migrants' familiar labour and marriage market. "'Circular migration' takes a social unit to a destination through a set of arrangements which returns it to the origin after a well-defined interval."<sup>(3)</sup> Thus, over time the circular movements tend to outweigh each other. Tilly's concept of chain migration may be confusing, since it is a combination of step migration with the migration via relatives that we normally call chain migration. Career migration as a rule takes place over longer distances and implies the most decisive breaks with the migrants' previous environment. As shown in the illustration on page 294 the types overlap and one type can over time evolve into another. On the individual level Tilly specifies a relationship between migration type, the cost of information about destinations and whether the migrant possesses special qualifications.

The four different models to some degree stress the same and to some degree different aspects of migration. Hägerstrand operates on the macro level. He is concerned with aggregated flows of migrants and where they travel, not so much with their individual qualities. Also, his model builds less on the push-pull factors than the other three. While the push factors are most fundamental in Ellemers' model, Tilly stresses the pull factors. Clark distinguishes between different types of migrants in this respect.

The issue of distance is important to all except Ellemers, whose model limits itself to treatment of emigration specifically. Here Hägerstrand was the pioneer with his theory about the constancy of the migration field and how it is related to the population's social network. His notion of chain migration is general, he does not distinguish between different groups who do and do not migrate to where they can find social relations. Such a distinction is, however, central to Clark who reserves his concept of chain migration for the better-off strata. In a way Tilly uses the same concepts, but has another view entirely when it comes to interpreting the model empirically. Tilly's better-off migrants (those with special occupational qualifications) do career migration on their own over long distances, while Clark's well-off people migrate over short distances. Maybe this is because they describe migration in societies after and before the industrial revolution respectively? I do not believe in the general model that is compatible with the vast amount of empirical migration research, whether on contemporary or historical societies. The migration models have been, and must be constructed to fit different empirical results.

For this reason I have developed a migration model based on Frederick Jackson Turner's concept of the frontier. Initially his concept denoted "... the hither edge of free land", giving newcomers access to tillable land and other natural resources. However his concept also implies the frontiers of commerce, urbanization and industrialization. Although mentioned by Turner, his purpose was not to explain migration, but rather the particular American mentality. The frontier was the background against which the spirit of independence and democracy should be seen.

As the figure illustrates, my model of migration in Troms involves four different frontiers: the rural, the urban / industrial, the frontier overseas and the secondary frontier. These are ordered along the vertical dimension of migration distance and the horizontal dimension of increasing population density. The rural or primary frontier implies Turner's original concept of free land which could be colonized, a resource not available in Troms after 1850. The urban frontier denotes the new positions in the secondary and tertiary sector, especially available in towns towards the end of the century. The frontier overseas corresponds to the possibility to emigrate, especially to the US. The secondary frontier is a new concept denoting the situation that arises when all free land has been colonized. Still, many new positions can be created, by splitting up fair-sized farms, cultivating marginal land etc. This happened to a great extent in the province of Troms in the aftermath of colonization because the colonizers had ample resources that could be distributed among their offspring.

In the second part of the nineteenth century the rural frontier was no longer in Troms, but rather in the northernmost province of Finnmark. This slowed down in-migration to the province, so that when the depression hit the urban sector around 1880, net in-migration to the province turned into net out-migration. This development was strengthened by the frontier overseas and by the urban-industrial frontier in other parts of Norway. Circular migration across the secondary frontier became ever more important as sons and daughters waited for the family inheritance. Chain migration to the still existing rural frontier in Finnmark was important while similar permanent settlement of people from Troms in connection with the seasonal fisheries in Nordland was negligible. The possibilities associated with the rural frontier in Finnmark, the new urban/industrial frontier in Northern Norway and the secondary frontier in Troms must also be responsible for the fact that Troms sent relatively fewer emigrants overseas than any other Norwegian province. Thus emigration from this area never reached the critical mass necessary to trigger off the multiplier effect inherent in chain migration.

The frontiers attracted the diverse groups of migrants differently. Women were more often involved in circular migration across the secondary frontier and to the urban sector, while men more often migrated to the rural frontier and overseas. The secondary frontier saw more migration of older people while migrants across the other frontiers were predominantly young. To put it in categorical terms: people had a choice between the two main strategies of staying in the primary sector of fishing and farming or migrating to the urban / industrial sector. As to the ethnic sector, the frontiers seem to have been barriers rather than to promise opportunities. Sami people neither moved to town or overseas, whether this may be because of cultural barriers or optimal adaptation to their traditional environment. When the Finnish population was much reduced in size at the turn of the century, this may be because of growing ethnic anonymity, but also because of return migration when they did not find the rural frontier they were searching for in Troms.

## **9.7 Migration in Troms 1865-1900**

The empirical findings summarized in the model above, will now be set out in greater detail. There are findings about the amount of migration, the origin, direction and destination of the migratory flows and the characteristics of the migrants and the resident part of the population. Some results are valid at the level of the province, others at the level of the commune, still others for certain subgroups within the population.

### 9.7.1 The level of the province

Initially I said that Troms had one of the highest population growth rates in Norway during this period. How does the province compare with other parts of Norway when it comes to the amount of migration that was going on? Since we have gross migration figures only for emigration overseas, nothing but statistics on net migration can be calculated for domestic migration. There can, however, be no doubt that in terms of direct effects, the rapid growth was due more to the surplus of births over deaths than to in-migration. In fact, net in-migration to Troms only lasted until about 1880. Between the censuses of 1875 and 1900 net out-migration reduced the population size by 5000 persons, neutralizing the net in-migration of 1000 persons in the previous decade. In relative terms, the national out-migration of 5% was heavier than that of the northernmost provinces (1%-3%), partly explaining the high population growth in Northern Norway. On the other hand, also the birth surplus of 15% contributed, compared to the national average of 12%. If one takes the indirect effects of in-migration on fertility into consideration, however, there can be no doubt that migration was a crucial factor behind the high population growth in Northern Norway.

Emigration is an important part of this picture, Troms being the Norwegian province with the smallest relative number of emigrants (2% versus 6% for Norway). When it comes to the relative number of in-migrants in the communes, Troms matched the national level of 23% in 1865. In 1910, however, the national percentage had risen to 34, while Troms stayed at a virtually stable 24%. From my own treatment of the censuses I can see that the proportion of the people who had moved inside Troms only grew from 9% to 10% in the period 1865 to 1900. Simultaneously the proportion of in-migrants declined from 13% to 9%. Thus, reduced in-migration is an important explanation behind the net out-migration figures for Troms after 1875.

In 1910 only 1% of the population of Troms was born in South-east Norway. This surprises me, since I know that migration from this region to Troms was essential during the first six decades of the 19th century. Over time not only did in-migration decline in relative terms, also the in-migrants were to a greater degree recruited from Northern Norway. In 1865 44% of the in-migrants to the Troms communes were born in Southern Norway and abroad - at the turn of the century only 27%. The explanation behind this is both the widening of the basis for more regional recruitment through the growing population of Northern Norway and that South Norwegians more frequently migrated to the US instead.

The direction of the migration flows changed over time also in other ways. 25% of the out-migrants from the communes in Troms were found in Southern Norway or counted as emigrants in 1865. In 1900 this figure had more than doubled (54%). According to the parts of the 1865 and 1875 censuses that we have computerized, the number of migrants born in Troms who stayed in Finnmark, by far outnumbered those who had left for Nordland and Southern Norway. In the 1900 census (1890 for Bergen) there were more migrants from Troms who had migrated to the south than who lived in Finnmark. Thus the flow of migration out of Troms did not only increase in size during the period I study, in addition its main orientation was shifted. New opportunities of employment in the construction sector in the province of Nordland were the main cause of this development. At the level of the province, Hägerstrand's theory of the constant migration fields does not fit very well, neither for in- nor for out-migration. It also strikes me that so few people from Troms settled in Lofoten, the area of the important cod fisheries that so many of them visited each year. Therefore, it seems that the migration area only partly overlaps with the area of the population's social network, which is the part that gives advantageous employment opportunities. I also found a

rural-urban barrier in that people from Tromsø tended to settle in towns once they left the province. To some extent, this may be related to an urban social network, but a more important reason behind the barrier probably was the special skills needed in many urban occupations.

It is part of Tilly's model that circular migration over time often develops into chain migration. This is the probable mechanism behind the fact that so many migrants from Troms settled in Finnmark - many of them and their relations had participated in the annual fisheries. We do see, however, that this mechanism caused very little migration to Lofoten where the economic basis for new permanent residents was much weaker. Also chain migration of people with general skills to Finnmark was widespread, even if information about the opportunities there was common property. Social relations had an important role to play when migrants settled in a new place, not only as a channel for information.

### **9.7.2 Circular and effective in-migration**

Also, the currents of migration inside the province must be characterised. In this connection it is important to distinguish between the concepts of circular and effective migration and to say something about the direction of the effective migration. Effective migration then, is migration that changes the distribution of the population in a region or between regions. It can also change the way the population is composed with respect to variables like sex, age etc. Circular migration, on the other hand, does not change the population structure significantly, because it is made up of short distance movements that tend to neutralize each other, for instance servants moving back and forth between two parishes.

The flows of migration between Troms and other parts of Norway and abroad described in the previous section, were mostly effective migration. It is more difficult with a historical material to distinguish between circular and effective migration inside the province. This is not a matter of distinguishing between the circular and the effective migrant, but between different types of migratory flows. One possibility is to operationalize the distinction according to commune type (countryside versus town), another to use distance criteria. The possibility to use migration in and out of Northern Norway as the dividing criterion, has also been considered. Then effective migration to Troms decreased from more than 40% to about one quarter of all in-migration to the communes. On the other hand, effective migration from the province increased from a quarter to more than half of all out-migration from the communes during the period 1865-1900.

#### **9.7.2.1 Neighbouring versus non-neighbouring communes**

We can refer to migration across more than one commune border as effective migration both in terms of greater effort of adaptation on part of the migrant and greater effect on the distribution of the population inside the province. According to this definition of the migrants in the 1865 census had performed effective migration, a figure that increased to 36% in 1875 and 37% in the 1900 census. This means that I can define as circular nearly of all migration that I have recorded in the censuses inside Troms, since it took place between neighbouring communes. I presume that this circular migration is more under-registered in the censuses than migration over longer distances, because it is easier to go back and forth when the distances are short. Therefore, it is probable that a very high percentage of the intra-province migration was not effective. If, however, I limit the analysis to migration registered in the censuses, and combine both figures for inter- and intra-province migration, effective in-migration to the communes was 70% in

1865, 72% in 1875 and 63% in the year 1900. This means that a majority of the migrants were not living close to their birthplaces. Due to the slowing down of in-migration to the commune, this majority was becoming smaller with time.

### 9.7.2.2 Town versus countryside

Even if the difference between town and countryside was in no way dramatic (Tromsø had a substantial group of fishermen), the occupational structure was different in a town. Consequently, most in-migrants had to face a new way of life compared to moving between agricultural parishes. During the period, the new town of Harstad emerged in the southern part of Troms. This was, however, not singled out as an administrative unit until 1903. Towards the end of the century the lion's share of migration to this part of Troms went to the new town. Therefore, I have decided to treat the commune of Trondenes (which included Harstad) as a town in 1900, but not earlier. Migration in as well as out of the "towns" should be included, and then 23% of the migration inside Troms was effective in 1865, increasing to 33% in 1875 and 45% in 1900. The part of the in-migration to Troms that went to the towns, was not very different except in 1875, but effective out-migration from Troms made up a lower percentage. This last fact is mainly because so many out-migrants from the towns were step migrants who left the province after an urban period. However, urban settlements nearly doubled their relative importance as origins and destinations for migration during the period I study.

### 9.7.3 Step migration

Even if they are cross-sectional sources, the censuses can all the same give some glimpses of the step migration that was going on. This can be done in at least two ways, by using the birth place information of the children in each separate census and by bitudinal analysis of consecutive censuses. To operationalize the cross-sectional method, a special computer program scanned the censuses for the province and picked out families with children who were born neither in the family head's parish of birth nor his parish of residence. Each commune is only represented with one census, but I have picked the census where especially long distance in-migration is most heavily emphasized. Even so, I only capture a small fraction of all step migration in this manner, a large part of the migrants being young and childless.

This resulted in a cross-tabulation of the birth places for parents and children respectively from 455 families. Most step migrating parents (239) were born in Southern Norway, and about half of these had stayed in at least two Troms communes and one quarter in another parish in Southern Norway, smaller groups step migrating via Nordland or Finnmark. Eighty-two fathers were born abroad, and most of these came by other communes in Troms and Finnmark. Many of these left the mines in Alta and Kvænangen for jobs in the nickel plants. A group of almost equal size had their head of family born in Troms, and they baptized two thirds of their children in Troms. The smallest groups had step migrated from Nordland and Finnmark, most often via parishes in their province of birth.

In the linked data sets for the censuses 1865, 1875 and 1900 for Målselv, Balsfjord and Karlsøy I picked out all persons who lived outside their commune of origin in the first of the two censuses linked. Where did these migrants turn up in the next census? In the first period 55% and in the second period 60% stayed on in the same commune in the next census. 30% and 25% respectively had moved back to the commune of birth, while 15 percent had moved on to a third commune in both periods. The differences between the communes were not great in this respect. Even if the results are consistent in space and time, I should warn that they may not be valid for all migrants. The censuses do not

record gross migration, and the linked subset of the population probably under-represents migrants.

Consequently, I have only mapped the tip of the iceberg as far as step migration is concerned. My finding that more than half of the out-migrants to other communes stayed there in the next census, may not have been representative. The amount of step migration that was going on was probably in line with Ravenstein's law of migration, which says that previous migration will increase the probability of consecutive movements. This result is valid both for the majority of step migrants who needed to divide their travel to Troms into laps, and for all those who could not immediately decide upon their final destination when they first got there.

#### **9.7.4 Direction of intra province migration flows**

At the beginning of the period, inter province migration was mainly directed from the south to the north, people from Southern Norway travelling to Troms and people in Troms leaving for Finnmark. As stated above this was to a large degree reversed before the turn of the century. The migrants from Southern Norway mainly settled in the southern part of Troms, while the out-migrants to Finnmark chiefly came from the northern part of the province. The Finns, in-migrating from abroad, followed this geographic logic and primarily settled in the north-eastern part. Migrants to the nickel plant in Berg came from all directions, but few came from other provinces in Troms. I have also attempted to trace the main treks of migration inside the province. (Here I can refer the reader to the maps of in- and out-migration for each commune.)

Most of the intra province migrants are born in the communes in the middle of Troms. This is of course because most of them took part in circular migration and that short distance migrants from the fringe parishes will tend to leave the province when migrating. Also, the size of the population naturally affected the number of out-migrants. The commune of Balsfjord delivered many out-migrants due to its position near Tromsø and the lack of rich fisheries near to home. At the other end of the scale the commune of Trondenes reduced its relative number of out-migrants when the town of Harstad developed, since I define the trek there to be migration inside the commune.

Among the main destinations for intra province migration Tromsø held its leading position, followed by the surrounding commune of Tromsøsund and the commune of Lenvik. These were populous communes in the centre of the province. Towards the end of the century, however, the southern commune of Trondenes passed Lenvik and equalled Tromsøsund's position on this ranking list. Much of the migration in and out of the latter commune was probably step migration or suburban migration related to the up-turns and recessions in Tromsø's trade cycles. Therefore, the urban centres were the most important points of gravity even in a province with a non-urban economy based on the fisheries and agriculture. If I include the migration to the towns, there were more people moving towards the north than towards the south inside Troms, leaving intra commune migration aside. This was chiefly due to the urban factor. If migration between the rural communes only is considered, there is a tendency for migrants to move towards the communes with the richest and most stable fisheries on the western coast. Excepting the new migration towards Harstad, these currents of migration inside the province were relatively stable over time, complying with Hägerstrand's theory.

#### **9.7.5 Intra commune migration**

There is no way that migration that crosses no administrative border can be traced in a *cross-sectional* study based on census material. From one perspective we might define

this migration as unimportant because of the small distances and the small cultural and social significance for the individual migrant. Another perspective suggests that the great amount of intra commune migration that probably went on might have been an important mechanism in the distribution of the work force and other resources.<sup>(4)</sup> My estimate of migration inside the communes of Troms is based on record linkage between the 1865 and 1875 censuses, and a tentative definition of what may be the same farm community in two censuses. The proportion of the residents who had moved from one such local community to another varied from 39% in the inland commune Målselv to 47% around the fjords of Balsfjord to 59% on the Karlsøy islands. Thus not only was intra commune migration intensive, it also seems to vary according to topography and economic basis. Fishing was most important out on the islands and farming in the interior, with Balsfjord an intermediate case.

### **9.7.6 In-migrants, out-migrants and the resident population**

I have so far presented my results with respect to the dimension and direction of the migratory flows into, inside and out of Troms. Below I shall characterize the migrant and resident groups more fully. In what ways and to what extent can the different types of migrants be said to differ from the resident or non-moving part of the population? Here I primarily base my results on cross-sectional analysis of the three censuses, but I shall also use findings from the attempts at record linkage. A computer program divided the population of each commune into residents, in-migrants and out-migrants according to the definition above. (Cf page 321.)

#### **9.7.6.1 Sex, age and civil status**

At the level of the province, the out-migrants from a commune to the rest of the province will be identical to a subgroup of the in-migrants to other communes. At this level, therefore, I distinguish between residents, in-migrants to the province and internal migrants. The latter group makes up some 9% to 10% of the population in each census, while the proportion of in-migrants declined from 13% to 9% during the period studied. Among the in-migrants the men were in a small and decreasing majority throughout the period, whereas the women among the internal migrants formed a growing majority (56% to 59%). (They formed a clear majority also among the migrants inside the communes.) For the out-migrants from the province, however, the picture is more complicated. Here women dominated in 1865 and 1875, whereas men dominated in 1900. This was not because a higher proportion moved the long distance to Southern Norway during the last decades. Rather, most men went to Finnmark to partake in the rich fisheries, while Southern Norway attracted female servants. Thus Ravenstein's law that women only dominate the flows of short-distance migration does not seem to hold true. My conclusion is that the differences in the migration of the sexes to a great deal depended on sexual differences in the labour market.

As one would expect, the average age of the resident population was far below that of the migrants. This is due to the large and increasing proportion of children among those who still lived in their commune of birth. Their average age even went down from 23 to 22 years during the period, while the in-migrants as a group grew older (38 versus 41 years) as the flow of in-migration to Troms slowed down. The average age of the internal migrants was quite stable (34 versus 35 years), reflecting that this kind of migration was still going strong with new groups of people, mainly in their twenties, moving from one commune to the other. It seems though, that the age composition of the three groups counterbalanced each other so that the average age of the total population only changed marginally. However, it is hardly possible to distinguish these

effects in a satisfactory way with cross-sectional data only.

The effect of migration on the age distribution of the population can be adequately assessed provided one has information both on the empirical age distribution according to the census, the number of births and age group information on the dead between the censuses. Then a theoretical age distribution where the direct effect of migration is neutralized can be computed and compared with the empirical data.<sup>(5)</sup> Due to lack of adequate information on mortality, I could only compute the theoretical distribution for the whole province and the communes of Tromsø, Målselv and Balsfjord. (I also attempted an approximation for Karlsøy.) At the level of the province the effect of migration on the age distribution was relatively small. Neither was there any significant difference in this respect between the sexes. There was, however, a decrease in the proportion of people aged 30-44 especially after 1890, again reflecting the exsiccation of the flows of in-migration at the time. At the level of the commune Tromsø had the expected rise in the age group 15-30 in the good years 1865-1875, whereas the recession and out-migration after that hit the age group 30-45; that is the same generation of people. The complement to the first of these trends can be found in Målselv and Balsfjord, who sent so many migrants to the town.

The age distribution of the population will of course influence the civil status variable. To remove some of this effect, I have left out those aged under 20 when computing the proportion of unmarried, married, widowed and divorced among the three groups under study for the three censuses. The number of divorced was all the time insignificant, while a little less than were unmarried, a little less than were married and a little less than 10% were widowed. The proportion of married was highest among the (in-)migrants, while the residents had the highest proportion of unmarried and the lowest proportion of widowed. To some extent these figures mirror the remaining age effect on civil status even for people 20 years and older. There was, however, also some effect from the moving that often took place in connection with marriage, especially for the women. This I prove with my linked data set, so the result is valid even for migrants moving only within the communes.

#### **9.7.6.2 Social status and social mobility**

The information on occupation in the censuses was encoded and classified following the rules found in the section on methodology above (page 322). The difference in type of trade and social status can then be studied in each census and the degree of social mobility estimated from the linked data sets. It is more difficult to use the 1865 census than the others in this connection, because it systematically under-reports the combined occupations like the fishermen/peasants. This analysis is based on data for the heads of families only.

Both in 1875 and 1900 a much higher percentage of the residents than of the migrants were fishermen/peasants. (About 40% for the residents, 10% for the in-migrants to Troms and 25% for the internal migrants.) Because so many in-migrants from Southern Norway became farmers, the proportion here is nearly 20% for both them and the residents, while the farmers among the internal movers only make up some 14%. They, on the other hand, had the highest proportion when it comes to only fishing, while the trades and the tertiary sector dominated among the in-migrants. This sector was only to a small degree taken up by the residents, while the proportion of both types of migrants in this sector increased significantly towards the end of the century. Also the proportion who were only fishermen decreased somewhat in all three groups.

The occupation as a fisherman could provide a decent income for an independent young man. For a breadwinning father, however, it was an insecure position, which reduced

the family income since it was harder to put the hands of the wife and the children to work. Also fishing was a tough way of life when old age approached - the proportion of fishermen was correspondingly lower in the highest age groups. For these reasons it was very desirable for the young man to find other means of subsistence for his family than fishing only. In my opinion two strategies were the most likely during this period.

First he could try to become a farmer by inheriting, buying or finding a tenancy. Most tenant farms were, however, sold out early in this period. The Norwegian laws of allodium make buying a farm an insecure option as long as any inheritor is still alive. Therefore, inheritance comes out as the prime option, and we have seen that the peasants in Northern Norway had adopted the custom of splitting the farm among the children. This was, however, a custom, not an obligation on the part of the father and his oldest son. It is probable that the child who moved away to other communes or even provinces, by doing that would risk his customary right to inherit his share of the land. Thus the importance of the fishing/farming sector in the economy of Northern Norway reduced the amount of migration substantially, both through the inheritance factor and its flexible capacity to employ any number of hands.

The second strategy was to find employment in the growing "modern" sector of the economy with the trades, small factories, plants, commerce and other services. When choosing this strategy, migration became a tempting alternative. For one thing most of these jobs were in the growing towns and small urban centres. And the possibility that a suitable position would turn up would, of course, increase if people took a wide geographical area into consideration. From this perspective it was only natural that many in-migrants, out-migrants and internal migrants in and from Troms are found in the said sector of the economy. As the in-migrants were qualified for so many of these jobs, there were consequently fewer openings in this sector for the natives and less incentive for them to migrate. A large proportion of the Finns were servants according to the 1865 and 1875 censuses. Their diminishing numbers towards the end of the century, therefore, were not due only to assimilation, but also to the precarious position of the servant group when the rapidly growing number of children took over their tasks.

How did these interconnections between geographical and social mobility show up in my data from record linkage where the same individuals could be followed in two censuses? Generally the farmers were clearly over-represented in the linked part of the population. Their resident stability is also the main reason why they are the group that most seldom changed their occupation. In addition there was a strong tendency for people from other social groups to become farmers in the next census. Most of the mobility seems to be upward social mobility. Few farmers can be found as fishers, workers or cottagers later, so biased selection due to record linkage procedures can hardly be the sole explanation.

As expected, the upward social mobility was strongest among those who stayed in their commune of birth. To recoin Clark's phrase, it seems fit to talk about betterment staying, analogous to Thernstrom's urban escalator. For the in-migrants to Målselv, Balsfjord and Karlsøy the tendency toward horizontal social mobility is easier to show, even if they too were more mobile upwards than downwards. Among the linked out-migrants many were found in Tromsø, and then often in the lower social strata at the bottom steps of the urban escalator. Problems of bias are especially serious here, but maybe a substantial number of the urban movers can be called subsistence life-cycle migrants? As expected, many female migrants to the urban areas became servants, and I doubt if these were attractive positions.

## **9.8 Conclusion**

The amount of migration into Troms was reduced during the period 1865-1900, while

internal migration seems to have stayed at the same level and out-migration from the province was increasing. There was a crisis in agriculture in the late 1860's and an urban trade crisis around 1880 that ended Troms' position as a frontier attracting mass in-migration from other parts of the Nordic countries. From now on the province exported more of its surplus population. When migration, and especially emigration, stayed at a small volume, it was because several barriers to migration were at work. One was the barrier of the peasant economy, where the combination of fishing and farming could absorb the growing population into the family production units. This is the opposite of the development on the Swedish plain, where the eviction of the Statere increased their propensity to migrate. (A similar explanation, based on the vigorous class of farmers, has been launched for the low emigration rates of France.<sup>(6)</sup>) Another barrier was that between countryside and town, where the crisis of 1880 incepted the reexportation of urban in-migrants to the countryside. A third barrier was ethnic, there was a tendency for the Sami group to stay within the areas they dominated, even when they migrated. A fourth barrier was social. The farmers and peasants mostly stayed, but some emigrated if they had the means and the social contacts in the US. These were mostly the inland farmers who did not fish and had too few relationships with the rest of the population to make them follow. The multiplier effect on emigration inherent in a contiguous social network (Sune Åkerman, 1978) only here and there showed its full potential in thinly populated, topographically divided and ethnically mixed Northern Norway.

There is much truth in the saying that people mostly migrate to conserve their old way of life. For the fishing peasants of Troms it was difficult to keep up this combination of trades if they moved to town. Agriculture was marginal on the coast of Finnmark, there was little room for new farms to the south and small chances to fish on the American prairie. In my view the ways the population of Troms migrated and the reasons why they stayed, were to a high degree related to the economy. Peasants tended to stay put, while people in the trades and the services tended to migrate. The social network only comes in as a secondary determinant, helping people decide exactly where to go.

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1. Sogner et al 1986, page 370f.

2. Cf Thorvaldsen, 1995 II.

3. Tilly, 1977, page 179.

4. For an assessment of the amount of intra-parish migration, cf Thorvaldsen on Stockholm, 1995.

5. Eriksson and Rogers (1978, page 214ff).

6. Page Moch (1992, page 110f).