Well-being in Finland: A comparison of municipalities and residential differentiation in two cities

SEPPO SIIRILÄ, MARI VAATTOVAARA AND VILLE VILJANEN

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Differences in well-being are examined at two regional levels. First, variations in well-being are studied based on municipal statistics by three indices that represent different aspects of life. The examination shows that the most problematic areas are in eastern and northern Finland. Second, residential differentiation is examined in two metropolitan areas, Helsinki and Tampere, through two variables: families with children and residents with university education. Metropolitan Helsinki is divided into socially distinctive residential areas. Low levels of education and the threat of unemployment concentrate in the northern and eastern parts of the city. Such clear socio-economic differentiation cannot be found in Metropolitan Tampere.

Seppo Siirilä & Ville Viljanen, Department of Regional Studies and Environmental Policy, FIN-33014 University of Tampere, Finland.
Mari Vaattovaara, Department of Geography, P. O. Box 64, FIN-00014 University of Helsinki, Finland.

Introduction

Well-being in society refers to the individuals' needs being met. Satisfaction of needs is based on resources for well-being, which may be assessed from the viewpoint of standards of living and quality of life. Resources for well-being do not automatically satisfy people's needs but do provide tools that can be used in numerous ways. Satisfaction depends on an individual's values, lifestyles, and personal experiences.

Since well-being is a subjective feeling, it is difficult to measure statistically. From the perspective of understanding social dynamics and the steering of regional development policies, it is nevertheless important to find adequate statistical variables and to study insufficient resources and their connection to various spatial structures. In practical research, the spatial pattern of social well-being manifests itself mainly as the presence or absence of resources for well-being. These resources may take different forms in different aspects of life. The lack of well-being is primarily linked to meagre income. Well-being is not, however, only a material and quantitative phenomenon, but is also (perhaps foremost) an immaterial and qualitative one except in extreme material deprival. Deprivation may occur in social relationships, housing conditions, level of education, insecurity, susceptibility to illness, and self-fulfilment.

This article has two objectives. The first is to examine regional variations in well-being in Finland based on municipal statistics from the mid-1990s. This kind of work falls within what could be called 'the welfare tradition' in geography (Riihinen 1965; Hautamäki 1969; Smith 1977; Aronen & Siirilä 1981; Kuitunen & Siirilä 1985; Siirilä et al. 1990). Changes in the regional patterns of well-being and the foundation of regional policy in Finland, together with theories of regional imbalance from the late 1950s onwards, triggered the need for systematic statistical studies on regional differences in living conditions.

The construction of the Finnish welfare society after World War II significantly improved the standard of living throughout the country. The period of rapid industrialization and urbanization between 1950 and 1970 led, however, to radical changes in regional differences. In response to this situation, the first regional policy law came into

force in 1966 (applicable to the years 1966–1969). One of the principal tasks of social and regional policy since the mid-1960s has been the reduction of regional inequalities. Regional differences in living conditions have, however, been studied in Finland even before World War II. For example, one study addressed the concept of well-being and regional variation in Finland already in 1901 (Gebhard 1908).

The second aim of this article is to investigate urban social differences in the Helsinki and Tampere metropolitan areas. This draws from the tradition of studying urban segregation processes and factorial ecology (Shevky & Bell 1955; Sweetser 1965; Timms 1971). The objective of these studies is to identify regions with distinctive social characteristics within cities. Helsinki is the capital of Finland and its metropolitan area covers the municipalities of Helsinki, Espoo, Kauniainen, and Vantaa. This metropolitan area had about one million inhabitants in 1999. Tampere is the second-largest metropolitan area in the country, with approximately 300,000 residents. The Tampere metropolitan area consists of Tampere, Kangasala, Lempäälä, Nokia, Pirkkala, and Ylöjärvi. A meaningful analysis of the residential differentiation of an urban population demands the availability of detailed data. Thus, social disparities in these two Finnish urban regions are studied by 250-metre grid cells. The grid cell data supplied by Statistics Finland are for the year 1997.

The examination of regional differences in the 1990s is interesting for at least two reasons. During the 1990s, Finland experienced two major economic upheavals that resulted in new divisions of labour both nationally and locally. At the beginning of the decade, Finland faced a recession more severe than in any other OECD country since World War II. During this economic crisis, labour shortage was replaced by mass unemployment, amounting to about one-fifth of the labour force. On the other hand, the new emphases of production, i.e., the growing importance of information technology and a knowledge-based mode of production, revived some areas faster than others (Menestys… 1999).

Comparison of municipalities

The patterns of social well-being are multidimensional, so several indicators are needed to represent spatial differences. The three indices used in this study have been established so that the mean for all municipalities (452) of the country is 100, with a standard deviation of 10. The index values of the municipalities are thus either above or below 100, depending on how they correspond to the mean. The same index includes variables indicating a similar regional divergence.

The first index consists of individuals with high incomes (over FIM 150,000 or, in current terms, roughly EUR 21,200 per year) and a high level of education (university degree). The percentages of those living in overcrowded housing conditions and of the disabled of the total population were used to calculate the second index. A dwelling is considered to be overcrowded if there is more than one person per room. The most common illnesses and conditions leading to disability in Finland are mental disorders, cardiovascular diseases, and orthopaedic diseases (Statistical… 1997: 145). Hospital admissions for narcotics-related illnesses form the third index.

We studied the variables describing well-being in closer detail with regard to a typology of municipalities (Table 1 & Fig. 1). According to the underlying research tradition, well-being is linked to certain factors of regional structure and division of labour (Aronen & Siirilä 1981; Kuitunen & Siirilä 1985). This typology illustrates the structural differences between municipalities, but it does not measure the actual level of well-being. The typology used in this study is based on Siirilä et al. (1990), who primarily classified municipalities according to such factors as commuting, service equipment (based on a network centre classification), degree of urbanization, and regional division of labour.

The regional distribution of municipality types is shown in Figure 1. Differences between the types are related to the regional division of labour, which manifests itself most clearly in the differences between urban and rural municipalities. The typology distinguishes the urban and rural municipalities as well as those municipalities that are the most urbanized, industrialized, and suburbanized.

The urban municipalities include (1) large population centres; (2) industrial centres; and (3) suburban municipalities. Large population centres are usually provincial capitals. A high percentage of manufacturing and service industries characterize industrial centres. The level of service equipment in this second category is lower than in large population centres. Most industrial centres are pure-

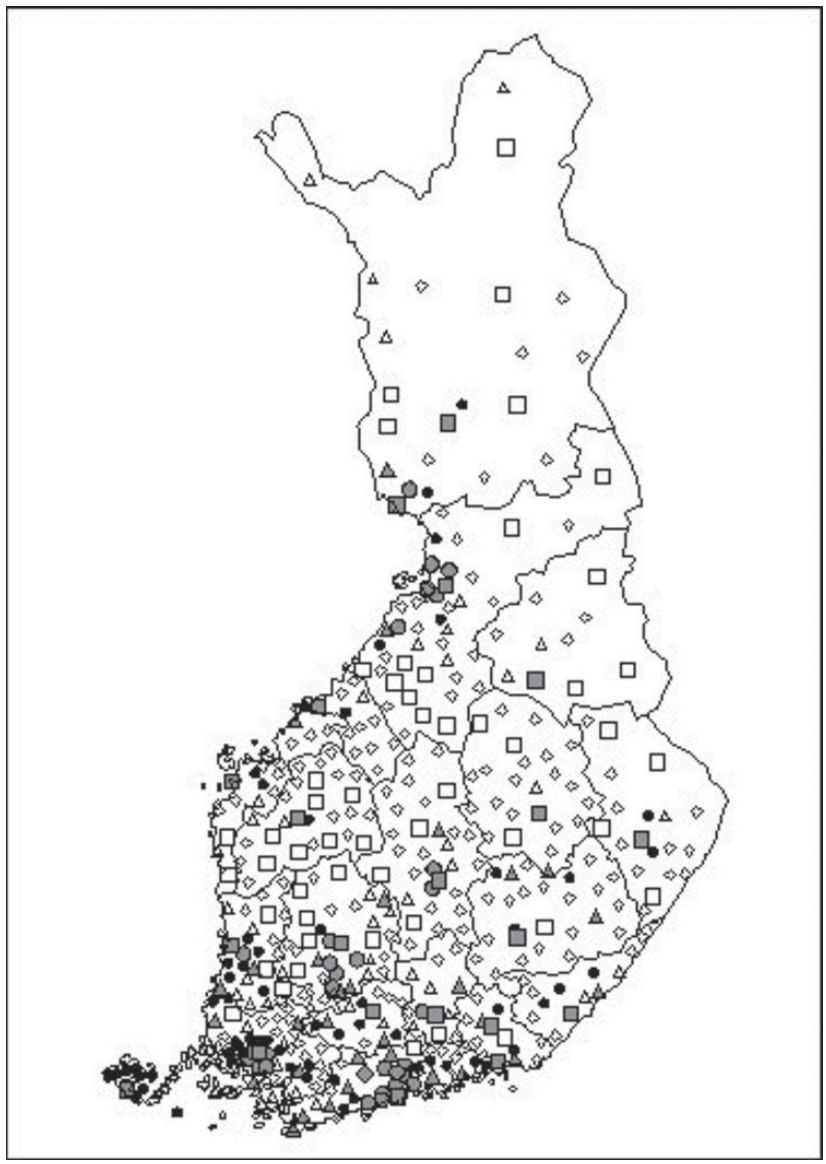

Fig. 1 & Table 1. Well-being by type of municipality. Index 1 consists of persons of high income and with an advanced level of education (university degree) in 1996. Index 2 consists of those living in overcrowded housing and the disabled, in 1995 (Data: Statistics Finland). Index 3 was calculated on the basis of drug-related illnesses (mean, in 1995–1997) (Data: National Research and Development Centre for Welfare and Health).

	Index 1	Index 2	Index 3
▩ Large population centres	115,8	91,3	112,7
△ Industrial centres	109,2	92,7	110,7
● Suburban municipalities	119,2	92,9	103,7
□ Rural population centres	97,7	102,2	102,8
△ Industrialized rural municipalities	100,4	98,8	100,3
● Rural commuter municipalities	103,7	93,2	96,2
◇ Primary production municipalities	93,3	105,0	96,9

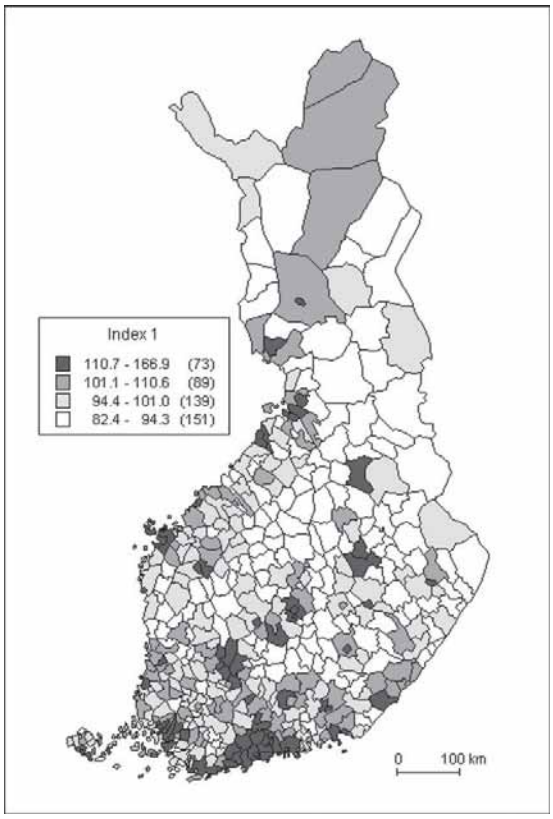

Fig. 2. Distribution of population with high income and a university degree in 1996, by municipality (Index 1) (Data: Statistics Finland).

ly industrial towns, characteristically with one large enterprise. Suburban municipalities are located near the largest centres, mainly in southern Finland. They are characterized by a large number of residents who commute to work to the nearest centre.

The municipalities in Finland's rural areas are (1) rural population centres; (2) industrialized rural municipalities; (3) rural commuter municipalities; and (4) primary production municipalities. The first category consists of municipalities that function as service centres for the surrounding rural areas. In these towns, employees of the primary sector account for an average of one-fifth of the employed work force. Industrialized rural municipalities typically have one large enterprise. In rural commuter municipalities, a significant share of the labour force is employed in another town. The municipalities in this third category clearly differ from their suburban counterparts in their industrial structure. A high percentage of primary production activity characterizes the municipalities in the fourth category.

The first index represents perhaps the most common concept of standard of living, i.e., available income and level of education. The spatial pattern of the first index is clear (Table 1 & Fig. 2). Levels of income and education are linked to urbanization and division of labour. Finland's large population centres, a few other centres, and their neighbouring municipalities show high values on the first index. High values around large cities suggest that these municipalities have become quite urbanized. This phenomenon can be referred to as *regionalization*: The centre and adjacent municipalities form the functional area of daily activities for its inhabitants and various organizations (Vartiainen 1992). Municipalities in provincial peripheries fall markedly below the national mean. Variations in the first index between types of municipalities are notable. The spatial picture of the first index differs from the zonal map depicting the second index.

Unlike the first index, variables used to calculate the second index indicate deprivation and the situation of the underprivileged. Urban municipalities compare favourably with the national mean. In Finland, urban areas are generally better off in terms of employment and poverty. Variations between types, however, are smaller than in the first index (Table 1). Variations are more evident between different parts of Finland than between the types of municipalities. In general, the regional divergence of the second index appears in zones (Fig. 3). The problems concentrate in the municipalities of central, eastern, and northern Finland. Rural municipalities in northern and eastern parts of the country are clearly the most problematic areas and, to a large extent, the same is true of central Finland. Rural areas in the south and in the west have better opportunities for successful farming and shorter distances to large urban communities. The economic structure of towns in eastern and northern Finland is also weaker than in the south and the west.

Measurement of drug-related illnesses sheds a novel light on previously unexamined social problems (cf. Aronen & Siirilä 1981; Kuitunen & Siirilä 1985; Siirilä et al. 1990). In comparison with the other European countries, drug abuse in Finland has only recently become a severe problem. Drug experiments and regular use, as well as re-

lated harms, increased steadily during the 1990s (Virtanen 2001). By type of municipality, the urban districts on average seem to have more problems than Finnish municipalities (Table 1). Drug use has grown mainly in large towns (Virtanen 1999: 125), and its spread into smaller towns and rural areas is only beginning (Viljanen 2001). This trend is comparable with the general pattern of spatial diffusion of innovations: new phenomena, fashions and lifestyles are usually adopted first in urban areas. Moreover, the supply of drugs is concentrated in the largest towns, where their demand is higher.

The regional pattern of drug-related illnesses is a relatively diffuse one (Fig. 4). These illnesses also yield higher-than-average values for many rural districts. Figure 4 shows that high values are observed especially in Lapland and eastern Finland, where problems occur both in urban and rural areas. In these areas, such factors as lack of leisure activities and unemployment predispose to the use of drugs and other intoxicants. Furthermore, the values for coastal municipalities clearly exceed the national average. Drugs are imported into the country mostly via seaports, where they are offered to locals.

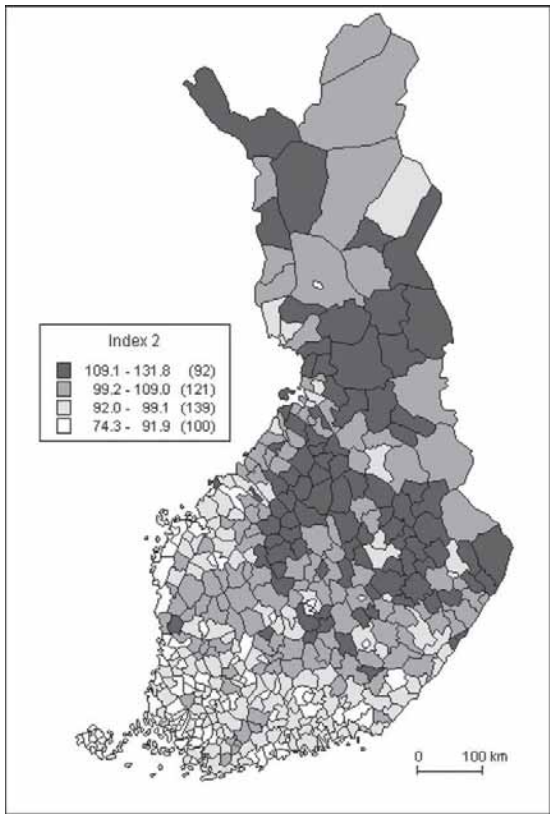

Fig. 3. Distribution of people living in overcrowded housing and the disabled in 1995, by municipality (Index 2) (Data: Statistics Finland).

Residential differentiation in Metropolitan Helsinki and Tampere

Residential differences in Metropolitan Helsinki and Tampere are studied by census data in a 250-metre grid cell format. By using detailed data, variations within these two cities can be depicted and visualized, and problems with data analysis based on administrative units can be avoided. The use of administrative units (e. g., municipalities) masks variations within large areas. Residential differences are examined through two variables that represent two dimensions of social differentiation: the percentage of persons with a high level of education (socio-economic status) and the percentage of families with children (family status). These dimensions have commonly been identified in factor analysis studies of urban areas (Timms 1971).

Family status

The spatial pattern in Figure 5 shows that families with children tend to congregate in suburban regions in Metropolitan Helsinki. These suburban areas populated by families with children are also characterized by large numbers of owner-occupied houses. The zonal-type regional pattern of family status found in Metropolitan Helsinki has been recognized in previous studies investigating urban segregation processes, and can also be seen in Metropolitan Tampere (Fig. 6). The high scores for the areas located far from the city centre and built in the 1980s and 1990s stand out. This aspect of spatial differentiation primarily represents residents' differences in lifestyle preferences and life-cycle characteristics. New residential areas located some distance away from the city centre and with lower living costs attract families with young children. The move to the suburbs may also reflect an attempt to find a more congenial environment for family life.

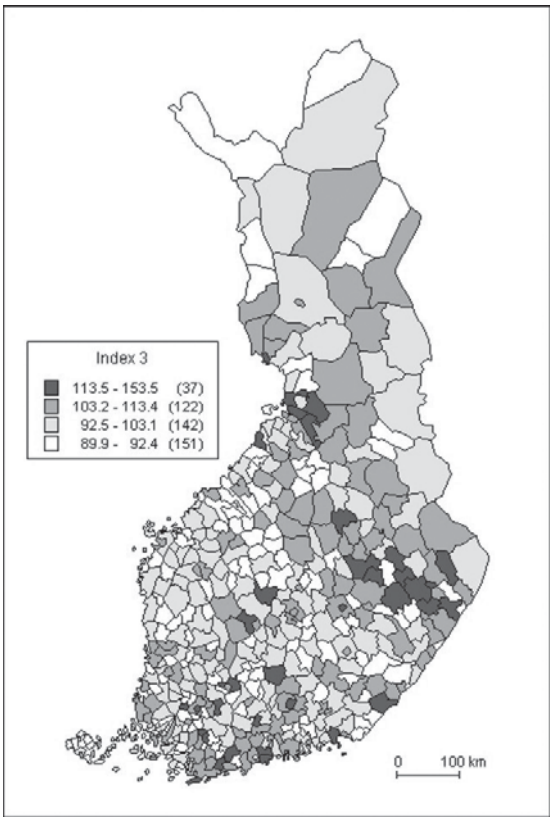

Fig. 4. Distribution of people suffering from drug-related illnesses (mean) in 1995–1997, by municipality (Index 3) (Data: National Research and Development Centre for Welfare and Health).

Level of education

The regional distribution of university-educated residents in Metropolitan Helsinki is presented in CD-Figure 1. Level of education is a central element in the formation of life politics and is regarded to influence taste and personal choices (Roos 1993). This dimension divides Greater Helsinki quite sharply. A low level of education characterizes the northern and eastern parts of the metropolis, while the western and seashore neighbourhoods attract those with a high level of education. The image of residential areas and the supply of upscale dwellings are better in the western parts of Metropolitan Helsinki. The appeal of eastern and northern residential areas is thus lower.

Differences in unemployment within the examined urban areas were virtually non-existent in the late 1980s, but recent traits of a permanent spatial concentration of unemployment have emerged. Kortteinen and Vaattovaara (1999) claim that a new phase began in the Helsinki region in the 1990s. Metropolitan Helsinki is becoming increasingly differentiated socially. One interpretation of these observations is to conclude that the current growth of the economy, based on the information sector, emphasizes the role of education as a labour market resource. New growth with innovative technologies breeds professionalization and novel divisions within both the labour market and the city (Hamnett 1994). The information sector has been the main engine of economic growth in Metropolitan Helsinki after the 1990s' national depression. About two-thirds of the economic growth after 1993 – measured by the number of people employed – is based on the information sector. As a result, the growth revives different areas at different rates, depending mainly on the educational level of the population (Kortteinen et al. 1999).

Despite the growing polarization, residential differentiation in Metropolitan Helsinki is still quite mosaic-like and the regional dispersion of the underprivileged is relatively diffuse in comparison with Europe's major cities. Such factors as narrow income differences between Finnish households in general and the distinctive heterogeneity of Finnish residential areas (i.e., residential areas include different kinds of dwellings, such as municipal rental apartment blocks and owner-occupied buildings) have so far prevented the formation of areas where the underprivileged are concentrated. The most problematic areas have remained fairly small and scattered in their distribution. It is thus possible to identify local 'pockets of poverty' rather than any widespread trends towards polarization.

The same kind of spatial division of residents with a high educational level as that found in Metropolitan Helsinki cannot be seen in Tampere (CD-Fig. 2). There, the spatial picture depicted by the level of education displays more of a mosaic structure. The impact of the waterfront (in this case, lakeshore) is nevertheless evident in Tampere as well. The percentage of university-educated population is high in expensive residential areas near the lake. It is worth noting, however, that the municipalities adjacent to the City of Tampere are more rural than the ones surrounding Helsin-

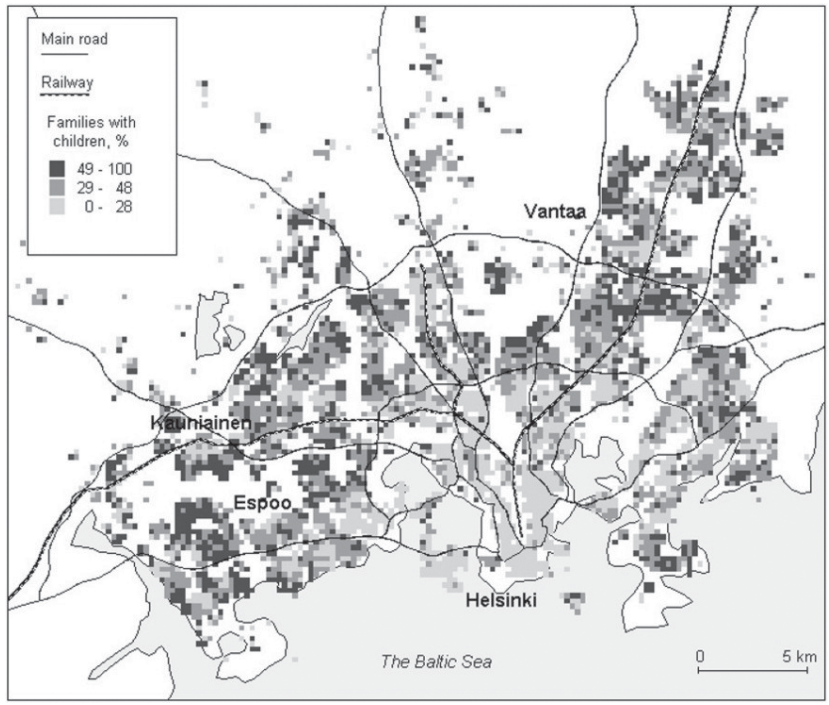

Fig. 5. Families with children in Metropolitan Helsinki in 1997, percentage by 250-metre grid cells (Data: Statistics Finland).

ki. The percentage of the university-educated population is thus clearly lower in the adjacent municipalities than in the City of Tampere.

Conclusions

At the municipal level, differences in well-being between rural and urban areas in Finland are evident. Compared with the situation in the 1980s, however, the regional pattern of economic deprivation became more complex in the 1990s: unemployment and poverty increased in urban areas (see Viljanen 2001). The largest Finnish cities and the surrounding municipalities grew rapidly in the 1990s. This development aggravated social problems in some urban areas. One may also talk about the strong regionalisation of major cities: their urban structure has spread into several neighbouring municipalities and internal specialization has occurred within the urban area.

On the other hand, certain parts of the country, especially remote rural municipalities in northern and eastern Finland, clearly fell below the national mean for many variables, with the situation becoming even worse in the 1990s. The remote rural areas lagged behind the rest of the country and differed markedly even from those heartland rural areas that otherwise have a similar social structure. The remote areas lost more inhabitants and recovered more slowly from the depression in terms of job creation and rising income than the rural heartland.

It should be noted, however, that extraordinary times, such as the economic depression of the 1990s, can also temporarily slow down or accelerate local trends. Such economic conditions make it difficult to tell whether regional differences in well-being are caused by more profound structural factors or whether they are just temporary deviations from a longer trend. On the other hand, the effects of the depression may become visible in the population's qualitative well-being slowly, following a considerable delay. To reach a conclusion about whether a phenomenon is a lasting trend or merely a temporary condition caused by the depression, a regional inventory of deprivation should cover a time span that includes both economic highs and lows. Suitable variables of a depression's

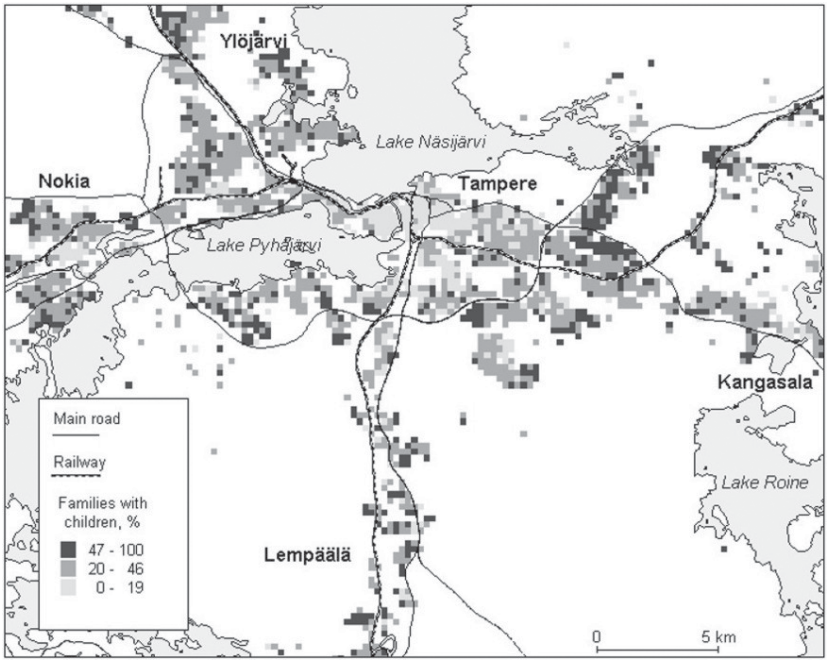

Fig. 6. Families with children in Metropolitan Tampere in 1997, percentage by 250-metre grid cells (Data: Statistics Finland).

qualitative effects could be mortality rates and the number of children taken into custody.

The grid cell material of this study shows that the spatial concentration of university-educated residents is quite obvious in Metropolitan Helsinki. The traditions of the Nordic welfare state, together with the policies of social mixing, have nevertheless resulted in a situation where the 'black holes' of urban development are relatively small (the size of a block, a house, or a part of a residential building) and scattered about the city. Urban inequalities in Metropolitan Helsinki are based more on the level of education than on impoverishment and are not linked to multi-problem neighbourhoods but, rather, to some multi-problem blocks-of-flats in the middle of average, structurally heterogeneous neighbourhoods.

The spatial distribution of the university-educated population seems to be fairly even in Metropolitan Tampere. Because of the lack of longitudinal analyses and detailed studies concerning socio-economic differentiation in this area, it is nevertheless difficult to say whether polarization has grown in recent decades.

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