

Residential Concentration Among Immigrants in Oslo¹

Svein Blom*

ABSTRACT

On the basis of register data, this article outlines the development of residential concentrations among immigrants in Oslo from the early 1970s until 1996.

It is argued that a phase characterized by concentrated immigrant housing in the inner city was superseded by a phase of dispersal which, in turn, was replaced by a period of new concentration. Western and non-Western immigrants live in different parts of the city and the degree of residential concentration varies according to the national background of the immigrants.

Between 1988 and 1993 there was a net flux of non-Western immigrants from the inner city east to the old and new suburban dormitory towns on the outskirts of the city. This is interpreted as a tendency over time to conform to mainstream Norwegian residential patterns.

The relevance of the term "ghetto" as a designation of areas in Oslo characterized by a high proportion of immigrants is refuted.

Empirical evidence supports the notion that economic resources is the most important factor in creating and maintaining immigrant residential concentrations in the inner city east, while cultural phenomena also appear to play a major causal role.

INTRODUCTION

Until recently, Norway had a rather homogenous population. In 1970, less than 2 per cent were immigrants, i.e., residents with two foreign-born parents, the bulk of whom were of Nordic or other Western origin. By 1996, the proportion

* Statistics Norway, Division for Social and Demographic Research, Oslo, Norway.

of immigrants had increased to 5 per cent, of which nearly two-thirds were of non-Western origin² (Statistics Norway, 1998b). Compared with countries such as The Netherlands, Canada, Switzerland and Australia, with minority populations ranging from 17 to 23 per cent in 1996 (Bühlman et al., 1998), the relative size of Norway's immigrant population is quite modest. Yet it has become common to speak of Norway as a "multicultural society", a terminology used by the central government (St.meld. nr. 17, 1996-1997).

This article focuses on the concentration of immigrants in Oslo, the capital of Norway. With a population of 490,000 citizens in 1996, one-ninth of the Norwegian population, Oslo, one of the smaller European capitals, is also the most important single place of residence for immigrants in Norway. In 1996 more than one-third of immigrants lived in Oslo. Of the non-Western immigrant population, 41 per cent lived in Oslo (as of 1 January 1996). This parallels Greater London where lived 45 per cent of Britain's ethnic minorities in 1991 compared with 12 per cent of the total population. However, London is about 14 times larger than Oslo (Peach, 1991) (Table 3, page 634).

A number of studies have shown that ethnic minorities tend to settle in dilapidated dwellings in old working class premises close to the central city. Over time, as their socio-economic status and degree of acculturation increases, they tend to disperse to outer suburbs (Massey, 1985; Kempen and Özüekren, 1998). This pattern has also been observed for non-English speaking-born populations in Sydney and Melbourne in Australia (Grimes, 1993; Hugo, 1996), black Caribbeans in Greater London (Peach, 1991), and the black population in US metropolitan areas (Schneider and Phelan, 1993). The eventual dispersal of spatially concentrated immigrant groups over time is a basic element of urban theory developed by the Chicago School of human ecology (Dunn, 1998).

This article provides a brief account of how the housing pattern of immigrants in Oslo developed from the late 1960s, when the first foreign workers appeared, until the 1980s and 1990s, when refugees dominated the influx. Measures of segregation at different points in time for selected immigrant groups are presented as empirical support. Although parts of the story have been told before by others (e.g., Bø, 1980; Benum, 1994; Wessel, 1996), the different strands are put together as a whole and supported with some statistical evidence.

The article also addresses the issue of the social mechanisms creating and maintaining spatial concentrations of immigrants. Essentially there is a question whether economic or cultural explanations are the most significant. The economic explanation stresses that well-off citizens have more options in choice of residence than do less affluent persons who are forced to seek housing in the least expensive parts of the city (Massey, 1985; Boal, 1996; Kempen and

Özüekren, 1998). The cultural explanation, on the other hand, argues that ethnic minorities cluster in order to strengthen social relationships, to preserve cultural and religious identity, and to cope with the stresses of living in a foreign country (Boal, 1976; Hugo, 1996; Dunn, 1998). Previous research has not been conclusive regarding the relative importance of these two sets of explanations. It has been found repeatedly that socio-economic resources such as income, education and occupational status are inversely related to segregation, but the magnitude of the relationship varies from study to study (Darroch and Marston, 1971; Clark, 1986; Darden, 1986; Balakrishnan and Selvanathan, 1990; Farley and Frey, 1994; Peach, 1996). Part of the reason for diverging results may stem from different methodological approaches (Massey, 1985). In the introduction to an anthology of housing segregation of minorities in Western Europe and the US, Saltman (1991) asserts that income differences seldom account for more than one-fourth of the overall level of segregation.

Evidence is given in this article to support the notion that both economic and cultural factors are significant, with economic factors being the most important. This is found by modelling the chance that citizens will reside in the most typical immigrant area in Oslo as a function of their national background and economic resources. Although this approach does not capture the segregation pattern in Oslo as a whole, it nevertheless focuses on a very significant part. In 1995, a sample of 329 refugees in Oslo was asked about their motives for settling in their respective local residential areas. Refugees mentioned “affordability” more often than “preferences for living close to countrymen” (Djuve and Hagen, 1995: 82). An Australian survey in Sydney and Melbourne gave a similar result for Asian immigrants (Zang and Hassan, 1996). No other study of immigrants in Oslo has addressed this question quantitatively.

SOCIAL GEOGRAPHY OF OSLO

According to the present division of the city, introduced in July 1988, Oslo has 25 administrative boroughs (numbered 1 to 25) and two non-administrative boroughs, the Downtown (borough 26) and the Woodlands being on the urban fringe (borough 27) (cf. Figure 1, page 636). Boroughs 1 to 6 constitute the inner city, which roughly corresponds to Oslo before it merged with the municipality of Aker in 1948. The river Akerselva, running southwards, divides the city into a western and an eastern part, which became socially significant during the last century when the bourgeois classes settled in the (*inner*) *city west* (borough 1-3) and the working classes settled in the industrial areas of the (*inner*) *city east* (borough 4-6).

New residential areas developed outside the inner zone after the Second World War. These can be aggregated according to their time of construction. The *old suburban dormitory towns* (borough 10-14, and 19-20) were erected mainly in

the 1950s and 1960s, and the *new suburban dormitory towns* (borough 9, and 15-18) in the 1970s and 1980s. A large proportion of the dwellings in these two areas is cooperatively owned housing. The *outer suburban west* (borough 21-25, and 7-8), on the other hand, overlooking the inner zone from hills in the west, has a large proportion of privately owned mansions, built before and after the Second World War. Boroughs 7 and 8 are assigned to this category because their social composition is similar to that of the outer suburban west, although situated in the south-east.

The social status and quality of housing in the different boroughs are reflected in present housing prices. Figure 2 (page 637) shows mean housing prices per square metre of second-hand OBOS-dwellings sold in Oslo during the six months from August 1995 to January 1996, by borough. OBOS, the Cooperative Housing Association in Oslo, controls a quarter of the city's total housing stock through affiliated cooperatives. Today such dwellings are sold on market terms by the shareholder owning the right to inhabit the dwelling. Housing prices are higher in the west than in the rest of the city (cf. Figure 2). The inner city east and the old suburban dormitory towns have approximately equal housing prices. The lowest prices are found in the new suburban dormitory towns, perhaps due to the long distance to the central city and also to the high-rise building style characteristic of these areas.

DATA

The analysis is based on micro data on all persons residing in the Oslo Municipal Area between 1 January 1988 and 1 January 1993. Each person's information was derived from registers concerning place of residence by borough and ward, country of origin, age, sex, date of first stay in Norway and citizenship. The data were collated in a combined data file containing nearly 560,000 units; 86,000 of which hold only 1988 data, 366,000 hold data from both years, and 107,000 units relate exclusively to the 1993 data (rounded figures). Persons who appear only in the 1988 data have either moved out of Oslo or died, while persons who appear only in the 1993 data have meanwhile either moved to Oslo or been born.

This (first) data file is collated with records of capital assets and income taken from tax statistics based on records kept on the ordinary tax assessments of personal taxpayers. Data on incomes and assets for fiscal 1987 are linked to the units of registered residents in Oslo in 1988, while data for fiscal 1992 are linked to the units of registered residents in Oslo in 1993. Only units in the first file with a corresponding tax report from at least one of the years were kept in the second file. Thus 73,000 units (13 per cent of the original file) were not included in the second file. That basically affects the youngest age cohorts, as tax statistics contain mainly personal data about persons aged 13 and over.

Except for age, there are, however, no other variables that are distributed significantly different in the second file from in the first file.

As a measure of income for 1992 we selected the sum total of family income from wages and self-employment as well as pensions and social security benefits. All registered incomes to persons who belong to the same family are summarized and divided by an indicator of the number of consumer units in the family according to the traditional OECD-scale (where “head of family” counts one, other adults 0.7 and children 0.5). The weighted mean sum of income is then imputed to all members of the same family. A similar procedure is used in regard to capital assets.

Country of origin for immigrants is defined as own country of birth, if foreign, or otherwise country of birth of mother or father. Norway appears as country of origin for persons with at least one Norwegian-born parent. The data as of 1 January 1996 are basically aggregated data provided by Oslo City Administration (1996).

IN RETROSPECT³

The first labour immigrants to Oslo at the end of the 1960s faced a housing market practically closed to them. Neither the private home owner market nor the housing cooperatives had much to offer house hunters lacking capital assets, creditworthiness and length of membership in the housing cooperatives. Their only niche was the lodger market in the inner city, and the first dwellings of many labour immigrants were mainly shabby flats in old working-class premises in the inner city east.

The labour immigrants were usually single men who planned to return to their native country after some years in the workforce. They were therefore not interested in investing capital in a dwelling. However, by the 1970s many immigrants had opted to stay in Norway. A ban on unqualified labour migrants introduced in 1975 did not exclude the possibility of them being reunited with close family members and many seized that opportunity. This in turn gave rise to a need for better and more spacious housing. Immigrants with a steady income could sometimes obtain a loan to finance the deposit on a flat in a housing cooperative. Most of the vacant flats were situated in new suburban dormitory towns under construction.

Because many immigrants faced huge problems in the housing market, in the mid-1970s local and central authorities took responsibility for improving their housing conditions. The central government established a special company (SIBO – the Society for Immigrant Housing) to rehabilitate and build new houses for immigrants and also to offer finance on favourable terms. Many of

the dwellings were built in boroughs that previously had few immigrants. Several years later a similar company was established to provide housing for refugees. The municipal housing agency also made amendments to its statutes to provide immigrants with a better chance to compete with the native population for social housing assistance. Municipal authorities acquired new flats in recently completed housing cooperatives and offered to exchange new flats against well-preserved, but less expensive, second-hand flats. Many of these flats were sold or rented to vulnerable groups and to families in need of housing to replace dwellings lost in inner city urban renewal. Immigrants constituted a sizeable proportion of both groups. In this way, immigrants obtained access to the new suburban dormitory towns north-east and south of the central city. The older suburban dormitory towns, erected in the 1950s and 1960s, received fewer immigrants because they were already inhabited by a stable group of occupiers.

DISPERSAL SUPERSEDED BY RENEWED CONCENTRATION

As noted above, immigrants had “spread” to the outer suburban towns by the beginning of the 1980s. A dissimilarity index,⁴ calculated on the basis of register data from Oslo City Administration (1985) and reflecting the level of residential concentration, decreased for citizens from Yugoslavia, Turkey, Pakistan, India and Morocco from 1980 to 1984. The index shows the proportion of a population group that has to move to other boroughs in order to be distributed between the boroughs as another population group (here Norwegian citizens). For Yugoslavs and Turks there was a decline in the index by 8 percentage points; for other nationalities the decline was about 3 to 4 percentage points (Table 1, page 632). After the end of the 1980s the growth in immigrant population was most pronounced in boroughs where the proportion of immigrants was already high (cf. Figure 3). The centrally located borough Gamle Oslo, with the highest proportion of non-Western immigrants in 1988, doubled its share of non-Western immigrants between 1988 and 1996.

The level of residential concentration is shown by the dissimilarity index in Table 1 for the years 1988, 1993 and 1996 for both Western and non-Western immigrants versus Norwegians.⁵ It shows that the level of residential concentration among non-Western immigrants increased by less than 5 percentage points between 1988 and 1996, a rather moderate increase. The index for Western immigrants fell by 1 percentage point during the same period. In 1996, more than three out of ten non-Western immigrants, and less than two out of ten Western immigrants, would have had to move to other boroughs in order to have the same spatial distribution as Norwegians.

It is difficult to compare the level of residential concentration among immigrants at the beginning and the end of the 1980s because the number of boroughs had

declined from 35 to 27. The absolute level of the dissimilarity index depends on the number and size of boroughs represented in the calculations. However, Wessel (1996) has calculated the level of residential concentration in 1995 based upon the previous division of the city into 35 boroughs. He finds that the propensity to live spatially separated from the native population was higher for Yugoslavs, Turks, Pakistanis and Moroccans, viewed as a single category, in 1995 than in 1984, but actually lower in 1995 than in 1980.

CULTURAL DISTANCE AND RESIDENTIAL CONCENTRATION

Table 2 (page 633) shows the level of residential concentration in 1996 for immigrants from different countries. The countries are presented according to the degree of concentration expressed by the dissimilarity index. Danish immigrants live least spatially separated from Norwegians, followed by Swedes and Germans. Immigrants from non-Western countries appear in the last half of the table. The highest levels of residential concentration are calculated for immigrants from Pakistan, Sri Lanka and Viet Nam (more than 40 points on the index). The level of residential concentration seems to be higher the wider the cultural gap between the immigrant group and the majority population. The same tendency has been noted also in other studies, for instance from Sweden (Murdie and Borgegård, 1998) and Canada (Balakrishnan and Selvanathan, 1990). Immigrants from France have a degree of residential concentration at almost the same level as immigrants from India, although immigrants from these two countries reside in different parts of the city. Indians live in the inner city east and the new suburban dormitory towns; the French live in inner city west and the outer suburban west.

To test the extent to which the picture presented in Table 2 is influenced by stochastic variation, we calculated comparable figures for 1995 and 1997 for the same 12 immigrant groups against Norwegians. Only in two cases did the 1995 and 1997 figures differ by more than 1 percentage point from those calculated for 1996. For Great Britain, the index was 1.9 points higher and for Sri Lanka 1.5 points lower in 1995 than in 1996. There was a reversal of the rank ordering of France and India in 1995. No other major difference appeared, which suggests that the results presented in Table 2 are fairly robust.

WHERE DO THE IMMIGRANTS RESIDE TODAY?

The light grey bars in Figures 3 and 4 (pages 638 and 639) represent the proportion of non-Western and Western immigrants in the boroughs of Oslo as at 1 January 1996. The percentage of non-Western immigrants for the city as a whole is 12.0 and for Norway 3.3. The highest concentrations of non-Western immigrants are found in the inner city east and the new suburban dormitory

towns north-east and south of the central city (Figure 1). In the boroughs Gamle Oslo and Grünerløkka/Sofienberg in the inner city east, the percentage of non-Western immigrants are 32.2 and 24.0 respectively. In the new suburban dormitory towns the corresponding percentages vary from 23.7 in Søndre Nordstrand to 14.7 in Hellerud.

For Oslo as a whole the percentage of Western immigrants is 3.8 compared with 1.0 for Norway. Western immigrants have an entirely different distribution profile than non-Western immigrants, settling more densely in the inner city west and the outer suburban west, traditional high status areas in Oslo (Figure 4, note the change of scale). The highest percentage of Western immigrants is found in the borough Bygdøy/Frogner in the inner city west (7.5).

That non-Western immigrants concentrate in the inner city east and the new suburban dormitory towns, while Western immigrants settle in the west, may stem from economic inequalities combined with different housing prices at the local level. Income statistics for the fiscal year 1996 show that non-Western immigrants have a mean family income after tax about two-thirds of Norwegians, while Western immigrant families have roughly the same income as Norwegian families (Statistics Norway, 1998a: Table 2). Adjusted for family size, actual income differences become even larger (Kirkeberg, 1997:142f.). We would therefore expect a negative correlation between housing prices and the proportion of non-Western immigrants in 1996 at the borough level (cf. Figure 2 and 3). This is also what we find ($r=-.72$). The comparable positive correlation with housing prices for Western immigrants, $r=.82$, is harder to explain, considering that Western immigrants, on average, do not have higher incomes than Norwegians.

ARE THERE IMMIGRANT GHETTOS IN OSLO?

The further one goes subdividing the city, the easier it becomes to find locally contained areas with a high proportion of immigrants. In exceptional cases the percentage of immigrants exceeds 50 in some wards:⁶ in 1996 in six wards in Gamle Oslo, in three wards in Grünerløkka/Sofienberg and in one ward in Søndre Nordstrand. Stovner and Furuset have a combined total of three wards with more than 30 per cent immigrants. Between 1988 and 1993 more non-Western immigrants tended to move into these areas than out of them, and more Norwegians tended to move out than in. Besides, there was a net migration of Norwegian pre-school children and their parents out of the typical immigrant areas of Gamle Oslo (wards with more than 30 per cent immigrants in 1993) (Blom, 1995: 58).

However, these facts do not justify calling these areas “ghettos”, as is frequently done by the media and in popular debate. We define ghetto as a slum-like urban area where one separate ethnic or cultural minority is in majority. Today in

Oslo there are no wards where the most numerous immigrant group, the Pakistanis, exceeds 30 per cent of the population.

TENDENCY TO CONFORM TO A NORWEGIAN RESIDENTIAL PATTERN

Even though the level of immigrant residential concentration has increased since 1988, there are also some indications that immigrants, over time, tend to conform to a Norwegian residential pattern. A matrix of intra-urban migration between borough constellations shows a net flux of non-Western immigrants from the inner city east to new suburban dormitory towns between 1988 and 1993 (Table 3). Almost 13 per cent of the non-Western immigrants who lived in a different borough constellation in 1993 compared with 1988, moved from the inner city east to the new suburban dormitory towns (865 persons); while 7.9 per cent moved in the opposite direction (535 persons). Likewise, there was a substantial net flow of non-Western immigrants from the inner city east to the old suburban dormitory towns (245 persons).

In terms of housing prices, this might initially seem to be a step down the social ladder, as housing prices (in cooperative tenure) are in fact lower in the new suburban dormitory towns (cf. Figure 2). What is missed out then is the much higher proportion of rental housing and also the smaller size of flats in the inner city east.⁷ Moving to new suburban dormitory towns will in many instances give access to cooperative housing ownership and a more spacious and modern flat. The advent of a new family member, or a wish for better housing standard, often triggers a move to the outer zone.

We therefore interpret the net flux of non-Western immigrants from the inner city east to outer suburban areas as a sign of upward social mobility and an improvement in the social standard of living. Somewhat fewer social and economic problems are found in the suburban dormitory towns than in the inner city east (Barstad, 1997: 83).

FACTORS CAUSING RESIDENTIAL CONCENTRATION

We have already noted that the existence of immigrant residential concentrations is contingent on both cultural and economic factors. The degree of spatial separation from the majority population, as expressed by the dissimilarity index, tends to increase with the assumed cultural distance between the immigrant group and the majority. Additionally, a strong inverse relationship is observed, at the borough level, between the mean housing price and the proportion of non-Western immigrants, thus supporting the notion that non-Western immigrants tend to settle in the least expensive areas.

Table 4 (page 635) contains estimates from logistic regression models aimed at throwing light on the relative importance of cultural and economic factors in the creation and maintenance of immigrant residential concentrations. All citizens resident in Oslo on 1 January 1993, for whom we have tax data for 1992, enter the calculations. The dependent variable indicates whether or not a person is settled in Grünerløkka/Sofienberg or Gamle Oslo, the twin boroughs with the highest proportion of non-Western immigrants in 1993 (a combined total of 24 per cent). One-tenth of Oslo's citizens live in these two boroughs (numbers 5 and 6) in the inner city east. The independent variables in the regression models are country of origin, economic resources and year of arrival in Norway. We consider country of origin to be a proxy for the cultural factor, although phenomena such as discrimination and incomplete knowledge of the housing market are probably also captured by the variable. The economic factor is represented by the variable titled economic resources, which combines both income and capital assets. Year of arrival in Norway takes values according to the year of arrival or year of birth for the first and second generation of immigrants, respectively. All Norwegians (cf. note 5) are subsumed within the reference category of this variable, the years 1964-1978, irrespective of age.

Model 1 shows the effect of country of origin on the log-odds of residing in borough 5 or 6 instead of other places in the city. Moroccans, Sri Lankans, Turks, Pakistanis and Iranians are found to have between 4.0 ($\exp[1.39]$) and 4.6 ($\exp[1.58]$) times higher odds of residing in these two boroughs than Norwegians. After inclusion of economic resources in the equation (Model 2), the net effect of country of origin declines markedly. The odds ratios of being an immigrant now do not exceed 3.2 ($\exp[1.16]$) for any of the selected groups.

Not unexpectedly, Western immigrants have no significant excess risk of residing in Grünerløkka/ Sofienberg or Gamle Oslo when differences of economic resources are controlled. The same is true for the Vietnamese who have their stronghold in Furuset (borough no. 16) to where they were channelled by municipal authorities in the early 1980s. Later cohorts of refugees (Iranians and Sri Lankans) were less strongly directed by local authorities towards certain residential areas. The increasing number of refugees arriving in the late 1980s and early 1990s made it necessary for local government to adopt a housing strategy based more on the refugee's own initiative to find a place to live. Hence, a higher proportion of these refugees ended up in the inner city east.

Model 2 also reveals that the economic factor has more impact on the propensity to live in borough 5 or 6 than does country of origin. Having income in the lowest quartile and zero capital assets gives, for instance, 7.8 ($\exp[2.05]$) times higher odds of residing in Grünerløkka/Sofienberg or Gamle Oslo than being in the highest income quartile with capital assets of more than NOK 130,000 (the reference group). Irrespective of income, persons with no capital assets have at

least 4.8 ($\exp[1.57]$) times higher odds of residing in borough 5 or 6 than do persons in the reference group.

In Model 3, year of arrival in Norway is included in the equation. The net effect of country of origin is somewhat further weakened, due to the substantial difference between the nationality groups with respect to their length of stay in Norway. The effect of the economic factor, however, is not altered by the inclusion of year of arrival. The estimation shows that the most recent immigrants have 20 per cent higher odds of staying in borough 5 or 6 in the inner city east than do immigrants arriving before 1979. This is in line with the suburbanization scenario and the findings from the migration matrix presented earlier in the article. When the economic variable is removed from the model (not shown), the impact of year of arrival is substantially stronger.⁸ This indicates that the propensity to leave the inner city, after some time, for outer suburban areas is mediated by the economic factor.

SOCIAL EFFECTS OF RESIDENTIAL CONCENTRATION

The importance of residential patterns for immigrants' possibilities to become integrated in the host society has not been properly investigated in a European context. Initial benefits from clustering together with persons of the same linguistic and cultural background are probably in the long run offset by the drawbacks of a prolonged acculturation process. A balanced composition of the population in urban areas is generally believed to be the best. To achieve this by introducing quotas on the number of immigrants in certain housing areas is, however, often considered to be discriminating and unacceptable. Positive measures such as urban renewal programmes to attract members of the majority population to areas with a high proportion of immigrants, dispersal of existing social housing to a wider range of boroughs, or improved assistance to economically weak groups to expand their options on the housing market, appear as more appropriate alternatives. Measures can eventually also be taken by central and local authorities to settle *new* refugees in municipalities or boroughs characterized by relatively low initial proportions of immigrants.

CONCLUSION

This article has described the development of residential concentrations among immigrants in Oslo from the early 1970s until 1996. After an initial period of concentrated immigrant housing in the inner city east, a phase of dispersion and suburbanization followed in the early 1980s, partially supported by municipal and governmental action. This was in turn replaced by a phase of new concentration in the wake of the arrival of refugees at the end of the decade. In the borough Gamle Oslo in the inner city east the proportion of non-Western

immigrants doubled from 16 to 32 per cent between 1988 and 1996. Between 1988 and 1993 there was nevertheless a net influx of non-Western immigrants from the inner city east to suburban dormitory towns on the outskirts of the city. This can be interpreted as a tendency to conform to mainstream Norwegian residential patterns among immigrants after a certain length of stay in Norway. Although there are locally contained areas with a high proportion of immigrants in certain boroughs, it is not justified calling such areas “ghettos” as there are no wards in the city where one single immigrant group is in majority. Regarding causes of residential concentration, an empirical test indicates that economic resources tend to be the most important factor, although cultural phenomena also appear to play a major causal role.

NOTES

1. The research reported in this article was commissioned and financed by the Norwegian Ministry of Local Government and Labour. A previous version was presented at the Second Metropolis Conference in Copenhagen, 25-27 September 1997.
2. Non-Western immigrants embrace immigrants from Eastern Europe, Asia (including Turkey), Africa and South and Central America. Other immigrants count as Western.
3. This passage is partly based on qualitative interviews with persons involved professionally in the housing of immigrants and refugees in Oslo over the years (Blom, 1995).
4. The index D is calculated from the formula

$$D = \frac{|p_i^1 - p_i^2|}{2} \times 100$$

where p_i^1 = Proportion of all persons in population group 1 living in enumeration area i, and p_i^2 = Proportion of all persons in population group 2 living in enumeration area i (Duncan and Duncan, 1955).

5. Norwegian is the term used here to denote anyone not belonging to the immigrant population, i.e., Norwegians are persons with minimum one parent born in Norway.
6. A ward in Oslo has an average population of about 1,000 persons.
7. Calculations based on figures from the 1990 Census show that 35 per cent of dwellings in the inner city east were rental housing compared with 13 and 16 per cent in the new and old suburban dormitory towns. Furthermore, 63 per cent of dwellings in the inner city east had only one or two rooms, compared with 27 and 33 per cent in the new and old suburban dormitory towns (Oslo Municipal Administration, 1993: Tables 4.18 and 4.20).
8. The risk of residing in borough 5 or 6 is, for instance, 50 per cent higher ($\exp[0.43]$) for immigrants arriving after 1988 than for immigrants arriving before 1979, controlling for country of origin.

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TABLE 1
 INDICES OF DISSIMILARITY OF IMMIGRANTS
 AGAINST HOST POPULATION IN OSLO, BY NATIONALITY AND YEAR

Nationality	1980	1984	1988	1993	1995	1996
Yugoslavia ¹	38.5	29.8				
Turkey ¹	41.6	33.1				
Pakistan ¹	41.0	36.6				
India ¹	34.6	31.7				
Morocco ¹	42.3	39.2				
Yugoslavia, Turkey, Pakistan and Morocco ¹	40.4	35.1			37.5	
Western countries ²			18.7	18.5		17.6
Non-western countries ²			27.0	29.9		31.8

1. Nationality is defined according to citizenship. Reference group: Norwegian citizens. Calculated for 35 boroughs.

2. Refers to persons with two foreign-born parents. Nationality is defined as own country of birth, if foreign, or otherwise by country of birth of mother or father. Reference group: Persons with at least one Norwegian-born parent. Calculated for 27 boroughs.

Source: Wessel, 1996; Oslo Municipal Administration, 1985; Statistics Norway (own data), and Oslo Municipal Administration, 1996.

TABLE 2
 INDICES OF DISSIMILARITY OF IMMIGRANTS AGAINST NORWEGIANS²
 IN OSLO AT 1 JANUARY 1996, BY COUNTRY OF ORIGIN¹

Country of Origin	1996	N
Denmark	10,5	3,733
Sweden	20,0	4,237
Germany	20,2	1,602
Great Britain	23,4	2,005
USA/Canada	26,9	1,985
Chile	31,3	1,456
France	35,8	789
India	37,0	2,546
Turkey	39,4	3,688
Pakistan	43,7	15,013
Sri Lanka	48,7	2,964
Viet Nam	49,3	3,331

1. Immigrants are defined as persons with two foreign-born parents.
2. Norwegians are defined as persons with at least one Norwegian-born parent (N=412,843).
3. Country of origin for immigrants is defined as own country of birth, if foreign, or otherwise country of birth of mother or father.

Source: Oslo Municipal Administration, 1996.

TABLE 3
 MIGRATION MATRIX FOR NON-WESTERN IMMIGRANTS¹ RESIDENT
 IN OSLO AT DIFFERENT BOROUGH CONSTELLATIONS²
 AT 1 JANUARY 1988 AND 1 JANUARY 1993 (N=6.736)
 (per cent)

Place of residence in 1988	Place of residence in 1993						Total
	Inner city west	Inner city east	Old suburban dormitory towns	New suburban dormitory towns	Outer suburban west	Downtown/ woodlands/ unknown	
Inner city west	-	6.1	3.6	4.3	1.9	0.1	15.9
Inner city east	2.4	-	9.0	12.8	2.8	0.3	27.4
Old suburban dormitory towns	1.2	5.4	-	9.1	1.6	0.2	17.5
New suburban dormitory towns	1.9	7.9	7.3	-	2.3	0.1	19.6
Outer suburban west	1.4	3.7	3.0	4.5	-	0.1	12.8
Downtown/ Woodlands/ unknown	0.5	3.3	1.0	1.1	1.1	-	6.9
Total	7.5	26.3	23.9	31.8	9.6	0.8	100.0

1. For definition of non-Western immigrant see Figure 3, note 1.
2. Inner city west = Borough no. 1, 2, and 3; Inner city east = Borough no. 4, 5, and 6; Old suburban dormitory towns = Borough no. 10, 11, 12, 13, 14, 19, and 20; New suburban dormitory towns = Borough no. 9, 15, 16, 17, and 18; Outer suburban west = Borough no. 7, 8, 21, 22, 23, 24, and 25; Downtown/Woodlands = Borough no. 26, and 27.

TABLE 4
 LOGISTIC REGRESSION ESTIMATES FOR DETERMINANTS
 OF THE RISK OF RESIDING IN BOROUGH 5 OR 6
 INSTEAD OF OTHER PLACES IN OSLO AT 1 JANUARY 1993

	Model 1		Model 2		Model 3	
	Coefficient	Chi-square	Coefficient	Chi-square	Coefficient	Chi-square
Country of origin ¹		7536.4		2998.0		1730.9
Western countries	0.14***	26.4	0.03	1.1	-0.03	1.1
Eastern Europe	0.38***	38.5	0.15*	6.1	0.09	1.8
Former Yugoslavia	1.13***	468.4	0.82***	241.0	0.76***	190.3
Turkey	1.40***	984.2	0.94***	438.0	0.87***	309.4
Morocco	1.58***	1318.3	1.16***	696.0	1.10***	519.5
Pakistan	1.40***	3409.7	0.94***	1433.3	0.90***	958.5
Sri Lanka	1.43***	731.5	1.02***	364.0	0.90***	225.4
Viet Nam	0.44***	40.8	0.00	0.0	-0.07	0.8
Iran	1.39***	506.9	0.88***	198.0	0.75***	121.6
Chile	0.84***	105.8	0.43***	27.8	0.36***	17.3
Other countries	0.85***	1115.7	0.46***	315.1	0.37***	112.1
Norway	0	-	0	-	0	-
Economic resources ²				6483.5		6376.4
Q1 F0			2.05***	2425.1	2.04***	2391.4
Q2 FO			1.90***	2012.5	1.90***	2010.0
Q3 FO			1.74***	1688.3	1.74***	1688.0
Q4 FO			1.57***	1366.1	1.57***	1364.2
Q1 F1			1.85***	1811.5	1.85***	1804.5
Q2 F1			1.50***	1134.9	1.50***	1135.0
Q3 F1			1.18***	613.8	1.18***	612.7
Q4 F1			0.80***	214.6	0.80***	213.1
Q1 F2			1.17	468.4	1.17***	469.4
Q2 F2			0.81	278.2	0.81***	278.1
Q3 F2			0.28	26.7	0.28***	26.8
Q4 F2			0	-	0	-
Year of arrival in Norway						56.5
1989-1992					0.20***	39.1
1985-1988					0.11***	11.2
1979-1984					-0.03	0.7
1964-1978					0	-
Log likelihood	-125845.2		-121691.5		-121663.4	
N	410 099		410 089		410 089	

*p < 0.05 **p < 0.01 ***p < 0.001.

1. See note 3 to Table 2. Norwegians appear under the label "Norway" of country of origin.
2. Economic resources combines three levels of capital assets (F0, F1 and F2) and four levels of income (the quartiles Q1, Q2, Q3 and Q4). F0 is no assets, F1 is from 1 to NOK 130,000, and F2 is more than NOK 130,000 (= US\$ 21,000 in 1992).

FIGURE 1
BOROUGHS IN OSLO

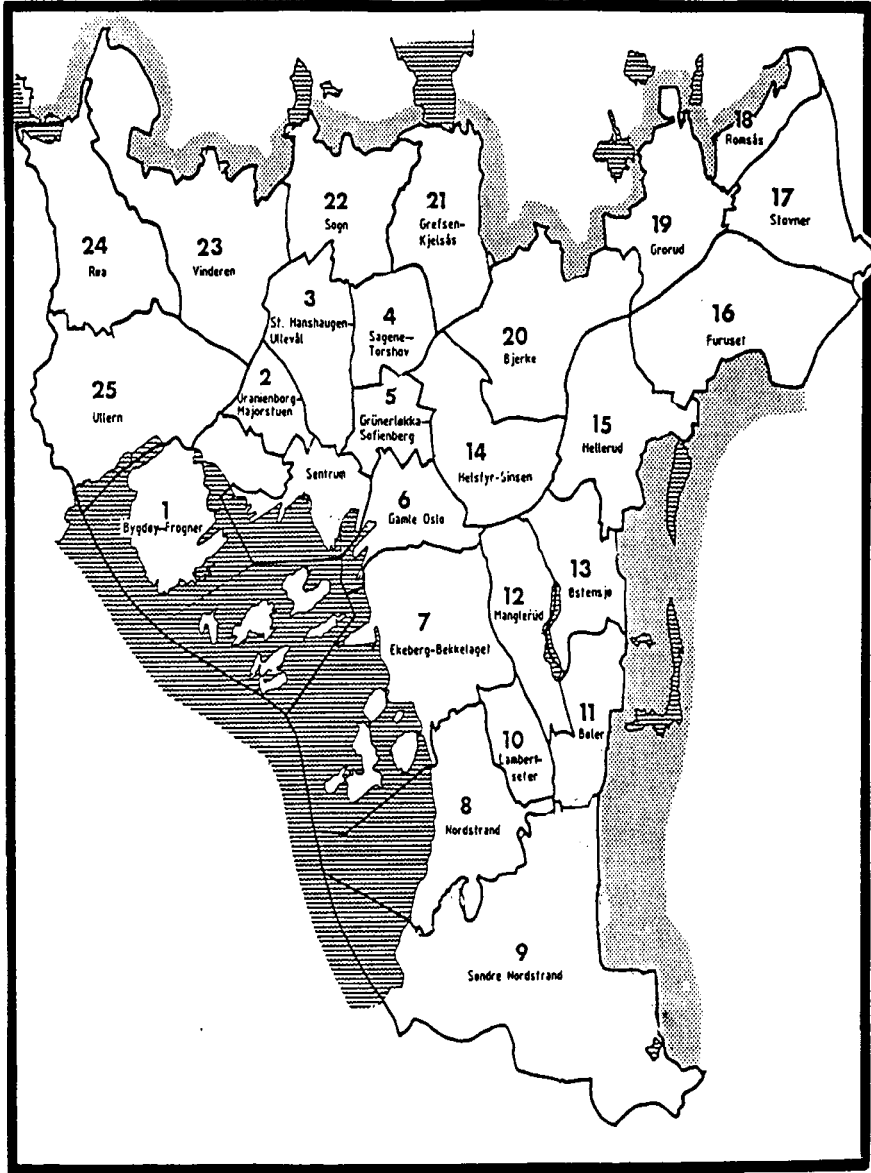
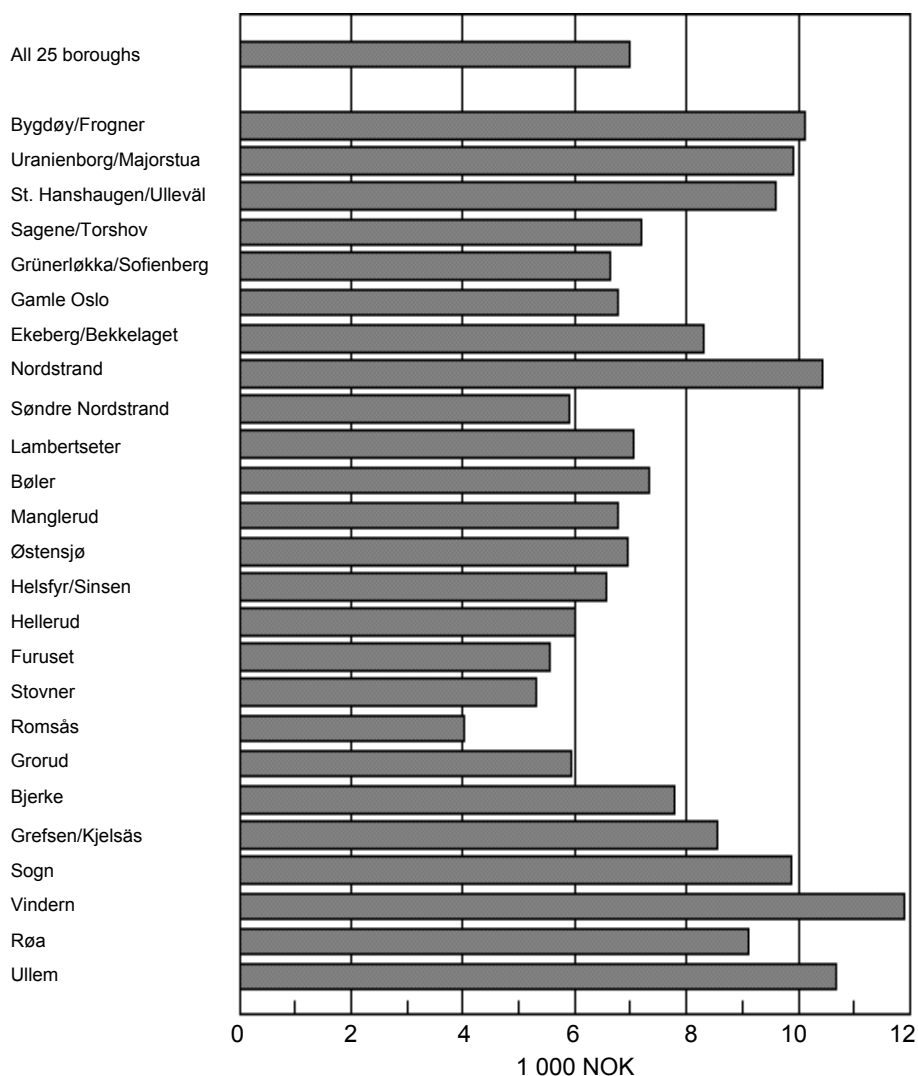


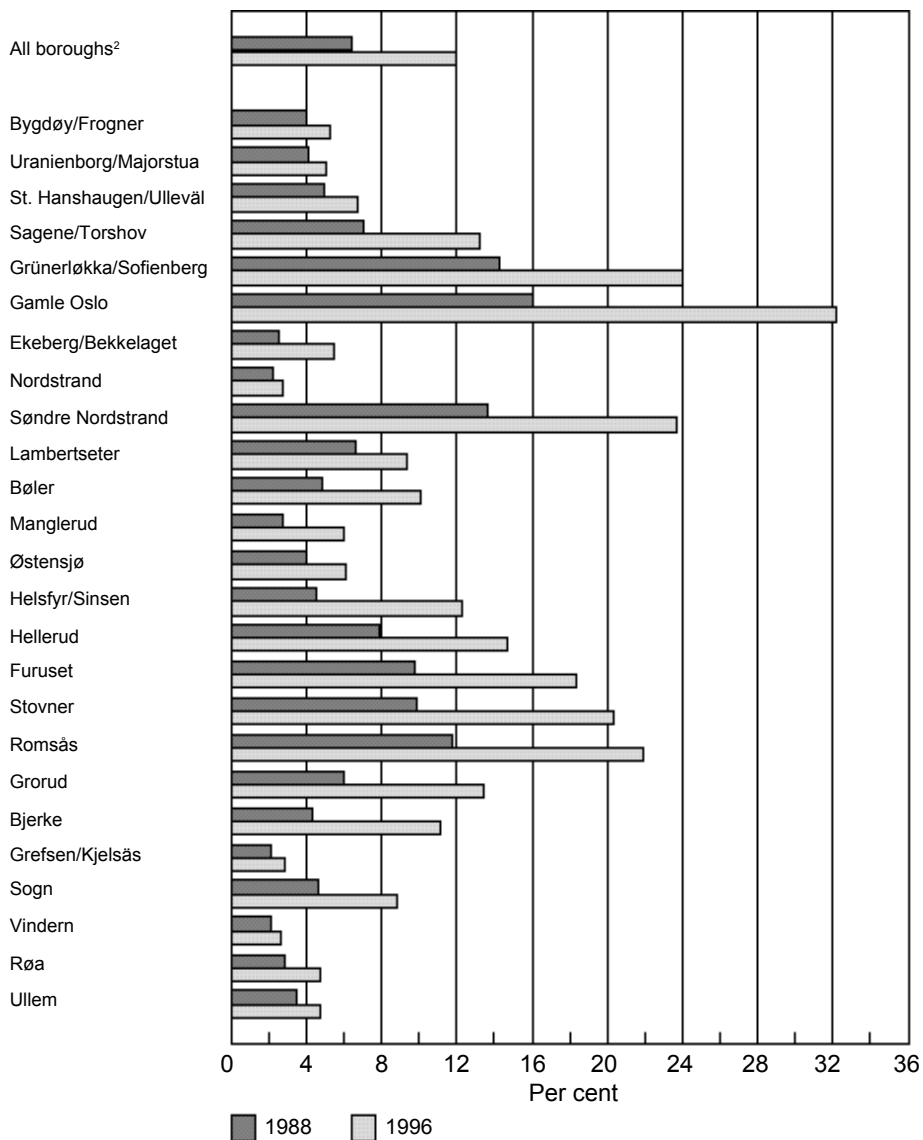
FIGURE 2
 MEAN HOUSING PRICE PER SQUARE METRE
 OF ALL SECOND HAND OBOS¹ – DWELLINGS SOLD IN OSLO
 FROM AUGUST 1995 TO JANUARY 1996, BY BOROUGH. 1,000 NOK²



1. OBOS, The Cooperative Housing Association of Oslo, has 60,000 dwellings at its disposal, a quarter of the total number of dwellings in Oslo.

2. 1 NOK = 0.16 US\$ at the end of 1995.

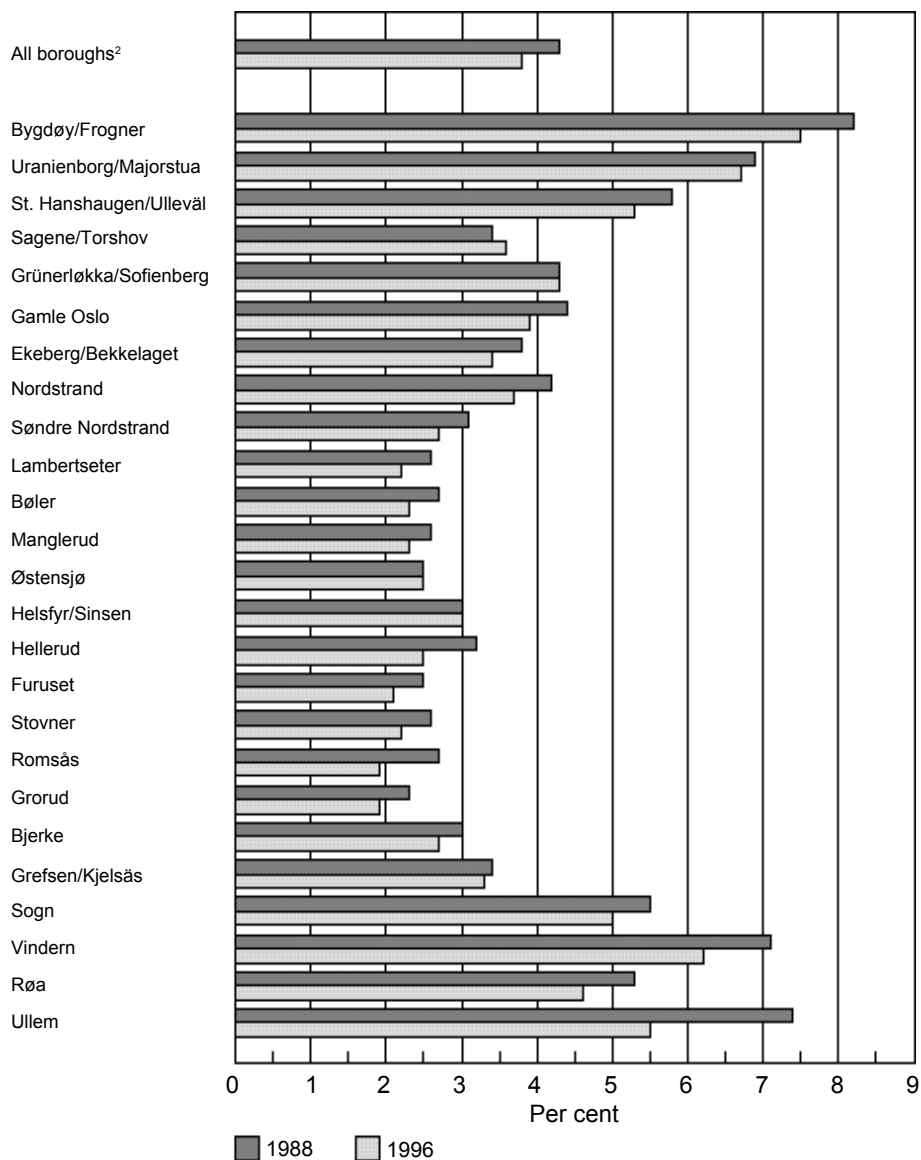
FIGURE 3
 PROPORTION OF NON-WESTERN IMMIGRANTS¹
 IN OSLO AT 1 JANUARY 1988 AND 1 JANUARY 1996, BY BOROUGH



1. Persons with two foreign-born parents from Eastern Europe, Asia (including Turkey), Africa or South or Central America.

2. Including Downtown, the Woodlands and unknown borough.

FIGURE 4
 PROPORTION OF WESTERN IMMIGRANTS¹
 IN OSLO AT 1 JANUARY 1988 AND 1 JANUARY 1996, BY BOROUGH



1. Persons with two foreign-born parents from Western Europe (except Turkey), North America or Oceania.

2. Including Downtown, the Woodlands and unknown borough.

CONCENTRATION RÉSIDENTIELLE DES IMMIGRANTS À OSLO

Sur la base de données contenues dans les registres, cet article décrit le développement des concentrations résidentielles d'immigrants à Oslo depuis le début des années 70 jusqu'à 1996.

L'auteur avance l'argument qu'une phase caractérisée par un regroupement des immigrants au centre de la ville a cédé la place à une phase de dispersion, qui, à son tour, a été suivie d'une phase de reconcentration. Les immigrants occidentaux et non occidentaux vivent dans des parties différentes de la ville et le niveau de concentration résidentielle varie selon le vécu national des immigrés.

Entre 1988 et 1993, on a observé un afflux net d'immigrants non occidentaux du centre de la ville située à l'Est en direction des banlieues dotoirs anciennes ou plus récentes à la périphérie de la capitale. L'interprétation qu'en donne l'auteur est une tendance, confirmée par le temps, consistant à se conformer aux habitudes résidentielles norvégiennes.

L'auteur réfute l'expression «ghetto» pour désigner les secteurs d'Oslo comptant une forte proportion d'immigrés.

L'expérience corrobore la notion selon laquelle les ressources économiques sont le facteur le plus important pour la création et le maintien de concentrations résidentielles d'immigrés dans la partie Est d'Oslo intra muros, tandis que les phénomènes culturels semblent jouer également un rôle causal majeur.

CONCENTRACIÓN RESIDENCIAL DE LOS INMIGRANTES EN OSLO

Sobre la base de datos registrados, este artículo esboza el desarrollo de concentraciones residenciales de inmigrantes en Oslo desde principios de los años 70 hasta 1996.

En él se arguye que la etapa, caracterizada por la concentración de viviendas de inmigrantes en el centro de la ciudad, fue sustituida por una etapa de dispersión que a su vez fue reemplazada por un período de nueva concentración. Los emigrantes occidentales y no occidentales viven en partes distintas de la ciudad y el grado de concentración regional varía según el contexto nacional de los inmigrantes.

Entre 1988 y 1993 hubo una corriente neta de inmigrantes no occidentales desde la parte este de la ciudad hacia nuevas y viejas ciudades pendulares suburbanas en las afueras de la ciudad. Ello se interpreta como una tendencia,

a lo largo del tiempo, a seguir los principales patrones residenciales de los noruegos.

En este artículo se rechaza la pertinencia del término “ghetto” como designación de ciertas regiones en Oslo caracterizadas por una elevada proporción de inmigrantes.

La evidencia empírica apoya la noción de que los recursos económicos son el factor más importante a la hora de crear y mantener las concentraciones residenciales de inmigrantes dentro de la zona este de la ciudad, mientras que el fenómeno cultural también parece tener un importante papel causal.