Unstable orders and changing minority protection:
The effects of urbanization

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Abstract

In the European Union, national borders are losing importance. In many parts of the world an accelerating process of urbanization is taking place. With economic development comes an increasing mobility of populations. All these and many other processes affect the living conditions of linguistic and other minorities. As a consequence, the basis for traditional minority policies might change. In this chapter, in the spirit of economic cost-benefit or cost-effectiveness analysis, we analyze the effects of the changing conditions on the costs of traditional policy measures.

In any economic analysis costs play an important rôle. The question is, how are costs affected by urbanization? Taking our point of reference in two minorities in Europe, the Hungarian speakers in Transylvania and the Swedish speakers in the area around the capital Helsinki/Helsingfors in southern Finland, we first discuss the implications of urbanization in light of a cost-effectiveness analysis. This provides us with a normative background for the analysis.

An interesting question is how the political system adjusts to the new conditions in designing minority policies. We will see that the policy has very different implications in the two cases discussed.

1 INTRODUCTION: URBANIZATION, COSTS, BENEFITS, AND EFFECTIVENESS OF MINORITY-RIGHTS POLICIES

Urbanization affects the demographic structures in general and those of minorities specifically. In this essay, we discuss some possible implications of urbanization for linguistic minorities. We will analyze the effects both from a normative and positive economics perspective. Traditionally economic analysis distinguishes between normative – or prescriptive – and positive – or descriptive – approaches. A positive analysis means that one looks at how individuals, firms and similar actors react to changes in their surrounding landscape, especially due to legal rules and policy measures. For instance, one can look at how changes in taxation rules affect the consumption behavior of individuals or the production mix of firms. Normative analysis, on the other hand, asks the question, how can certain goals be reached? In the taxation example, how should the tax rules – for instance the mix of direct income tax and indirect sales tax –

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be adjusted such that the income distribution in society becomes more equal. The goals are often efficiency – benefits of public policy should exceed costs of the policy – or redistribution from strong or rich individuals to poor or weak ones. In other words, positive theory maps the consequences of changes in constraints facing the various actors in society; normative analysis defines a desirable goal for society and investigates how this goal can be reached with the help of policy instruments at hand. Applied to the analysis of minority rights, this means that we, on the one hand, study how unstable orders affect the situation of minorities and, as a consequence, their rights under the given rules of society and, on the other hand, how a sensibly designed policy aiming at the goal of protecting the minority be implemented.

The unstable orders we consider are the processes of urbanization and migration with their demographic consequences for minorities. Areas where a minority has lived for generations change demographically through migration into the areas of members of the majority, making the the minority proportionally smaller.[1] At the same time, migration of members of a minority into urban centers tends to make the minority lose its visibility and become marginalized. The rights of the speakers of the minority language might change due to this movements depending on the legal rules in effect. We illustrate our arguments with two cases from areas with very different legal rules: Transylvania in Romania and the area in Finland around the capital Helsinki/Helsingfors.[2] These changing conditions under current rules will be contrasted with rights allocations based on economically rational efficient rules, namely on rules based on cost-benefit analysis. In traditional literature on language policy, see for instance Spolsky (2012) and Tollefson and Pérez-Milans (2017), cost-benefit considerations are almost totally absent, and especially the costs of language policy are hardly mentioned. There are, in deed, very few investigations of the cost side of language policy; some notable exceptions are found in Coche, Vaillancourt, Cadieux, and Ronson (2012) and Desgagné and Vaillancourt (2016) and other publications by these authors. In policy analysis in general, however, cost-benefit considerations occupy a central position and guarantee that the policy be efficient and consistent. The cost-benefit criterion in its simplest form compares costs and benefits of policy measures, and if benefits exceed costs, the measure is looked upon as efficient and should be implemented. Taking into account how public policy is financed, the analysis can easily be extended further to consider distribution and fairness. See Wickström (2020a) and Wickström and Gazzola (2020).

In this introduction, we will first discuss possible demographic effects of urbanization in section 1.1 and then the economic approach to language policy in section 1.2. In section 2, we give a description of the demographic development of the two regions since the middle of the 20th century. The normative, prescriptive analysis of efficient minority rights follows in section 3, and section 4 looks at the factual situation. Finally, in section 5 concludes with some general reflections.

1.1 URBANIZATION AND DEMOGRAPHIC PROCESSES

We consider two demographic processes in our analysis of urbanization in this essay. The first is migration and the second is language shift.

When a bilingual area becomes urbanized through internal migration, it is to be expected

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[1] Compare the fate of the Gaelic dialect analyzed by Dorian (1981).

[2] Since we are discussing language rights, we find it appropriate to use names of regions, towns and cities both in the majority and minority languages and will do so consistently.

that the urbanization rate of both language groups is similar. This would decrease the total rural population proportionally in both groups as well as increase the urban population also proportionally in both groups. However, if there is migration from outside into the bilingual area, and if this migration mainly is directed towards the urban area, then the growth of the majority population in the urban areas will be faster than that of the minority population, which, hence, decreases as a fraction of the urban population. As a fraction of the rural population, it stays more or less the same.

The survival of a minority in the face of language shift is a rather complicated process with several feed-back mechanisms.[3] The central argument, however, is the frequency of intermarriages and the behavior of these bilingual families. If H denotes an individual speaking (only) the majority language, L someone speaking (only) the minority language, and B a truly bilingual individual, we can in principle have nine family types. Ignoring the difference between the sexes, this is reduced to six: HH, BB, LL, HL, HB, and BL. If we further assume that all speakers of the minority language L are bilingual, we are left with HH, BB, and HB. The children emerging from an HH-family will, to a very large extent, be of type H. From a BB-family (and LL- as well as LB- families), on the other hand, there will be a certain "leakage" to H. This would have to be compensated by the HB-families, in order for the minority language to survive in the long run. That is, from the HB-families more than half the children on average would have to be of type B. If this is not the case, the minority will decline from one generation to the next.[4] In other words, the frequency of intermarriage and the frequency of minority-language speakers emerging from the mixed families determine to a large extent the destiny of the minority language. Of course, the relative frequencies of the two languages also matter; the less visible is the minority language in the public space, the less likely it is that children from mixed families will adopt it. This will also affect the "leakage" from the BB-families.

A reasonable assumption is that the rate of intermarriage increases with the degree of urbanization. In rural areas, traditions are strong and language groups are separated in different villages. This makes intermarriage less likely and language switch is minimal. In towns, the contact between the groups is higher, but traditional values are often still rather strong, making intermarriage not too frequent. This changes in big cities; anonymity leads to less social control which in turn leads to more contact between individuals of different ethnic groups. Intermarriage rates increase and the children emerging from mixed couples tend to adopt the majority language to a large extent. We would, hence, expect language shift to be the lowest in rural areas and the highest in big cities.

The picture emerging from the discussion above is that we can expect the number of speakers of minority languages to decrease absolutely, but not relatively, in rural areas due to migration to urban areas. In towns, their number can be expected to increase, if the language shift is not too strong, but the relative strength is bound to decrease due to some language shift and migration from the outside. In big cities, the absolute number will increase less, or even decrease, due to language shift, and the relative size will decrease substantially, both due to language shift and migration from outside the area.

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[3] See, for instance, Wickström (2005) or Wickström (2014) and the references therein.

[4] Of course, there can also be B-individuals emerging from HH-families. This seems to be the case in, for instance, the Spanish Basque area, see Cenoz (2008).

1.2 AN ECONOMIC ANALYSIS OF LANGUAGE POLICY

Language-rights policies can be of many different kinds. For analytic purposes it is sensible to assign different policy measures into categories with similar properties. In doing so, we can look at both the impact of a measure and its costs. In a cost-benefit analysis, the impact is the value of the measure to the various beneficiaries. In a cost-effectiveness analysis, we analyze how the measure changes some objectively observable variable that the policymaker wants to influence. Such a variable could, for instance, be the actual use of a minority language in society or could be the number of competent speakers of the language in question. In this essay the benefit or effect side of policies will not be the focus of the analysis. Instead, we will concentrate on the cost side.

There are at least two different dimensions to the costs of policy measures. On the one hand, it is the size of the costs, depending, in general, both on the number of beneficiaries of the policy and also on the area of implementation of the policy. On the other hand, we have the structure of the costs, that is, how they depend on the different variables, in our case, on the number of beneficiaries and on the area of implementation. The costs of some policy measures depend neither on the number of beneficiaries nor on the size of the territory where the measures are implemented. The costs of other measures depend on one or both of these factors to various degrees. If the costs of a policy measure do not depend on the number of beneficiaries, we talk about a *non-rival* measure; if the costs depend on the number of beneficiaries, the measure is *rival*. Similarly, we define *non-spatial* and *spatial* measures as those whose costs do not depend on the size of the territory of implementation and those depending on it, respectively. Examples of non-rival and non-spatial measures are the use of a minority language in public decrees, law texts, on money bills, in bilingual passports etc. A spatial and non-rival measure is, for instance, bilingual street signs. The right to receive written answers from public authorities to individual concerns in your preferred language would be an example of a measure that is rival, but not necessarily spatial. Receiving social services in the language of your choice, like nursing at home, would be an example of a measure that is both spatial and rival.

An important consequence of the cost-benefit or -effectiveness approach to minority rights is that the size of the total population is unimportant for a rational analysis. Only the size of the beneficiaries, the minority population, matters.[5] The relevant variables are then the numerical strength of the minority, which influences both the size of the aggregated benefits and the costs, as well as the habitation pattern of the members of the minority.

One can illustrate this in a simple two-dimensional diagram. Each jurisdiction is here characterized by the numerical size of its minority population and by the geographical density of the members of this minority. For given costs per beneficiary of the policy – per member of the minority population –, k, of a certain policy measure, we can define a curve in the diagram with the numerical strength (n) of the minority on one axis and its population density (δ) on the other, such that for jurisdictions with parameter values above this curve the costs per beneficiary are lower than k and below the curve the costs per beneficiary exceed k. This curve, which we call

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[5] This only holds, of course, as long as members of the majority population are neutral in respect to the well-being of the minority. If, on the contrary, members of the majority feel a need to persecute or disadvantage the minority and, hence, suffers discontent from the provision of minority rights, this would have to be considered in an analysis of the social value of the policy. In this case, also the size of the majority would have to be taken into account in the analysis. See Wickström (2019).
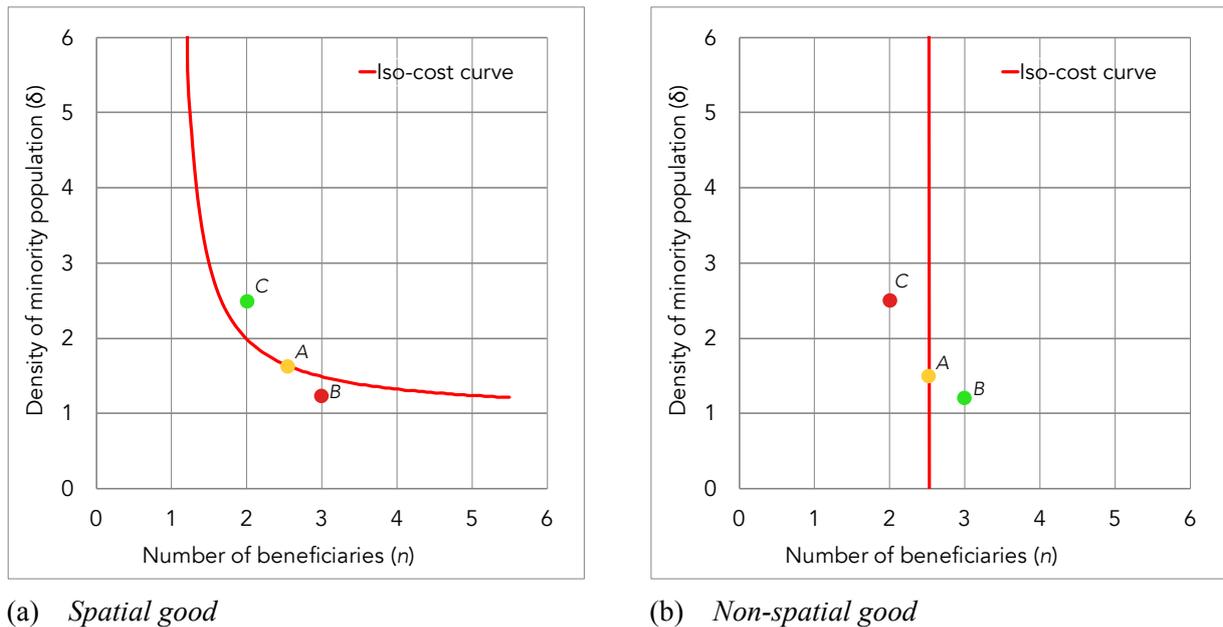
(a) *Spatial good*

(b) *Non-spatial good*

FIGURE 1.1   Iso-cost curves

an *iso-cost* curve, will, in general, have a negative slope.[6] In figure 1.1. two iso-cost curves have been drawn.

The curve in figure 1.1a illustrates a case when costs depend both on the number of beneficiaries and the size of the jurisdiction. The costs per beneficiary in jurisdiction B are the highest and in jurisdiction C the lowest. The iso-cost curve connects values of the size of the minority (n) and its density (δ) characterizing jurisdictions for which the costs per beneficiary are the same and equal to the costs per beneficiary in jurisdiction A. The underlying implicit assumption is that there are economies of scale in both variables: the larger the minority, the lower the *per capita* costs and the denser the habitation, the lower the *per capita* costs. There will, hence, be a trade-off between size and density of the minority population when a policy measure is implemented.

In figure 1.1b, we are considering a policy measure whose costs do not depend on the habitation patterns of the minority population. Here, the *per capita* costs of a policy measure will only depend on the size of the minority population and decrease with an increase in the size. Now the costs per beneficiary are the highest in jurisdiction C and the lowest in jurisdiction B. The iso-cost curve is vertical; that is, it is independent of the density of the minority population.

2   SOME OBSERVATIONS FROM ROMANIA AND FINLAND

It is instructive to look at some simple descriptive statistics from two bilingual areas in Europe: Transylvania (Ardeal/Erdély) in Romania and Uusimaa/Nyland in Finland. Both regions have a substantial minority population, in Romania of Hungarian speakers and in Finland of Swedish speakers. In Transylvania the second largest city of Romania, Cluj-Napoca/Kolozsvár, is the

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[6] We are here assuming that the costs are concave in the arguments n and a, the numerical strength of the minority population and the size of the jurisdiction in question. This is not a very strong assumption, and it would be satisfied by virtually all realistic cases. See also Wickström (2020b).

TABLE 2.1   Changes in the Hungarian- and Romanian-speaking populations of Transylvania from 1948 until 1992
Source: Own calculations based on Varga E. (1998) and Institutul national de statistică (2011a)

Transylvania	total population	Hungarian speakers	Romanian speakers
total	+34%	+9%	+55%
rural	−29%	−31%	−25%
urban	+296%	+106%	+507%
Cluj-Napoca/Kolozsvár	+179%	+10%	+432%

(informal) regional capital, and the Finnish capital Helsinki/Helsingfors is located in Uusimaa/Nyland. Both regions experienced population growth in the second half of the 20th century (and the beginning of the 21st century);[7] in the case of Uusimaa/Nyland it has been substantial until today, see tables 2.1 and 2.2. Within Transylvania, there was a strong urbanization from 19% of the population living in urban areas in 1948 to 57% in 1992.[8] In Uusimaa/Nyland, on the other hand, the population was about equally distributed between urban and rural areas in the period from 1930 until 2018, the urban population as a fraction of the total population decreasing from 52% to 45%.[9]. However, in addition to Helsinki/Helsingfors there are four more towns in this region and parts of the "rural" areas can be regarded as sub-urban ones, so the relative decrease in the urban population is probably more a reflection of a move to suburbia. The population of Uusimaa/Nyland grew by 248% from 1930 until 2018 as compared to all of Finland growing by 63%. That is, the population growth in Uusimaa/Nyland is a clear example of urbanization with migration from outside the area and most of Uusimaa/Nyland can be looked upon as a growing urban/suburban area with some rural pockets. In contrast, Transylvania grew less than all of Romania from 1948 until 1992 (34% as compared to 44%). That is, urbanization occurred to a certain extent, but not excursively, through migration within the region.

If we look at the minority in Transylvania, we see that its urbanization was a bit slower than that of the total local population (its urban fraction going from 29% in 1948 to 56% in 1992). From table 2.1, we see that the rural Hungarian-speaking population decreased somewhat in numerical size in Transylvania but stayed constant as a fraction of the total rural population, since it also decreased by a similar fraction. As is shown in table 2.1, the urban minority population increased in numeric strength, but lost as a fraction of the total urban population, which increased

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[7] For Finland we have data up to 2018, for total Transylvania until 1992, and for Cluj-Napoca/Kolozsvár until 2011. There is no doubt that the tendencies have continued until today in both areas, but strictly speaking we talk about the period up to 1992 for Transylvania. For Finland, we choose to begin in 1930, but could have gone back further. In Transylvania 1948 is the first year with post-war data. Going back further, we would have had to deal with the war time and the possible influence of other processes than urbanization.

[8] Own calculations based on Varga E. (1998) and Institutul national de statistică (2011a). The same sources are used for all similar numbers in this section.

[9] Own calculations based on Suomen virallinen tilasto/Finlands officiella statistik (2018), Suomen virallinen tilasto/Finlands officiella statistik (1933), and Tilastokeskus/Statistikcentralen (2020).The same sources are used for all similar numbers in this section.
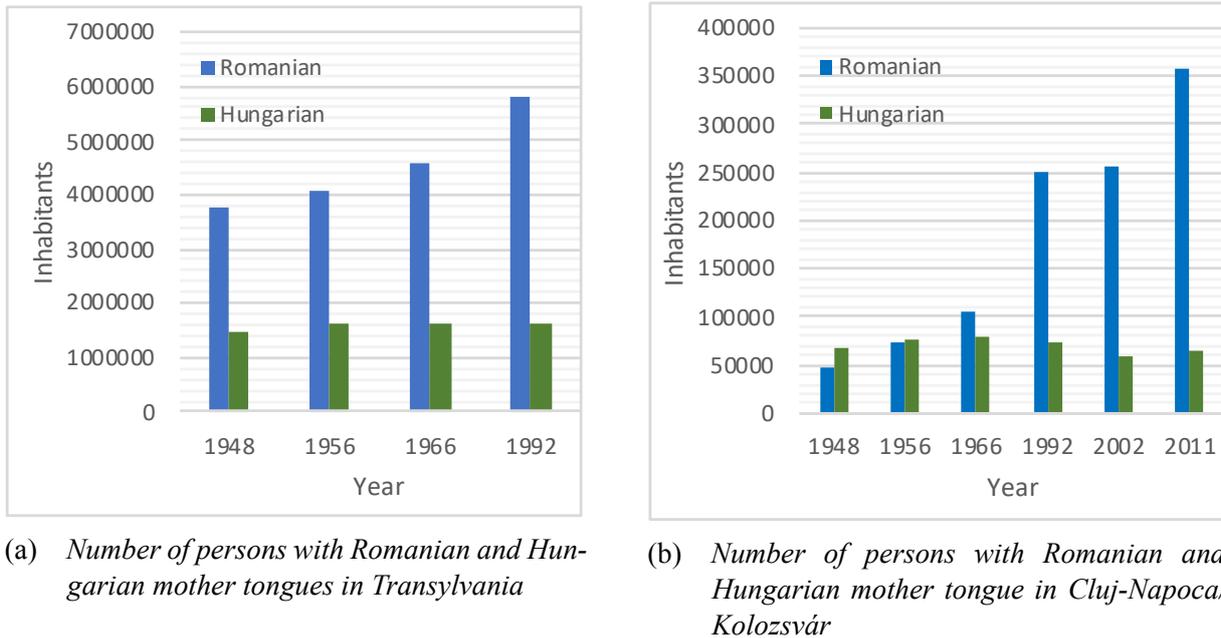
(a) *Number of persons with Romanian and Hungarian mother tongues in Transylvania*

(b) *Number of persons with Romanian and Hungarian mother tongue in Cluj-Napoca/Kolozsvár*

FIGURE 2.1   Population development in Transylvania
Source: Own calculations based on Varga E. (2008) and Institutul national de statistică (2011b)

almost by a factor of four, and in relation to the Romanian-speaking one, which increased by a factor of six. For the city of Cluj-Napoca/Kolozsvár, the Hungarian population stayed more or less constant, but, of course, also lost as a fraction of the total population, which increased by a factor of almost four, and in relation to the Romanian one, which increased by a factor of seven and a half.[10]

In conclusion, the absolute size of the Hungarian population in Transylvania in the period analyzed increased somewhat, but it lost substantially as a fraction of total population. The center of gravity of the Hungarian speakers moved from rural areas to urban ones. At the same time, its fraction of the total population stayed about constant in the rural areas and decreased substantially in the urban areas. In the city Cluj-Napoca/Kolozsvár, the absolute size stayed about constant, but the relative size decreased from a majority of 58% in 1948 to a minority of 23% in 1992 and 14% in 2011. This decrease is due to a big increase in the number of Romanian speakers.

Turning to Uusimaa/Nyland, we note that the fraction of the Swedish minority living in urban areas increased from 49% to 60% between 1930 and 2018. We also note from figure 2.2a as well as from table 2.2 that the size of the Swedish-speaking population decreased both in the entire territory and in the rural areas; in the urban areas, on the other hand, it stayed more or less constant; see table 2.2. In the biggest city, Helsinki/Helsingfors, however, figure 2.2b and table 2.2 show that it decreased substantially. Due to the increase in the Finnish-speaking population

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[10] For Cluj-Napoca/Kolozsvár we have statistics also from 2011, and the total population increased by 289% from 1948 until 2011, the Hungarian one fell by 5%, and the Romanian increased by 654%. This reinforces the picture from the earlier data; the absolute size of the Hungarian population in the city hardly changed but the Romanian one increased rapidly.
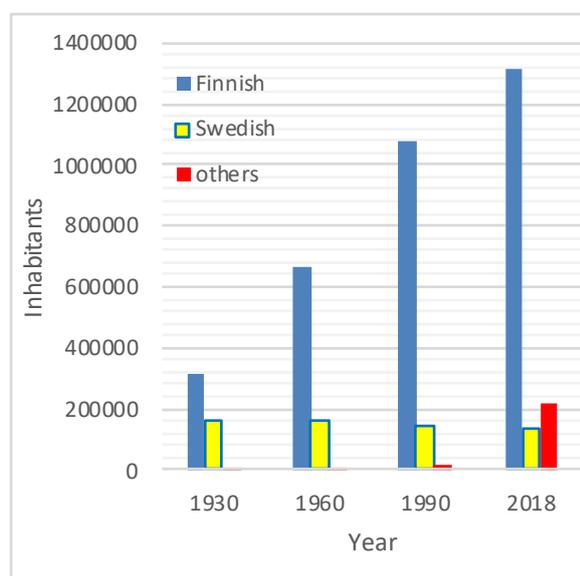
TABLE 2.2   Changes in the Swedish- and Finnish-speaking populations in Uasimaa/Nyland
from 1930 until 2018
Source: Own calculations based on Suomen virallinen tilasto/Finlands officiella
statistik (2018), Suomen virallinen tilasto/Finlands officiella statistik (1933), and
Tilastokeskus/Statistikcentralen (2020)

Uusimaa/Nyland	total population	Swedish speakers	Finnish speakers
total	+248%	−20%	+323%
rural	+297%	−37%	+427%
urban	+202%	−2%	+247%
Helsinki/Helsingfors	+184%	−45%	+224%

(by factors of over four, over five, three and a half, and over three for the total region, for the
rural areas, for the urban areas, and for Helsinki/Helsingfors, respectively) and, in recent years,
of the population speaking other languages, the relative size of the Swedish-speaking population
decreased substantially; see figures 2.2a and 2.2b.

In conclusion, although there was a certain concentration of the Swedish-speaking popula-
tion in central urban areas of the, in general, rather urban province, the clear picture that emerges

(a) *Number of persons with Finnish, Swedish,
and other mother tongues in Uusimaa/
Nyland*
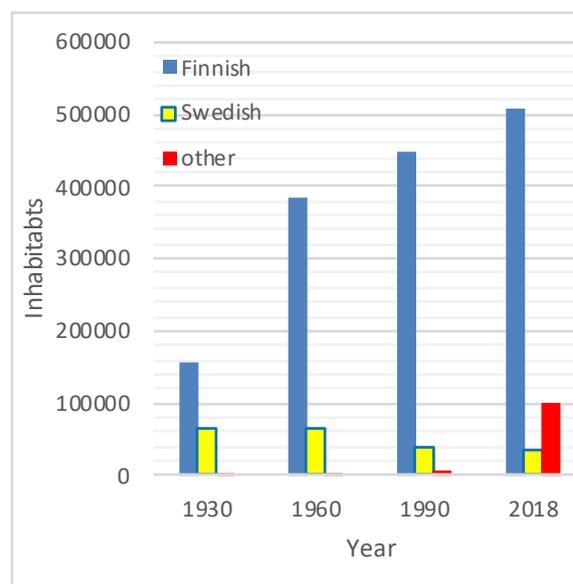
(b) *Number of persons with Finnish, Swedish,
and other mother tongues in Helsinki/
Helsingfors*

FIGURE 2.2   Population development in Uusimaa/Nyland
Source: Own calculations based on Suomen virallinen tilasto/Finlands offi-
ciella statistik (1933), Tilastokeskus/Statistikcentralen (1972), and Tilastokeskus/
Statistikcentralen (2020)

is that in all of Uusimaa/Nyland the size of the minority decreased moderately. There was a drastic decrease in Helsinki/Helsingfors, but no significant change in all urban areas together. Hence, there was an increase in other urban areas.[11] The big change, however, is in the size of the majority population, which increased by a factor of more than four and in the rural areas by more than five. This increase in the number of Finnish speakers explains the decrease in the relative size of the Swedish-speaking minority in all of Uusimaa/Nyland.

As we noted above in section 1.1, there are two obvious reasons for demographic changes of the type discussed here: migration and language shift. Without further hard data, we can only speculate about the effects of these processes on the numbers presented.[12] Migration from an area predominantly inhabited by the majority population into an area where the minority lives, can easily explain the rapid increase in the majority population as a result of urbanization. It does not explain the decrease in the numeric strength of the minority, though.

Again, we can only speculate to what extent migration away from the area or language shift explains the observations. Anecdotal evidence suggests that there was some migration of ethnic Hungarians to Hungary and of Finno-Swedes to Sweden; however, in our view, language shift as discussed in section 1.1 is probably a more important reason for the decline. The rate of decline of the minority due to language shift, as argued above, depends on the rate of intermarriage and the behavior of bilingual families. As already noted, anecdotal evidence suggests that the rate of intermarriage is higher in urban than in rural communities. This could be a contributing factor explaining the decline of Swedish speakers in Helsinki/Helsingfors. It could also be a contributing factor explaining the difference between the population development in Cluj-Napoca/Kolozsvár and in the rest of urban Transylvania.

We do not claim to be able to generalize the effects of urbanization based on these two examples. In the following, we will also take them for what they are: two examples. We will then ask what the development in the demographic structures in these two cases implies for minority rights, both in a normative analysis based on a streamlined cost-effectiveness analysis, and in a positive analysis with its roots in the observed reality that is based on different formal rules, that govern the minority policy and that are not necessarily in line with the normative recommendations for a sensible policy. It is left to the reader to ask if the analysis also applies to some of the multitude of similar cases present in other parts of the world.

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[11] The four towns that in addition to Helsinki/Helsingfors make up the urban areas of Uusimaa/Nyland are Ekenäs (from 2009: Raseborg)/Tammisaari (Raasepori), Hanko/Hangö, Loviisa/Lovisa, and Porvoo/Borgå, In Porvoo/Borgå the Swedish-speaking population increased from 4171 to 14672 in the time period 1930 to 2018, in Loviisa/Lovisa from 2411 to 6052, and in Ekenäs (Raseborg)/Tammisaari (Raasepori), where it still makes up the majority, from 2710 to 17832. The latter increase, however, is to a certain extent due to redrawing the jurisdictional borders. Only in Hanko/Hangö did the Swedish-speaking population decrease, from 5337 to 3575 individuals.

[12] Also the "hard" data presented above are not as reliable as one might think at first glance. A major weakness in the collection of language data both in Romania and Finland is that bilinguals are not present in the data, In the census each individual has to choose only one language as his or her mother tongue. Bilingual individuals, hence, have to choose one of their two mother tongues. This introduces an unknown bias in the data that can depend on a number of factors, both social and political.

3 NORMATIVE IMPLICATIONS OF THE DEMOGRAPHIC CHANGES IN TRANSYLVANIA AND SOUTHERN FINLAND

The normative analysis can best be illustrated with the help of figure 1.1. A prerequisite for any normative analysis is that the goals of the policy maker be well-defined. We assume that the policy maker is interested in supporting the members of the minority, and that each human being is worth the same in the eyes of the policymaker. We translate this to mean that in minority policy, the costs per beneficiary is a relevant parameter. Further, the propensity to support a representative individual at least does not decrease when the minority becomes smaller or (more) marginal. On the contrary, a certain visibility of the minority language in the linguistic landscape is necessary for the preservation of the minority culture.[13] Many factors that we have not considered in the small model behind figure 1.1 are relevant and would contribute arguments for accepting higher *per capita* costs for language policy measures. Such factors are the scant use of the minority language in the public space due to the minority being a small fraction of the total population or the shift in the main language in the public space from the local majority language to the national majority one in small towns or even larger jurisdictions due to migration making the traditional local majority a minority. These and many other factors can justify the acceptance of higher *per capita* costs.

In nuce, the *per capita* costs are, in general, the crucial parameter. An increase in them might justify fewer minority rights, if the acceptance of higher costs cannot be motivated by arguments like the ones above. That is, if the location of the jurisdiction in figure 1.1 moves towards the northeast of the diagram, there is an argument for the preservation of current rights and for an extension of those rights. If the location of the jurisdiction moves in the southwest direction in the diagram, one might consider limiting the minority rights, unless there are arguments for accepting higher *per capita* costs.

Turning our attention towards Transylvania, we see that the situation is clear. There is no argument for changing the rights of the Hungarian minority in the total area of Transylvania looked upon as one jurisdiction. The Hungarian population increased by a small amount and as a consequence also its density since the size of the area stayed the same. Transylvania moved in the northeast direction in the diagram. In Cluj-Napoca/Kolozsvár the situation is similar. The Hungarian population increased by a minimal amount since 1948, moving the city by a small amount in the northeast direction in figure 1.1.[14] One can even argue that it is justified to accept higher *per capita* costs for the pro-Hungarian language policy since the visibility of the Hungarian language decreased in the linguistic landscape. Hence, the general conclusion must be that there is no sensible reason to provide fewer rights to the Hungarian speaker today than in 1948. Taking all urban areas in Transylvania, we find a very strong argument for providing more rights to the Hungarian speaker than in 1948. The number more than doubled between 1948 and 1992, and the urban areas moved a substantial distance in the northeast direction in the diagram. The *per capita* cost thereby decreased significantly. Only in the rural areas, can one expect the *per capita* costs to have increased significantly, which could justify curtailing

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[13] See also the arguments in Grin (1992).

[14] Considering the development from 1992 until 2011, there has been a small movement in the opposite direction, but this hardly affects our discussion.

some minority rights in rural Transylvania.[15]

In southern Finland, the situation is quite different. Here the urbanization led to a decline in the Swedish speaking population except in the urban parts of Uusimaa/Nyland, where there was no change in its size. Considering that the minority decreased substantially in Helsinki/ Helsingfors, which, of course, is part of the urban areas, we have already seen that it increased in other urban parts, namely in three out of four smaller towns. With the exception of these three towns, we can, hence, conclude that the *per capita* costs of implementing the relevant policy measures increased, and, in some areas, substantially. The various jurisdictions moved in the southwest direction in the diagram. This would provide the policy maker with a rational argument for reducing language rights for the Swedish-speaking population in most of Uusimaa/ Nyland. From a normative point of view, urbanization has led to a situation where it is sensible to curtail some minority-language rights.

We conclude that in Transylvania there is no justification for changing language rights pertaining to all of Transylvania or to the city of Cluj-Napoca/Kolozsvár, there is some justification for a reduction of language rights for the rural minority population, but strong arguments for more rights for the urban population outside of Cluj-Napoca/Kolozsvár due to the changes in population structure since 1948. In Uusimaa/Nyland the demographic development since 1930 provides good arguments for reducing rights pertaining to the whole territory, to its rural parts, and to the city of Helsinki/Helsingfors. Only in the case of three towns outside of the capital are there arguments for increasing minority rights.

4   PRESENT POLICY RULES AND THE MINORITIES IN TRANSYLVANIA AND SOUTHERN FINLAND

Moving from the normative analysis to the reality of language policy, a partially very different picture emerges. In both Romania and Finland, minority rights are regulated by law, see România (2001) and Suomen tasavalta/Republiken Finland (2003), respectively. In Romania, a minority must reach at least 20% of the total population in a jurisdiction to be granted certain rights. In Finland, the minority must reach at least 8% of the total population or 3000 individuals in the jurisdiction, in order to be granted minority rights. In Romania, Romanian is the sole official language statewide, which applies to all jurisdiction, even those, where Romanian is a small minority language. In Finland, on the other hand, Finnish and Swedish are equal official languages on the state level and are treated symmetrically locally. That is, in jurisdictions, where Finnish is the minority language, Swedish is the first language, and in jurisdictions, where Finnish falls below the legal limits, Swedish is the sole official language.[16]

4.1   THE PERCENTAGE RULE

The percentage rule, the requirement that a minority make up a certain proportion of the total population in order to enjoy some minority rights, is applied in many countries. In Romania, the

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[15] When talking about the various areas, we have to consider to which jurisdiction the policy measures are addressed. Issues dealing with all of Transylvania are, of course, related to the total minority population, whereas local issues, such as bilingual street signs or language use in local councils, are related to the population in the local jurisdiction.

[16] At the moment this applies only to the Åland islands, which also enjoy a special autonomy status.

minority has to reach at least 20% of the total population in a jurisdiction to be recognized. In Slovakia it is 15%[17] and in Estonia it has to be the local majority.[18] The rule has very different implications in rural and urban communities with respect to the relevant parameters in the normative analysis.[19] This can readily be shown. Let a be the area of the jurisdiction, N the total population size, n the size of the minority population. The fraction of the minority population as part of the total population is then readily found, call it π: $\pi = n/N$. In Romania, the critical value of π that has to be satisfied for the implementation of rights is then 0.20 or 20% and in Estonia 0.5 or 50%. The variables of interest to us are n, the numerical size of the minority, a, the area of the jurisdiction which can be replaced by the density of the minority population in the jurisdiction under consideration, δ. A critical value of π then corresponds to critical values of δ, that is the number of individuals in the minority per unit of land that is necessary for rights implementation: $\delta = n/a$. The difference between rural and urban areas is captured by the density of the total population, the total number of individuals per unit of land. We denote this by Δ: $\Delta = N/a$. It is clear that Δ is higher in urban jurisdictions than in rural ones. We want to know the relationship between the critical percentage and the critical densities of the minority:

$$\pi = \frac{n}{N} = \frac{n}{N}\frac{a}{a} = \frac{\frac{n}{a}}{\frac{N}{a}} = \frac{\delta}{\Delta} \tag{4.1}$$

or

$$\delta = \pi\Delta \tag{4.2}$$

With a given percentage rule, represented by π the critical value of δ will be greater in the urban region than in the rural one in order for the percentage rule to be satisfied, since the total density Δ is greater in the urban area. But the cost-benefit calculation implies the same critical values of n and δ in all jurisdictions. The higher critical value implied by the percentage rule in urban jurisdictions then implies a discrimination of urban minorities compared to rural ones. The level of *per capita* costs making a policy measure marginal is much higher in an urban jurisdiction than in a rural one. Intuitively it is very easy to see that a minority that reaches a certain number per unit of land, the rational criterion, corresponds to a smaller and smaller percentage of the total population as the non-minority population grows.

Given a percentage rule, the implementation of language rights is, hence, stricter in urban areas than in rural ones, see figure 4.1. In the diagram it is assumed that the population density in urban areas is three times as high as in rural ones. With a percentage rule in effect, in all rural jurisdictions with a density of the minority population greater than δ^R minority rights will be implemented, whereas urban jurisdictions require a density of the minority population greater than δ^U in order to provide minority rights. If B is a rural jurisdiction and C an urban one. Then the minority in B will enjoy minority rights, whereas in C it will not in spite of the fact that the

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[17] See Slovenská republika/Szlovák Köztársaság (2012).

[18] See Eesti Vabariik (1992).

[19] See also Wickström (2019) and Wickström (2020b).

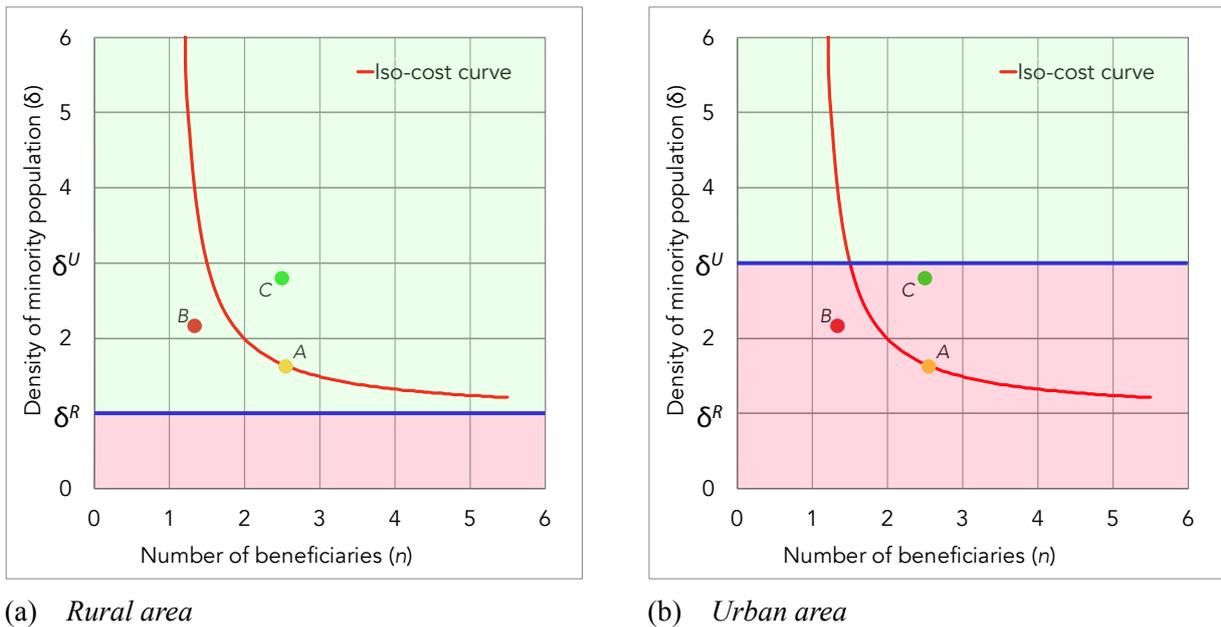(a) *Rural area*   (b) *Urban area*

FIGURE 4.1   Percentage rule

per capita costs in C are lower than in B.[20]

In Finland, due to the requirement that either a certain absolute minority size be reached (more than 3000 individuals) or a certain percentage of the total population (more than 8% of the total population), the absurd situation with the two jurisdictions in Transylvania is less likely to happen, but cannot be excluded if the size of the minority population in the jurisdiction is sufficiently small (less than 3000 individuals), see figure 4.2. Here, n^* is the critical value of n. If C is an urban community and B a rural one, the smaller and less dense rural minority in B will enjoy minority rights and the bigger and denser urban minority in C will be denied such rights.

4.2   TRANSYLVANIA

We now turn to our real-world cases in Transylvania and southern Finland. The jurisdiction Cluj-Napoca/Kolozsvár hardly moved in the diagram since 1948. However, due to the rapid increase in the total population its density Δ increased substantially, increasing the corresponding critical value of δ, δ^U, such that the jurisdiction now lies below this value in the diagram. The language rights of the minority were lost, although there is no rational reason for this. Also, in urban areas outside the big city a similar development can be observed. The minority population doubled, moving the jurisdiction in the northeast direction, but the critical δ^U is moving twice as fast upwards, and the minority communities in the urban jurisdictions are likely to lose their rights,

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[20] It is easy to find examples of this in the real world. See the example in Wickström (2020b) with Cluj-Napoca/Kolozsvár and Sălaj/Szilágy. Jurisdiction C has the highest total population density Δ and corresponds to Cluj-Napoca/Kolozsvár with its higher minority density and larger number of minority individuals than Sălaj/Szilágy that corresponds to jurisdiction B in the diagram. The total population density Δ in the rural area Sălaj/Szilágy, however is much lower than in Cluj-Napoca/Kolozsvár, and members of the Hungarian minority in Sălaj/Szilágy enjoy minority rights according to the percentage rule (figure 4.1a, whereas the Hungarian speakers in Cluj-Napoca/Kolozsvár are denied such rights (figure 4.1b).
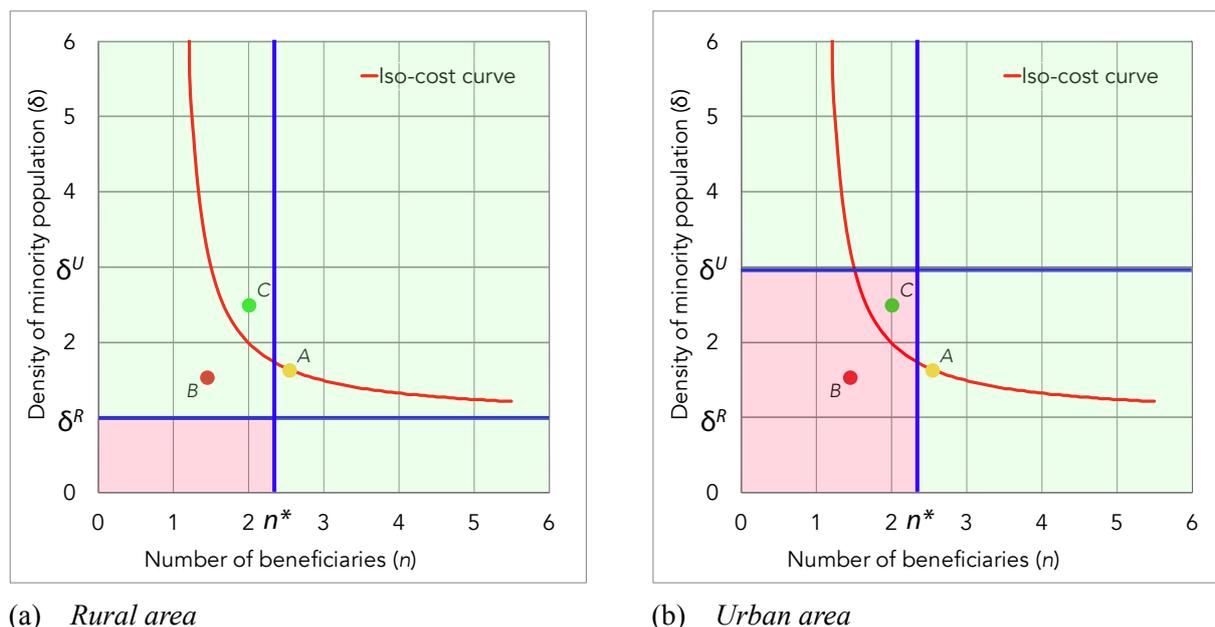
(a)   *Rural area*   (b)   *Urban area*

FIGURE 4.2   "Finnish" rule

although a rational analysis suggests that the rights should be extended, since the *per capita* costs decreased. In the rural areas, on the other hand, the total population density Δ decreased, lowering the critical value of δ, δ^R. This reduction in the critical δ^R is exactly as large as the southward movement of the rural jurisdiction on average. Hence, the percentage rule implies no change in the allocation of minority rights, although the *per capita* costs have increased.

In conclusion, the strong urbanization in Transylvania worsens the situation of the urban minority population but does not affect the situation of the rural minority population. At the same time, an ever-greater fraction of the minority population lives in urban areas. This accelerates the number of the minority losing their rights. The development is directly contrary to the recommendations of the cost-benefit analysis, which imply that the rights should become more generous for the urban minorities. Urbanization has worsened the situation of the Hungarian minority without any rational reason.

4.3   UUSIMAA/NYLAND

In Uusimaa/Nyland, because of the rather generous Finnish rule providing rights to the minority population if it exceeds 3000 individuals or 8% of the total population, there were no changes in formal rights for the Swedish-speaking minority. However, in some local jurisdictions the majority language changed from Swedish to Finnish.[21] Thereby, the language of administration also has a tendency to change. This, of course, can be seen as a loss for the Swedish speakers who change from being in the local majority to being in the minority. We can, however, conclude that there have been no changes in the legal status of the minority language in spite of the drastic urbanization and the decline in the number of Swedish speakers. The situation of the

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[21] This, for instance, happened in three of the four towns outside of Helsinki/Helsingfors in the region: Hanko/ Hangö, Loviisa/Lovisa, and Porvoo/Borgå, In Ekenäs (Raseborg)/Tammisaari (Raasepori), the Swedish speakers still have the majority.

minority did not necessarily develop contrary to the cost-benefit analysis. The implication that we could draw from the normative analysis is that in most cases there is no rational argument for improving the situation of the minority, but no improvement happened. The situation of the minority does not contradict the cost-benefit considerations.

4.4 SUMMING UP

Carefully speaking, we can say that the normative cost-benefit analysis implies that minority-language rights should not be reduced due to urbanization in Transylvania and should not be increased in Uusimaa/Nyland. The actual policies in Transylvania, in some cases, led to rights being reduced, whereas in southern Finland they remained unchanged. Being a bit more adventurous, we find that in Transylvania arguments can be made for more extensive rights, for instance in the city of Cluj-Napoca/Kolozsvár, where the actual policy led to a reduction in minority rights. One could also defend less extensive rights for the Swedish-speaking population in Helsinki/Helsingfors, but formally, at least, there was no change.

   Of course, there can be a big difference between formal rights and actual implementation. You might have the right to receive an answer in your preferred language from the mayor's office to a specific query. If that always happens, is another question. To assess the actual implementation requires other types of *in situ* studies that we cannot undertake her.[22]

5   CONCLUDING REMARKS

In this essay, in the normative analysis we have looked at language rights from an efficiency point of view, and we have only addressed formal rights that can be enacted as policy measures in different domains. Of course, there is much more to language use, for instance the presence of a minority language in the public space. When a minority becomes too small in its area of habitation, it disappears from the public view and becomes a family phenomenon; it becomes marginalized. This reduction in visibility might be much more important for a member of a linguistic minority than the right to receive answers from the city hall in his or her preferred language. The visibility of the language depends, to a large extent, on the size of the minority in relation to the total population, that is on its fraction of the population. In our two cases, we have seen that urbanization in general led to the minority becoming marginalized as its relative size decreases, largely removing the language from the linguistic landscape.

   One can argue that this marginalization caused by urbanization is a big loss to the members of the minority. If the policymaker has an interest in distributional issues and fairness or justice, we here have a strong argument for more generous rights in favor of the minority than what comes out of the normative approach based only on efficiency (cost-benefit analysis). This would lend support to Finnish-type rules and would make the already discriminating percentage rule even more inadequate as an instrument in language policy.

   On the descriptive side, one would also expect this marginalization to give members of the minority incentives to migrate to areas where the members of the minority make up a larger

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[22] As an example, the author has made some very disappointing experiences in communicating with the Norwegian tax office, where some employees seem to totally ignore the fact that there are two official languages in Norway and that Norwegian law on language use commits public officials to communicate with the public in the preferred language of the individual addressing the office.

fraction of the total population and, hence, the language is more visible in the linguistic land-scape. We would see a concentration of the minority to fewer jurisdictions where it has a higher relative strength. There is some (anecdotal) evidence that this is happening both in Transylvania and in Uusimaa/Nyland, where the Swedish-speaking population has been concentrated in the four smaller towns. In these four towns, its fraction of the total population only decreased from 74,9% in 1930 to 41,7% in 2018, whereas in all of Uusimaa/Nyland it decreased from 34,2% to 7,9% and in rural areas from 36.0% to 5.7%.

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