

The Service Sector in the Nordic Periphery

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Paper to be presented at the 39th European Congress of the RSA, Dublin 23-27 August 1999

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1. Introduction

This paper is based on the results from the project «The Development of Services in Sparsely Populated Municipalities in the Nordic Countries» financed by the Nordic Council of Ministers. The aim of the project has been to analyse the service sectors in 36 rural municipalities, 10 in Norway, 10 in Sweden, 10 in Finland, 4 in Denmark and 2 on Iceland. Three characteristics used to select the municipalities are peripherality, a higher than average production in the agricultural sector and that they have experienced a decline in population in the 1990's. In the European tradition peripherality is often defined as a region having less than six inhabitants per km². Some of the municipalities included in the project have a higher population density but they are situated on islands. Thus we can say that the municipalities that participate in this project represent the real periphery in Europe.

The objective of the project was first to analyse the developments in the service sectors in peripheral municipalities in the Nordic countries in the 1990's and on this basis give an evaluation whether the service sectors have been an engine in the rural economy. Another objective was to get information about activities where the municipalities had had success in developing services and also to investigate counter strategies used to avoid reductions in the supply of services.

In the project two kinds of data collection were carried out. First, all service activities (private firms and public activities) in the municipalities and the changes in the number of activities during the period 1991-96 were registered by sector. We also asked all municipalities to describe the «success stories» that they had experienced in the service sector. All together the municipalities reported 140 success stories. In the book «Case studies in Rural and Small Town Economic Development» (Schaeffer and Loveridge 1999) one chapter by Westernen discusses how different forms of co-operation between the municipality and other agents in the community affect service availability in the region. This paper will raise the other main questions of the project:

- What are the developments in the service sectors in the investigated municipalities

- Do we find service hierarchies
- Can service sectors take over the role as basic sectors and engines of development in the Nordic periphery

The main theoretical background for the development of services was developed by Christaller in the 1930's and was called Central Place Theory. The main assumption here was that service activities would locate as near as possible to the customers, mainly because of the minimisation of travelling costs. Different services was related to different market segments and the customer basis changed from sector to sector. Therefore services located in a hierarchy of central places. After the Second World War it became obvious that central place theory had its limitations. It was launched in the tradition of model-building economics with a number of unrealistic assumptions, such as a uniform landscape with the same population density. Christaller's theory was also in the neo-classical tradition with an equilibrium solution. The economic base model (and similar models for analysis of regional development) tells us one important characteristic most service activities have in regional development, that they depend upon proximity to their customers.

As producer services became more important there was evidence that producer services also depended on proximity to the customers much in the same way as consumer services did Daniels et al. (1993) and Illeris (1996). This was in particular the case for non-specialised services that small and medium size firms and the public sector frequently used such as banks, lawyers, accountants and computer consultants. The most important parameter of competition for such firms is a knowledge of the needs of their clients and that often requires proximity. Some producer service activities are able to sell their services to customers in more distant locations and do not follow the central place hierarchy. In the regional setting they take the role as a basic producer in the economic based terminology. These specialised producer services must build up a competitive advantage which in most cases are depended on the qualification of their staff. Such activities compete in national and international markets which means they are less stable than non basic local service activities.

2. Classification of service activities

The traditional definition of activities in the region is often based on dividing activities into three main groups:

- primary sectors (agriculture, forestry and fishing)
- manufacturing sectors
- service sectors

The data collection in this project is done according to a sector classification based on the ISIC-standard. The detailed sector classification is found in the Appendix. The main groups are the following:

Table 1: Sector classification in the project (ISIC standard)

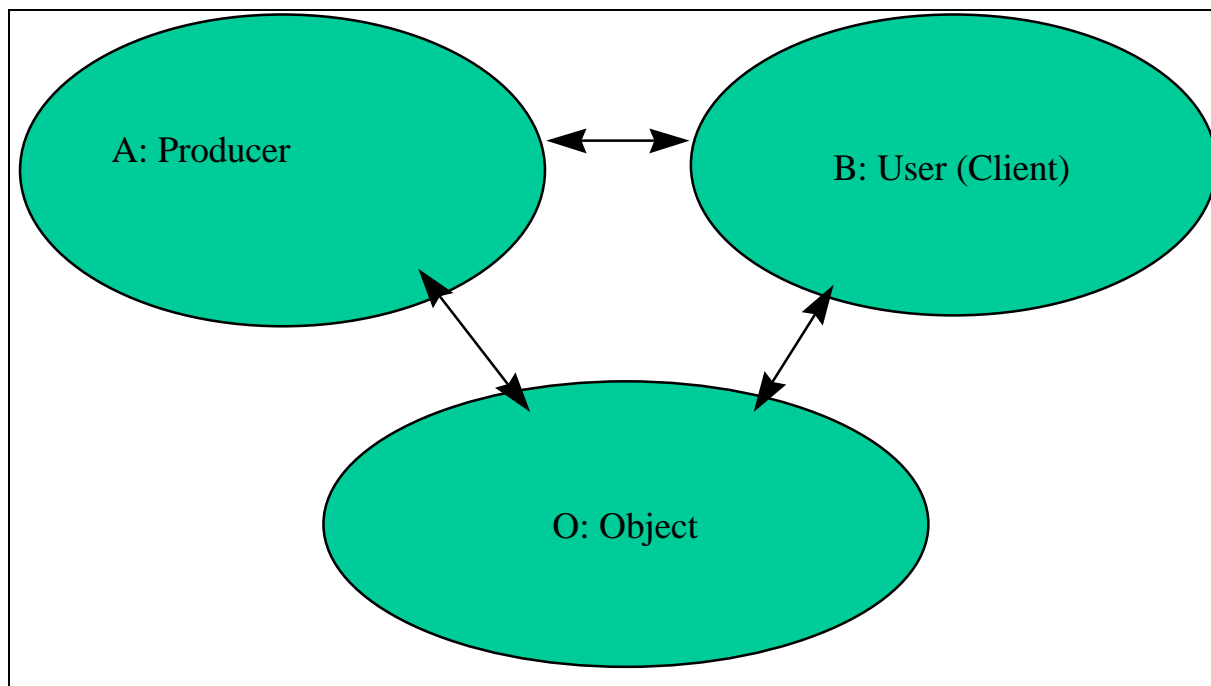
6	Wholesale and retail trade, restaurants and hotels
7	Transport, storage and communication
8	Financing, insurance, real estate and business services
9	Community, social and personal services

Another way of defining the service activities in a region takes as its point of departure what conceptually divides the activities in the service sectors from what we find in primary and manufacturing industries. The main content of this definition is found in Figure 1 and is based on Illeris (1996). Like in all economic analysis we have a producer A and a user B. Generally speaking we can say that what characterises service activities and service production is the relation between the producer and user. The producer has to produce something and that is called the object C. In the production of services the object is modified by the producer A to the benefit of B. It is this modification process which is the actual production. The producer A, can be in the public or a private sector and can be a person, a firm or another type of organisation. The user B, can be a person, household, firm or organisation, or the local community more in general.

The objects can take the following forms:

- psychical objects or material systems (transport, repair, maintenance etc.)
- information
- persons with their physical and intellectual characteristics
- organisations with their technical and structural characteristics and collective knowledge

Figure 1: *Relations in service production*



We find a number of situations where it is not easy to decide whether the activity belongs to the manufacturing industries or to service activities. Restaurants is usually classified as a service activity but we can find ready-made food from the food processing industries which has similarities to carry-a-way products from the restaurant sector. Another example is repair of different types of equipment where the repairing industry sometimes do a complete rebuild of the object which to a high degree may be equal to what you can buy as machinery from a manufacturing sector. Another example is that you can buy the telephone catalogue as a book from the printing industry but when you buy it on a CD-ROM it is coming from the service sector. Both of these products has the same information content but the way you access the information is different. There are also other examples from the computer sector where you can buy the machinery (the boxes) and the services for using them as a total package, which combines products from the manufacturing industries and the service industries as one product.

3. The municipalities in the project

Table 2 shows the municipalities that took part in the project and the population in the municipalities from 1991-1996. Table 2 shows a decrease in the population in nearly all participating municipalities and the average for each country is a decrease of -2,51% for

Norway, -3,05% for Sweden, -2,6% for Finland, -1,84% for Denmark and -2,76% for Iceland. These municipalities also represent what we can say is the real periphery of Europe with a population density of about 2 persons per km², except for Denmark where the municipalities on the average have about 50 inhabitants per km². The Danish municipalities in the project are all situated on the island of Bornholm and they are also looked upon to be remote and have a distance barrier because of their location. The Swedish municipalities have an average population of about 8500 inhabitant which is a little more than twice as much as Norway and Finland. This represents the actual situation where Swedish municipalities on the average are more than twice as big as those we find in Norway and Finland.

The employment structure in the municipalities are showed in Table 3 where the trends for Norway and Finland is a substantial reduction in primary production from 1991 to 1996, while this reduction is relatively speaking less in Sweden. The numbers for Denmark do not represent the national trends because these municipalities covers the rural part of Bornholm. The numbers for Sweden reflect that Sweden to a great extent already before 1990 had a relative high decrease in the agricultural sector in rural municipalities, while it seems that this process came later and are still going on in Norway and Finland. The manufacturing sectors show a relatively stable development in Norway and Finland but in the participating municipalities from Sweden we see a decrease in the employment in manufacturing sectors.

Since the total number of employees in the Norwegian participating municipalities was relatively stable for the period 1991-96 the consequence is that we have had an actual increase in number of employees in service sector. In the participating municipalities in Sweden the relative share of the service sectors increased by about 4% but this reflects the fact that the reductions in primary and manufacturing industries are rather high and lower in service sectors. To conclude we can say that the situation in the service sectors in the participating municipalities in Norway, Finland and Denmark have shown a growth in relative terms and a relatively stable development or a small growth in absolute numbers from 1991-1996.

Table 2: Population 1991-96 and area in km²

	Population 1991	Population 1996	Change	Change in %	Area in km ²	Population per km ²
Trysil	7316	7213	-103	-1,41	2948	2,45
Rendalen	2496	2347	-149	-5,97	3063	0,77
Hjelmeland	2812	2771	-41	-1,46	1008	2,75
Etne	4011	3986	-25	-0,62	678	5,88
Lierne	1672	1610	-62	-3,71	2671	0,60
Grong	2490	2567	77	3,09	1100	2,33
Overhalla	3792	3759	-33	-0,87	682	5,51
Balsfjord	6319	5976	-343	-5,43	1442	4,14
Kåfjord	2759	2623	-136	-4,93	1012	2,59
Kvænangen	1638	1589	-49	-2,99	2058	0,77
Average Norway	3531	3444	-86	-2,51	1666	2,07
Torsby	15105	14660	-445	-2,95	4186	3,50
Orsa	7351	7399	48	0,65	1743	4,24
Älvdalen	8353	8228	-125	-1,50	6913	1,19
Berg	8660	8480	-180	-2,08	5748	1,48
Ragunda	7078	6748	-330	-4,66	2527	2,67
Strömsund	16093	15316	-777	-4,83	10545	1,45
Bjurholm	2959	2854	-105	-3,55	1316	2,17
Robertsfors	7871	7707	-164	-2,08	1298	5,94
Pajala	8424	8119	-305	-3,62	7886	1,03
Överkalix	4744	4560	-184	-3,88	2790	1,63
Average Sweden	8664	8407	-257	-3,05	4495	1,87
Ilomantsi	7999	7832	-167	-2,09	2770	2,83
Juuka	7329	7065	-264	-3,60	1503	4,70
Tuupovaara	2676	2612	-64	-2,39	605	4,32
Isojoki	2863	2860	-3	-0,10	641	4,46
Vörå	3843	3713	-130	-3,38	424	8,76
Kittilä	6208	6205	-3	-0,05	8229	0,75
Kolari	4719	4486	-233	-4,94	2562	1,75
Savukoski	1763	1660	-103	-5,84	6421	0,26
Brändö	532	548	16	3,01	103	5,32
Geta	472	461	-11	-2,33	84	5,49
Average Finland	3840	3744	-96	-2,57	2334	1,60
Allinge-Gudhjem	8043	7887	-156	-1,94	154	51,21
Hasle	6608	6492	-116	-1,76	114	56,95
Nexø	8776	8626	-150	-1,71	103	83,75
Åkirkeby	6935	6799	-136	-1,96	186	36,55
Average Denmark	7591	7451	-140	-1,84	139	53,51
Dalabygd	785	684	-101	-12,87	250	2,74
Hornafjörður	2154	2176	22	1,02	999	2,18
Average Iceland	1470	1430	-40	-2,76	625	2,29

Table 3: The development of employment in participating municipalities aggregated to country and sector, 1991-96

	Primary				Manufacturing				Service				Nec.		Sum	
	1991		1996		1991		1996		1991		1996		1991	1996	1991	1996
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%				
Norway	3158	25,9	2792	22,8	2300	18,9	2320	19,0	6528	53,6	6946	56,8	188	175	12174	12233
Sweden	3402	9,9	2585	8,9	8943	26,0	6619	22,8	20959	61,0	19002	65,6	1039	765	34343	28971
Finland		28,1	2449	22,0		18,6	2036	18,3		49,9	6275,5	56,4		376		11136
Denmark	2323	19,5	1644	15,6	2886	24,2	2252	21,3	6714	56,3	6662	63,1			11923	10558

4. The contribution of services to regional growth in the investigated municipalities

In line with the general development in the service sectors we now delineate them into three categories:

1. Service sectors with a mainly basic character
2. Indirect service sectors
3. Non-basic service sectors

The ISIC-standard for delineation of sectors makes it impossible to find some sectors where all of the production are exported out of the region and thus the sector is completely a basic sector. In general it is often assumed that the following sectors at least to some degree have a basic character:

- 6.1 Wholesale trade
- 6.2 Operation of hotels and restaurants
- 7.1 Transport (selected sectors)
- 8.3 Business services
- 6.249 Retail trade with craft etc.
- 9.335 Special somatic institutions

The above mention sectors export a relatively large share of their production which means that they are met by competition from firms outside the municipality. In addition to those sectors mention above we have also a relatively large share of export income from selected administrative activities and higher education institutions. Also Sector 951, *Repair of vehicles, household apparatus and commodities for personal use* is also sell services outside the municipality for a number activities .

According to Illeris (1996) we use the following criteria to delineate sectors which are indirectly basic. First, there are producer services which provide strategic services to basic activities, mainly in agricultural and manufacturing sectors in the municipalities. These services contribute positively to the competitive situation for basic activities of skill and proximity. A second category of indirect basic services constitute an important condition for basic activities much like physical infrastructure. The best example here is telecommunications. A third category are activities crucial for the local supplied of qualified personnel. The examples here are higher education institutions and specific measures undertaken by the local community (usually the municipality administration) to give courses at a higher level.

Still most of the service activities in the municipalities in this project are local. In a project by Dale (1991) it is investigated if some of the local service activities are of special importance for the survival of rural municipalities. The conclusions is that four activities play a fundamental role:

6.2 Retail trade

7.201 Postal services

9.3111 Primary schools

7.1 Local transport (selected sectors)

The important issue for these four groups is that they play a fundamental role for the day to day operation of the households activities and at the same time they are an important social and cultural meeting place. This means that these activities are a precondition for the local societies' cultural identity. On the other hand there is now argument that the local societies automatically will survive if they have a reasonably good supply of these four central services.

5. Comments on specific sectors

5.1 Wholesale trade

The sector wholesale trade is divided into several subsectors and in this paper we will only use one, sector 6121 *Wholesaling of raw materials* as an example. One interesting characteristic of the wholesale sector is that it at least partly has a basic character which means that it export goods to other regions. In the 37 municipalities we investigated in this project we found wholesale activities in sector 6121 only in 8 of the 36 municipalities, see Table 4. This can be

explained by the fact that the municipalities in the project are too small and rural and that wholesale in general is situated in larger centres than we find in the municipalities in this project. We find some of the wholesale activities in Norway because these municipalities have a high concentration of agriculture and the distance to other centres are long. The other wholesale activities we find in Denmark and that is because the municipalities at Bornholm also have a high production in the agricultural sector. We find a negative trend in the number of activities from 1991-1996. This concludes that wholesale is not and will not be a factor that stimulates growth in the rural parts of Scandinavia which are as peripheral as the municipalities we have investigated.

Comments to the tables

The tables 4 to 17 show the development for specific sectors. In the project we registered the number of activities in each sector for each municipality. Therefore the column No. Tells the number of activities in 1996. The column Cha. Tells the change in the number of activities from 1991 to 1996. All municipalities are defined to have a municipality centre and a periphery. Most of the municipalities also have a number of smaller centres. For example the municipalities Strømsund, Øverkalix and Juuka have five smaller centres in addition to municipality centre. Table A2 in the Appendix gives information about the centre structure. In the tables there are grey shades in a number of fields and this means that the municipality have no defined centre at this level.

Table 4: Wholesaling of raw materials

Municipality	Sector 6121: Wholesaling of raw materials													
	Municipality-centre		Centre A		Centre B		Centre C		Centre D		Centre E		Periphery	
	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.
Trysil	1													
Rendalen														
Hjelmeland														
Etne														
Lierne														
Grong	0	-1												
Overhalla	1													
Balsfjord	1													
Kåfjord														
Kvæangen														
Torsby														
Orsa														
Älvdalen														
Berg														
Ragunda														
Strömsund														
Bjurholm														
Robertsfors														
Pajala														
Överkalix														
Ilomantsi														
Juuka														
Tuupovaara														
Isojoki														
Vörå														
Kittilä														
Kolari														
Savukoski														
Brändö														
Geta														
Allinge-Gudhjem			1										1	1
Hasle													1	
Nexø	2	-1												
Åkirkeby	2												0	-2
Dalabygd														
Hornafjörður	1													
Number of obs.	7	2	1										3	2

5.2 Retail trade

In this paper we will show the development for department stores and grocery stores, in the project report Westeren (1998) we have the results for all types of specialised stores. In this project a department store is defined as a store having a yearly total sale of more than 20 mill. Norwegian crowns (NOK) and it must have more than one group of goods. Based on this definition we find department stores in only 8 of the 30 participating municipalities in Norway, Sweden and Finland. All Danish municipalities have department stores and we find one on Iceland, see Table 5.

Regular grocery stores, see Table 6, have a high representation both in the municipalities centres and in the other smaller centres of the municipality. We also find a large number of stores in the periphery. We find that some stores have been closed down in the municipalities centres and in the other centres during the five year period 1991-96. In the Danish municipalities we see a restructuring from regular grocery stores to shopping centres which have a considerable effect of the numbers. In the municipalities in Norway, Sweden and Finland we find very few close downs of stores in the municipalities centres and a relatively speaking somewhat higher number in the other centres. The big change, however, we find in the periphery where we have seen close downs of stores in 20 of the 32 municipalities that had such stores in the periphery the time period 1991-96. This implies that we have seen a reduction in the supply of services on one of the four main activities which has fundamental influence on whether the inhabitants get the necessary service supply. As far as the shopping hierarchy is concerned we found the pattern that we would expect. The few shopping centres are found in the municipalities centre while the smaller grocery stores are spread all over the municipalities.

We will only give attention to one type of specialised stores and that is sector 6249 *Retail trade with craft etc.* and the numbers can be found in Table 7. The interesting fact with this sector is that it has a high degree of basic character because it sells a relatively high share of its production to tourists. Many of these stores take part in co-operative agreements which means that they sell to bigger stores in the bigger cities. This means these stores have a function of being a marketing channel for local craftsman and artists. Table 7 shows that this activities to a

high degree is situated in the municipality centres because of communications, but we also see a relatively high share of stores in the smaller centres and a few in periphery. We find this sector as one of the few expanding basic activities with a positive trend in all countries except Denmark. The growth in employment in this sector is positive but not large in absolute numbers. We also found that municipalities with a relatively high activity in this sector also had a high degree of cultural identity which is an important prerequisite for survival in the periphery.

Sector 6272 *Gas stations* is important for rural municipalities because the population often are heavily dependent on car transportation and because gas stations often also includes a repair facility. The numbers in Table 8 show a high coverage of gas stations in all parts of the investigated municipalities. It is interesting to notice that we have had relatively speaking few stations that have been closed down in the time period 1991-96. We see from the Table 8 that the gas stations both in the periphery and in the smaller centres keeps their positions with very few close downs of stations in the time period 1991-96.

Table 5: Department stores

Municipality	Sektor 621: Department stores													
	Municipality-senter		Centre A		Centre B		Centre C		Centre D		Centre E		Periphery	
	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.
Trysil	2													
Rendalen			1		1									
Hjelmeland														
Etne	1													
Lierne														
Grong	2	1												
Overhalla	1													
Balsfjord														
Kåfjord														
Kvænangen														
Torsby														
Orsa														
Ålvdalen														
Berg														
Ragunda														
Strömsund	1													
Bjurholm														
Robertsfors														
Pajala														
Överkalix														
Ilomantsi														
Juuka	2													
Tuupovaara														
Isojoki														
Vörå	1													
Kittilä														
Kolari														
Savukoski														
Brändö														
Geta														
Allinge-Gudhjem	5	2												
Hasle	1		2	1									2	2
Nexø	2		1											
Åkirkeby	2												1	1
Dalabygd														
Hornafjörður	2													
Antall obs.	12	2	3	1	1								2	2

Table 6: Grocery stores

Municipality	Sektor 6222: Grocery stores													
	Municipality-centre		Centre A		Centre B		Centre C		Centre D		Centre E		Periphery	
	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.
Trysil	5	1	2		1								9	-3
Rendalen	2		1		1	-1							5	-1
Hjelmeland	2		1		1								3	-1
Etne	1		2										3	-1
Lierne	1		2	-1									3	
Grong	4		1	-1									1	-2
Overhalla	2		1										2	
Balsfjord	5	1	3	1									1	-2
Kåfjord	2		1		2		1						2	
Kvæangen	2		1		1								3	-1
Torsby	5		8		2		3						9	-1
Orsa	3	-1											2	
Ålvdalen	2		2		2								10	-2
Berg	2		1	-1	1		2		1				10	-4
Ragunda	2		1		2								2	
Strömsund	3		1		2		2		1				8	-3
Bjurholm	2		4	-1										
Robertsfors	2		1		2								3	
Pajala	3	1	1	-1	2		2		2				11	1
Överkalix	3	-1	1		1		1	-1	1		1			
Ilomantsi	7												10	
Juuka	5		1		1		1	-1	1		1		2	-1
Tuupovaara	2												4	
Isojoki	3												3	
Vörå	4		1											
Kittilä	3		1		2								5	-2
Kolari	3		3		1	-1							7	-2
Savukoski	2	-2											2	-1
Brändö	1												4	-1
Geta	1													
Allinge-Gudhjem	0	-3	6	-1									1	-4
Hasle	1	-1	1										1	-2
Nexø	5	-1	1	-1									3	-1
Åkirkeby	0	-3											2	-1
Dalabygd	2												1	
Hornafjörður	1												1	
Antall obs.	36	10	26	8	16	2	7	2	5		2		32	21

Table 7: Retail trade with craft etc.

Municipality	Sektor 6249: Retail trade with craft etc.													
	Municipality-centre		Centre A		Centre B		Centre C		Centre D		Centre E		Periphery	
	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.
Trysil	2												1	
Rendalen	1	1			1									
Hjelmeland	2	1	1	1										
Etne	1	1												
Lierne														
Grong	2	1												
Overhalla														
Balsfjord	1	1												
Kåfjord					1									
Kvænanen														
Torsby	4		1											
Orsa	2	1												
Älvdalen	3		1		2									
Berg	2		2						1				1	
Ragunda	2													
Strömsund	2													
Bjurholm	2													
Robertsfors	2		1		1									
Pajala	3	2	1	1										
Överkalix	1													
Ilomantsi														
Juuka	1				2	2							3	
Tuupovaara	1													
Isojoki	1													
Vörå	3													
Kittilä	1													
Kolari	1												1	
Savukoski														
Brändö														
Geta														
Allinge-Gudhjem	5	-1	4										1	-2
Hasle	1												3	
Nexø			6	1									6	-1
Åkirkeby	0	-1												
Dalabygd	1													
Hornafjörður	1													
Antall obs.	27	9	8	3	5	1			1				7	2

Table 8: Gas stations

Municipality	Sektor 6272: Gas stations													
	Municipality-centre		Centre A		Centre B		Centre C		Centre D		Centre E		Periphery	
	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.
Trysil	3				1								1	
Rendalen	1		1		1								1	-1
Hjelmeland	1		1		1								1	
Etne	1		1										1	
Lierne	1		1										2	1
Grong	2	-1	1										1	-1
Overhalla	2		0	-1										
Balsfjord	1	-1	3										1	
Kåfjord	2				2		1							
Kvænangen	1												1	
Torsby	2		3		1								2	
Orsa	3												2	
Älvdalen	1													
Berg	1		1		1		1		1				3	
Ragunda	2		1		3								1	
Strömsund	3		1		1		1		1		1		6	
Bjurholm	2													
Robertsfors	1		1		1									
Pajala	2		1		1		1		1				6	
Överkalix	2				1		1		1				1	
Ilomantsi	3	-1												
Juuka	3				1	1	1				1		1	
Tuupovaara	0	-1											3	
Isojoki	1												2	
Vörå	2												1	
Kittilä	1				1								3	
Kolari	2	-1	2		1								4	-1
Savukoski	1	-2											2	-1
Brändö	1												4	
Geta	2													
Allinge-Gudhjem	1	-1	1										1	
Hasle													2	
Nexø	0	-1	0	-1										
Åkirkeby	1													
Dalabygd	1	-1												
Hornafjörður	4												1	
Antall obs.	35	9	16	2	14	1	6		4		2		26	5

5.3 Hotels and restaurants

The numbers for sector 63 *Operation of hotels and restaurants* are found in tables 9 and 10. The numbers show a very stable development with relatively speaking small changes from 1991-96. The restaurant sector serves both the local communities and export services to tourists and incoming persons to the municipalities. The hotel sector has to a larger extent its role as a basic industry with a relatively high degree of establishments in the smaller centres and in the periphery. For the municipalities participating in the project some of them are typical tourist municipalities like Trysil in Norway, Orsa and Älvdalen in Sweden, Kittilä in Finland and Allinge-Gudhjem in Denmark. The numbers show relatively low net changes in the period both in the typical tourist municipalities and in the others. On the other hand we have had a relatively large number in changes in ownerships for the establishments in the period but this is not systematically registered in the project. The conclusion is that the actual establishments we had still are there, but many of them have new ownerships, are being refinanced and have had changes in their market segments. The tourist sector keeps its position as one of the important basic sectors.

Table 9: Operation of restaurants

Municipality	Sektor 6311: Operation of restaurants													
	Municipality-centre		Centre A		Centre B		Centre C		Centre D		Centre E		Periphery	
	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.
Trysil	4	1			1								3	1
Rendalen	1		1		1								1	-1
Hjelmeland													1	
Etne	1													
Lierne	1	1	1											
Grong	2												1	
Overhalla	1	-1	1											
Balsfjord	1		2	1									2	1
Kåfjord	1				1									
Kvænanen														
Torsby	3		3		1								1	
Orsa	8	3												
Älvdalen	2		2											
Berg	2		2		1		1		1				5	
Ragunda	4		2		2								1	
Strömsund	3						1						1	
Bjurholm	1													
Robertsfors	3	2	2		3									
Pajala	3		1		1				1				1	
Överkalix	3	1			1								1	
Ilomantsi	5													
Juuka	7		1		1	1	1						1	1
Tuupovaara	2	1											3	
Isojoki	2													
Vörå	1													
Kittilä	3				4	2							1	
Kolari	3		1		7								3	
Savukoski	4	-1											4	1
Brändö	4													
Geta	1												1	1
Allinge-Gudhjem	35		5										5	
Hasle	2		1										3	-1
Nexø	9	2	7										8	
Åkirkeby	1												4	-2
Dalabygd	2													
Hornafjörður	3	1											3	2
Antall obs.	34	10	15	1	12	2	3		2				22	9

Table 10: Operation of hotels

Municipality	Sektor 6321: Operation of hotels													
	Municipality-centre		Centre A		Centre B		Centre C		Centre D		Centre E		Periphery	
	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.
Trysil	4	1	1										1	
Rendalen					1									
Hjelmeland														
Etne	1		1											
Lierne													1	
Grong	2												2	
Overhalla	1													
Balsfjord	1		1										2	1
Kåfjord														
Kvænangen													1	
Torsby	3		2										1	
Orsa	2												2	
Älvdalen	2		2		3									
Berg	1		1										4	
Ragunda	2				1								1	
Strömsund	1				1		1							
Bjurholm	1													
Robertsfors	1													
Pajala	2		1											
Överkalix	1												2	
Ilomantsi	1													
Juuka	1													
Tuupovaara													1	
Isojoki														
Vörå														
Kittilä	1				3								1	
Kolari	1				3								3	
Savukoski	1													
Brändö	1													
Geta													1	
Allinge-Gudhjem	10		3										2	
Hasle	1												2	-1
Nexø	0	-1	3										5	1
Åkirkeby	1												1	-1
Dalabygd														
Hornafjörður	2												1	
Antall obs.	26	2	9		6		1						19	4

5.4 Transport and communication

In Table 11 you see the results for the sector 7113 *Taxis and local buses*. In the project it was impossible to do a thorough registration of all bus tables so we do not know in detail what the situation is. Our general impression is a scaling down of the number of bus routes but the number of taxis still are at about the same level. We also made an investigation of the number of firms which operate big trucks especially for timber transportation and we also saw a relative stable development here. This observations lead to the conclusion that we have seen a scaling down of local public transportation (mainly by buses) and a growth in private car transportation and a relatively stable situation as far as taxis are concerned. The transportation sector in the municipalities have a non basic character except for trucking firms and similar activities.

We also registered which municipalities that had a local airport with connections to the national net. We found that only 3 municipalities, Torsby in Sweden, Kittilä in Finland and Hornafjörður on Iceland had such facilities. On these three locations we saw a positive development both in tourist activities and in business development more in general. The airport served both the local and the export markets and had therefore a mixed basic/non-basic character. The most important fact is that an airport seem to have a positive stimulus to local economic development.

Table 11: Taxis and local buses

Municipality	Sektor 7113: Taxis and local buses													
	Municipality-centre		Centre A		Centre B		Centre C		Centre D		Centre E		Periphery	
	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.
Trysil	5												5	
Rendalen	2	-1	2											
Hjelmeland	1		1										1	
Etne	2		1											
Lierne	2		2											
Grong	2												1	
Overhalla	3													
Balsfjord	3		2										2	
Kåfjord	1			1		1								
Kvænanen	2		1										1	
Torsby	6		1		1								1	
Orsa	2												2	
Älvdalen	1		4		3									
Berg	5		3		2		1						3	
Ragunda	5		2		3								2	
Strömsund	1						1				1		6	
Bjurholm	4												1	
Robertsfors	1		1		1								1	
Pajala	3		3		2		1		3				9	
Överkalix	2										1			
Ilomantsi	32	-1												
Juuka	10		1		1		1		1		1		7	
Tuupovaara	5												4	
Isojoki	5												4	
Vörå	6		1										7	-2
Kittilä	22		3		6								19	
Kolari	4		4		3								13	
Savukoski	5												5	-1
Brändö													2	
Geta	2													
Allinge-Gudhjem	3		2										2	
Hasle	2												2	-1
Nexø	2	1	1											
Åkirkeby	2	-1											0	-1
Dalabygd	1													
Hornafjörður	2													
Antall obs.	35	4	18		10		5		2		3		24	4

5.5 Postal services and telecommunications

The postal service is one of the four cornerstones mentioned earlier for the supply of services to people in rural communities. Table 12 shows that the postal services in the centres in the municipalities still are complete. But we find a rather high share of postal offices being closed down in the periphery in the municipalities. In the period 1991-96 we saw that post offices have been closed in the periphery in 6/10 municipalities in Norway, 6/10 municipalities in Finland and 2/4 in Denmark. Sweden has been through a rationalisation process in the 1980's and the situation is now more or less the same in all the municipalities that were investigated. The general conclusion is that the service level is good in municipalities centres, reasonably good in the smaller centres and a rather drastic scaling down of these services in the periphery.

The telecommunications were also registered in the project in the way that we found out how many municipalities that had offices of the tele companies. We found such offices in only a few of the municipalities but on the other hand the telephone system was well built out with a rather good supply of ISDN-lines.

Table 12: Postal services

Municipality	Sektor 7201: Postal services													
	Municipality-centre		Centre A		Centre B		Centre C		Centre D		Centre E		Periphery	
	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.
Trysil	1				1								3	-3
Rendalen	1		1		1								0	-1
Hjelmeland	1		1		1									
Etne	1		1										1	-1
Lierne	1		1											
Grong	1													
Overhalla	1		1										0	-2
Balsfjord	1		1										1	-1
Kåfjord	1				1		1							
Kvænanen	1												2	-2
Torsby	1		1		1		1						1	
Orsa	1													
Älvdalen	1		1		1									
Berg	1		1		1				1				3	
Ragunda	1		1		1									
Strömsund	1		1		1		1		1		1		1	
Bjurholm	1													
Robertsfors	1		0	-1	1									
Pajala	1		1		1				1				1	
Överkalix	1													
Ilomantsi	1												0	-8
Juuka	1				1		1		0	-1	1		1	-1
Tuupovaara	1												2	-1
Isojoki	1												2	
Vörå	1													
Kittilä	1		0	-1	1								0	-4
Kolari	1		1		1									
Savukoski	1												0	-4
Brändö	1												0	-3
Geta	1													
Allinge-Gudhjem	1		1										1	
Hasle	1		1										0	-2
Nexø	1		1										0	-1
Åkirkeby	1													
Dalabygd	1													
Hornafjörður	1													
Antall obs.	36		18	2	14		4		4	1	2		20	14

5.6 Financial institutions

Table 13 shows the appearance of banks in the municipalities. The situation here is that we find banks in all municipality centres, some of the smaller centres and a few in the periphery. This is what we had expected that banks having a centre function. We found one structural difference namely that it is only in the Norwegian municipalities where we mainly only have one bank in the municipality centre. This seems to indicate that we have a better competitive situation from the users point of view in all other countries except Norway.

5.7 Business services

The business services we find in:

Table 14: Sector 8321: Legal services

Table 15: Sector 8322: Accounting, auditing and bookkeeping services

Table 16: Sector 8323: Data processing

Table 17: Sector 8324: Engineering, architectural and technical services

In general these services are looked upon as a key element for regional growth and they will often to a large extent bring export money in to the region. The general impression is that these sectors do not play an active and important role in the investigated municipalities. We find legal services in few municipalities and those legal services are to a large extent locally oriented as problem solvers for questions about property, divorces and more simple crimes.

The supply of services for accounting, auditing and book-keeping is very well developed in most all of the municipalities. We find most of the activities in the municipality centres, a few in the smaller centres and some in the periphery. The collected information shows a high stability and we have seen few newcomers and few activities have left. It is the producers in the primary sectors like agriculture, forestry and fishing together with small and medium sized enterprises that are the most important customers. Our impression from the data collection is that a very high degree of these activities did routine accounting services and only a few companies was behaving as advisers to the firms. We found some examples that smaller independent accounting and bookkeeping firms were forming pools of co-operation to secure their market share. We found few examples which showed that the bigger national and international accounting and bookkeeping firms had moved into the rural municipalities.

The results for the data-processing firms are very interesting and the main picture is that we find few activities and very few new establishments for the time period 1991-96. During the process of data collection we saw that computer technology had been put into use in the municipality administrations, in local services like retail and banking and in all small and medium size firms. This development had not led to new establishments of data processing firms in the municipalities and we got the information that both the public and the private sectors bought their services from firms in a nearby town or a distant larger city. We found one cluster of data processing firms in two municipalities in Sweden, Berg and Ragunda. In addition we found one big firm in Norway. Apart from these activities there is very little left.

We found few activities in engineering, architectural and technical services, some in the centers, but a relatively high share were situated in the periphery. This strengthens the impression that such firms in rural municipalities often based their activities on specialised knowledge and niche production. Because of computer technology and telecommunication the distance barrier is about the same in municipalities centre as in the periphery.

Table 13: Banks

Municipality	Sektor 8101: Banks													
	Municipality-centre		Centre A		Centre B		Centre C		Centre D		Centre E		Periphery	
	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.
Trysil	2													
Rendalen	1													
Hjelmeland	1		1		1									
Etne	1		1											
Lierne	1		1											
Grong	4													
Overhalla	2	1												
Balsfjord	1		1										1	
Kåfjord	1				0	-1	0	-1						
Kvænanen	1													
Torsby	4		3										1	
Orsa	3													
Älvdalen	3		1		1									
Berg	3		1		1		1		1				2	
Ragunda	3		2		2									
Strömsund	3		2		2		3		1		2			
Bjurholm	3													
Robertsfors	3		1		2								1	
Pajala	3		1						1					
Överkalix	2													
Ilomantsi	3	-2												
Juuka	2	-1			1									
Tuupovaara	2	-1												
Isojoki	2												1	
Vörå	3	-1												
Kittilä	3													
Kolari	1		0	-2	0	-1								
Savukoski	2	-1												
Brändö	3												2	-3
Geta	2													
Allinge-Gudhjem	2	-1	2	-2										
Hasle	2		1											
Nexø	2		1											
Åkirkeby	2	-1											0	-1
Dalabygd	1													
Hornafjordur	2													
Antall obs.	36	8	15	2	9	2	3	1	3		1		7	2

Table 14: Legal services

Municipality	Sektor 8321: Legal services													
	Municipality-centre		Centre A		Centre B		Centre C		Centre D		Centre E		Periphery	
	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.
Trysil	1													
Rendalen														
Hjelmeland														
Etne														
Lierne														
Grong	0	-1												
Overhalla														
Balsfjord														
Kåfjord														
Kvænangen														
Torsby	1													
Orsa	3													
Älvdalen														
Berg													1	
Ragunda														
Strömsund	1													
Bjurholm														
Robertsfors														
Pajala	0	-1												
Överkalix	0	-1												
Ilomantsi	1													
Juuka	1													
Tuupovaara														
Isojoki														
Vörå														
Kittilä	1													
Kolari														
Savukoski	1	-2												
Brändö														
Geta														
Allinge-Gudhjem	1													
Hasle	1												1	
Nexø	2													
Åkirkeby	2	2											1	
Dalabygd														
Hornafjörður	1													
Antall obs.	16	5											3	

Table 15: Accounting, auditing and bookkeeping

Municipality	Sektor 8322: Accounting, auditing and bookkeeping													
	Municipality-centre		Centre A		Centre B		Centre C		Centre D		Centre E		Periphery	
	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.
Trysil	8	3	1		1								1	
Rendalen	2		2	1										
Hjelmeland	1		1		1									
Etne	1	-1											1	
Lierne			1										1	1
Grong	4													
Overhalla	2												1	
Balsfjord	2		1											
Kåfjord	1				2	1	1							
Kvænanen	1													
Torsby	3				1									
Orsa	4													
Ålvdalen	2													
Berg	2		2		2		2		2				2	
Ragunda	4		2		1									
Strömsund	4		1		1		2							
Bjurholm	2													
Robertfors	2		1										1	
Pajala														
Överkalix	2	1												
Ilomantsi	4												1	
Juuka	1													
Tuupovaara	2													
Isojoki	2	-1											3	1
Vörå	2													
Kittilä	3		1											
Kolari	3												1	
Savukoski	1													
Brändö													2	1
Geta														
Allinge-Gudhjem	4												1	-1
Hasle	1												2	
Nexø	3		1	-1									1	
Åkirkeby	2	1												
Dalabygd	1													
Hornafjörður	2													
Antall obs.	32	5	11	2	7	1	3		1				13	4

Table 16: Data processing

Municipality	Sektor 8323: Data processing													
	Municipality-centre		Centre A		Centre B		Centre C		Centre D		Centre E		Periphery	
	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.
Trysil	2	1												
Rendalen														
Hjelmeland	1	1												
Etne														
Lierne														
Grong	1													
Overhalla			1	1										
Balsfjord														
Kåfjord	1													
Kvænanen														
Torsby														
Orsa	0	-1												
Älvdalen														
Berg	4				1									
Ragunda	3		1		3									
Strömsund	1													
Bjurholm	1													
Robertsfors													1	
Pajala														
Överkalix	1													
Ilomantsi														
Juuka	2	2												
Tuupovaara														
Isojoki														
Vörå														
Kittilä	1	1												
Kolari														
Savukoski														
Brändö														
Geta														
Allinge-Gudhjem														
Hasle														
Nexø	0	-1	0	-1										
Åkirkeby														
Dalabygd														
Hornafjörður	1	1												
Antall obs.	14	7	3	2	2								1	

Table 17: *Engineering, architectural and technical services*

Municipality	Sektor 8324: Engineering, architectural and technical services													
	Municipality-centre		Centre A		Centre B		Centre C		Centre D		Centre E		Periphery	
	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.	No.	Cha.
Trysil	1													
Rendalen	1												1	
Hjelmeland			1											
Etne														
Lierne														
Grong													1	
Overhalla													1	
Balsfjord	1	1												
Kåfjord					1									
Kvænanen														
Torsby														
Orsa														
Älvdalen														
Berg														
Ragunda														
Strömsund														
Bjurholm														
Robertsfors														
Pajala														
Överkalix														
Ilomantsi														
Juuka													1	
Tuupovaara														
Isojoki	1												1	
Vörå														
Kittilä														
Kolari														
Savukoski														
Brändö														
Geta														
Allinge-Gudhjem	0	-1	3											
Hasle	1													
Nexø			2											
Åkirkeby	1	1												
Dalabygd	1													
Hornafjörður	2	1												
Antall obs.	9	4	3		1								5	

5.8 Primary schools

In Table A3 in the Appendix we show the number of primary schools in the municipalities and their development from 1991-1996. We see that the coverage of primary schools are good in both the municipality centres, in smaller centres and in the periphery. As far as the development trends are concerned we see a clear tendency of closing primary schools in the periphery. This development takes place in Norway, Sweden and Finland but the close downs have a higher number in Finland than in the other two mentioned countries. It is interesting to notice that we did not find any close down of primary school in the smaller centres. This builds up under the conclusion that the primary schools still are a stabilising factor for the rural municipalities.

This point of view is also supported by what is happening in the children's day nursery sector (kindergartens and pre-school) shown in Table 15. We find a high coverage of children's day nursery opportunities in all municipalities, in the municipalities centres, in the smaller centres and in the periphery. An interesting point to note is that the development in the periphery is reasonably good with about the same numbers of close downs as of building new establishments.

In the project we also gathered information about the care for the elderly people and the conclusion here is that the system is well built out and we see few changes. We were also looking for special institutions in the medical field like social welfare services for alcoholics and drug addicts, and different types of recreations centres. We found very few (3-5) such institutions in the municipalities. Such institutions contribute to regional growth because they are to a high degree bringing in money from outside.

5.9 Personal and household services

Two activities in this group has special interest for the development in rural municipalities and that is the repair sector and the hairdressing sector. The sector 9513 *repair of motor vehicles and motorcycles* have many activities in the municipalities, both in the municipalities centres, in the smaller centres and in the periphery. One reason for a relatively high number of activities in the periphery is that they combine services for the agricultural sector and traditional car repair. The situation for hairdressing is that the supplies of services look good on all levels in the municipalities and we have a quite stable situation as far as new establishments and close downs are concerned. These last two sectors show that there is little need for the population in

the municipalities to travel to larger centres to buy their regular services in these two mention sectors. This may not be the case when it comes to more specialised or fashionable demands but the basic services seems to a large extent to be there.

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Appendix

Table A1: Sector classification in the project (ISIC standard)

6	Wholesale and retail trade, restaurants and hotels
6.1	Wholesale trade and commission brooking
6.2	Retail trade
6.3	Operation of hotels and restaurants
7	Transport, storage and communication
7.1	Transport and storage
7.2	Communication
8	Financing, insurance, real estate and business services
8.1	Financial institutions
8.2	Insurance
8.3	Real estate and business services
9	Community, social and personal services
9.1	Public administration and defence
9.2	Sanitary and similar services
9.3	Social and related community services
9.3.1	Education
9.3.2	Research and scientific institutes
9.3.3	Medical, dental, other health and veterinary services
9.3.4	Welfare institutions
9.3.5	Business, professional and labour associations
9.3.9	Other social and related community services
9.4	Cultural services, recreation and sports
9.5	Personal and household services
9.5.1	Repair of vehicles, household apparatus and commodities for personal use
9.5.2	Laundries
9.5.3	Domestic services
9.5.9	Miscellaneous personal services
9.6.0	International bodies

Table A2: Centre structure in participating municipalities

Municipality name	Municipality centre	Centre A	Centre B	Centre C	Centre D	Centre E
Trysil	Innbygda	Østby	Nybergsund			
Rendalen	Øvre Rendal	Otnes	Åkerstrømmen			
Hjelmeland	Hjelmeland	Årdal	Fister			
Etne	Etne	Skånevik				
Lierne	Nordli	Sørli				
Grong	Grong	Bergsmo				
Overhalla	Rannem	Skage				
Balsfjord	Storsteinnes	Nordkjosbotn				
Kåfjord	Olderdalen	Djupvik	Manndalen	Birtavarre		
Kvænangen	Burfjord	Alteidet	Baddern			
Torsby	Torsby	Sysslebäck	Støllet	Östmark		
Orsa	Orsa					
Älvdalen	Älvdalen	Särna	Idre			
Berg	Svenstavik	Åsarna	Häckås	Rätan	Myrviken	
Ragunda	Hammar	Stugun	Bispgården			
Strömsund	Strömsund	Backe	Hoting	Hammerdal	Rossön	Gäddede
Bjurholm	Bjurholm					
Robertfors	Robertfors	Bygdeå	Ånäset			
Pajala	Pajala	Junosuando	Korpilombolo	Muodoslompolo	Tarendö	
Överkalix	Överkalix	Gyljen	Svartbyn	Tallvik	Vannasberget	Jokfall
Ilomantsi	Ilomantsi					
Juuka	Juuka	Nunnanlahti	Ahmovara	Polvela	Kajoo	Vihtajoo
Tuupovaara	Tuupovaara					
Isojoki	Isojoki					
Vörå	Vörå	Kaitsor				
Kittilä	Kittilä	Kamkonen	Sirkka			
Kolari	Kolari	Sieppijärvi	Äkäslompolo			
Savukoski	Savukoski					
Brändö	Brändö					
Geta	Geta					
Allinge-Gudhjem	Allinge-Sandvig	Tejn				
Hasle	Hasle	Klemensker				
Nexø	Nexø	Svaneke				
Åkirkeby	Åkirkeby					
Dalabygd	Budurdalur					
Hornafjörður	Höfn					

Table A3: Primary schools

Municipality	Sektor 9311-2: Primary schools																				
	Municipality centre			Centre A			Centre B			Centre C			Centre D			Centre E			Periphery		
	Schools		Pupils	Schools		Pupils	Schools		Pupils	Schools		Pupils	Schools		Pupils	Schools		Pupils	Schools		Pupils
	No.	Cha.	No.	No.	Cha.	No.	No.	Cha.	No.	Utv	No.	No.	Cha.	No.	No.	Cha.	No.	No.	No.	Cha.	No.
Trysil	1		463	1		40	1		60										4	-1	176
Rendalen	1		78	1		172															
Hjelmeland	1		179	1		101	1		41										3		79
Etne	1		273	1		145													5		218
Lierne	1		150	1		90													1		30
Grong	1		205	1		52													1		48
Overhalla	1		284	1		138													1		53
Balsfjord	1		260	1		99													6		157
Kåfjord	1		90				1		78	2		66							1		44
Kvænangen	1		89	1		66													2	-1	53
Torsby	5		869	1		69	1		106										8		285
Orsa	4		786																2		115
Ålvdalen	2		506	1		130	1		133										4		161
Berg	1		375	1		46	1		110	1		79	1		242				5		187
Ragunda	3		181	1		218	1		146										4		105
Strömsund	3		667	2		114	1		179	1		305				1		131	10		279
Bjurholm	1		293																1	-1	16
Robertsfors	1		100	1		50	1		50										3	-1	30
Pajala	1		80	1		40	1		30	1		30	1		25				5		48
Överkalix	3		372	1		35	1		42							1		12			
Ilomantsi	1		50																10	-7	
Juuka	1		596	1		31	1		23	1		42	1		37	1		21	6	-1	121
Tuupovaara	1		99																4	-1	99
Isojoki	1		209																5	-1	96
Vörå	3			1															3		
Kittilä	1		506	1		25	1		45										8	-6	145
Kolari	1		394	1		43	1		35										4	-2	98
Savukoski	1		69																3	-1	65
Brändö	1		150																1		6
Geta	1		45																		
Allinge-Gudhjem	1		223	1		127													2		358
Hasle	1		360	1		260													1		100
Nexø	1		513	1		255													1		233
Åkirkeby	2	-2	815																2		248
Dalabygd	1		65																1		55