SOCIAL AND SPATIAL DISPARITIES IN CITIES – THE FLIP SIDE OF URBAN PRODUCTIVITY GROWTH

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The paper gives some aspects about the social situation in German cities. It focuses also on the fact that the monitoring and analysis of social disparities is not easy and fully satisfying due to the availability of statistics. Thus, the paper does not aim only on spatial disparities, it also takes – according to the theme of the SCORUS-conference – the data situation into account.

Introduction

The urban development report of the German Parliament states that spatial and social disparities in German cities rise (Deutscher Bundestag 2013, p. 63). This is a complex process being influenced by several factors, e.g. newcomers to the cities, raising rents or gentrification.

But one reason for the increasing segregation might the changing urban labour market. Productivity in cities has always been higher than in other places in Germany, i.e. in 2013 with 6.5 %. More impressive is the respective value for the ten largest German cities: Productivity was 30 % higher than in all other NUTS 3-units.

This special economic situation is generally regarded as positive, and cities are seen as the engines of economic, social and cultural development (see e.g. Secretariat of the Standing Conference of Ministers responsible for Spatial Planning Federal Ministry of Transport, Building and Urban Affairs (2006, p. 14) with a special look on metropolitan regions). But this implies that mainly highly skilled people work in cities to reach such a level of productivity.

But what about the situation with those urban inhabitants having a lower degree of education and training? Are they the losers of this development and is this process even on their costs? Looking at some data for the ten largest cities in Germany (Berlin, Hamburg, Munich, Cologne, Frankfort/Main, Stuttgart, Dusseldorf, Dortmund, Essen and Bremen), which are responsible for about one fifth of the German GDP, it really seems that this is the case:

The Gini coefficient for Germany has not risen dramatically throughout the last years – merely from 30.2 in 2008 to 30.7 in 2014 (Statistisches Bundesamt 2016). Anyhow the urban situation is different. Even if no Gini coefficient is available for the German cities, some other indicators show that the urban labour market has become less integrative throughout the years.

- Looking at the period from 2001 to 2014, the situation on the German labour market improved: The unemployment rate for the whole country was 9.4 % in 2001 and decreased to 6.7 % in 2014. But the situation in the ten largest cities was less favorite – the rate dropped from 9.6 % merely to 9.1 % in the same period. Despite a higher productivity in the cities, as mentioned above, the effect on the labour market seems to be limited.

- Especially two groups of urban inhabitants faced higher labour market problems in the ten biggest cities than the same groups in the whole of Germany: foreigners and long-term unemployed persons (i.e. with an unemployment of more than one year). Whereas the annual growth rate of unemployed foreigner from 2001 to 2014 was nationwide 1 %, the respective value for the ten largest cities was with 1.5 % higher. Also the number of long-term unemployed decreased in this period for the whole of Germany by -1.3 % p.a., but it rose in the ten largest cities annually by 0.1 %. It can be expected that these two processes increase social disparities in cities.

- Furthermore, the annual growth rate from 2001 to 2011 for employees without any training was in Germany -2.4 % and the one for employees with a tertiary education 0.2 %. The situation in the urban areas was for those without training similar with -2.7 % even lower, but the growth rate of the other group was with 3.3 % p.a. much higher. This is a hint for a changing urban labour market where especially highly qualified persons have better chances to find a job: In 2001, 17.6 % of the employed residents living in the ten largest cities had no formal qualification and 12.6 % had tertiary education. These shares changed throughout the following ten years. In 2011, the

respective figure for the ones without formal educations dropped to 13.2 %, whereas the share for the urban residents with higher education climbed to 17.3 %. Thus, urban labour markets changed into one favorable for highly qualified employees, but it provides fewer chances for those with no formal education. Fig. 1 illustrates this.

Fig. 1: Changing urban labour market
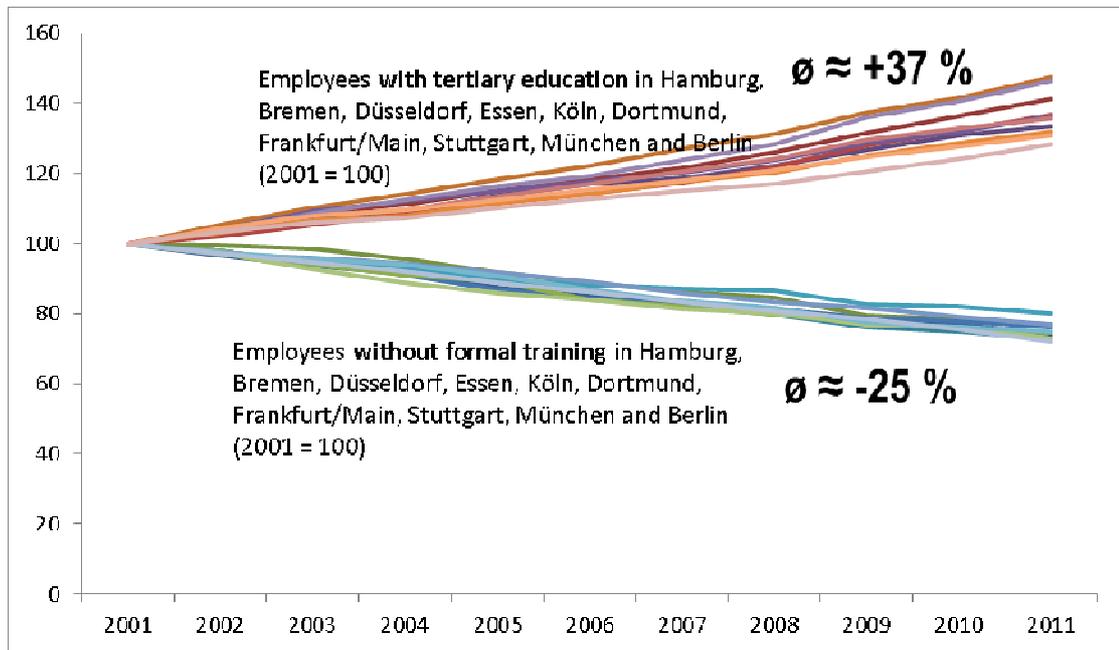
Source: own calculation based on www.regionalstatistik.de

The changing urban labour market can be regarded as a main factor influencing the spatial and social pattern of the major cities in Germany. Unfortunately, this hypothesis is hard to test, because the data situation prevents to bring the two aspects "changes in the urban labour market" and "spatial disparities in cities" empirically together.

The following chapter explains the reasons for this situation, as the difficulty is due to the availability of statistical information.

The problem of adequate statistics

Although German official statistics is elaborated and although the topic of social disparities within cities is not an exotic one, the analysis is not that easy as anticipated. Several aspects are the reason:

1. As in every country, the number of statistical indicator decreases as territorial units become smaller. Thus, on the level of the urban quarters, it can be expected that this is the case, too. Indeed, urban statistics provide mainly information about the population, but data on e.g. the labour market is often scarce. In addition, most basic data (e.g. concerning age structure etc.) offered on the internet are often comparable. But more interesting indicators, like on health, education, security etc., exist in only as few cities. This makes comparisons and general conclusions difficult.

2. Germany is a federal country, and the regional statistics of the states are harmonized. E.g. there is a joint data catalogue for statistical data of the counties and municipalities (Statistische Ämter des Bundes und der Länder 2015), but not for the spatial level below the cities, i.e. on the urban quarters. Thus, some cities do not provide any systematical quantitative information for the wards, and if they publish data, then it is up to their choice what kind of variables they want to provide. Some cities publish a broad range of indicators, whereas in others the offer is quite limited. Thus, there is no obligation to publish data on the level of the urban districts, furthermore no harmonization about the data catalogue. There is a German association of urban statisticians (Verband Deutscher Städtestatistiker), and 101 cities work together in the network KoStat promoting the exchange of ideas between the cities, but this is on a voluntary basis. E.g. three cities with more than 100,000 inhabitants are not part of the network (i.e. Bonn, Osnabrück and Bottrop).

3. If data for a longer period is available, there will be always the question whether it is comparable. The creation of a new urban district or the division of an old one into disrupts time series.

4. But there is another reason why statistics for the quarters are hard to compare between cities, as there is no agreement on the size of the spatial reference system. Many cities have to spatial levels, i.e. the wards themselves and furthermore an aggregation of wards. E.g. Cologne publishes data for 86 quarters ("Stadtteile"), and these are aggregated into nine bigger units ("Stadtbezirke"). It is up to the choice of the individual cities how they demarcate their quarters (if this is not already coined by historical processes), and they are also free to publish spatially finer or coarser data according to their preferences. E.g. Munich has statistics for 468 intraurban units, but

in the Munich annual of statistic, which is easily accessible via internet (http://www.staedtestatistik.de/fileadmin/kosis/KOSTAT/KOSTAT_Mitgliedsstaedte2016-01.pdf, Landeshauptstadt München 2014), provides data for only 25 units. But the bigger the units, the less significant are e.g. coefficients of variation, which are important when working about de- or increasing spatial disparities (cf. fig. 2).

Fig. 2: Coefficient of variation (percentage of welfare recipients) in dependence of the average size of ward population
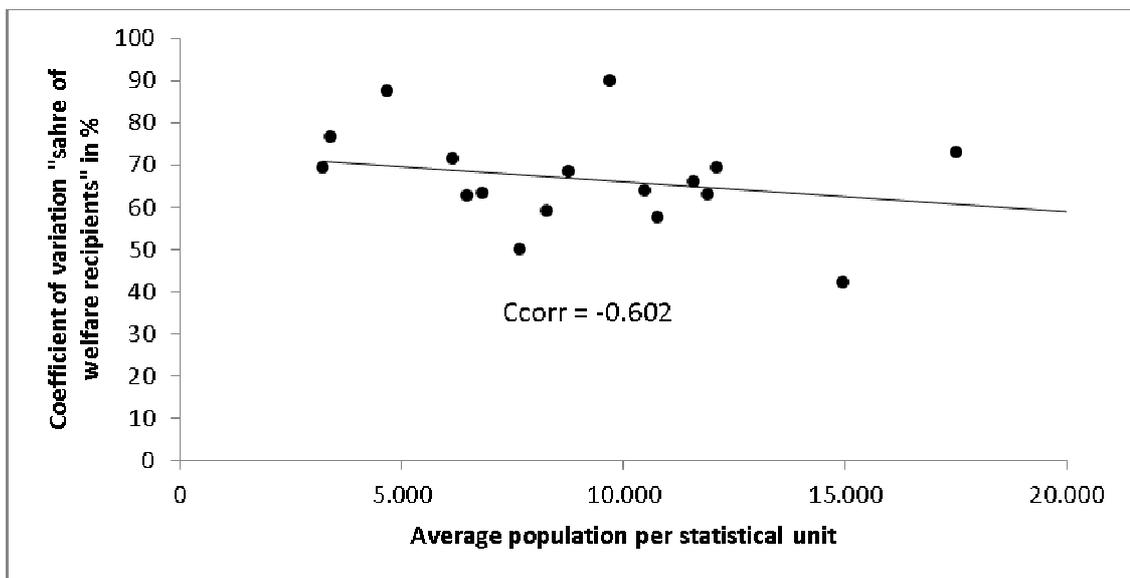
Source: own calculation based on statistics of selected German cities

Fig. 2 reveals that not only real processes, like the economic situation, influence the height of the coefficient of variation, but also the size of the spatial units under analysis. The higher the average number of inhabitants, the smaller are the coefficients. C_{corr} is with -0.602 quite high – although the number of observations is with n = 17 admittedly too small. Smaller pockets with high shares of welfare recipients are mixed in the larger areas with quarters where the respective percentages are average or even below average. Thus, the mean values become white noise. Here the modifiable area unit problem (MAUP) has a high impact on the results, and comparisons concerning concentrations and their changes over time between cities are hardly possible.

5. The cities have statistical yearbooks for different years. Some started quite early to publish data for their quarters, some others later. Furthermore, some cities are quite fast to provide data, some take more time. Thus, the time series are very different, and this makes comparisons between cities difficult, too.

6. In this article, the changes in the urban labour market are measured by different levels of qualifications on the level of the whole cities (= NUTS 3-level). Anyhow, there was a change in classification after 2011. Data for 2012 and 2013 are not available (e.g. in www.regionalstatistik.de), information for 2014 cannot be compared to the data prior to 2011. This makes the testing of hypothesis difficult.

7. Alternative indicators are necessary to give information about certain topics. E.g. how can it be measured whether urban policy has an increasing or decreasing impact on social disparities? Apart from the problem of quantifying qualitative aspects, the city statistics have a general limitation. E.g. the statistical law of the state of Brandenburg (Brandenburgisches Statistikgesetz vom 11. Oktober 1996, § 3 (3)) states that municipal statistics should use data "exclusively from public sources or from public records". Thus, data from further sources are not regarded as an adequate basis – preventing the possibility to work with empirical data on certain topics. Of course, the researcher is free to merge official data with other sources. Here, the locations of refugee homes are taken here as an example to test the above mentioned hypothesis.

8. A further problem is that spatial data gives information about spatial units, but social topics are about people. People are mobile, thus fluctuation can be high – and social processes are hard to detect. E.g. the number of inhabitants changed in the district Altstadt-Nord in Cologne between 2013 and 2014 from 17,700 persons to 17,896. On the first glance, this is an increase of 196 inhabitants. But a deeper look into the statistical yearbooks show that 3,415 moved in between the two years, 215 children were born, 3,902 left the quarter and further 155 died (Stadt Köln 2014, 2015). Thus, only 81 % of the "original" population in 2013 still lived there in 2014. But the share of welfare recipients remained more or less the same with 6.5 % in 2013 and 6.1 % in 2014. The question is now to whom e.g. the statistical number "share of welfare recipients" refers more – to the original inhabitants or the newcomers. Is it a spatial phenomenon, i.e. that some quarters attract poorer inhabitants who depend on social

welfare and are left when the individual income situation improves or whether this is a social phenomenon, i.e. that certain inhabitants do not have a chance to get out of the dependency from social transfers. In reality, it will be a mixture of both, but it is still an open question how strongly the two phenomena coin the whole process. Here, spatial data reach the limit of interpretability, but biographic information on individuals is too scanty to achieve sound results. Thus, the problem is that we want to speak about people in space, but we can only speak about places. There is the danger to over-interpret the data with regard to ecological fallacies.

To conclude, the situation is very fragmented. There is a general paradigm of research that the object under investigation, the research design and the methods have to be independent of each other. In this case, the situation is different: Only those cities can be taken into account which provide the necessary data. Thus, the object under analysis has automatically an impact on the results. This implies leaving the framework of a deductive research design. Rather a pragmatic approach has to be chosen, as information of different cities is analyzed according to the availability of data.

The social situation in selected German cities

Here, the main indicator to analyze disadvantaged quarters is the share of welfare recipients in urban quarters. The range within cities is quite broad – e.g. in Hamburg 2014 from 0.2 % to 27 %, in Cologne 2014 from 1 % to 33 % or in Frankfort/Main 2014 from 2 % to 26 %. Thus, this kind of social challenge is in some urban districts almost completely absent, whereas in other parts of a city, every third or fourth inhabitant depends on social welfare. But it is not only the high share of welfare recipients leading to certain challenges, different further aspects are associated with this fact. Therefore, multiple challenges arise:

- E.g. the higher the share of welfare recipients in the quarters, the lower the average taxable income per tax payer (Hamburg, 2015, Ccorr = -0.639). Thus, in quarters with a high percentage of inhabitants depending on social welfare, also employees with a lower income life – creating poorer and richer urban districts. This will have consequences e.g. for the general standard of housing in the respective quarters or due to a lower purchasing power on the quality of retail shops.

- With an increasing percentage of welfare recipients, the share of households with excessive indebtedness rises (Stadt Duisburg 2013, Ccorr = 0.929). Of course, it would be an ecological fallacy to state that only those with high debts depend on social welfare and vice versa. Aggregated data do not allow such a statement. But if both features apply to the same household, then the following conclusion is possible: Even when a household, which formerly depended on social welfare, receives again a regular income due to an employment, the financial situation will not recover quickly, as the debts still exist. And if the excessive indebtedness refers to other persons, it is again a hint for multiple problems with in an urban quarter. E.g. in the quarter of Duisburg-Hochfeld the percentage of highly indebted households is 17 % (and this is the maximum in this city), also the share of welfare recipients there is with 34 % second highest in Duisburg.

- Especially one group of people has a very high risk of impoverishment, namely single mothers depending on social welfare. Although the statistics in Cologne does not differentiate between single mothers and fathers, the large majority will most probably refer to single mothers. Their share of all single mothers and fathers in 2014 was up to 83 % in Cologne-Chorweiler. This urban district has, with 41 %, the second highest percentage of welfare recipients in this city – leading to a further social hardship.

- Furthermore, the voter participation is highly correlated with the share of welfare recipients (Stadt Köln 2015, Ccorr = -0,879). E.g. in the just mentioned quarter of Cologne-Chorweiler, only one fourth of the eligible voters used their right in the last municipal election. The opposite is in better-off urban districts, like Cologne-Klettenberg with a low percentage of welfare recipients, namely 4 %. In this quarter, more than two thirds of the inhabitants participated in the election. The question arises about the potential consequences with regard to intraurban disparities: The following hypothesis could arise from this observation: Better educated people in socially better off quarters, who are maybe even better connected with local politicians and decisions makers, will lobby for the benefits of their places of living. The already disadvantaged urban districts with a low participation – not only in elections, but also in other processes where the engagement of citizens is important – will even more fall behind. This can create further intraurban disparities in the future.

Concerning the changes in time, the coefficients of variation for the percentages of welfare recipients give hints about the process. It rose

- in Hamburg from 72.5 % (2010) to 73.8 % (2014),

- in Munich from 34.6 % (2010) to 35.0 % (2013),

- in Cologne from 58.8 % (2005) to 66.7 % (2014),

- in Essen from 63.4 % (2007) to 69.3 % (2014),

- in Duisburg from 49.9 % (2005) to 51.1 % (2010) and

- in Leipzig from 55.4 % (2009) to 63.0 % (2014).

(Source: own calculation based on official statistics of the cities)

Only one example could be found where the coefficient of variation was stable (or even very slightly decreasing), namely Frankfort/Main. In 2010, the value was 42.2 %, and in 2014 42.1 %. As shown in fig. 2, the coefficients of variations between the cities cannot be compared. This is a difficulty to assess e.g. the impact of urban policies on changing intraurban disparities. Anyhow, in the six cities mentioned above, the concentration of social welfare recipients has risen over time.

In this respect, the spatial pattern of the Essen is interesting: The northern part of the city had averagely 17.3 % of welfare recipients in 2007, whereas the southern urban districts merely a share of 5.2 % (cf. fig. 4). This is a very strong and clear cut division between. But looking at the period form 2007 to 2014 and the changes in inhabitants depending on social welfare, the picture becomes extreme: The percentage rose in those quarters where already in 2007 a high percentage of inhabitants depended on social welfare, whereas it decreased in urban areas where the problem was not so strong (fig. 3).

Fig. 3: Welfare recipients in Essen
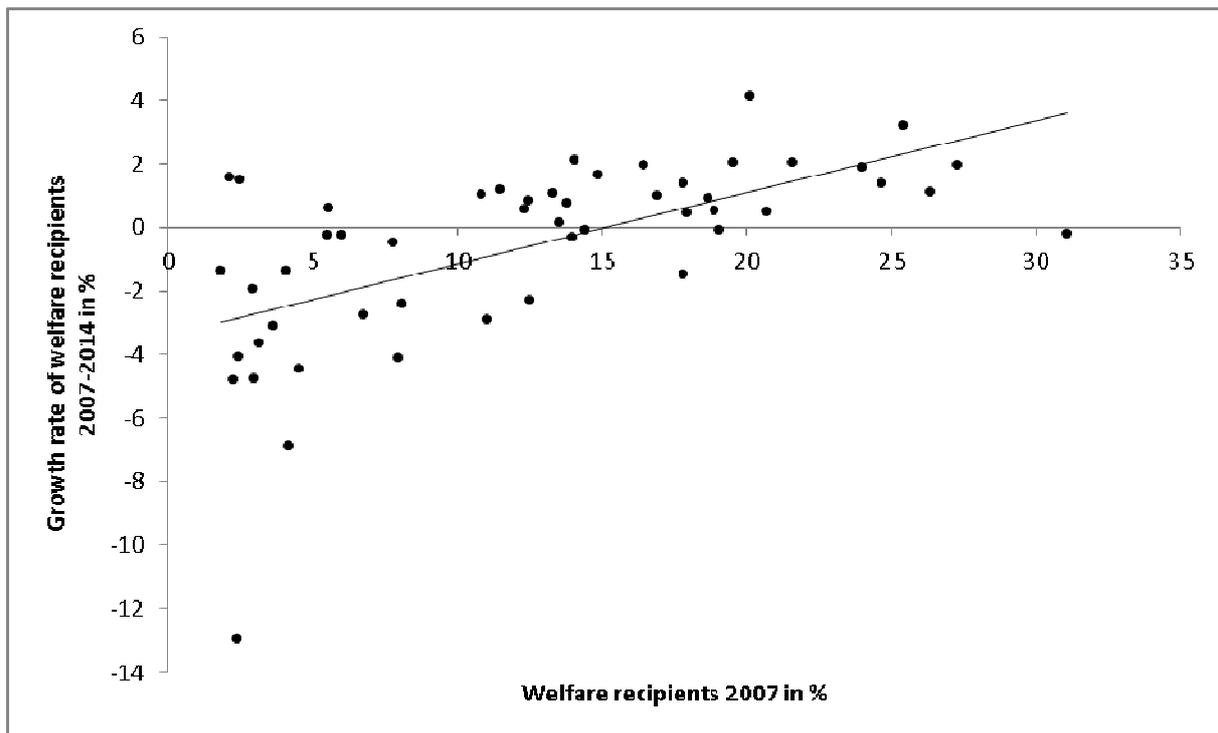
Source: own calculation and mapping based on Essen (2014)

With a special look on the situation of children, it is possible to get an idea of some future problems. Again, there are high spatial disparities within cities. E.g. averagely 10 % of the population of Hamburg depended in 2014 on social welfare – but 21 % of all children below 15 years living in Hamburg did so. These children do not have the best starting position for the school and work careers leading to a social upward mobility. The fear is that such structures can be intensified – both in selected urban districts due to a higher concentration and in families throughout the generation. Some statistical information from the city of Duisburg (Stadt Duisburg 2010) backs this statement empirically:

The higher the percentage of children in welfare recipient families in the urban districts …

- … the lower the share of pupils going after primary education to grammar school, which ends with an university-entrance diploma (Ccorr = -0.688) and

- … the lower the share of children who have all officially proposed medical examinations (Ccorr = -0.812). But lacking medical examinations can imply that health impairments will be undetected and increase, and this is again a bad starting point for the children's development.
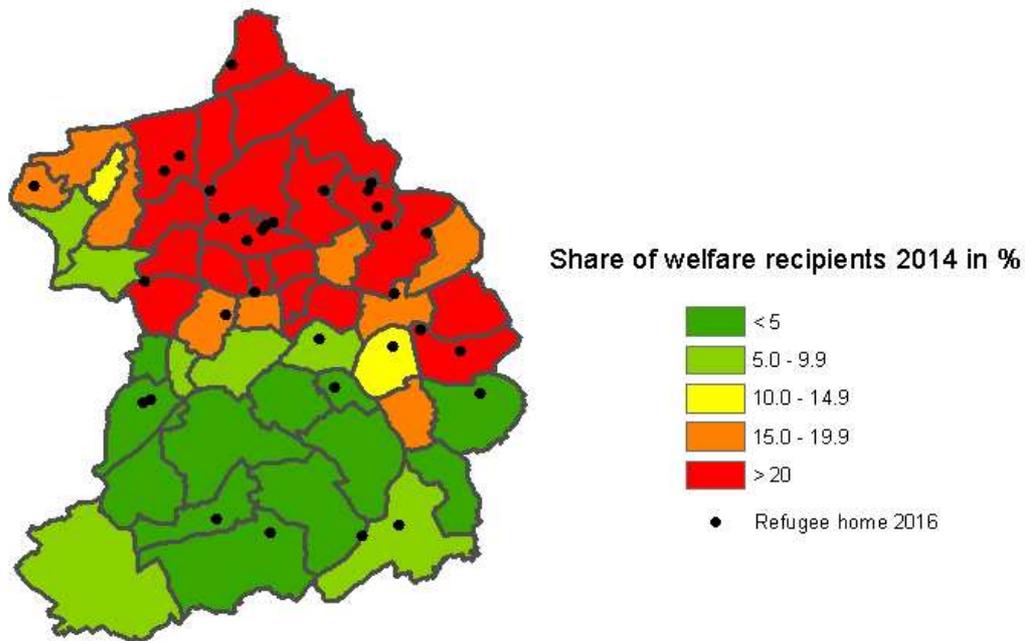
The urban statistics of the city of Bottrop concerning children give some other hints leading into the same direction (Stadt Bottrop 2010): The higher the share of households depending on social welfare, the higher the percentage of children with overweight (Ccorr = 0.608), with body coordination disorder (Ccorr = 0.618) and speech disorder (Ccorr = 0.843), latter possibly also due to a higher share of migrants. The data on the health status origin from school entrance medical examinations, thus the sample is quite small and should not be over interpreted (Bottrop has only 117,000 inhabitants). Furthermore, the data have to be cautiously analyzed due to the ecological fallacy, but at least the spatial coincidence on the urban district level is obvious and cannot be neglected.

A further example

As stated above, there is a high negative correlation between the percentage of welfare recipients and the participation in elections. People in better-off quarters are much more interested in politics as shown by high voter participations. Does this also mean that these inhabitants lobby more for their quarters so that urban politicians favour their areas? Some newspaper articles support this hypothesis, some others not. The example taken here is the chosen sites for refugee housings in German cities. E.g. in Hamburg, there were large protest of neighbours in the well established quarter of Blankenese (http://www.spiegel.de/panorama/gesellschaft/hamburg-blankenese-bauarbeiten-fuer-fluechtlingsheim-beginnen-a-1088449.html), although in end the city of Hamburg established a refuges house there. Also some similar newspaper articles can be found for the city of Essen (http://www.spiegel.de/politik/deutschland/fluechtlinge-spd-in-essen-will-fluechtlingsheime-blockieren-a-1073540.html, http://www.rp-online.de/nrw/landespolitik/ob-thomas-kufen-will-fluechtlinge-in-essen-fairer-verteilen-aid-1.5723747) and Berlin (Spiegel Online, 20.12.2015), even though protests are also in other parts of e.g. Hamburg (http://www.faz.net/aktuell/politik/fluechtlingskrise/hamburger-wehren-sich-gegen-fluechtlingsunterkuenfte-14067167.html.

http://www.welt.de/politik/deutschland/article155278226/An-der-Fluechtlingsfrage-zerbricht-die-SPD-Fuehrung.html).

In fig. 4, the locations of refugee homes in Essen are mapped. It becomes obvious that almost all of them are located in quarters with a higher share of welfare recipients.

Fig. 4: Locations of refugee homes in Essen

Source: Own mapping based on http://www.derwesten.de/staedte/essen/uebersicht-aller-asyl-unterkuenfte-in-essen-id11076960.html

Of course, also the fact has to be taken into account that land prices are cheaper in disadvantaged areas, but whether the land price or the lobbying is the reason for the chosen sites, the consequence is the same: Disparities within cities will rise by such an urban political decision – and Essen already has a very divided development in its northern and southern part. But this example shows that alternative data are a valuable source to monitor urban processes and also in some cases the outcome of urban politics. It is hard to assess urban politics – as any qualitative aspect – with quantitative data. Anyhow, the few chances, where spatial data are available, like in the case of refugee homes, have to be taken as an experiment to speculate about the underlying political decisions – and to combine official data with further sources.

Of course, no city government will regard itself as an institution which actively increases social disparities. On the contrary, there are many policy fields with a spatial context aiming at improving quality if life in disadvantaged quarters, also in Essen. The most important tool for all German cities is the so called programme "Soziale Stadt" (social city) by the federal and the state level. In 2016, 210 Mio Euro are provided to the communities, and this amount is co-financed with additional 105 Mio Euro by the municipalities themselves.

Conclusions

It is the task of urban governments to promote the development of cities and to make the best out of its potentials. But there is also a certain incentive for urban politicians to promote the development into such a direction that especially better-off people are attracted. They bring more purchasing power, do not imply costs for social welfare, contribute to the urban productivity level etc. But this aim can be on the costs of disadvantaged areas and especially on the group of urban welfare recipients. As shown by many correlations in this article, the problems deriving from high percentages of inhabitants depending on social welfare have to be taken seriously into account, also because it can be expected that the urban labour market will be even less integrative in the future.

Of course, this article is no proof that urban policy generally disfavors the poorer quarters and promotes the development of better-off areas leading to divergence. Such a statement is only possible if all urban policy fields are taken into account. It provides rather an example that social processes in urban areas – and also the political impact on spatial disparities – should be more monitored and analyzed.

Bibliography

Deutscher Bundestag (2013): Stadtentwicklungsbericht 2012. Drucksache 17/14450 22.7.2013. Berlin.

Essen (2014) (=Amt für Statistik und, Stadtforschung und Wahlen Stadt Essen 2014): Handbuch Essener Statistik Soziales – Gesundheit 1987-2013. Essen.

Federal Statistical Office (2016): Lebensbedingungen, Armutsgefährdung Einkommensverteilung (Nettoäquivalenzeinkommen) in Deutschland. www.destatis.de/DE/ZahlenFakten/GesellschaftStaat/EinkommenKonsumLebensbeding ungen/LebensbedingungenArmutsgefaehrdung/Tabellen/Einkommensverteilung_SILC. html. 20.6.2016.

Hamburg (2015) (=Statistisches Amt für Hamburg und Schleswig-Holstein): Hamburger Stadtteil-Profile 2015 NORD.regional Band 17. Hamburg.

Landeshauptstadt München (2014): Statistisches Taschenbuch 2014. München.

Secretariat of the Standing Conference of Ministers responsible for Spatial Planning Federal Ministry of Transport, Building and Urban Affairs (2006): Concepts and Strategies for Spatial Development in Germany. Berlin.

Spiegel Online (20.12.2015): Berliner Flüchtlingspolitik: Das große Geschacher. http://www.spiegel.de/politik/deutschland/berlin-politiker-sollen-bau-von-fluechtlingsheimen-verhindert-haben-a-1068794.html (last access 21.12.2015).

Stadt Bottrop (2010): Sozialbericht. Bottrop.

Stadt Duisburg (2010): Sozialbericht 2010. Duisburg.

Stadt Duisburg (2013): Sozialbericht 2012. Duisburg.

Stadt Köln (2014): Kölner Stadtteilinformationen Zahlen 2014. Köln

Stadt Köln (2015): Kölner Stadtteilinformationen Zahlen 2014. Köln

Statistische Ämter des Bundes und der Länder (2015): Regionalstatistischer Datenkatalog des Bundes und der Länder 2015. München.