Social polarisation in a segmented housing market : Social segregation in Greater Copenhagen

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Abstract

As in most other western countries Denmark has experienced increasing concentration of social problems in certain housing areas. This geographical polarisation has a double root: on the one hand has globalisation led to economic restructuring and in turn squeezed large groups out of labour market. On the other hand, since about 1970 the Danish housing market has become strongly segmented in relation to social composition of the residents of different tenures. This article examines the impact of a segmented housing market on segregation in Greater Copenhagen. It is concluded that housing segmentation is the major component behind the exisiting pattern of segregation.

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As in most other western countries Denmark has experienced increasing concentration of social problems in certain housing areas. This development has taken place despite attempts to avoid the emergence of deprived areas with high concentrations of socially and economically marginalised people. This geographical polarisation has a double root; on the one hand globalisation has led to economic restructuring and in turn to fundamental changes of the labour market. Still more people have been excluded from the labour market, in particular those without education. On the other hand, since the early 1970s the Danish housing market has become strongly segmented in relation to social composition of the residents of different tenures. And due to local governments housing policy, the composition of the housing market varies strongly between municipalities with a substantial effect on segregation inside and between municipalities.

Social segregation has recently become a major theme of investigation, (cf Fainstein et. al, 1992, Friedrichs & O'Loughlin, 1996, Hamnett, 1996). At least two interrelated phenomena are responsible for this; on the one hand immigration has become a dominant political issue all over Western Europe and on the other has most cities of the western world experienced severe social problems in the wake of globalisation. The analysis of segregation in cities has for long been based on an overwhelming dominance of the Chicago school (Burgess, 1925). In principal, the social geography was seen as a reflection of various groups to appropriate the most attractive locations. Those individuals with highest incomes would obtain the most pleasant locations; the lowest incomes would finally have to accept the least preferred areas. As the city expanded new and better residential areas emerged, the attractive locations were moved further away from the centre, and the formerly favoured residential areas would be occupied by individuals with lower incomes. The steadily developing cities would result in a pattern of concentric zones representing areas in different stages of development, very much a pattern of chronology. To this Hoyt (1939) added the sectorial structure: while the concentric pattern seemed to fit with a demographic dimension, the sectors reflected socioeconomic variation in a city's population. This general pattern fits to most western cities despite of their different welfare regimes; with variations due to age, size and local topography etc the internal structure of an Australian city embedded in a liberal welfare regime is almost identical to that of a city located in a coun-

try with a social-democratic welfare regime. However, the location of the most disadvantaged groups is somewhat different in Western Europe in general compared to e.g. North America (Peach, 1996). While the poorest districts often are identical with the transition zone in North America, their European counterparts are mostly found at the urban fringe, frequently as large estates from the 1960s and 1970s.

Recently, globalization has appeared as a major force behind social restructuring (Sassen, 1991 & 1994). The economy has started a process of deep transformation, which includes a sharp rise in territorial competition. Manufacturing industries with their well paid and stable blue-collar jobs are replaced by uncertain and low payed jobs in services and thus leading to growing income differentiation (Hamnett & Cross, 1998). Those without skills have been severely hit by increasing unemployment, declining social benefits and decreasing social networks. At the other end of the scale, a highly qualified, high earning stratum demonstrates its affluence by luxury consumption. Socially, globalization has accelerated the process of replacing stable and well-defined social classes by more vaguely defined and overlapping groups whose size and importance are in steady change (Bolte, 1990, Blasius 1994). The increasing division of labour has reduced some classes strongly or even eliminated them. New forms of social differentiation have arisen; they are primarily marked by being a vertical differentiation which allow a further dissimilarity of life styles or forms of every day life (Dangschat, 1994).

However, the most visible change has been the increasing number of socially excluded that represents the growing inequality in many western societies (Friedrichs & O'Loughlin, 1996, Hill, 1994, Mingione 1996). This group has been heavily discussed as a new underclass (Musterd, 1994) or as an especially new form of poverty, called 'advanced marginalisation' (Vacquant, 1996). As globalisation increases territorial competition, so does the local competition at the labour market. Consequently, those without demanded skills have been severely hit by increasing unemployment, declining social benefits and decreasing social networks.

Yet, a simple relation between globalisation and socio-spatial restructuring does not exist in any city, cf van Kempen (1994). Rather, the concrete appearance of urban restructuring depends on existing social structures and institutions, e.g. form of welfare state, tradition of cooperation or conflict in politics, at labour market etc (cf Murie, 1994). Just as globalisation has many manifestations regarding economic, social and political relations, so has social change several outcomes regarding socio-spatial structuration of cities. Consequently, a simple and direct relation between economic restructuring and spatial patterns is not to be expected. The outcome will very much depend on existing regulations and institutions such as welfare systems, and in particularly the housing market.

In this paper, the importance of the housing market is examined with Greater Copenhagen as case study. This indicates a specific setting: A strongly regulated housing market that includes a relatively large sector of non-profit housing ('social housing') embedded in a social democratic welfare regime. Given this setting, changing employment structures or income relations are not supposed to generate immediate consequences for social segregation. But to claim that such a setting brings immunity to economic and social restructuring is certainly to go too far: During the period of economic transition, social segregation has developed along both well known and along new lines, although there seems to be a high degree of inertia in the socio-spatial structuration.

The current pattern of segregation in Greater Copenhagen is assumed to have developed over the last 50-100 years as a consequence of three main factors: 'basic socio-eonomic causes of segregation', 'demographic causes of segregation' and 'segregation caused by housing policy'. Basic socio-economic causes of segregation are rooted in socio-economic inequality and include processes by which, in the course of time, the most attractive parts of the area are invaded by the wealthier citizens and, among others, increasing land and property prices force low-income groups to find habitation in less expensive parts of the city. The socio-economic segregation appears as sectors in the urban landscape.

Demographic causes of segregation are closely linked to the chronological order in which Copenhagen has expanded in the last 50 years: As the city grew its new residential areas were populated mostly by young people and families. Many of these families have stayed in their dwellings or in the local area during the following years. As a consequence, the various parts of the city reflect the difference in age and family structure. The demographic component has a substantial influence on the general pattern of socio-economic segregation as income varies with age, eg. people aged 40 to 60 have in general higher incomes than younger people and elderly. Zones of the region dominated by middle aged residents thus tend to have higher average incomes than inner city areas, which are areas with many youngsters and elderly.

Housing policy is the third factor of basic importance to urban segregation: at national level housing policy is determining to which extent it makes the housing market more segmented - i.e. make some tenures more attractive to high income groups and adjusts other tenures to low income groups. If the housing market is highly segmented the location of different tenures in the urban space thus is of considerable importance to segregation.

This paper investigates the development of social polarisation and segregation between municipalities in the Greater Copenhagen area. The main focus of the paper is to which extent segregation can be explained by housing market segmentation and housing policy performed by local authorities versus other economic and social forces that have created a long term trend towards a partition of the urban area in different social spheres. After a short introduction to the overall structure of Copenhagen, the general pattern of segregation is analysed in relation to income, marginalisation and immigration. Finally, the importance of the housing policy, tenure and local differences in housing policy are examined in relation to their impact on segregation. The data used in this study are all from the Statistical Office of Denmark; all data are restricted to the municipal level.

The social geography of Copenhagen in brief

Copenhagen began a rapid development from the middle of last century due to industrialization, economic and political modernisation. The city grew by adding new densely built up blocks to those already existing; by the 1890s the first social division of the expanding city was visible in the form of dense and unhealthy working class areas consisting of small dwellings and mixed with factories and workshops, and middle and upper class areas with larger dwellings in well constructed buildings with easy access to parks etc. But all forms of housing were based on market conditions.

First of all, Copenhagen owned its growth to the expanding industry but also to trade and administration. During the first decades of this century, the city annexed its suburbs and became a city of nearly 800.000 inh. In the 1930s, Copenhagen got close to a million inh. and the pressure for housing was considerable. In order to construct more and better dwellings, central government began to support housing associations operating at non-profit basis ('social housing'). In practise most of the social dwellings in the 1930s were built by the cooperative movement, that was

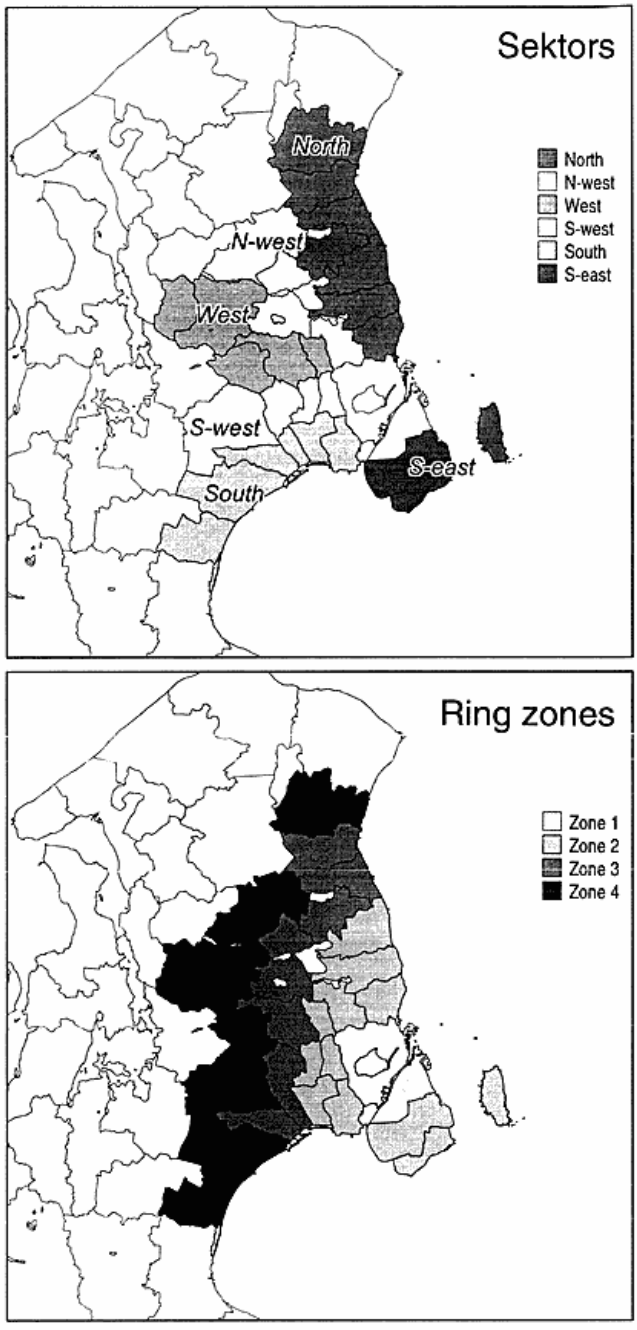


Figure 1: Greater Copenhagen divided into ring zones and sectors.

closely linked to the social democratic party. This period of well planned and well designed dwellings is often labelled as the 'golden period' of social housing in Denmark.

After the war, the Fingerplan from 1947 guided urban growth into a well struc tured form, but also to a city marked

by sharply increasing segregation. The post war boom meant that the affluent part of the middle class left the central parts of the city and settled in detached houses in particular to the north and north west. A few years later the construction of a number of large social housing projects began to the west and south west followed by a relocation of industry and warehousing. This created both a sectorial segregation due to socio-economic status and a zonal segregation due to life cycle stage as the movers were young families looking for sufficient space. In the 1970s this trend continued, but it was now supplemented by a shift in social composition in relation to tenure: Roughly speaking owner occupied dwellings became the 'normal' form of housing, i.e. for those who were employed, lived in families etc. And in contrast developed the social housing sector to be primarily a sector for marginalised people.

The processes of deindustrialisation gave the City of Copenhagen long term economic, employment, social and political problems, which in fact prevailed for nearly twenty years. Only from the mid-1990s new possibilities have arrived, partly supported by major infrastructure investments, refurbishing of inner city areas and a remarkable return of private investments to the city and central parts of the harbour. In particular, the (private) quaternary sector seems to reconcentrate in the city. While central Copenhagen until the 1980s was marked by a large number of elderly people, but few youngsters and middle class families, this trend has recently changed somewhat.

An examination of segregation in Metropolitan Copenhagen is complicated due to the many administrative units, e.g. 3 counties, 2 boroughs and 50 municipalities as the most important ones. To ease the analyses, the municipal level has been organised into four ring zones (reflecting the chronological expansion of the city) and 6 sectors representing intra-urban variation in attraction, cf figure 1.

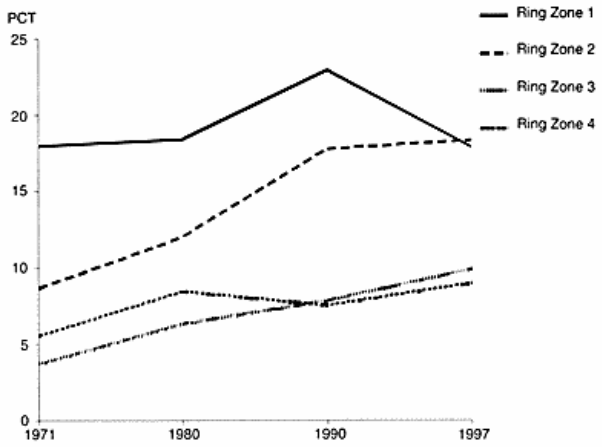


Figure 2a: Pensioners (65+) in ring zones in Greater Copenhagen 1971-1997, percentage of total population. Source: KSDB.

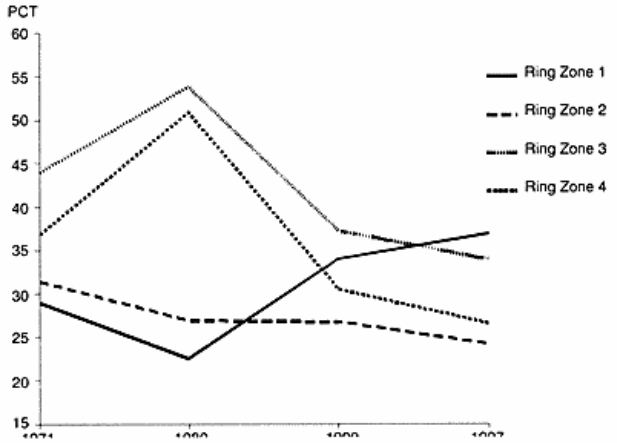


Figure 2b: Youth (15-34 years) in ring zones in Greater Copenhagen 1971-1997, percentage of total population. Source: KSDB.

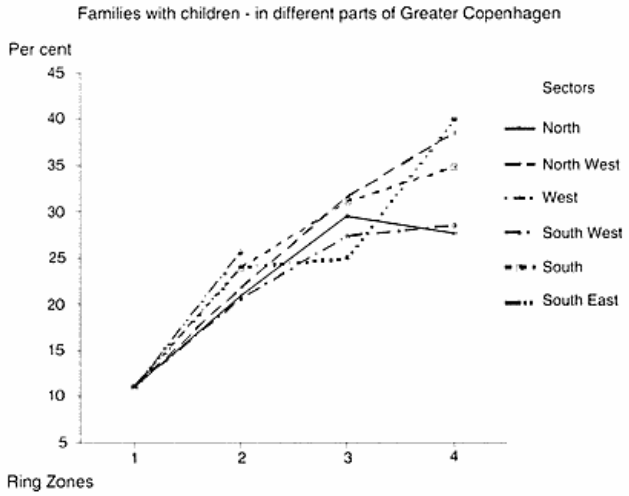
Segregation in greater Copenhagen in 1996

Demographic segregation

Since urbanisation took pace in the last century, a simple zonal pattern has prevailed: The more distant from the city centre, the younger the population. Every year new dwellings were constructed at the edge of the existing city and occupied by the younger cohorts that entered the housing market. Like most other West European cities in the 1960s central Copenhagen had a rising share of elderly and singles. This has now changed as the central part has a decreasing share among pensioners and a raising share aged 15 to 34 years, cf figure 2. Like a wave from the central city moving outwards the population is now becoming older in the inner suburbs (constructed in the 40s and 50s); it must be assumed that the next ring zones (no 3 and 4) will replace ring zone 2 within a few decades as the ones with the highest share of elderly. Figure 3 shows how the composition of households and age of people for each sector changes from the city center to the outer rings of the region. The picture is quite the same in all the sectors: The frequency of families with children increases with distance from the center in all

sectors. Differences between sectors appear especially in Ring 4 where the share of families with children is highest in the North Western and the Western sectors, lowest in the Northern and the south western sectors. At present, the share of elderly is highest in Ring Zone 2 (older suburbs) and decreases with a few exceptions in the outer rings with the highest difference between Ring 2 and 3. In the South Western and Southern sectors, however, there are more elderly people in Ring 4 than in Ring 3. In average most elderly is found in the Northern sector and fewest in the Western and Southern sectors.

The diagrams clearly confirm that the demographic composition of residents in the region primarily reflects the chronology of urban development. There seems to be a difference in age and family structure across the Ring zones of the city. This structure in principle has the same appearance inside the 6 sectors, although with some differences.



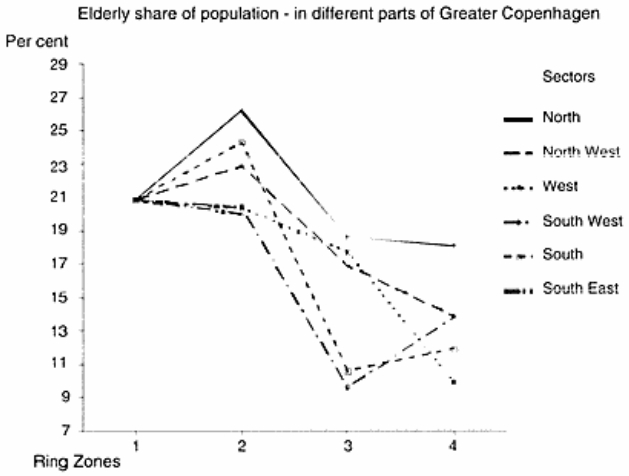


Figure 3: *Families with children as a share of all households and elderly more than 65 years old as a share of the total population in different parts of Greater Copenhagen, 1996.*

Socio-economic segregation

In general, income differences are quite limited in Denmark compared to other European countries with a Gini-coefficient beneath 0,40. Even if segregation of different incomes groups is high, the income differences between different areas are small.

The differences in average income and fortune in the Copenhagen Region is considerable between the sectors, cf table 1. The average income in the wealthiest sector (North) is more than 30 per cent higher than in the poorest sector (South West). The distribution of wealth is much more uneven with a considerable difference between the Northern sector and the rest of the sectors. The picture is the same with the least wealthy families living in the south western sector and increasing fortunes and incomes as one turns to north or east. It is also clear that central areas, City of Copenhagen and the Borough of Frederiksberg, are the poorest part of the whole region with an average income more than 20 per cent below the average for the suburbs.

This pattern of income differences between the rings does fit the model formu lated by Burgess (1925) and Hoyt (1939), which in general assumes increasing incomes with distance from the center. There are minor exceptions from this pattern, cf figure 4.

Segregation of groups with different relations to the labour market

Although the Danish welfare state has been trimmed during the 1980s and 1990s, the welfare state has been able to maintain a relatively high level of income compensation to people excluded from the labour market. In this study people permanently excluded or marginalised from the labour market included those aged 18 to 65 with early retirement, social security or sickness benefit as main income in 1995 or unemployment benefit, (who have been unemployed more than 75 pct. of the last three years). Totally, this group constitutes about 21 % of the 18 to 65 year old population in Greater Copenhagen. However, as expected the geographical distribution is uneven: The pattern is very much in a

Table 1: Average personal income for residents 18 years or older, and average family fortune.

Sectors/zones	Income (1000 DKK)	Fortune (1000 DKK)
north	246	853
north west	205	372
west	194	274
south west	182	227
south	190	272
south east	195	337
Ring Zone 1	162	168
Ring Zone 2	205	510
Ring Zone 3	212	401
Ring Zone 4	208	362

Source: Danmarks Statistik.

Table 2: The share of the population in the age of 18 to 65 who are more or less permanently marginalised from the labour market and the size of the group of "service professionals" - independent and professionals in service trades.

Sectors/zones	Marginalised (p.c.)	Service professionals*)
north	14	9,2
north west	17	5,8
west	17	3,6
south west	21	3,0
south	20	3,3
south east	16	3,0
Ring Zone 1	26	3,7
Ring Zone 2	18	5,4
Ring Zone 3	18	5,4
Ring Zone 4	15	4,6

*) *Indendependants, leaders and other professionals occupied in service trades except in the retail trade. Source: Danmarks Statistik.*

Table 3: Share of residents in different tenures that are marginalised from the labourmarket, overrepresentation in and segregation between zones and sectors.

Marginalised from labourm.	All dwell.	Owner-occ.	Social rent.	Priv. rent.
Share of residents (p.c.)	21	8	37	26
Ring zone		- Overrepresentation, %-		
Ring 1	25	23	18	6
Ring 2	-15	-5	-10	-17
Ring 3	-15	-10	-10	-27
Ring 4	-28	-5	11	-9
Segregation index	10.5	4.9	6.2	4.2
Share of residents (Ring 2-4)	17	8	34	22
sector		- Overrepresentation, %. -		
north	-20	-13	-2	-8
north west	-3	-10	-4	0
west	-2	1	-12	-12
south west	21	9	6	-2
south	14	9	8	25
south east	-9	25	-14	10
Segregation index	6.7	5.3	3.6	4.6

Source: Danmarks Statistik.

Table 4: Total segregation between Ring zones and sectors of marginalised people, divided into segregation caused by differences in housing market and residual segregation due to other factors.

Marginalised	Ring zones	Sectors
	- segregation index -	
Total segregation index	10.5	6.7
Caused by housing market*)	5.9	4.6
Residual segregation	4.6	2.1
Share of segregation	- Per cent -	
Caused by housing market	56	68
Residual segregation	44	32
Total	100	100

**) Calculated as the expected segregation between sectors etc. in the case where the composition of residents in each tenure in the municipalities corresponds to the average for the whole region. Source: Danmarks Statistik.*

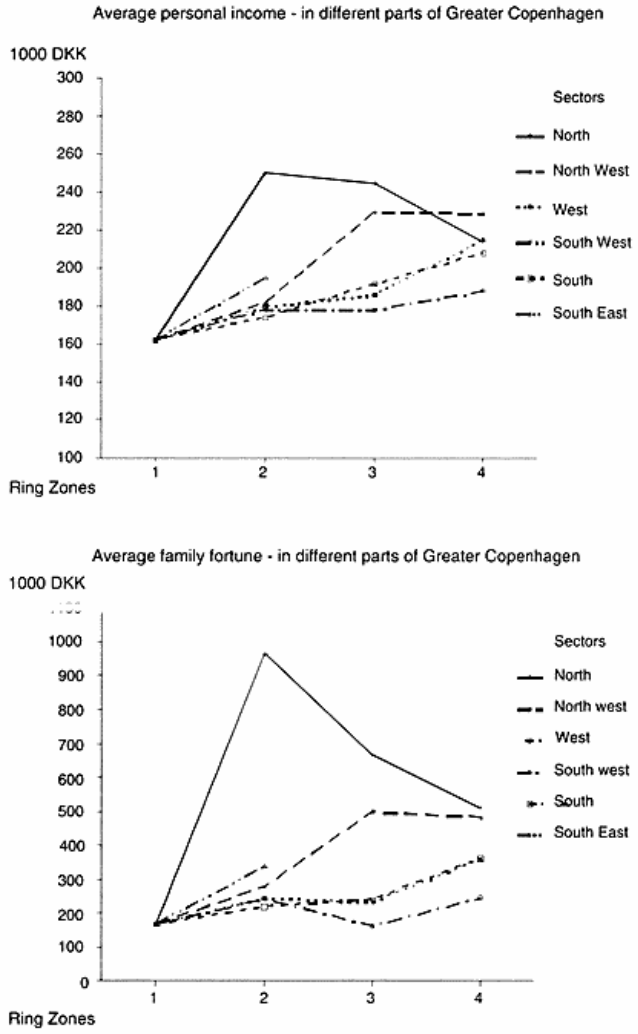


Figure 4: *Average personal income and family fortune in different parts of Greater Copenhagen, 1996.*

cordance with the income distribution. The highest concentration of marginalised groups is found in the Centre and in the Southern and South Western sectors, the lowest in the Northern sector and in the outermost ring zone, but there are also clear variations between municipalities inside these areas. There is still, however, a considerable part of the population in the most affluent parts of the region that is marginalised, cf figure 5.

At the other end of the occupational spectrum we have the professionals in services - a group that, according to much literature on the current development of cities, is expected to become a still more important and expanding group. On average the group constitutes 4,5 per cent of the population in the age of 18 to 65. From table 2 it is seen that this group is concentrated in the Northern sector and to some extent the outer rings of the Northern and North Western sectors while there are few of them in all other parts of the region.

Segregation of immigrants

Denmark received many foreign workers in the 1960s and early 1970s, especially from countries like Turkey and Pakistan (Andersen et al, 1990). These immigrants have later got their relatives to the country and the group has experienced a substantial growth since then. In parallel Denmark has received many refugees from different countries during the last twenty years or so.

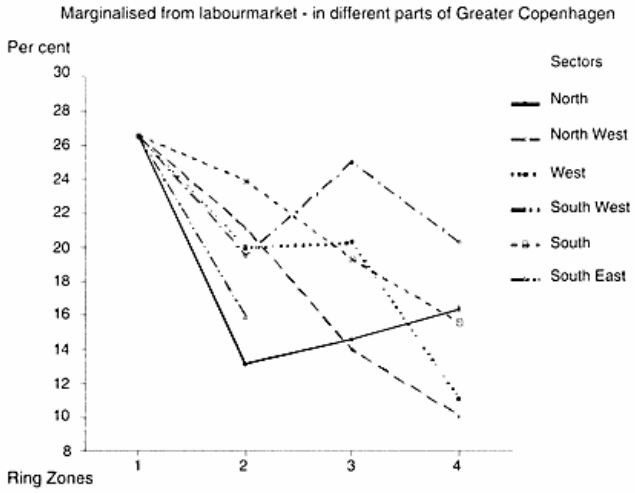
The immigrant population, defined as citizens or born in countries outside Western Europe, North America, Australia and New Zealand, make up 6,7 per cent of the population. The immigrants are a very segregated group as it appears from figure 6; in general the highest concentration of immigrants is found in the South Western and the Southern Sectors - the lowest in the Northern and the South Eastern sectors. There are, however, considerable differences inside the sectors. Except from the Center of the region there are most immigrants in Ring Zone 3. As will be seen from the following section it is due to the chronological order in which the Ring zones were developed where immigrants have tended to settle especially in social housing built in the period of 1965 to 1980. This pattern also appears inside the sectors as shown on the map. The highest representation of immigrants is found in outer parts of the South Western and Southern sectors (ring 3 and 4), and the lowest concentration is found in the northern sectors.

Distribution of housing in Copenhagen

The segregation pattern in Greater Copenhagen is broadly outlined above; in this section the role of housing policy is discussed against more fundamental forces of segregation.

Danish housing market and housing policy

The three main sectors in the Danish housing market consist of owner-occupied housing (53 % of the stock), social housing (19 %) and private renting etc. (28 %). In the latter is included some cooperative dwellings (5 %) and dwellings owned by local authorities (3 %). In all three sectors the residents have received some kind of support from the public. Owner-occupiers have received indirect subsidies through the tax system, social housing has been subsidised



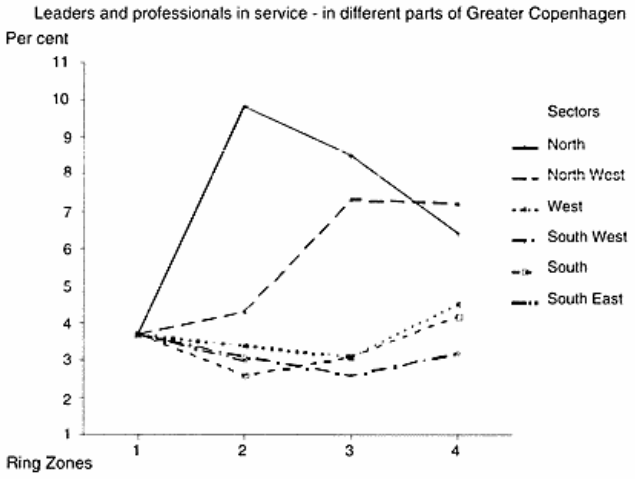


Figure 5: *Share of population in the working age (18 - 65 years) who are marginalised from the labour market, and the share of independents, leaders and professionals in service trades, 1996.*

directly through lower payments on loans, and in the private rented sector a strong rent control has kept rents on a level about 40 p.c. belove the market level (Lejelovskommissionen 1997). All renters and elderly owners with lower incomes can receive housing benefits.

The Danish tax rules, housing subsidies and regulations of the housing market has resulted in a strong distortion of the demand for housing among different groups of the population. Households with higher incomes and tax payments have greater economic incentives and possibilities for buying a home than low-income groups, and international comparisons show that the Danish tax subsidies for owner-occupiers are a higher than in most other European countries (see Haffner 1993). On the other hand the housing benefit system induces people with low incomes to settle in rented dwellings, in particular in the social sector. This benefit system in combination with the rent structure tends to concentrate marginalised groups, e.g. people on welfare, with early retirement, with low income, in the newer part of the social sector while the middle class and employed people avoid this kind of tenure. Thus, the location of housing of different tenures has a significant influ ence on segregation.

The influence of local authorities on housing supply in the municipalities

In Denmark local governments have had a considerable influence on the composition of the local housing market in their municipality. First of all, through physical planning measures they can control type of tenure and size of sites for all new housing. Local governments are able to promote social housing as they have to give permission and to provide a part of the finance. By denying this they can prevent social housing from being built in their municipality. These powers have been used by local governments in the Greater Copenhagen Area to create local housing markets that are extremely different. Especially in the period before 1980, when private house building boomed, some local governments chose not to accept any new social housing. In the same years housebuilding in other municipalities was heavily dominated by social housing, (cf Andersen, 1991). There was a strong connection between the leading political party at the local level and the kind of housing prevailing, although after 1980 this pattern has been somewhat relaxed (cf. Skifter Andersen and Als 1985). It is thus possible for local governments to attract people with higher income and at the same time force low-incomes groups to leave the municipality by promoting owner-occupation. Consequently, the distribution of tenure is more a result of political regulation than of market processes.

The total result however has been tremendous variation in the compostion of the housing market in different municipalities as can be seen from the map in the supplement. It has also resulted in differences between the different sectors and Ring zones in the region, cf figure 7. The chronological development of the city has resulted in pronounced differences between the different rings. The center is dominated by private renting (65 p.c) which constitutes less than 20 p.c. of the dwellings in the suburbs. On the other hand owner-occupied housing is most common in the outermost ring. There are quite a few in the center and the majority of

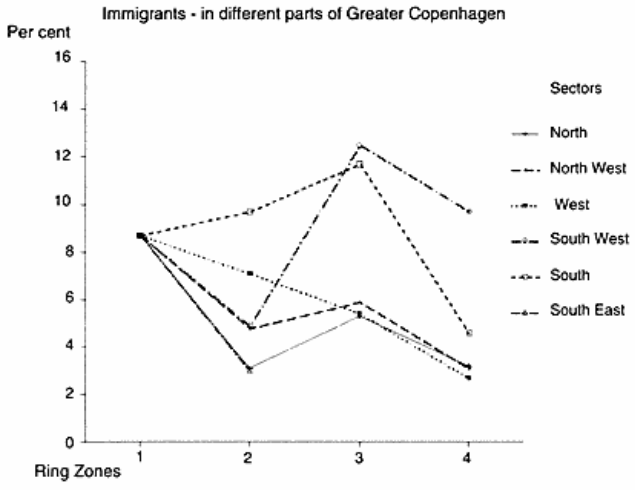


Figure 6: Share of immigrants - people who are citizens or born in countries outside Western

these are owner-occupied flats. Social housing is most common in Ring 3 where most of the larger problem estates built in the 1960s and 1970s are located. Social housing in Ring 2 and in the center is older.

The composition of the housing supply in the different municipalities reflects the general segregational pattern of the region. This shows that housing supply has a strong impact on the location of the different types of households; households with higher incomes demand owner-occupied housing while low-income house holds demand rented and social housing.

The consequences of housing supply for segregation

As concluded above the location of housing supply must be seen as a result of on the one hand the general forces of segregation which make different demands for housing at different locations and on the other hand by political processes that influence the supply of various types of housing. The location of the different forms of tenure is thus not a simple response to general segregation but has a separate importance for the spatial location of the population.

In social housing, marginalised people constitute nearly forty per cent of the residents of working age in Greater Copenhagen, but only eight per cent in owner-occupied housing are marginalised. A great part of the latter are people living in owner-occupied flats in the center of the region. Compared to the average for the region the group of marginalised - as earlier shown - is heavily overrepresented in the center (25 % more than average) and in the South Western and Southern sectors (21 and 14 %). In table 3 the degree of overrepresentation of marginalised people in ring zones and sectors is calculated for three tenures. Furthermore the indexes of segregation are calculated for ring zones and sectors for the same three tenures: Owner-occupation, social renting and private renting, and for all dwell ings. The table shows to which extent the group of marginalised people in each tenure is over-represented in the different parts of the region compared to the average representation of the group in this tenure. If housing policy did not matter the same pattern of over-representation should appear inside each tenure.

However, the table shows that the pattern is different inside each tenure and that it differs from the pattern for all dwellings. In all tenures there is an over-representation of marginalised people in the centre but it is largest in the owner-occupied sector and somewhat smaller in private renting. In social dwellings the group is overrepresented in Ring Zone 4 in strong opposition to the general trend for alle dwellings.

By comparing the sectors it is seen that the share of marginalised people in social housing in the wealthier Northern and North Western sectors is close to average (they diverge only 2-4 %). Somewhat surprisingly the marginalised group is mostly underrepresented in social housing in the Western sector. The pattern in owner-occupied housing is closest to that of all dwellings except for the South Eastern sector. In the table the index of segregation is calculated, it shows how the location of the chosen group differs from the location of the whole population. The largest segregation is found between the Ring zones - especially between the centre and the suburbs. There is a somewhat smaller segregation between the different sectors in the suburbs.

The importance of tenure can be examined further: Table 4 separates segreation into two parts, first segregation caused by differences in the composition of the housing market in the different parts of the region, and second the residual segregation due to other factors.

If the share of marginalised groups in the various tenures in each municipality corresponds to the average for the tenures at metropolitan level, then it is possible to calculate the segregational effect caused by the unequal distribution of different tenures, i.e. segregation caused by segmentation of housing market. It follows from table 4 that segmentation is expected to produce a segregation index between sectors of 4,6 and between ring zones of 5,9. Compared with the

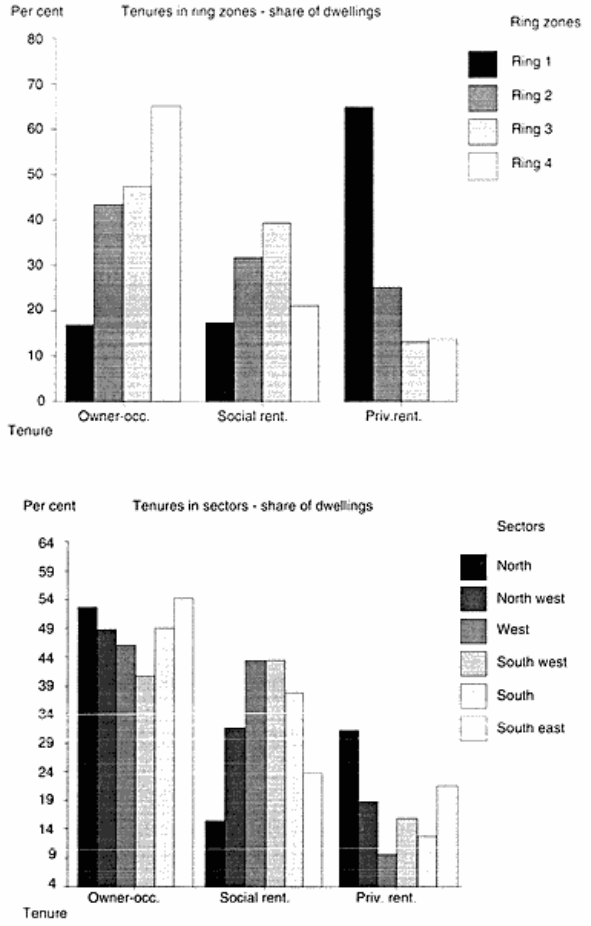


Figure 7: *The composition of the housing market in different parts of Greater Copenhagen.*

index of total segregation the effect of segmentation is causing respectively 68 per cent of the segregation between sectors and 56 per cent of the segregation between ring zones. The residual segregation is quite small - indices of 2,1 and 4,6. Given the existing composition and geographical distribution of the housing stock other segregational forces have only a limited effect.

Segregation of immigrants

As already mentioned, immigrants are a very segregated group in the Copenhagen Region. In average 15 per cent of the renters in social housing are immigrants while only 3 p.c. of the residents of owner-occupied housing are immigrants. Immigrants are heavily over-represented in the Center (+25%) and in the South Western and Western sectors (+43-44%) while Ring Zone 2 (-26%) and especially the Northern sector (-35%) have much fewer immigrants. Inside the different tenures it is only partly the same picture. In the owner-occupied sector immigrants are more overrepresented in the, mostly, owner-occupied flats in the center. Social renting is closest to the general pattern of segregation but with a somewhat smaller overrepresentation in the South Western and Southern sectors.

In general segregation indices inside tenures are smaller than the indices of the total segregation between sectors and rings, except for segregation between rings inside the owner-occupied tenure. But there is also quite a high segregation inside social housing between sectors. However, this can to some extent be explained by differences of social housing that is located in the municipalities. Immigrants are mostly concentrated in social housing built after 1960 (Skifter Andersen and Ærø 1997) which is more common in the outer rings and in the Southern and South Western sectors, and is more seldom found in Ring Zone 2 and the Northern and Western parts of the region.

Segregation of immigrants in the Copenhagen region can therefore only to a minor extent be explained just by differences between municipalities concerning the share of tenures in the local housing market. It is seen from table 5 that only 26 per cent of the segregation between rings can be explained by this and the index of segregation due to other causes is quite high.

Conclusions

The social geography of Greater Copenhagen is marked firstly by a zonal struc ture, which differentiates the population due to life cycle stage. In general, the more distant from City, the higher the number of families and the lower the share of elderly. However, during the last 5-10 years the inner suburbs have replaced central Copenhagen as the zone with most elderly people and fewest youngsters.

Secondly, the social pattern has a clear sectorial dimension regarding socio-economic status: The northern most sectors have concentrated the socio-economic elite in Copenhagen - high incomes, professionals, managers etc - and in contrast low incomes and marginalised people are concentrated in South and South West. However, the general level of segregation in Greater Copenhagen is relatively low compared to other metropoles in Europe and the United States.

There are, however, major differences between municipalities within the same sectors of the region; this cannot

only be explained by variation in attraction or general forces of segregation. Instead these differences are linked to the composi tion of the housing market in each municipality. As shown, more than half of the segregation of marginalised people between sectors in the region can be explained by differences in housing supply. It is also shown that inside each tenure the segregation is much smaller than between sectors and rings.

Ethnicity has appeared during the last two decades as a dimension of some importance; the most striking characteristic is the concentration in a few selected areas. This is partly a consequence of the segmentation of the Danish housing market; as many immigrants belong to low income groups, their opportunities on the housing market are limited to the more unattractive parts of the social housing sector and the private rental sector. There are, however, also signs that immigrants either have tried, by themselves, to concentrate in certain estates, or that they to some extent have been excluded from social housing in other munucipalities.

This classic form of social segregation seems to originate from the earliest growth phases: The social structuration is basically formed during the initial stages of urbanization, which generates a social environment 'built into' the urban fabric. Its earliest assessments often stem mostly from natural - eg. lakes, hills, forests or access to open land - attributes. Once created in the form of the built environment, the socio-spatial structure is maintained in a number of ways: By pricing of dwellings, planning measures, local cultural traditions etc.

Two kinds of conclusion can be drawn from this evidence: First, that housing supply in the different parts of the region is not just a reflection of demand from different social groups. It is also to a great extend a result of local housing policies in municipalities implemented by local governments. Second, that the marked segmentation between different tenures in the Danish housing market means that differences in housing supply have a separate effect on segregation.

The data set used in this paper is based on the municipal level. This means that the data involved in the analysis represent an average for one, maybe more, local communities. In fact, intra-municipal variation might be larger than the inter-munici pal variation.

A second point here is that the data available are all of the more conventional category, which allow an investigation of the dimensions belonging to the tradi tion of the Chicago school. But it is not possible to obtain statistical information on alternative explanations, e.g. life styles. Consequently, there is a danger that observations and theory form a closed universe (i.e. a tautology) that efficiently prevent us to identify and measure other dimensions of inequality.

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