

## Income segregation in The Netherlands: trends and analysis

Paper submitted for the ESRA Conference Session K

Amsterdam, 23-27 August 2005

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### *Abstract*

*The Dutch government intervenes on different levels trying to mix low and high income groups. Although based on common sense to avoid concentration of problem areas, practical aims related to measurable spatial patterns of income distribution are difficult to find. Even actual levels and trends of income segregation are hardly defined. This paper publishes income data at 500 by 500 meter cells, showing significant spatial patterns of distribution and growth of low and high income groups. Remarkably, high income groups appear to be more segregated than low income groups. All Dutch central city areas have regained high income groups in the 1995-2000 period, while outer city district areas are facing income stagnation.*

Keywords: segregation, low income groups, high income groups, urban renewal

## **1. Introduction**

In The Netherlands, income segregation is a sensitive issue of debate. Concentration of low income groups, ethnic neighbourhoods, isolation, and integration problems are commonly said to be interrelated. This is best illustrated by a proposal of the Municipality of Rotterdam, that hopes to stimulate ethnic integration by temporarily prohibiting the inflow of low income groups. Also from other perspectives, spatially mixing income groups is an important issue. For instance, a recent proposal from the Ministry of Housing to allow some liberalization in the rental housing market was faced with strong opposition of renters and municipalities. They argued that in this way the income segregation would only increase.

Still, little appears to be known about the problems caused by income segregation. Moreover, surprisingly little empirical evidence is available that quantifies income segregation, and processes causing income segregation are poorly studied.

This paper starts with presenting a short overview of positions in the debate about income segregation. The question will be addressed to what extent income segregation is felt to be a problem. Then, actual patterns of concentration and distribution of income groups are depicted. For this, two levels of analysis are used: city and neighbourhood.

## **2. The debate about income segregation**

Facts about income segregation in The Netherlands are scarce. The image of poor cities surrounded by rich suburbs holds strongly amongst policy makers, as a result of developments in the 1970s and 1980s. Yet, a study of the Ministry of Housing has shown that the city is catching up its income gap since 1994 (VROM, 2003). At the level of the neighbourhood, fears of increased segregated housing of low and high income groups also exist. However, quantification of this supposed trend often gets stuck in the rather abstract segregation index. The index shows that The Hague is more segregated than Amsterdam, and that segregation has indeed risen slightly since 1994 (SCP/CBS, 2003).

Much, though, is written on factors and processes that would be said to lead or not lead to concentration of income groups, like housing distribution systems (Jongerden, 2001), and 'skewed housing' and urban renewal (van Kempen, 2000). Van Kempen, for one, expects urban renewal to induce mixing 'in situ', but concentration of low income groups elsewhere. Few however is being concluded on the degree to which this leads to separation of income groups in practice. Much research that is being done, is qualitative in character, without being based on factual data.

Whether segregation has consequences for the inhabitants involved, and what these consequences are, is still a point of discussion. Some expect that a mixed neighbourhood offers more opportunities for underprivileged individuals than a homogeneous low income area, as by meeting employed people in his neighbourhood a deprived person would be more encouraged to find a job. Individuals' opportunities are thus said to decrease in concentrated low income areas, a mechanism also known as the "neighbourhood effect" (Anderson, 1990). In extreme situations this mechanism has indeed been observed, like in ethnic ghettos in the United States. In European countries, which have a higher level of income equality, more divergent findings are published. In Sweden, the effect has been confirmed, whereas in The Netherlands no evidence could be found (Musterd, 2004).

The reasons for governments to fight income segregation are diverse. First of all, an important value in the Dutch society is that of equity between the different population groups. To a certain extent, also low income groups must be able to live where they want. A second reason focuses on creating opportunities for underprivileged individuals, trusting in the above described neighbourhood effect. A third reason starts from the perspective of the neighbourhood itself: the liveability of the area would be better assured in mixed income areas, particularly in terms of maintenance of (semi-public) areas. A fourth reason is based on the principle of "sharing the burden". This point of view is popular among central cities wanting to export part of their "problem groups" to surrounding municipalities, and get more tax paying high income groups in return.

In practice, much is being done to promote diffusion of income groups, both on city-suburbs level and on neighbourhood level. Many cities try to decrease the income gap between the city and adjacent municipalities. The Rotterdam proposal is the most extreme, but also other cities are signing agreements to decrease differences in housing stock. More social housing in surrounding municipalities would lead to diffusion of low income groups across the region.

Also on the level of the neighbourhood, mixing is the leading trend in current urban policy. Most renewal projects aim at creating a more differentiated housing stock. Often, the main target is to provide the current inhabitants with more possibilities to stay in the neighbourhood when looking for new housing. However, also the mixing of income groups is frequently mentioned as a target in itself.

### **3. Income segregation revealed**

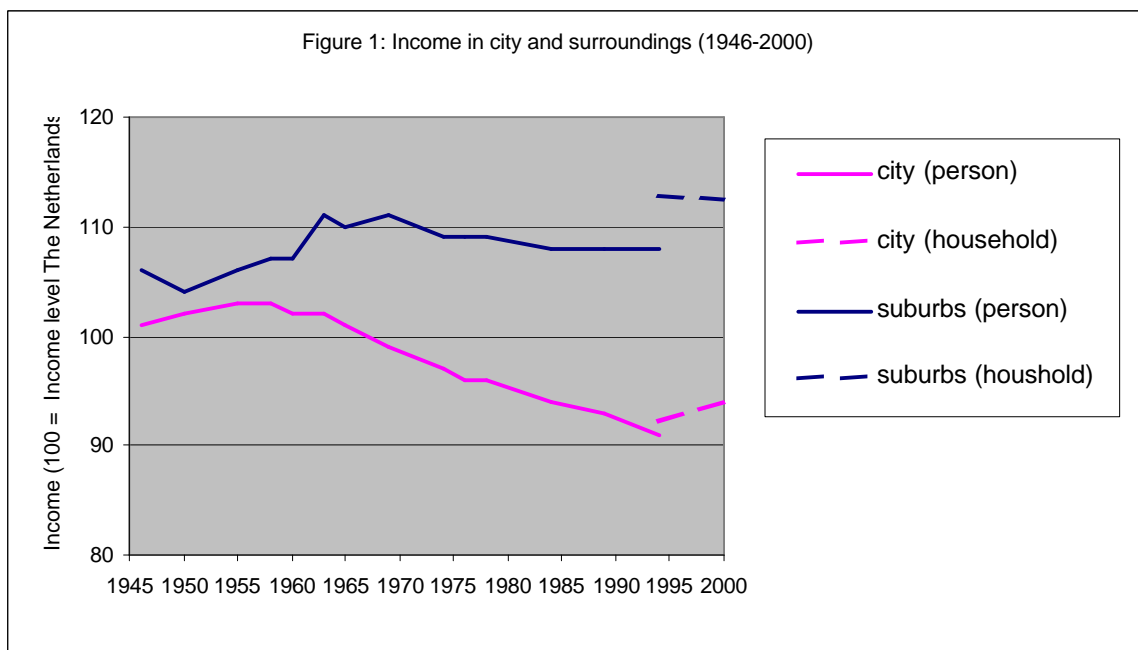
We concluded that income segregation is an important issue, but that about actual developments little is known. To what extent do segregation and mixing of income groups really take place? To answer this question, income segregation is visualised at two levels: city and neighbourhood.

Quantifying income segregation implies important methodological choices. The two main ones are the definition of income, and the way in which spatial distribution of income inequality is expressed.

Basically, Statistics Netherlands (CBS) defines income in three ways. Each definition puts emphasis on a particular aspect of reality. Applying the *disposable income per person*, high income levels are found in areas with many high income singles. The *disposable income per household* gives an aggregation of the income of all members of the household. With this definition, neighbourhoods with many double income couples or families rank first. To avoid both these effects, a third definition from CBS is used in this paper: the *standardised disposable household income*. This income variable corrects household income for household composition, thereby approximating purchasing power of each household (CBS Statline, 2005).

Spatial distribution of income between neighbourhoods is usually expressed with the segregation index. This index reflects the level of concentration of a certain population group, in this case low or high income groups. The definition of the neighbourhood unit is crucial here, as concentrations vary between different scales, e.g. districts or neighbourhoods. In this paper, 500 by 500 meter grid cells are used. Although grid cells are abstract units, they allow observations and therewith comparison over a longer time period. Besides, cities with different neighbourhood delineations can be compared based on the same unit size.

Compared to their surroundings, all 22 selected cities have reduced their income gap in the period 1995-2000 (figure 1). Although applying different definitions for income and delineation of cities and their surroundings, VROM (2004) reached this same conclusion. It remains to be seen whether this is a temporary fluctuation or a disruption of the trend in the long run.



The question may be asked whether this development is a result of policy, or of autonomous processes. The number of owner-occupied houses has increased more in the cities than in their surroundings. This could be an indicator of successful policy. However, the magnitude of this growth cannot be related to that of the income for each individual city. Besides, other explanations of income growth in the cities are possible. Due to rising housing prices, an increasing part of high income households still lives in social rental housing. In addition, living in a highly urban setting is becoming increasingly popular, attracting the wealthy to the city.

Obviously, cities differ in the degree to which they catch up their income difference with surrounding municipalities. Amsterdam is exceptional to Dutch standards: being originally a city with a large low income population, its income growth is the largest compared to all other cities. The income gap compared to its surrounding municipalities has decreased from 12,8 to 8,3 percent in five years time. The income level of Rotterdam is slightly increasing compared to national levels, too. The income gap with its surroundings has decreased from 13,4 to 11,6 percent. This gap, however, is still the largest of all cities in the Netherlands.

On neighbourhood level, no significant increase of segregation for low or high income groups is taking place. However, high income groups are more spatially segregated than low income groups. This is concluded from segregation indices for 22 cities. Stable segregation figures seem to indicate that the increase of income in the cities is not restricted to a limited number of high income 'enclaves'. Nor do they indicate that lower income groups are pushed to less favourable, and more concentrated low income areas.

The degree of segregation differs among cities. The Hague is the most segregated city in the Netherlands, both in terms of low and high income groups (indices of 28,6 and 36,4, respectively). Rotterdam has average segregation levels (23,6 low income, 32,9 high income), whereas Amsterdam has the lowest figures (19,0 low income, 29,4 high income).

Although segregation indices give an impression about the situation, they are still abstract figures. Maps of income segregation can provide valuable additional insights.

Concentrations of low and high income areas are clearly visible and hardly surprising for those familiar with the area. Housing characteristics determine to a large extent the existing patterns. Particularly the number of owner occupied housing correlates very strongly with income.

Considering income growth, the spatial distribution shows an entirely different pattern (figure 3). In all cities, income growth is concentrated in the city centre and its direct surroundings. This pattern ignores the current distribution of low and high income neighbourhoods. Although for the city as a whole, segregation indices seem to be stable, they conceal the large income dynamics taking place, favouring central areas at the cost of the outer districts of the city. The spatial extent of the growth area around the centre seems to correlate with the growth level of the entire city. In Amsterdam, with a high income growth, the growth area is large, whereas Rotterdam has a considerably smaller area while also its growth is less.

Looking at the current low and high income groups across the city, they differ both in their spatial distribution and the process they go through. First, low income areas are concentrated in large, continuous areas in the city, whereas high income areas are more distributed across the city and its surroundings. Paradoxically, high income households thus live more dispersed over small neighbourhoods, which in themselves show high concentration levels of high income. Second, the striking pattern of income growth in city centres and stagnation in the outer city districts is most evident for the low income areas.

Figure 2: Income in the Rotterdam-The Hague region on a 500 by 500 meter grid level (2000)

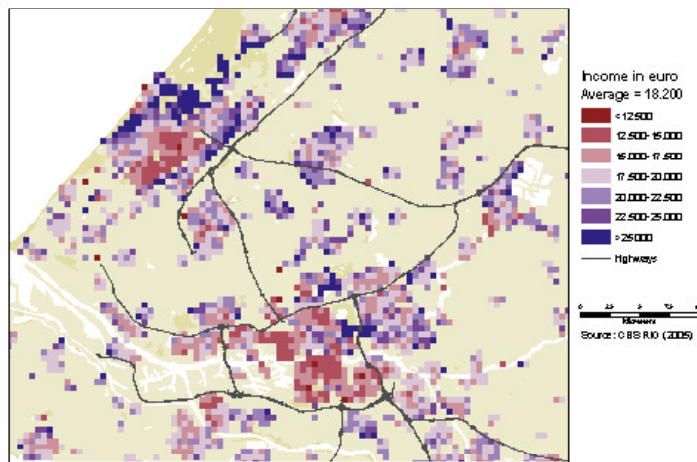
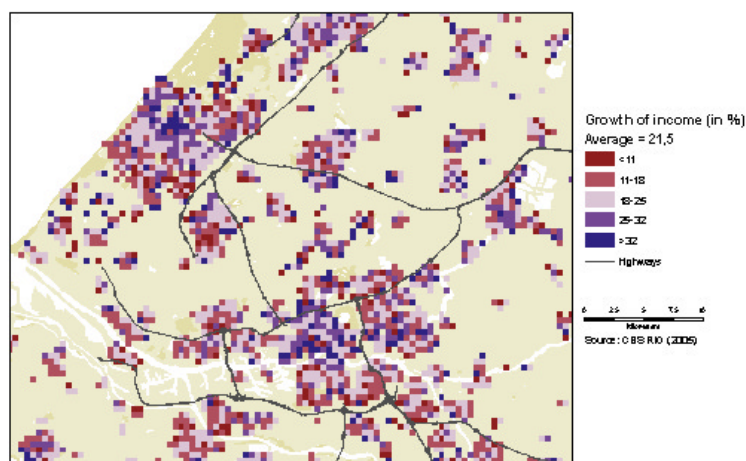


Figure 3: Growth of income in the Rotterdam-The Hague region on a 500 by 500 meter grid level (1995-2000)



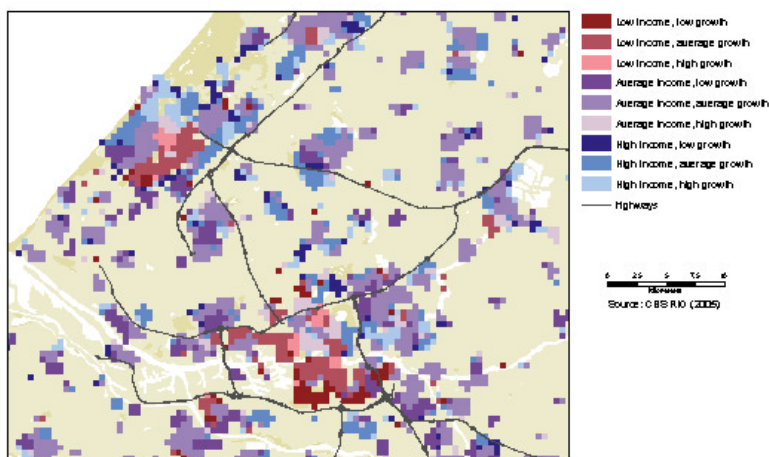
What do these figures and trends mean for concentration and distribution of income groups on neighbourhood level? In low income areas close to the city centre, gentrification is taking place. Original concentrations of low income groups are becoming more mixed, due to the inflow of middle and high income groups. This seems to be a common phenomenon in Dutch city centres. It is not clear whether this is a temporary situation. If high income groups continue to invade these areas, a moment will be reached when this neighbourhood becomes more homogeneous again: the initial low income concentration could be replaced by a high income one.



While predominantly low income areas in the centre thus become more mixed, in the outer districts they are getting more segregated. Middle and high income groups are moving out, without being replaced by others from the same income groups. Potential problem areas are those where low income figures are combined with stagnating growth. These areas are all located in the outer districts, not in or near the city centre.

The composition of income groups in city neighbourhoods is thus changing continuously over time. These dynamics are expressed in figure 4. Remarkable are the low income stagnation areas on the southern edge of Rotterdam. Also the low, medium and high income neighbourhoods with high income growth in the city centres are easily recognized.

Figure 4: Neighbourhood type according to income (2000) and growth of income (1995-2000) in the Rotterdam-The Hague region



## **Conclusion**

Income segregation is an important issue in urban renewal. However, the targets that are to be met with fighting segregation are not clearly formulated. No clear ideas exist of ongoing spatial distribution of income groups, nor about any particular “desirable end pattern”.

Actual income figures show that the city has reduced its disadvantaged income position as compared to its surrounding municipalities. This growth, though, is concentrated in the city centre. Because many low income households lived here originally, the influx of high incomes causes increased mixing. On the other hand, low income areas in the outer city areas are faced with stagnation and increasing segregation.

Many research questions remain open. What segregation figures and distribution patterns are found if other levels of analysis would be applied, like housing block or street? What are the consequences for inhabitants? What are the consequences for the liveability of neighbourhoods? Only by responding these questions, statements can be made about the desirability and direction of policy on the spatial distribution of income.

## Bibliography

- Anderson, E. (1990), *Streetwise - Race, Class, and Change in an Urban Community*, The University of Chicago Press.
- CBS statline (2005), *Statistical database of the Netherlands*, [www.cbs.nl](http://www.cbs.nl)
- Jongerden, J. (2000), *Een gedeelde stad. Een case-study naar woningaanbodsystemen en differentiatie binnen wijken in Apeldoorn, Arnhem en Nijmegen*, Arnhem: Osmose, 2000.
- Kempen, R. van, e.a. (2000), *Segregatie en concentratie in Nederlandse steden: mogelijke effecten en mogelijk beleid*, Utrecht: Urban Research Centre Utrecht, Faculteit der Ruimtelijke Wetenschappen, Universiteit Utrecht.
- Massey, D.S. & M.A. Denton (1988), 'The Dimensions of Residential Segregation', in: *Social Forces*, 67: 281-315.
- Musterd, S., W. Ostendorf & S. De Vos (1999), *Kansarmoedeconcentraties en woningmarkt*, Amsterdam/Utrecht: AME/NETHUR.
- Musterd, Sako (2004), 'Etnische segregatie in Europees perspectief', in: *Stedenbouw en Ruimtelijke Ordening* 05/2004.
- Deurloo, R., S. Musterd & W. Ostendorf (1997), 'Pockets of poverty'. *Een methodische studie naar het vóórkomen van ruimtelijke concentraties van armoede in steden in Nederland en enkele kanttekeningen bij de probleemanalyse*, DGVH/NETHUR.
- SCP/CBS (2003), *Armoedemonitor 2003*, Den Haag: Sociaal en Cultureel Planbureau (SCP)/Centraal Bureau voor de Statistiek (CBS).
- Vries, Aldert de (2005), *Inkomensspreiding in stad en buurt. Een voorstudie*, Den Haag: Ruimtelijk Planbureau.
- VROM (2003), *Inkomensverschillen binnen Nederlandse stadsgewesten. 1946-1994-2000, gemeenteniveau*. Den Haag: Ministerie van Volkshuisvesting, Ruimtelijke Ordening en Milieu.
- VROM (2004), *Nota Ruimte*, Den Haag: Ministerie van Volkshuisvesting, Ruimtelijke Ordening en Milieu.