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Neoliberalization of Housing in Sweden: Gentrification, Filtering and Social Polarization

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<AB> During the last twenty-five years, housing policy in Sweden has radically changed. Once forming a pillar of the comprehensive welfare system, abbreviated the "Swedish model," neoliberal housing politics have established market-governed housing provision with a minimum of state engagement. This shift has had consequences on the social geography of housing conditions. The research reported here analyzes social geographic change in Sweden's three largest cities, Stockholm, Gothenburg, and Malmö, between 1986 and 2001, relating observed patterns of gentrification and filtering to cycles of accumulation and to neoliberalization of housing policies. First, we outline the neoliberalization of Swedish housing policies. We then present an empirical analysis of gentrification and filtering in the three cities, spanning two boom periods (1986–1991, 1996–2001) and a bust period (1991–1996). The data reveal social geographic polarization manifested in the growth of super-gentrification and low-income filtering. The analysis also introduces the concept of ordinary gentrification, supporting the move in gentrification research towards a broad generic conception of the process. Political reforms after 2001 are summarized and we argue that these underlie continued increase in inequality and that the social geographic polarization mapped between 1986 and 2001 has probably intensified during this decade. *Key Words*: *filtering*, *gentrification*, *housing policy*, *neoliberalism*, *Sweden*

The global ascent of neoliberal politics over the last three decades has entailed extraordinary growth of income inequalities and the opening of new frontiers for accumulation by dispossession (Harvey 2005, 2006a, 2006b). Processes of uneven development, variously brought under the regulatory control of welfare-state institutions during the middle decades of the twentieth century, have consequently intensified (Brenner and Theodore 2002). Itself geographically uneven, neoliberal reforms in the spheres of housing, health, education, employment, finance and taxation have met with various intensities of resistance and degrees of political feasibility. With broad middle-class stakes in its comprehensive welfare system, the Swedish welfare state has proven to be resilient to far-reaching neoliberal reforms (Lindbom and Rothstein 2004; Lindbom 2008), bringing Harvey (2005, 115) to conclude that "Sweden is an example of what might be called 'circumscribed neoliberalization', and its generally superior social condition reflects that fact." Housing, however, appears to be an exception. Swedish housing policy had for decades been situated "at one extreme of the housing policy spectrum, emphasizing interest-rate subsidies to investment, neutrality between tenures, generous overall benefits to housing both in the form of general subsidy and income-related benefits, and low risks to financiers, investors and households alike" (Turner and Whitehead 2002, 204). Political reforms over the last two decades have radically changed the political economic landscape of housing for both households and agents in structures of housing provision (Lindbom 2001). Sweden's leading real estate economists observe that Sweden has "gradually become one of the most liberal market-governed housing markets in the Western world" (Lind and Lundström 2007, 129, our translation).

In this article we ask what the consequences of this radical shift in housing politics have been for the social geography of Sweden's three largest cities, Stockholm, Gothenburg, and Malmö. We first present a brief overview of the neoliberalization of Swedish housing, the sphere in which the neoliberal project has won most terrain in Sweden. We then present empirical analyses of the spatial distribution of gentrification and filtering in these cities across the cyclical ebb and flow of capital accumulation spanning two boom periods (1986–1991, 1996–2001) and a bust period (1991–1996). Social polarization during this period is manifested in the marked increase in super-gentrification at the upper end and low-income filtering at the lower end of the housing stock. We relate mappings of super-gentrification and low-income filtering to neoliberal housing policies, arguing that the striking social geographic polarization in Swedish cities is largely a consequence of radical political reforms. Finally, we present a brief picture of housing policy change since 2001, suggesting that the observed patterns of polarization evident in increasing super-gentrification and low-income filtering between 1986 and 2001 have in all probability intensified with a new round of neoliberal reforms.

Neoliberal Housing Policy Reforms

In the mid 1980s, Sweden's system of housing provision had for decades been a pillar of the Swedish social democratic welfare state, catering as it did to basic needs of the broad working and middle classes (see Table 1 for an overview). Architectured in the 1930s and 1940s, continuously modified to overcome problems and challenges, some of which generated by its own successes and failures, it came to be praised in international comparative analyses as "phenomenally successful both qualitatively and quantitatively" (Headey 1978, 44). But Sweden reached a peak in its post-war development around 1975, its economy subsequently struggling with crises and extensive structural transformations (Schön 2000). Sweden's position in the global economy declined and the welfare state was increasingly viewed as the root cause of relative economic decline. Popularly oriented publications such as *A market for housing for all*

(Andersson *et al*. 1990) and *Power over the home* (Meyerson, Ståhl and Wickman 1990), drawing on inspiration from neoliberal policies in the United Kingdom and the United States, called for an end to existing housing policies, laying out a road map for neoliberal reforms.

One of the first things the Conservative government did after coming to power in 1991—the first government in Sweden led by a Conservative prime minister (Carl Bildt) since 1930—was to close the Department of Housing. Under the new regime, housing was not to be distinguished from any other commodity. Longstanding legislation regulating the housing sector—and standing in the way of commodification of housing—was nullified, including the housing provision law, the housing assignment law, and the land condition law (requiring municipal land ownership or transfer for loan subsidies). In the new so called Danell system for housing finance established in 1993, subsidies were either discontinued or radically reduced. Also, housing allowances according to income and family size, directed to households most in need, were reduced (Bengtsson 1995; Persson 2001). Only a marginally reformed use-value system of rent regulation survived.

Remarkably little was done to reconstruct housing legislation and policy administration when the Social Democrats came back into power in 1994. Rather, under Ingvar Carlsson (1994–1996) and Göran Persson (1996–2006) the neoliberal reforms were tacitly endorsed. Sweden became a member of the European Union in 1995, and agendas across the board were dominated by adaptation to the new supra-national order. The Social Democrats inherited—without effective resistance—the neoliberal program. Consequently, the housing sector went from being a net burden on state finances of roughly thirty billion Swedish crowns in the late 1980s, to providing a net income of roughly thirty-one billion crowns ten years later (SOU 1999). This process involved nothing less than a major redistribution of national income.

The Housing Policy Commission established by the Carlsson government in 1995 did suggest elements of a return to traditional Swedish housing policy, but little was done to change the direction of housing policy as these elements were not included in subsequent government bills (SOU 1996). The Commission's report was later criticized by The National Board of Housing, Building and Planning for lowering the level of ambition in housing policy and for not providing guidance from word to action, generating many goals but few means (Boverket 2005).

The consequences of this structural shift in housing policies are numerous and far-reaching. Very briefly (for a more thorough overview, see Clark and Johnson 2009) the main consequences have been:

- Decline in new production and rise in vacancies
- Increase in crowded housing conditions
- Municipalities closing housing agencies and abandoning social housing commitments
- Public housing companies operating increasingly for profit: increased exclusion of the poor
- Segmentation: differential effects on different forms of tenure
- Privatization and out-sourcing of planning, and, as the analysis below shows:
- Social polarization manifested in growing super-gentrification and low-income filtering.

The primary consequence of neoliberal deregulation and marketization of housing policies is that a "considerable number of households have to reduce their consumption of housing in order to make ends meet" (Turner 2001, 185, our translation; cf Turner 1997). Production of new dwellings collapsed from around 70,000 per annum in 1990 to just over 10,000 in 1997, lower than any time since World War Two. Vacancies in municipal housing rose during the same period from a few thousand to 45,000, to which can be added over 10,000 vacancies in private rental housing and housing cooperatives. With population growth of over a quarter million inhabitants during this period, these vacancies do not reflect decline in need, but rather decline in effective demand among broad swaths of the population. These impacts on production and demand are magnified as risks increase for firms, credit institutions, and households to invest in housing. Concurrent with these changes is an increase in crowded housing conditions for the first time in decades (Boverket 2006).

Largely abandoned by the state, municipalities in turn abandon social housing responsibilities. Municipal housing companies have come under severe pressure to operate in accordance with strict principles of profit, further increasing exclusion of the poor—a category on the rise. In an increasing number of municipalities, “public housing is no longer open to all, but only for those with sound economy and good references” (Sahlin 2008, our translation; cf. Sahlin 1995 and 2004).

A cornerstone of Swedish housing policy was tenure neutrality. Neoliberal reforms broke radically with this guiding principle, generating segmentation between forms of tenure. Rents increased by 122 percent between 1986 and 2005, while costs of living in owner occupancy increased by 41 percent, and general inflation was 49 percent (Bergenstråhle 2006). In a detailed empirical analysis of the composition of the increase in rents between 1989 and 1997, Bengt Turner (2001) showed that 90 percent of the increase was directly related to political decisions, primarily reduced subsidies to and increased taxation on rental properties. Clearly, the above mentioned redistribution of national income through reform of housing policy has benefited owner-occupiers at the cost of tenants in rental housing. Shares of disposable income spent on housing increased more among low-income earners and households in rental housing than among the better-off in other tenure forms, even as the latter displayed extravagance in the mushrooming geography of super-gentrification. Between 1986 and 2003, the welfare gap between tenures increased markedly in terms of income, housing standard, employment, and material resources (Bergenstråhle 2006).

Comparing the effects on households of housing policy cutbacks with those of cutbacks in other policy areas, Lindbom (2001, 510) observes that:

> The lowered replacement rate within the unemployment benefit cost an unemployed industrial worker about 880 crowns per month after taxes. The lowered replacement rate within sickness benefit cost a long-term sick industrial worker 1,062 crowns after taxes. By comparison, the rent of an average two-room apartment rose 1,613 crowns per month between 1990 and 1998. … Thus, the rising rents were *more* important, even for the unemployed or long-term sick industrial worker, than the lowered replacement rates.

A municipal planning monopoly within the framework of national legislation was implemented in the building law of 1947 and has been in effect ever since. The decentralization of power in compliance with the principle of subsidiarity means that the central state can only intervene in specific cases of planning and primarily through the county councils as first control instance. Sweden’s 290 municipalities, eighteen counties and two regions (regional governing authorities) have separate functions and responsibilities and hence weak or no hierarchical relations beyond spatial nesting. Since the 1980s, the preparation of plans for urban development projects has increasingly come to be performed by specialized private consultancy firms, often with ownership ties to finance and property capital, major developers, and construction corporations, hollowing out the meaning and power of the “municipal planning monopoly.”

Neoliberal reforms in other spheres than housing, not least labor market and taxation, contributed to marked expansion in income inequality, evident in the rise in Sweden's gini-coefficient from 0.226 in 1991 to 0.294 in 2000. During the 1990s, the top 10 percent enjoyed an increase in real income of 47 percent and the top 5 percent saw their real incomes grow by 66 percent, while the median real income increased 5 percent and the bottom 10 percent experienced a drop in real income of 5 percent (Statistics Sweden 2009c). Housing policy reforms exacerbated this rapid social polarization, the geography of which became increasingly noticeable though remaining largely unresearched.

The costs of growing inequality for societies and for individuals–the rich as well as the poor – are well documented (Wilkinson 2005). Commonly measured with aggregate income data as gini-coefficients or income distributions across population deciles and percentiles, polarization materializes on the ground in a host of geographic patterns of mental and physical health problems, education, crime, incarceration rates and guard labor, violence, environmental behavior, and trust (Rothstein and Uslaner 2005; Jayadev and Bowles 2006; Bowles and Jayadev 2007; Wilkinson and Pickett 2009). Polarization is also behind processes of social geographic change such as gentrification and filtering.

Research Method, Data and Operationalizations

There are few previous attempts to map gentrification over whole cities or city regions. The reason is simple: It is a tall order to secure data that can provide both theoretically adequate empirical measures and good spatial resolution over entire city regions and over a sufficient time period to capture the process. Early efforts either suffered from weak empirical operationalization, with empirical data weakly related to theoretical concepts (e.g. Ley 1986), or were rough on the edges given limitations in available data (Badcock 1989). More recent efforts by Wyly and Hammel (1998, 1999, 2000; Wyly 1999) and Meligrana & Skaburskis (2005) display methodological progress towards adequate city-wide mapping, with more finely operationalizations. Two problems common to empirical endeavors to map social geographic change are poor spatial resolution and difficulties separating change among the “stayer” residents from change through migration. Previous efforts to map gentrification across whole cities have employed cross-sectional socioeconomic data on administrative areas. These provide poor spatial resolution and are based on the assumption that upward socioeconomic change over a time interval indicates gentrification, which effectively disregards any socio-economic change among the “stayer” population.

The following empirical analysis consists of an extensive (Sayer 1992, 2000) study of gentrification in the three largest cities of Sweden. Gentrification surfaces across the three city regions are mapped. The analysis employs a comprehensive microdata set, ASTRID, which includes data on individuals from various official Swedish population registers on (among other variables) income, education, age, migration history and place of residence at a spatial resolution of one hectare, spanning the period of 1986-2001. This data base enables us to characterize the social, economic, and demographic landscapes of metropolitan Sweden with considerable accuracy. Most significantly, it also allows for isolation of social-geographic change due to residential mobility (e.g., gentrification and its opposite, filtering) from change among the ”stayer” population (which is not gentrification or filtering).

The spatial unit of analysis consists of a square with sides of 100 meters, defined by a spatial grid covering the entire country. Values of variables for each square are calculated using a floating grid embracing nine squares (300 meters by 300 meters). The values for each square are averages of nine squares: the square itself and its eight neighboring squares. This method avoids statistical problems of cells with too few individuals, and has the advantage of capturing a neighborhood character stretching beyond the basic square hectare. We refer to each cell as a neighborhood or area.

The main advantage of using this kind of neighborhood delineation, instead of delineation based on administrative borders, is finer spatial resolution. Another advantage is that while administrative boundaries change, notoriously causing difficulties in analysis of time-series data, the grid of cells remains constant throughout the entire period of analysis. Neighborhoods with less than thirty inhabitants have for reasons of individual integrity been excluded from the maps. Annual data have been clustered into three five-year periods in accordance with economic upswing (1986–1991, 1996–2001) or decline (1991–1996).

In a preliminary analysis we defined gentrification according to thresholds of increasing income and levels of education. Measuring gentrification based on income or education showed very similar results. Using education presents problems, however, in that the categories are few and it is difficult to neutralize the effects of a general increase in educational levels in society as a whole, which is not related to gentrification. Income has the advantage of continuous scale and can be deflated by price indices to generate time series that are comparable in real terms over time, allowing for ratio measurement. Income provides the most adequate, coherent and precise measure of socioeconomic change. This is not to discount the importance of cultural capital for processes of gentrification. In later intensive case studies we intend to broaden the scope of focus on this account. But for the purposes of extensive mapping of gentrification surfaces we operationalize gentrification in terms of a threshold of increase in average income due to residential mobility.[1]

A threshold is established whereby the 10 percent of neighborhoods with the highest increase in average income levels due to in- and out-migration are considered to be undergoing gentrification. This is calculated as an average value for the three five year periods and for the three cities. The threshold value generated in this way is a 13 percent increase in real average income. This means that neighborhoods that have experienced increases in average income levels due to residential mobility of 13 percent or more during the five year period are considered gentrification areas, regardless of initial income levels.

Gentrification of an area is characterized by both a marked upward shift in occupancy in terms of class/socioeconomic position and associated reinvestment in the built environment. An ideal empirical operationalization would therefore include a composite measure of these two dimensions. The following analysis falls short of this ideal by not including an empirical measure of reinvestment in each area. The data on building values in the data base is not of adequate quality for this purpose. While this shortcoming must be considered a weakness in the analysis, a case can be made that the empirically accurate separation of change in income due to mobility from change in the income of stayers, together with the relatively high threshold of income change due to mobility used to operationalize gentrification, strengthens the expectation that capital flows of reinvestment correlate with our measure of gentrification. Reinvestment in the built environment is likely to have occurred either just prior to the residential mobility, by agents of property capital exploiting potential land rents, or just subsequent to the mobility, by the gentrifiers themselves drawing on their credit worthiness at financial institutions.

In preliminary analyses of the three metropolitan regions we found that gentrification areas included neighborhoods at all income levels. We therefore decided to divide gentrification areas into three categories according to initial income level, and likewise for non-gentrification areas: the top 25 percent of all neighborhoods (above 205,000 SEK), the middle 50 percent of all neighborhoods (between 146,000 and 205,000 SEK) and the bottom 25 percent of all neighborhoods (below 146,000 SEK). The three categories of gentrification areas are:

Super-gentrification: gentrification in areas among the top 25 percent in initial income level.

Ordinary gentrification: gentrification in areas among the middle 50 percent in initial income level.

Classical gentrification: gentrification in areas among the bottom 25 percent in initial income level.

Non-gentrification areas include areas in which average annual income either increased less than the threshold value for definition as gentrification area, or remained stable, or even declined. We distinguish three categories of non-gentrification areas: high income (top 25 percent), medium income (middle 50 percent) and low income (bottom 25 percent).

In order to map the opposite process of social geographic change—filtering—we employ a similar method to establish a threshold value for inclusion in this category. Areas of filtering are those 10 percent which have experienced the greatest decrease in average income due to residential mobility. The threshold value generated in this way is a 9 percent decrease in real average income. This means that neighborhoods that have experienced decreases in average income levels due to residential mobility of 9 percent or more during the five year period are considered filtering areas, regardless of initial income levels. A case can be made, similar to that above regarding flows of capital in the built environments of gentrifying neighborhoods, that these areas of filtering coincide to a considerable extent with areas of disinvestment and devalorization of building values.

The spatial manifestations of social polarization will be mapped focusing on areas of super-gentrification and areas of filtering with low initial levels of income, i.e. where the very rich replace the rich, and where the very poor replace the poor.

Generic Gentrification: Classical, Ordinary, and Super-Gentrification

Our understanding of gentrification has changed considerably since the term was coined in the early 1960s. Initially, gentrification was seen as a highly specific process of inner city renovation of working class housing by a "new" middle class, and limited to a few "global" cities. As theoretical debate harnessed to empirical work revealed a vastly broader scope of contexts in which similar processes were taking place, gentrification increasingly came to be seen as a much more general process (Smith 2002). We began to understand that it is the underlying mechanism and associated necessary relations that are central to identifying and delineating the process, not particular features in various contexts (Clark 2005). Contrary to early formulations, gentrification does not occur only in inner cities, it does not manifest itself only through renovation, it is not only market-driven, it is not limited to residential spaces, and it is not even limited to specific classes, regardless of etymology. Thus a number of corresponding qualifiers have flourished: rural gentrification (Phillips 1993, 2005), island gentrification (Clark et al. 2007), new-build gentrification (Davidson and Lees 2005), state-led gentrification (Cameron 2003; Slater 2004), commercial gentrification (Kloosterman and van der Leun 1999; Bridge and Dowling 2001) and super-gentrification (Lees 2003).

Gentrification has become "a global urban strategy" amid the rush for global urban competitiveness whereby place politics is reduced to attracting capital investment, based on "the mobilization of urban real-estate markets as vehicles of capital accumulation" (Smith 2002, 437, 446; cf. Harvey 1989). Given the scope of the process, well beyond inner city working class residential space, gentrification may be more adequately understood as a generic form of accumulation by dispossession (Harvey 2003, 2006a, 2006b), driven by the "singular principle power" of the "landed developer interest" (Harvey 2010, 180-181). The commodification of space through the imposition of real-estate markets on the web of life opens up space for the flow of capital onto "underutilized" land, facilitating "highest and best" land uses to supplant present uses (Blomley 2002), or as Harvey puts it, "forcing the *proper* allocation of capital to land" (1982, 360).

Figures 1 to 3 display the geographic distribution of super-gentrification, ordinary gentrification, and classical gentrification in Stockholm, Gothenburg, and Malmö, and non-gentrification areas with high, medium or low levels of income, 1986–2001. The map of Stockholm (Figure 1) shows concentrations of high income and super-gentrification especially in areas dominated by single family dwellings, e.g., Bromma (west), Danderyd (north), Lidingö (northeast), Nacka and Saltsjöbaden (southeast), but also in the fashionable central apartment districts of Norrmalm and Östermalm. Medium- and low-income areas are to a larger extent concentrated to central and southern parts of the city, as well as in suburbs to the south, southwest, and northwest, while ordinary and classical gentrification are more scattered around the city.

The map of Gothenburg (Figure 2) shows concentrations of high income and super-gentrification areas in the coastal southwest (e.g., Långedrag, Askim, Hovås) as well as in the more central district of Örgryte, all dominated by single family dwellings. Ordinary and classical gentrification areas are again more scattered around the city with a slight concentration to semi-central areas for classical gentrification.

The map of Malmö (Figure 3) displays an east–west divide between areas close to the shore in west Malmö, dominated by high-income households in single-family dwellings (e.g., Limhamn, Bellevue, Fridhem, Nya Bellevue), and low-income apartment areas in central, east and south districts (e.g., Kirseberg, Rosengård, Holma, Hermodsdal, Oxie). Super-gentrification is concentrated to Bellevue and Nya Bellevue in the west, with pockets of ordinary gentrification in western and central areas. Classical gentrification is scattered around the city with some concentration to central and southern parts.

The results, summarized in Table 2, show that most gentrification in the three cities occurred in areas with predominantly medium or high initial income levels. 81 percent of all gentrification in Stockholm occurred in medium and high income areas. Corresponding figures for Gothenburg and Malmö were 62 percent and 50 percent. In total, classical gentrification accounted for 23 percent of all gentrification, super-gentrification accounted for 36 percent, and surprisingly, ordinary gentrification in the middle strata—a type of gentrification unseen in the gentrification literature—accounted for 41 percent. This finding clearly contradicts the wide-spread assumption that gentrification is a process that particularly affects low-income areas. This also reminds us of Dan Hammel's (1999) key insight that the formation of rent gaps does not require disinvestment in the building stock or decreasing capitalized land rents, but can develop through stable or slightly rising capitalized rents that fail to keep pace with rapidly rising potential land rents (cf. Lees, Slater, and Wyly 2008). Indeed, we would expect to find many cases of super-gentrification and ordinary gentrification which are not preceded by disinvestment, devalorization, and decreasing capitalized land rents.

The analysis shows that many of the areas where residential mobility has led to a marked increase in average income (the key characteristic of gentrification) are neither working class nor upper class, neither classical gentrification nor super-gentrification, but rather ordinary middle class areas: a grey invisible mass of what we call ordinary gentrification. Rather than view ordinary gentrification as an anomaly, we suggest that these findings support the ongoing movement of thought in gentrification theory towards a conceptualization of gentrification as a generic form of urban change that occurs "in a whole range of neighbourhoods" (van Weesep 1994, 75), whereby the flow of capital through built environments shuffles social geographies upwards or downwards in what Neil Smith (2008) describes as the see-saw of uneven development. Middle class areas are not exempt from the forces of change underlying gentrification. Property and finance capital do not restrict their fields of activity (above all the making and taking of rent gaps; Clark and Gullberg 1997) to working class areas (classical gentrification), or to upper class areas (super-gentrification).

While this conceptualization of generic gentrification does not challenge or change basic theory regarding underlying causal forces at play—on the contrary it rather takes a more consistent view of them—it does change our field of vision regarding where we may expect to find gentrification. Gentrification is a marked upward shift in socioeconomic status through mobility and associated flows of capital into reinvestment in the built environment. There is no necessary relation conceptually restricting it to poor or working class areas, and to wealthy areas undergoing super-gentrification. Nor is there any necessary relation between these two core characteristics of gentrification and preceding processes of decline and disinvestment in the built environment.

Generic Gentrification and Cycles of Accumulation

Hackworth and Smith (2001) describe how gentrification processes have waxed and waned in relation to cycles of capital accumulation and crises. They identify three waves of gentrification with recession periods in between. The first wave lasted from the 1950s until the oil crisis of the early 1970s and was characterized by sporadic and largely state-led gentrification of disinvested inner-city housing in North America, Western Europe, and Australia. During a second wave in the late 1970s and 1980s gentrification processes affected “a wider range of economic and cultural processes at the global and national scales” (Hackworth & Smith 2001, 468). At the same time gentrification also met increased resistance from social movements. After this second wave of gentrification some claimed that the process had come to an end and that the era of gentrification was over. But after a recession period in the early 1990s a third gentrification wave emerged. This wave is described as less pioneer-driven than earlier waves. Instead corporate developers became more influential actors with local and federal governments facilitating gentrification processes. The third wave involves a more diverse array of neighborhoods than before and has met less resistance from anti-gentrification movements.

While signs of the global economic crisis were discernible in the Swedish economy already in 1989–90, the crisis reached full strength in 1991 when the financial markets and systems of payment shook at their very foundation. Production dropped, the value of Swedish currency fell, and property markets toppled. During the three years 1991 to 1993, the Swedish economy experienced negative growth and an economic climate worse than during the depression of the 1930s (Swedish Government 1996). More than half a million jobs were lost during these years—a significant number for a country of roughly nine million inhabitants. High inflation, high rates of interest, and high unemployment rates influenced mobility patterns in the housing market during the late 1980s and early 1990s.

Figure 4 shows how housing prices dropped during the years of economic crisis, providing rationale for the division into the three periods of analysis. 1986–1991 and 1996–2001 correspond to the second and third waves of gentrification outlined by Hackworth and Smith, while 1991–1996 is the intervening recession.

Table 2 shows the distribution of the three categories of gentrification in the three cities over the three periods. Two patterns are especially striking. First, gentrification declined mostly in the smaller city of Malmö during the recession period, declined less in Gothenburg, but continued unabated in Stockholm. There appears to be a spatial pattern of concentration to larger cities in times of crisis. Second, super-gentrification increases continuously in all three cities, the recession period seeming to have little impact on this upper-echelon gentrification. As the highest and lowest quartiles polarize, investment in poor areas collapses during the crisis. Capital flow into the built environment, increasingly private as opposed to public, is channeled instead to upper class areas with very different assessments of risk and return.

Gentrification, Filtering, and Social Polarization

Gentrification is often, though not necessarily (Hammel 1999; Lees, Slater, and Wyly 2008), preceded by a process of filtering in a cycle of investment and disinvestment in the built environment (Smith 1979, 1996). Filtering is the opposite of gentrification. Whereas a neighborhood undergoing gentrification experiences *increasing* status and reinvestment, filtering is associated with *decreasing* status and disinvestment, not uncommonly associated with redlining (Dingemans 1979; Squires 1992; Aalbers 2005, 2006). Both processes are based on residential mobility; increasing or decreasing income or status of the "stayer" population is not gentrification or filtering. In low-income areas, filtering is a euphemism for slum formation (Harvey 1973). Socioeconomic polarization in a city manifests itself spatially most clearly when super-gentrification at one end, and low-income filtering at the other end, both increase. In the following we present mappings of polarization in Stockholm, Gothenburg and Malmö across the three time periods.

We have already noted an increase in super-gentrification throughout the fifteen years, consistent with polarization. We have observed major increases in income through residential mobility in areas well-known for being prosperous and prestigious, for instance Danderyd and Bromma in Stockholm, Örgryte and Hovås in Gothenburg, and Bellevue and Fridhem in Malmö.

In order to relate gentrification to polarization we need to know more about filtering, and especially filtering at the other end of the spectrum. Is filtering concentrated to low-income areas such as Rinkeby and Tensta in Stockholm, Hammarkullen and Bergsjön in Gothenburg, and Rosengård in Malmö (high-rise concentrations of low-income and immigrant households)?

Unlike the pattern of gentrification analyzed above, filtering increased dramatically in all three cities during the middle period of economic recession (see Table 2). There is also a reversed pattern in the urban hierarchy: Filtering increased most during the recession in Malmö, the city where gentrification declined the most, while in Stockholm, where gentrification continued to increase in spite of recession, filtering rose less dramatically.

In order to bring polarization into clearer relief, we need to distinguish filtering at lower levels from filtering at middle and upper levels. Figure 5 shows percentage distributions of neighborhoods in each income category experiencing gentrification and filtering during the period 1986–2001. All three cities are included in the figure. The figure clearly shows that filtering has taken place primarily among low-income areas, and that during the period of recession, these areas were hit particularly hard. There is a tendency over the fifteen-year period for super-gentrification to increase at the one end of polarization, while filtering of low-income areas also increases at the other end. 53 percent of filtering areas are found in areas among the lowest income quartile. During the recession, filtering of low-income areas rose precipitously from 12 to 33 percent, while filtering of high and medium income areas remained at a low 7–8 percent and super-gentrification doubled from 7 to 14 percent. In the last five-year period, filtering was twice as common among low-income areas as in high income areas, while the reverse is true for gentrification.

Both super-gentrification and low-income filtering increased during the fifteen year period. This is the spatial manifestation of socioeconomic polarization. Figures 6 to 8 graphically display the spatial distribution of low-income filtering and super-gentrification in Stockholm, Gothenburg, and Malmö.

During the first period of second wave gentrification, both super-gentrification and low-income filtering were rather rare processes in Stockholm, and almost non-existent within the inner-city (see Figure 6). There was some concentration of super-gentrification to areas dominated by single-family dwellings in Danderyd, Lidingö, Bromma, Nacka, and Saltsjöbaden. Low-income filtering, on the other hand, was concentrated to areas with multi-family housing in the northwest, southwest, and south, e. g., Rinkeby, Tensta, Fittja, Norsborg, Skärholmen, and Rågsved. These areas were developed during the Million Program era (between 1965 and 1974 over a million dwellings were completed, in a country of roughly eight million inhabitants).

In the second period characterized by economic recession there was a clear increase of low-income filtering. The concentration to areas of multi-family housing in the northwest and southwest is even clearer than before but low-income filtering was also scattered around other parts of the city. Super-gentrification during this period can also be described as simultaneously intensifying and dispersing.

During the third wave, between 1996 and 2001, super-gentrification intensified even more. Parts of the central districts of Norrmalm and Östermalm (for orientation, see Figure 1) were also affected by super-gentrification. Low-income filtering decreased in this post-recession period and became more scattered, although concentration to the northwest and southwest remains. Eastern parts of the city were barely affected by low-income filtering.

In Gothenburg (see Figure 7) during the first period of second wave gentrification, super-gentrification was a rather marginal process occurring in some areas in the southwest, close to the seaside (Hovås and Långedrag). The inner-suburb of Örgryte was also affected by super-gentrification. Low-income filtering took place in predominantly high-rise apartment suburbs in the northeast (Angered, Hammarkullen, and Bergsjön), northwest (Biskopsgården and Länsmansgården), and southwest (Västra Frölunda). The inner-city is seemingly unaffected by these processes.

During the second period of economic recession there was a clear increase in low-income filtering. Low-income filtering was scattered around the city. Many patches of the inner-city were affected as well. The largest concentrations, however, were still in the northeast, the northwest and the southwest. Super-gentrification intensified during this period, mostly through expansion from the same concentrations as the previous period.

In the third period of third-wave gentrification low-income filtering decreased markedly. Super-gentrification continued to expand in prestigious central areas as well as southwestern areas near the sea.

In Malmö (see Figure 8) super-gentrification occurs exclusively in areas located near the sea (Limhamn, Fridhem, Bellevue, and Nya Bellevue). Low-income filtering during the first period of second-wave gentrification mainly affected Rosengård (southeast), Holma (southwest), and Hermodsdal (south), but also Kirseberg (northeast). There was a sharp increase in low-income filtering during the recession period 1991–1996, including a large number of areas in southern, central, and eastern Malmö. In the final period of third-wave gentrification, low-income filtering decreased and the process remained concentrated to southern and eastern parts of the city, including the suburb of Oxie.

Overall, these maps reveal a pattern of super-gentrification and low-income filtering primarily affecting outer city areas, although this is less clear in the more compact city of Malmö. The patterns of super-gentrification and low-income filtering also reflect the increasing welfare gap and segmentation of housing between forms of tenure and types of housing. 59 percent of the areas experiencing low-income filtering were purely rental multi-family housing whereas four percent consisted of only single-family owner-occupied housing (other areas had a mix of tenures and types). Super-gentrification areas, on the other hand, consisted to 74 percent of neighborhoods with only single-family owner-occupied housing and 0.4 percent of purely rental multi-family housing.[2]

While super-gentrification increased continuously during the entire period 1986–2001 (from 1.7 to 3.5 to 5.4 percent of all neighborhoods in the three five-year periods), low-income filtering peaked during the middle period of economic recession, but displays a tendency to increase, being more extensive in the third period (4.0 percent) than in the first period (3.0 percent). Stockholm shows consistently higher shares of super-gentrification, while Malmö and Gothenburg have higher shares of classical gentrification and low-income filtering. During the period 1996–2001, Stockholm sticks out with 7.0 percent of its neighborhoods experiencing super-gentrification (2.9 percent low-income filtering), while Malmö sticks out at the other end with a full 9.0 percent low-income filtering and a mere 1.9 percent super-gentrification. What is consistent for all three cities is a marked tendency for social polarization, the spatial manifestations of which are shown in the maps of super-gentrification and low-income filtering.

After 2001

The housing policy reforms of the early 1990s remained largely intact under Social Democratic governments from 1994 to 2006. Campaigning as the “new labor party” against a lame Social Democratic party, Fredrik Reinfeldt’s Conservatives won the election in late 2006 and in coalition with center-right parties swiftly pursued schemes of privatization. In housing this has taken a variety of forms. Already on 1 January 2007, the Department of Environment and Built Environment was reduced to the Department of Environment, as housing issues were moved to the Department of Finance. In July 2007, restrictions on municipal sell-outs of public housing were removed (Swedish Government 2007b).

In the budget proposition for 2008 the Reinfeldt government rewrote the goal for housing policy in a time warp of pre-welfare-state ambition: “The goal for housing is long-term well-functioning housing markets where consumer demand meets a supply of housing which corresponds to their needs” (Swedish Government 2007d, 15, our translation). Longstanding formulations including ambitions of equality, social responsibility, high standard, reasonable costs, and good living conditions were erased.

In March 2008, despite the lessons of the U.S. subprime crisis, a program to stimulate owner occupation was introduced, involving credit guarantees to first time buyers who would not otherwise be eligible for loans (Swedish Government 2007a). These credit guarantees have met severe criticism from the National Bank of Sweden and the Swedish National Debt Office, who argue that they increase the risk of disadvantaged groups ending up in a debt trap and eventually loss of homes (National Bank of Sweden 2007; Swedish National Debt Office 2007).

Property taxation was also reformed in 2008. Previously a progressive national tax, it is now a regressive municipal tax with a flat rate of 6,000 crowns per year for all properties with a taxation value above 800,000 crowns, or 0.75 percent of assessed taxation value if below 800,000 crowns (Swedish Government 2007c). Roughly half of all owner-occupied homes have assessed taxation values over 800,000 crowns. The greater the value of your home, the more you gained from this reform.

Since May 2009, Sweden has a new form of tenure for owner occupancy in multifamily housing (Swedish Government 2008).[3] It is now possible to buy apartments with all the rights of owner occupancy, and to transform rental or cooperatively owned apartments into this new form of tenure. By introducing a new tenure form to the housing market the possibilities to choose among a greater variety of housing will increase, reads the motivation for this reform (Swedish Government 2009a). In 2010 the last investment grants to affordable rental housing will be disbursed after the annulment of that program in late 2006. Much of the existing stock of rental housing, especially in prime locations, is being sold and transformed into cooperative ownership. Public rental housing in attractive areas is being privatized. The future for the remainder of the public rental sector, especially in less attractive areas, is unclear. Referring to EC law the Swedish Government claims that public rental housing is not of general financial interest, and can therefore be sold out (Swedish Government 2009b). With mounting incentives to operate on a businesslike profit basis, public housing companies become more selective in their choice of tenants (Sahlin 2008). With no real tradition of "social housing" as a distinct subsector, there is no clear solution regarding public sector responsibility to cater for the housing needs of the poor. Meanwhile, homelessness in Sweden has risen dramatically, more than doubling between 1999 and 2005 (Socialstyrelsen 2006).

The old idea of trickle-down has been dusted off and seriously forwarded as a strategy of housing provision for weak households. Filtering and chains of moves are increasingly invoked to legitimate the growing shares of housing production catering to the upper segment of the market. (Note the importance of distinguishing between filtering as an observable and measurable process of residential mobility and filtering as an ideology underlying laissez faire housing policy.) Through residential mobility, as the old story goes, quality housing trickles down to lower segments: "chains of moves arise—which benefit economically weak groups such as youth" (Odell 2007, our translation). That over sixty years of research into residential mobility consistently shows that policies based on filtering have never more than very marginally improved housing for low-income households (e.g., Ratcliff 1949; Murie 1976; Clark 1984, 2010; Galster 1996; Magnusson-Turner 2008) does not deter emboldened neoliberal politics from forwarding filtering as enlightened housing policy.

The empirical analysis above shows the social geographic consequences of far-reaching neoliberal reformation of housing in Sweden from 1986 to 2001. The entrenchment and expansion of neoliberal reforms since 2001, and especially since 2006, have led to increasing inequality, reflected in gini-coefficients (see Figure 9). From what can be surmised regarding the consequences of these recent reforms, not only in terms of increasing income inequality but also impacts on the housing sector, we would argue that the patterns of gentrification and filtering observed between 1986 and 2001 have most probably intensified during the last decade. The reformed property tax together with regressive income tax reform give a boost to super-gentrification, while privatization of public housing and tenure transformations from rental to forms of owner occupation reduce the volume of affordable housing and spur filtering in low-income areas.

Conclusions

Neoliberal political reforms have to a great extent been circumscribed in Sweden by long-standing comprehensive welfare institutions with broad anchorage in the working and middle classes. Housing, however, presents an exception. In the last twenty-five years, the housing sector in Sweden went from being one of the most regulated in Europe to the most liberal market-governed. “State engagement is substantially less in Sweden than in the homelands of market liberalism, Great Britain and the United States” (Lind and Lundström 2007, 129, our translation). We have analyzed what the consequences of this radical shift in housing politics have been for the social geography of Stockholm, Gothenburg and Malmö. Our analysis examines gentrification and filtering in these cities during the years 1986 to 2001.

Gentrification continues to be strongly associated with inner city "regeneration," in spite of the growing literature on rural gentrification and super-gentrification. The evidence from Swedish cities shows a much more widely spread phenomenon. Furthermore, we find evidence of not only classical gentrification (of low-income areas) and super-gentrification (the upper echelon), but also a grey mass of ordinary gentrification in the middle strata, so ordinary (and perhaps uninteresting) that it has failed to attract the attention of gentrification researchers. Social tensions surrounding displacement are found in areas of classical gentrification of low-income areas where the consequences of gentrification are commonly painful (Marcuse 1985; Fullilove 2004; Slater 2011), not in areas of super-gentrification and what we call ordinary gentrification. Displacement is a key issue regarding the social relevance of gentrification research and activism (Slater 2006, 2008, 2009). We would be hard pressed to find any social movement resisting gentrification in middle- or upper-class areas. But finance and property capital does not restrict its field of vision to rent gaps in low-income areas: It flourishes off rent gaps wherever they may arise or be created, also in middle- and high-income areas. This extensive mapping of gentrification across the surfaces of Sweden's three largest cities provides further support for the move in gentrification theory towards a broad generic view of gentrification as generated by common structural forces – the making and taking of rent gaps by the "singular principle power" (Harvey 2010, 180) of landed developer interests – however different the consequences.

During the deep recession of the early 1990s, classical gentrification practically ceased. Instead, filtering doubled, increasing especially in low-income areas, where it tripled. Below this bottom level of housing, outright homelessness increased dramatically. Classical gentrification and low-income filtering appear to be more sensitive to economic cycles than is super-gentrification, which increased continuously during the entire period. The overall picture our analysis of super-gentrification and low-income filtering reveals is one of growing social geographic polarization and growing welfare gaps in housing conditions consequent to neoliberal reforms.

While Sweden remains one of the most equal societies in Europe and in the world, neoliberal politics have rapidly transformed the provision of housing, exacerbating the impacts of increasing income inequality. This transformation has generated social and economic polarization, as shown in geographic concentrations and expansions of areas of super-gentrification at one end of social geographic space, and low-income filtering at the other.

The circumscription of neoliberalization in Sweden has been effectively circumvented in the field of housing, with tangible consequences for many at both ends of an increasingly polarized society. Torsten Hägerstrand identified the core of geography as “struggles for power over the entry of entities and events into space and time” (1986, 43, our translation). There are struggles going on for power over the unfolding of social geographies of housing. Our analysis suggests these struggles have become increasingly uneven in Swedish cities, reflected in the polarization of housing conditions.

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Notes

[1] The income variable includes income from employment and self-employment per inhabitant of working age. The income variable does not include disposable income, e. g. from retirement pension or from capital. Persons over the age of 65 (the general age for retirement in Sweden) are not included as income earners in the analysis. Persons with low wage income and high income from capital are not included in the category of high income earners although they may have high disposable income. This latter group is however so small as to be practically negligible.

[2] Data on tenure forms and types of housing refer to 1987.

[3] Property law in Sweden has not earlier allowed for the formation of property in parts of buildings: every property had to include the land. “Owning” apartments has taken the form of owning a share in a cooperatively owned property. This form of tenure, *bostadsrätt*, has commonly been translated as tenant ownership or cooperative ownership.

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Figure captions

Figure 1. Gentrification and non-gentrification areas according to income level in Stockholm 1986-2001.

Figure 2. Gentrification and non-gentrification areas according to income level in Gothenburg

1986-2001.

Figure 3. Gentrification and non-gentrification areas according to income level in Malmö 1986-2001.

Figure 4. Property sale price indices (1981=100), and consumer price index, Sweden, 1981-2008.

Figure 5. Percentage of gentrification and filtering areas among low, medium and high income areas, 1986-1991, 1991-1996 and 1996-2001.

Figure 6. Social polarization in Stockholm 1986-2001.

Figure 7. Social polarization in Gothenburg 1986-2001.

Figure 8. Social polarization in Malmö 1986-2001.

Figure 9. Gini-coefficients for disposable income per consumption unit including capital gains for individuals in family units 1975-2007.

Table 1: Swedish housing politics – from general welfare to market liberalism
(key events and political programs in italics)

Direction	Means	Mandate
Foundation of Social Democratic housing politics 1930s to mid 1940s	Subsidies to rural housing and "child-rich" families in cities Retirement homes	Social Democratic (1932-1976) [coalitions 1936-45 and 1951-57]
Myrdal & Myrdal (1934) Crisis in the Population Question *Commission on Housing and Redevelopment 1933-1947*		
Housing politics part of general welfare Late 1940s-late 1980s	Interest rate subsidies to investment, tenure neutrality, general subsidies and income-related allowances, state state as investment risk-taker, "good housing for all"	Social Democratic (1932-1976) Right wing coalitions (1976-1982) Social Democratic (1982-1991)
The 1 Million Program 1965-1974 – elimination of housing shortage *The right to housing*		
Deregulation, cutbacks, market liberalism Early 1990s - 2010	Discontinuation of general subsidies, targeted investment grants, financial risk with building commissioner, targeted housing allowances, "housing on market conditions"	Right wing coalition (1991-1994) Social Democratic (1994-2006) Right wing coalition (2006-2010)
Danell system 1993 *A well-functioning consumer market*		

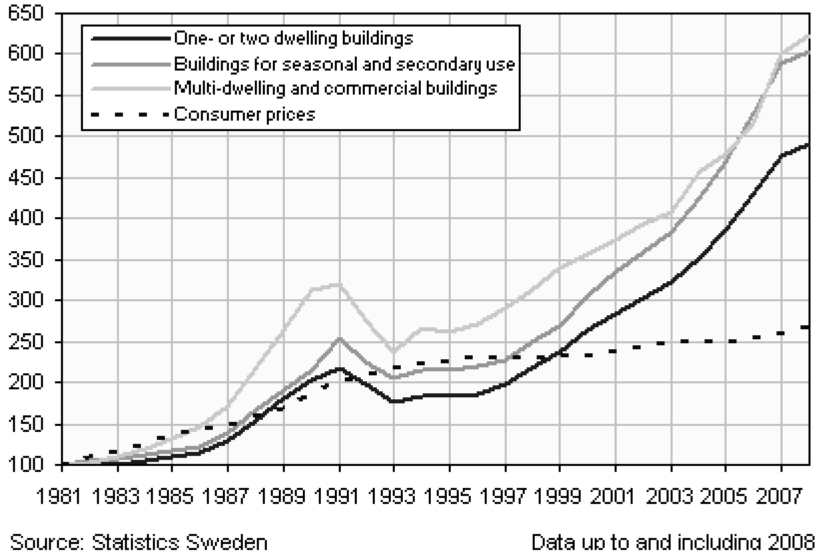
(Source: Boverket 2007; Turner & Whitehead 2002)

Table 2: Number and percentage of gentrifying and filtering neighborhoods in each city 1986-1991, 1991-1996 and 1996-2001.

	Stockholm		Göteborg		Malmö		Total	
1986-1991								
Gentrifying neighborhoods	**2418**	**7.2%**	**1328**	**9.9%**	**339**	**7.6%**	**4085**	**8.0%**
Super-gentrification	722	2.2%	141	1.0%	33	0.7%	896	1.7%
Ordinary gentrification	1090	3.3%	504	3.7%	79	1.8%	1673	3.3%
Classical gentrification	606	1.8%	683	5.1%	227	5.1%	1516	3.0%
Filtering neighborhoods	**1996**	**6.0%**	**974**	**7.2%**	**326**	**7.3%**	**3296**	**6.4%**
Low income filtering	789	2.4%	522	3.9%	218	4.9%	1529	3.0%
Stable neighborhoods	**28981**	**86.8%**	**11178**	**82.9%**	**3804**	**85.1%**	**43963**	**85.6%**
Total	**33395**	**100.0%**	**13480**	**100.0%**	**4469**	**100.0%**	**51344**	**100.0%**
1991-1996								
Gentrifying neighborhoods	**2550**	**7.6%**	**991**	**7.4%**	**169**	**3.8%**	**3710**	**7.2%**
Super-gentrification	1483	4.4%	292	2.2%	37	0.8%	1812	3.5%
Ordinary gentrification	863	2.6%	463	3.4%	56	1.3%	1382	2.7%
Classical gentrification	204	0.6%	236	1.8%	76	1.7%	516	1.0%
Filtering neighborhoods	**3928**	**11.8%**	**2175**	**16.1%**	**895**	**20.0%**	**6998**	**13.6%**
Low income filtering	1850	5.5%	1641	12.2%	773	17.3%	4264	8.3%
Stable neighborhoods	**26917**	**80.6%**	**10314**	**76.5%**	**3405**	**76.2%**	**40636**	**79.1%**
Total	**33395**	**100.0%**	**13480**	**100.0%**	**4469**	**100.0%**	**51344**	**100.0%**
1996-2001								
Gentrifying neighborhoods	**4941**	**14.8%**	**1932**	**14.3%**	**379**	**8.5%**	**7252**	**14.1%**
Super-gentrification	2329	7.0%	363	2.7%	71	1.6%	2763	5.4%
Ordinary gentrification	2056	6.2%	858	6.4%	164	3.7%	3078	6.0%
Classical gentrification	556	1.7%	711	5.3%	144	3.2%	1411	2.7%
Filtering neighborhoods	**2785**	**8.3%**	**1279**	**9.5%**	**512**	**11.5%**	**4576**	**8.9%**
Low income filtering	957	2.9%	710	5.3%	403	9.0%	2070	4.0%
Stable neighborhoods	**25669**	**76.9%**	**10269**	**76.2%**	**3578**	**80.1%**	**39516**	**77.0%**
Total	**33395**	**100.0%**	**13480**	**100.0%**	**4469**	**100.0%**	**51344**	**100.0%**

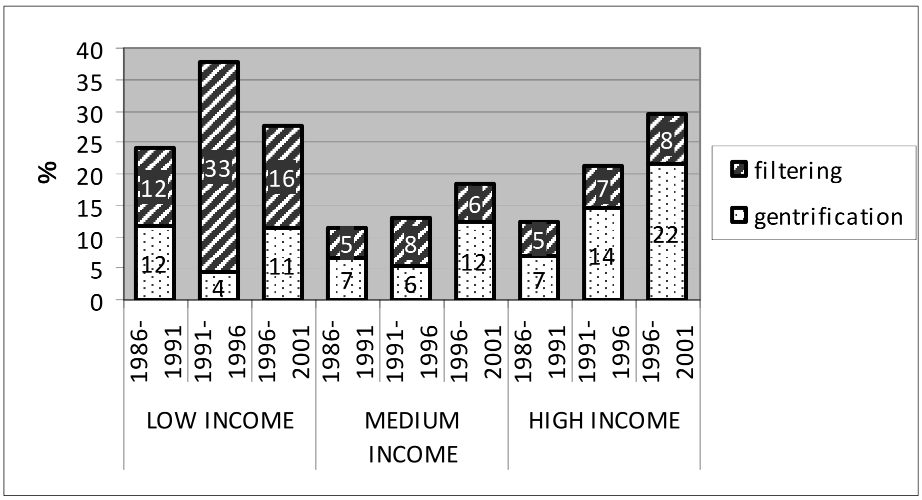
(Source: data sample)

Figure 4. Property sale price indices (1981=100), and consumer price index, Sweden, 1981-2008.



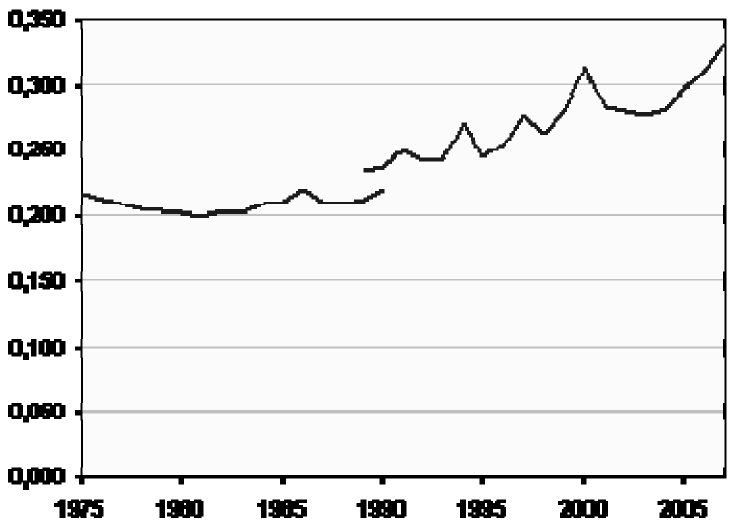
Source: Statistics Sweden 2009a

Figure 5. Percentage of gentrification and filtering areas among low, medium and high income areas, 1986-1991, 1991-1996 and 1996-2001.

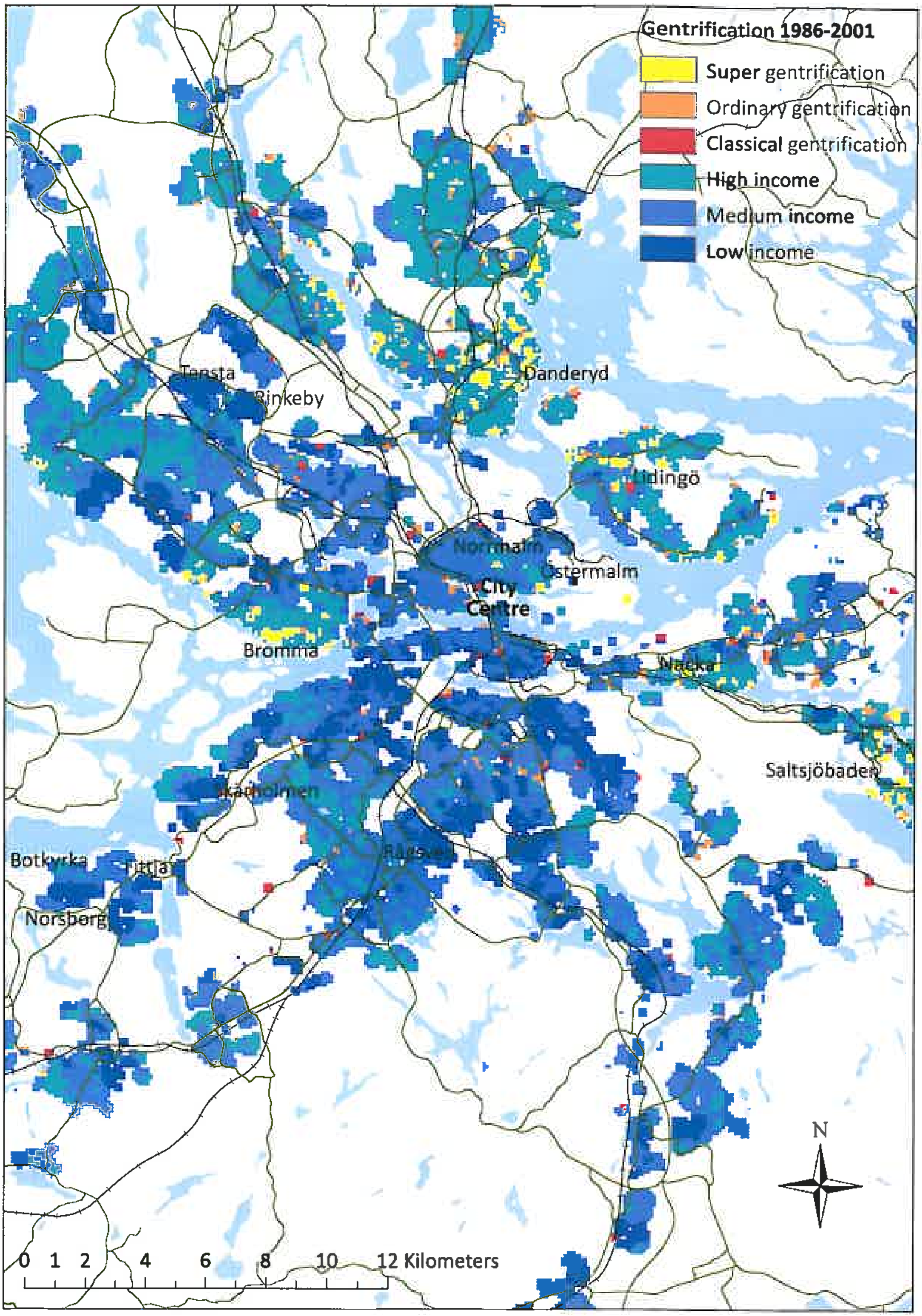


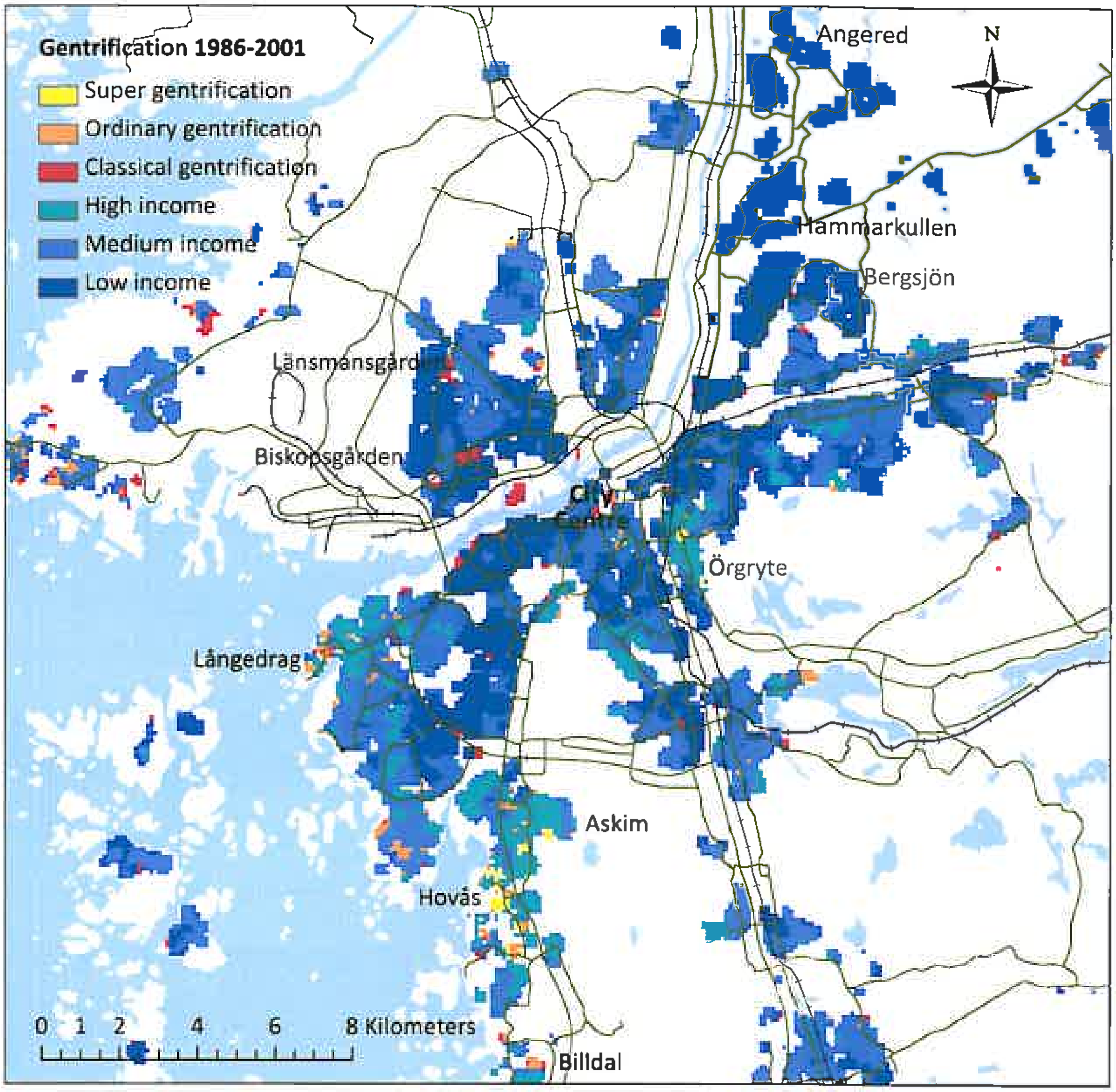
Source: data sample

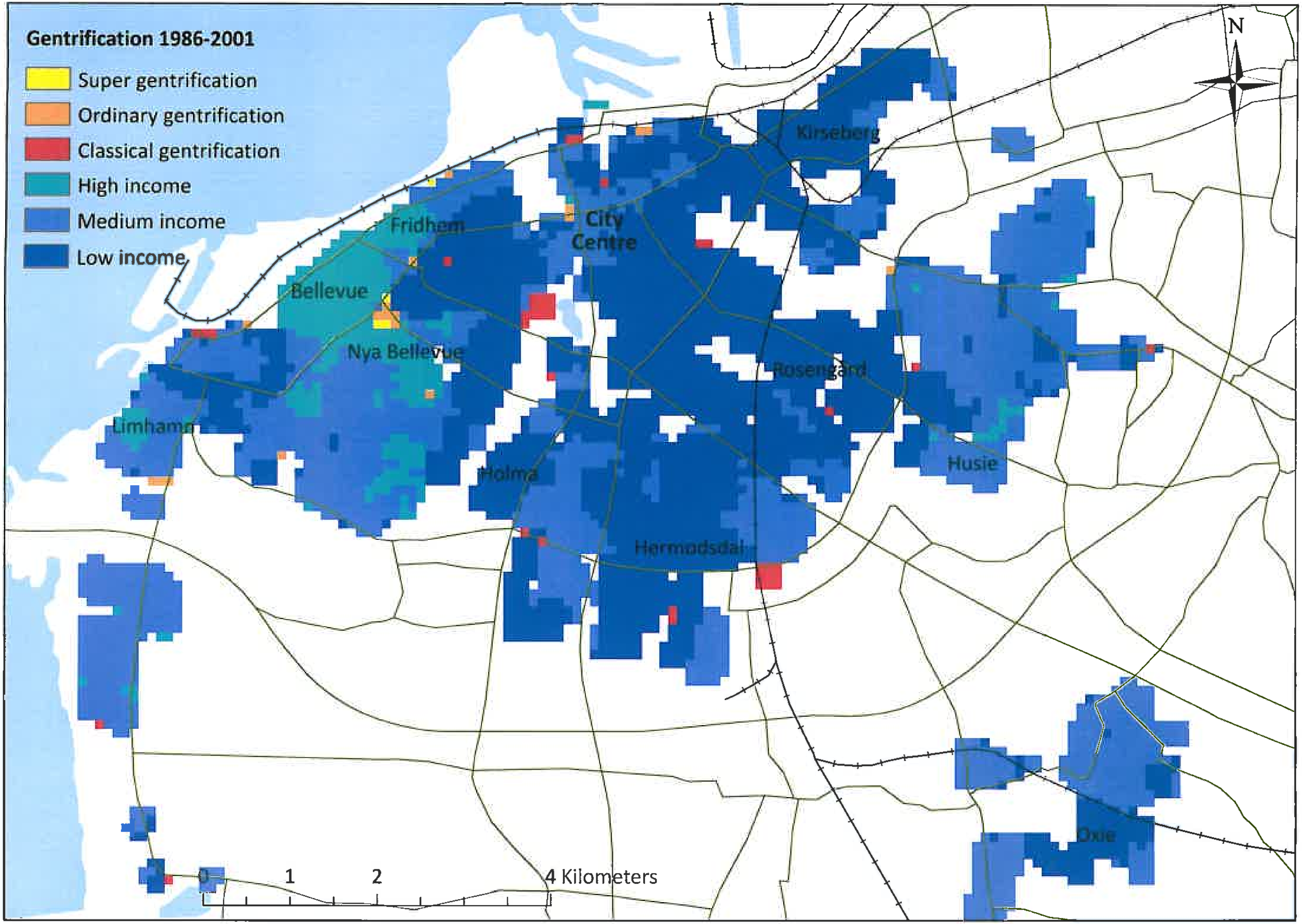
Figure 9. Gini-coefficients for disposable income per consumption unit including capital gains for individuals in family units 1975-2007.



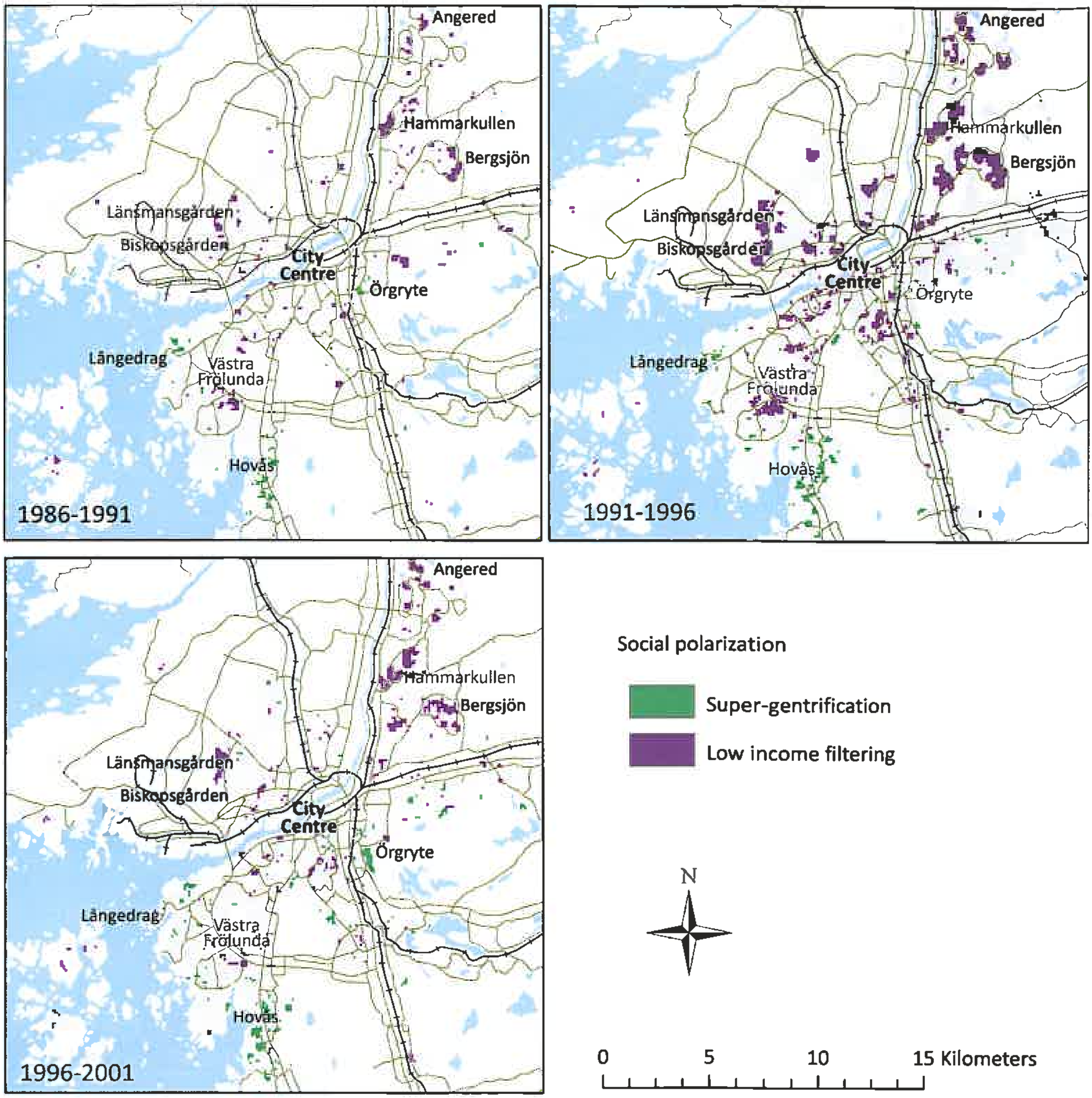
.
Source: Statistics Sweden 2009b

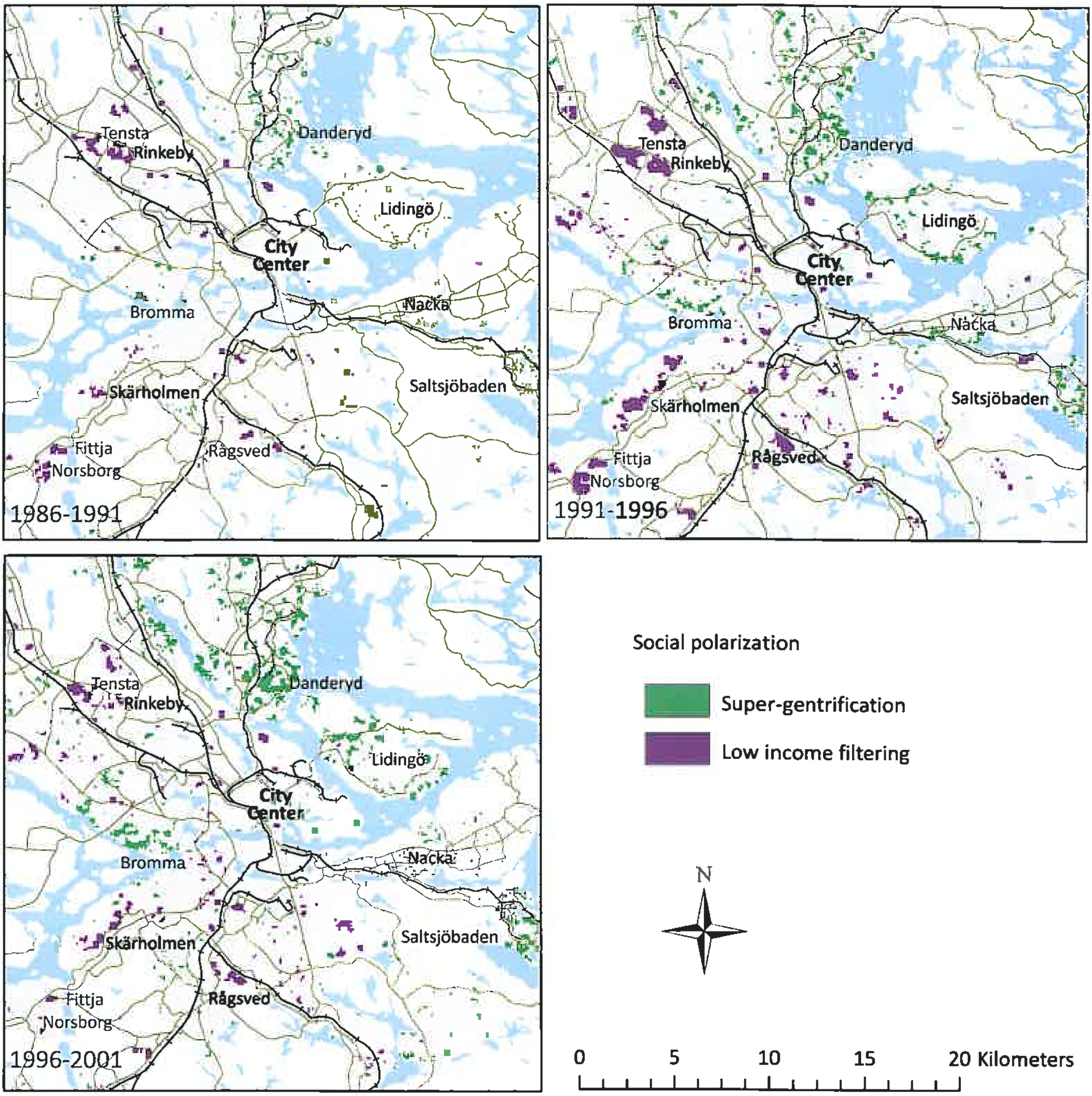

Gentrification 1986-2001
Super gentrification
Ordinary gentrification
Classical gentrification
High income
Medium income
Low income
Tensta
Rinkeby
Danderyd
Lidingö
Normalm
Östermalm
City Centre
Bromma
Nacka
Saltsjöbaden
Skärholmen
Botkyrka
Fittja
Norsborg
Rågsved
N
0 1 2 4 6 8 10 12 Kilometers

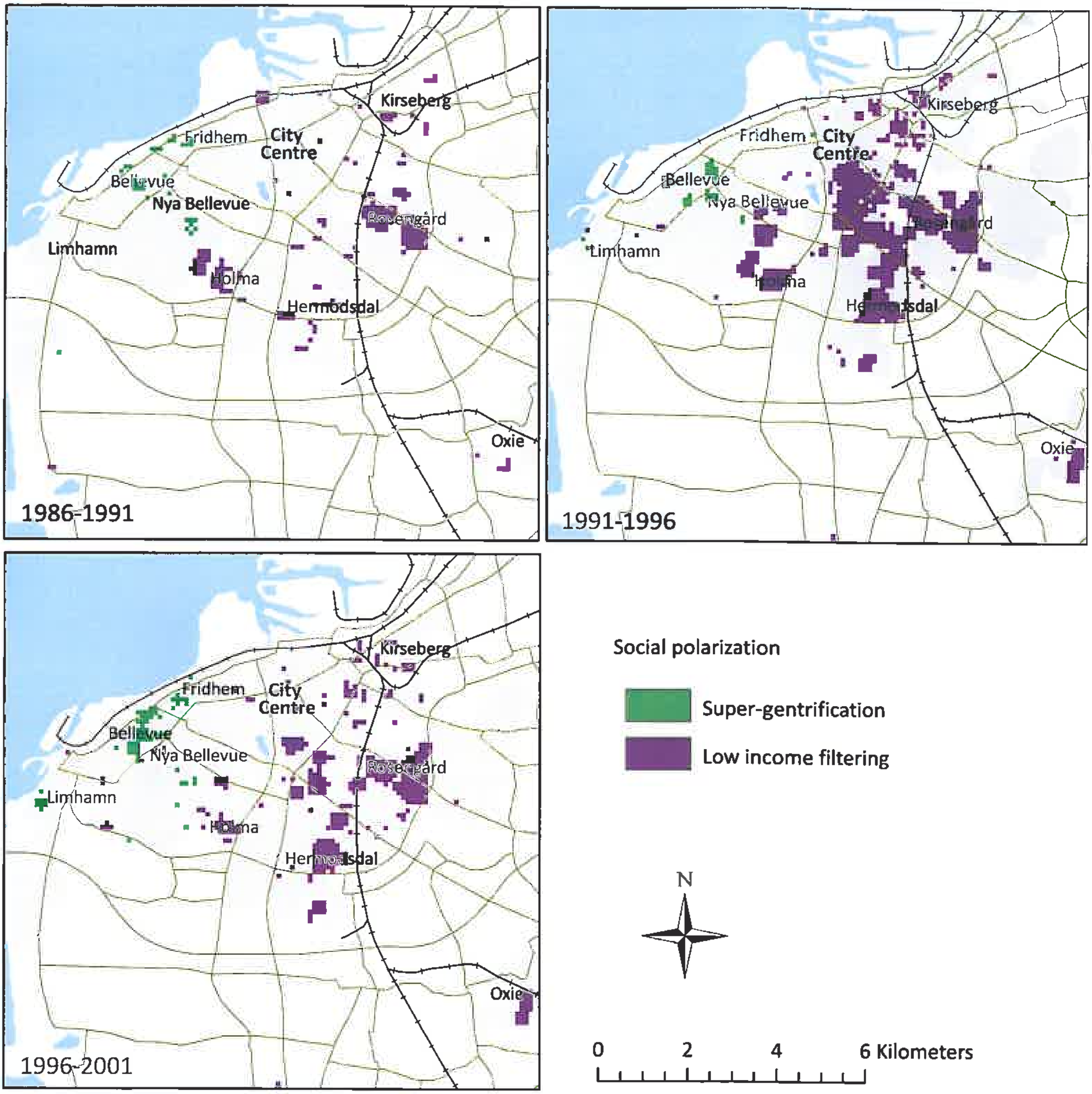

Gentrification 1986-2001
Super gentrification
Ordinary gentrification
Classical gentrification
High income
Medium income
Low income
N
Angered
Hammarkullen
Bergsjön
Länsmansgården
Biskopsgården
City Centre
Örgryte
Långedrag
Askim
Hovås
Billdal
0 1 2 4 6 8 Kilometers



Gentrification 1986-2001
Super gentrification
Ordinary gentrification
Classical gentrification
High income
Medium income
Low income
N
Fridhem
City
Centre
Kirseberg
Bellevue
Nya Bellevue
Rosengård
Limhamn
Holma
Husie
Hermodsdal
Oxie
0
1
2
4 Kilometers


1986-1991
1991-1996
1996-2001
Angered
Hammarkullen
Bergsjön
Länsmansgården
Biskopsgården
City Centre
Örgryte
Långedrag
Västra Frölunda
Hovås
Social polarization
Super-gentrification
Low income filtering
N
0
5
10
15 Kilometers


1986-1991
1991-1996
1996-2001
Tensta
Rinkeby
Danderyd
Lidingö
City
Center
Bromma
Nacka
Saltsjöbaden
Skärholmen
Rågsved
Fittja
Norsborg
Social polarization
Super-gentrification
Low income filtering
N
0
5
10
15
20 Kilometers


1986-1991
1991-1996
1996-2001
Kirseberg
Fridhem
City Centre
Bellevue
Nya Bellevue
Limhamn
Rosengård
Holma
Hermodsdal
Oxie
Social polarization
Super-gentrification
Low income filtering
N
0
2
4
6 Kilometers