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Regional employment growth in the Cultural and Creative Industries in Germany 2003 - 2008

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Abstract

Since the end of the 1990s cultural and creative industries have generated increasing attention in academic, public and political discourse. Nowadays, these industries are seen to be important factors of regional development. Because an urban environment offers a special quality of place, which is stimulating, motivating, challenging and inspiring for creative people, cultural and creative industries are spatially highly concentrated in the major cities of each country. Furthermore, urban places have an advantage compared to more peripheral or rural regions by offering the creative talents particular surroundings with openness, diversity, tolerance and internationality to realise their individual life styles. Overall, it can be assumed, that the cultural and creative industries fulfil their role as engines of innovation, growth and increasing employment rates predominantly in major cities. The empirical analysis of regional employment shifts in the cultural and creative industries in Germany shows that the main hubs of the cultural and creative industries in Germany generated above-average growth rates between 2003 and 2008. The more rural regions declined in most cases against the overall employment growth of the cultural and creative industries in Germany by 5.0%. Hence, the peripheral regions afar from the urban cores could not benefit from the growth of cultural and creative industries. Furthermore, a shift analysis shows the importance of locational effects in explaining the regional employment dynamics in these industries.

1 Introduction and aims

Since the end of the 1990s the Cultural and Creative Industries have generated attention in academic, public and political discourse. Scott (1996, 2000) was one of the first to point out the above-average growth rates and the different growth basis of the branches he labeled *cultural product industries* or the *cultural economy*. Further academic research, e.g. for the Scandinavian countries Sweden, Norway,

Finland and Denmark was carried out by Power (2002, 2003), by Mossig (2006) for Germany and for the Netherlands by Kloosterman/Stegmeijer (2004). (← p. 967)

The political debate received a boost especially in Great Britain in the period of the Labour administration under Tony Blair. During the election campaign 1996, the British Labour party promoted their political concept in the field of economics and culture with the notion of *cultural industries*. One year later, after winning the election and taking over the government, they developed the new label *creative industries*. The image of a new, modern Great Britain should be transported by slogans like “*Cool Britannia*” and “*New Labour*” (Throsby 2001, Lange 2007, Sailer/Papenheim 2007). In recent years many administrative officials have commissioned studies to analyse the importance of the cultural and creative sector, for example the European Commission (2006) surveyed the EU, and the Ministry for Economics and Technology investigated the case of Germany (Bundesministerium für Wirtschaft und Technologie 2009). In the same way, many regions and cities have also ordered special reports about the Cultural and Creative Industries at their location. Thus, policy-makers have realised by now that the Cultural and Creative Industries have become an important economic factor in terms of employment rates and turnover.

Beside the quantitative relevance with regard to turnover, employment or growth rates, the significance of more qualitative characteristics of the culture and creative industries increasingly gained attention, too. Creativity as well as arts and culture are increasingly stressed as a driving force for innovation in the course of the transition to a knowledge-based economy, not only in the field of the Cultural and Creative Industries, but in other industries, too. The term “*creativity*” is applied in an almost inflationary way in much of the academic, public and political discourse and is associated with many aspects of a positive regional development. One major reason for this phenomenon is certainly the rapid diffusion of the by now popular statement of Richard Florida (2002a, Florida et al. 2008) that attracting and retaining a “Creative Class” is fundamental to regional dynamism. Within this conceptional framework, the fundamental question, whether jobs follow people or people follow jobs, is clearly answered by Florida when he points out that more and more jobs will follow the people of the “Creative Class”. Because of the great popularity of this approach a number of empirical studies arose, testing the assignability for a European context and investigating the effects of the creative calls in rural regions (Boschma/Fritsch 2009, Asheim 2009, Clifton 2008, Hansen/Niedomysl 2009, McGranahan/Wojan 2007), These studies

use occupational delineations, hence the very wide definition of the Creative Class. Thus, 37,7% of all employed in seven selected European countries were accounted to the Creative Class in terms of Florida's idea (Boschma/Fritsch 2009). Contrary, this study uses the branch-oriented definition of the European Commission (2006) that has been adopted by German government for analysing Cultural and Creative Industries. Following this more narrow definition the share of employed in Cultural and Creative Industries in Germany is only around 3% (Bundesministerium für Wirtschaft und Technologie 2009). A more detailed description of the used delineation will follow later on.

The spatial distribution of the Cultural and Creative Industries shows a highly spatial concentration in the major cities of each country. As explicated in detail in the following sections of this paper, a huge body of literature argues that a lively metropolitan environment offers a special quality of place, which is stimulating, motivating, challenging and inspiring for creative people (for a recent overview see Storper/Scott 2009, Sailer/Papenburg 2007). Furthermore, urban locations have an advantage compared to more peripheral or rural regions by providing creative talents with the particular surroundings mentioned above, i.e. the openness, diversity, tolerance and internationality to realise their individual life styles. Thus, it can be assumed that the major cities are particularly (**← p. 968**) attractive to creative people. Consequently, the Cultural and Creative Industries should fulfil their role as engines of innovation, growth and increasing employment rates predominantly in major cities. Amplified by agglomeration economies, we could ascertain that the spatial concentration of the Cultural and Creative Industries became much stronger in recent years.

This raises the empirical question as to whether an increasing spatial concentration in urban cores can actually be observed. Maybe the dynamics of the spatial distribution were much more differentiated. Furthermore, the question should be addressed whether more rural or peripheral regions could also benefit from the growth of the Cultural and Creative Industries.

Beside the as yet only sparsely analysed development of the Cultural and Creative Industries in more peripheral or rural regions (Argent 2009, McGranahan/Wojan 2007), the question can be also addressed as to whether every urban region possesses urban amenities capable of attracting creative talent. Maybe the argumentation is valid only for a few cities in a country - presumably the largest and most important cities. Therefore, the dynamics of the Cultural and Creative Industries in urban regions of

different sizes should be analysed to check the assumption that a certain city size is a condition for above-average growth rates of the Cultural and Creative Industries.

Furthermore, because the sub-branches have different growth rates, a differentiated analysis by sub-branches of the Cultural and Creative Industries is essential. There are some very dynamic segments, whereas others parts of the Cultural and Creative Industries exhibit negative growth rates. Thus, whether the dynamics of the cities can be explained at least partially by the individual composition of the different sub-branches of the Cultural and Creative Industries at these locations is also a question which should be addressed. Maybe the growth of the cultural and creative sector in one region is not only related to particular urban amenities, but can be also explained by a favourable configuration with more fast-growing segments of the Cultural and Creative Industries.

The spatial distinction of employment growth and losses between urban cores and more rural or peripheral regions can be analysed by the varying development rates between 2003 and 2008. The selection of this time-period allows the usage of a consistent data-set concerning the statistical nomenclature of the branches of industries in Germany on a small spatial scale.

This paper is structured as follows: To build the theoretical background, the recent arguments concerning the locational demands of the Cultural and Creative Industries and the particular role of urban amenities will be outlined in the following chapter 2. Because of the spatial concentration of the Cultural and Creative Industries as a whole, as well as the specific spatial concentrations of the sub-branches, a summary of the academic discourse on agglomeration economies and cluster advantages will also be presented. This body of literature leads to the assumption that existing concentrations in the urban cores should have been strengthened during the surveyed years between 2003 and 2008, while peripheral or rural regions could not benefit from the growth of the Cultural and Creative Industries. The empirical analysis in the following chapters tries to find some evidence as to whether this actually happened in Germany between 2003 and 2008 or not. Therefore, the database and the methodology of the conducted regional and sectoral development analysis will be discussed in chapter 3. The presentation of the empirical findings follows in chapter 4. Within the conclusion in chapter 5 the results will be discussed against the background of the research questions addressed above. (**← p. 969**)

2 Cultural and Creative Industries, urban amenities and agglomeration economies

2.1 Cultural and Creative Industries

In recent publications the Cultural and Creative Industries have been defined in different ways (e.g. Scott 1996, 2000, Throsby 2001, Power 2003, Krätke 2002, European Commission 2006, Bundesministerium für Wirtschaft und Technologie 2009). Enterprises creating, producing or distributing cultural or creative products and services belong to this sector. The bonding core of these industries is that a so-called creative act underlies the artistic, literary, cultural, musical, architectonic or creative content, works, products, production processes or services produced by the enterprises concerned and builds the basis for their economic activities. The postulated economic orientation of the firms is an important characteristic in the definition of the recently surveyed Cultural and Creative Industries. This commercial focusing might appear to be somewhat surprising when the terms creativity and culture are used, but Zukin (1991) has already referred to the powerful circuits of production and commercialisation of cultural products (Zukin 1991, Throsby 2001, Mossig 2008). Also the new catchword of an increasing commodification of culture describes the trend that invested capital in the cultural sector is definitely able to attain a significant return on investment. As a consequence of the increasing individualisation, differentiation, as well as pluralisation of demand, the goods and services become more de-standardised – but provided with aesthetic signs as symbols of a certain life-style, socio-economic status or ethnicity. The significance of the signal- or sign-value of a certain product or service has been broached more than 100 years ago by Veblen (2007). It is a soft consumption factor that attains remarkable economic relevance and is nowadays increasingly important in other industries outside the Cultural and Creative Industries, too. Thus, the Cultural and Creative Industries are a growth segment and a key factor of a knowledge-based economy (Sailer/Papenheim 2007).

The enormous spatial concentration in the largest cities is explained by a combination of many factors. Urban sociologists have pointed out that creative talent prefers to live in urban cores because of the obvious characteristics which distinguish a city from a peripheral region: size, density and heterogeneity. Purely of its own account, the large number of people living in a city increases the probability that some very specific cultural ideas are confronted with an economically relevant demand. On the other hand, a

highly specialised demand has a better chance of being satisfied in a city with many inhabitants than in a rural or peripheral region. Thus, a self-energising circle of a differentiated supply-and-demand structure occurs and facilitates a diverse creative output. This effect of the city's size is intensified by the city's density because of the increasing chances and options of a particular specialisation of the firms and employees and the resulting higher degree of the division of labour (Siebel 2008). Beside the general advantages of rising productivity within a divisional production system, the individual degrees of freedom in the own part of specialisation are very relevant in the field of the Cultural and Creative Industries. Creative talent needs this room for developing and realising their inventive ideas or creative designs.

2.2 Urban, natural and constructed amenities

A growing body of literature explains the spatial concentration of the Cultural and Creative Industries in urban cores with the importance of urban amenities (Clark 2003). This term (**← p. 970**) summarises specific qualities of urban places determining the image, vibrancy, atmosphere and urbanity of a city or some trendy quarters of a city. These urban amenities are seen as a main factor attracting creative and qualified people, because a diverse, stimulating, open and tolerant environment is an important source of inspiration for creative talent. The importance of these soft location factors is increasingly realised by urban planners. Thus, urban development concepts have recently intensified the generation of urban amenities at the current location. Storper and Scott (2009) differentiated and reflected several argumentation lines dealing with the importance of urban amenities for generating growth and employment in cities.

The first body of literature rested on the work of Florida (2002a, 2002b, 2002c, Florida et al. 2008) and deals with the relevance of the "Creative Class". The argumentation of Florida starts with the assumption that the increasingly global competition for creative talents and qualified human capital will be intensified. Thus, attracting and recruiting the desired people from the "Creative Class" is the decisive factor for innovation, growth and development on a regional scale. Within this argumentation, amenities have a magnetic function with regard to attracting creative talent. In this context openness, tolerance, diversity and internationality are stressed as important amenities. These aspects are operationalised by some

simplified indices, e.g. the bohemian index as an indicator for cultural and lifestyle amenities, or the gay index for measuring diversity and openness (Florida 2002b), as well as the coolness index composed of nightlife (bars, nightclubs etc. per capita) and cultural offerings (art galleries and museums per capita) in a city (Florida 2002c). A number of younger empirical studies, also from a European context, have verified these arguments, partly by using modified indices. Clifton (2008) investigated the impact of „Quality of Place“ on the distribution of the Creative Class in Great Britain and highlights the new attractiveness of “cool jobs”. His empirical analysis shows that inner cities and the greater metropolitan agglomerations are favoured by Creative Class. „Quality of Place“-indices are significant to explain the spatial concentration in urban areas. Hansen/Niedomysl (2009) scrutinised the assumptions that the Creative Class is more mobile and selecting their location differently than other population groups for Sweden. They conclude that the Creative Class is only marginally more mobile and the choice of their location is, contrary to theoretical assumptions, not determined by the special index for operationalising Peoples Climate. They explain the results by emphasising that for migration decisions individual vitas have to be taken into account. Thus, younger people move preferably to attractive university cities for education. By higher education, they potentially become members of the Creative Class and disperse from university locations to less attractive regions. Despite the results about the mobility behaviour, the Creative Class tends to favour urban centres in Europe as well. Boschma/Fritsch (2009) show for the seven European countries Denmark, England and Wales, Finland, Germany, Netherlands, Norway and Sweden, that the outlier regions always include the main cities of the respective country. The empirical analysis revealed that a regional climate of tolerance and openness has a strongly positive effect on the share of Creative Class population.

While policy-makers are still led by Florida’s assumptions, the academic discourse has become more critical (Peck 2005; Markusen 2006; Berry 2005; Montgomery 2005, Storper/Scott 2009, Siebel 2008). The critique relates to several points. First, some parts of the argumentation are based on creativity¹, whereby the term here actually means a particular type of qualification. Therewith, occupations like “education, training, (← p. 971) and library occupations” or “healthcare practitioners and technical occupations belong to the group of Creative Class. Secondly, the empirical indicators (e.g. the gay index

¹ It should be mentioned here that academic research of psychologists in the field of creativity (Kaufmann/Sternberg 2006, Schuler/Görllich 2007) is largely ignored and not implemented within the discourse around Cultural and Creative Industries. The particular characteristics of creative people which shall develop the expected innovations are hardly mentioned, nor are the results of this research with regard to the well-directed facilitation of creativity and creative processes.

and the melting-pot index) for measuring diversity, openness and tolerance are criticised for being imprecise and their application in a different context outside the USA could be problematic. For example, in the case of Germany the melting-pot index seems to be an inappropriate indicator for describing diversity, openness or tolerance, but rather more suitable for problems of ethnic segregation. Thirdly, Florida's argumentation implies that the simple co-presence of creative people will automatically initiate creative behaviour and innovative interaction. Thus, he paid less attention to the overwhelming majority of innovation theories, stressing additional processes that stimulate and channel such interaction. Not only physical proximity is important for processes of innovation, despite co-location huge relational distances can exist (Ibert 2010, Boschma 2005).

"Aside from climate, education may be the most powerful predictor of urban growth" (Glaeser 2005).

In the course of the second argumentation line, the role of natural amenities is highlighted as a factor for generating regional growth and development. Especially, pleasurable warm and sunny weather is underlined as advantageous, and recent publications (Glaeser 2005, Glaeser/Tobio 2007, Clark 2003) have also analysed whether urban or regional growth is correlated with the average temperature in January or July. Following this argumentation, locations favoured by their climatic conditions are significantly more attractive to qualified human capital and creative talent. As a consequence, cities and regions with cold winters have to provide high-quality public schools, safe streets and neighbourhoods, or reasonably priced housing in cost-effective and equitable ways in order to compensate for their climatic disadvantage (Glaeser 2005). The debate as to whether the climate has an effect on regional economic growth rates is not new. In the 1980s the question was addressed, whether the phenomenon of the above-average growth rates of the metropolitan regions in the south of the USA could be interpreted as a real sun"belt" or only as some single sun"spots" (Vollmar/Hopf 1987). The discussion used in particular the example of the USA and is within the context of this study less relevant because in Germany the climatic extremes are not so distinctive compared to the USA. Furthermore, natural and especially climatic amenities are not solely bound to urban areas. Thus, they cannot explain the spatial differences between urban and peripheral or rural regions in the field of the Cultural and Creative Industries.

More differentiated McGranahan/Wojan (2007) follow the idea, whether it is not only temperature, but more comprehensive outdoor amenities which attract talents, especially in rural areas. Even though, the authors notice that outdoor amenities play a role, it is still the metropolitan regions that have a higher

proportion of Creative Class. Interestingly, they state that the creative talents seem to differ according to some characteristics between rural or urban regions. Thus, Creatives in rural regions are on average older, more often married and hold considerably rarer a College-degree (37% in rural areas, 56% in urban areas). This may be caused by the absence of particular branches in rural areas.

The third argumentation refers to constructed amenities such as operas, juice bars, museums and theatres that drive urban development (Clark 2003). Therewith, central parts of the Cultural and Creative Industries are themselves the attracting factor for creative talent and qualified human capital. In this context the consumption of leisure and entertainment offerings is stressed, because the boundaries of work time and leisure activities (**← p. 972**) are blurred in the everyday work of creative talents. One problem is that different kinds of people are attracted by different constructed amenities. What attracts one person can repulse others. Thus, there is no best practice for urban development and it remains unclear whether a new opera house or a new museum or a new juice bar should be built in order to attract the Cultural and Creative Industries. Therefore, in this context the variety a city has to offer is crucial. Following this argumentation, the “city as an entertainment machine” (Clark 2003) has a significant advantage compared to more rural or peripheral regions.

Storper and Scott (2009) pointed out that amenities can only partly explain processes of urban growth and development. The specific production systems and job opportunities at a certain location resulting from path dependencies (Martin/Sunley 2006) and historical events have to receive greater consideration. A regional development policy generating some amenities in the absence of corresponding job opportunities in the real production systems in situ will have no significant effect. Thus, beside urban amenities some other competitive advantages of urban places supporting the organisation of production processes and the development and generation of service products must be considered in order to explain the concentration and growth of the Cultural and Creative Industries in large cities. These competitive advantages result from agglomeration economies, the concentration and variety of qualified employees, dense milieu-structures supporting the innovative exchange of knowledge and information, as well as an established high-quality educational and research infrastructure (Hutton 2009). The following paragraph deals with cluster advantages as an element enforcing the spatial concentrations of the Cultural and Creative Industries in urban cores.

2.3 Agglomeration and cluster advantages

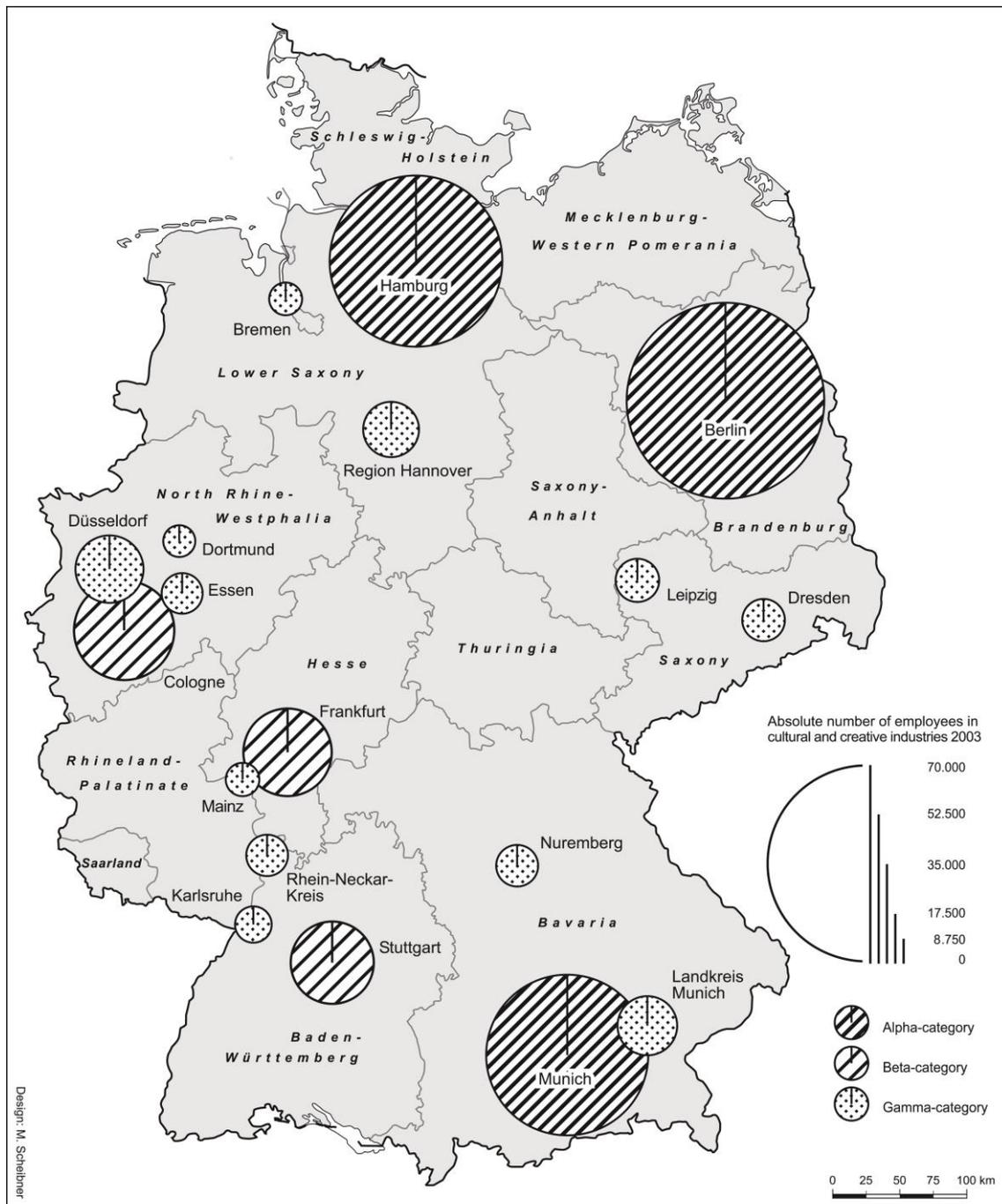
Clusters are not an exclusive phenomenon of urban cores. Single branches or industries can be found highly concentrated in rural or peripheral regions and cluster structures as well as cluster advantages can be found at these locations, too. However, figure 1 illustrates that also in Germany the Cultural and Creative Industries are concentrated in the largest cities. The map points at three leading locations in 2003 – the starting point of this observation – which are the biggest cities in Germany. In 2003 Berlin (69 235 employees), Hamburg (60 490 employees) and Munich (56 770 employees) were the alpha-category of the Cultural and Creative Industries in Germany, followed with a clear distance by the cities of the beta category Cologne (35 112 employees), Frankfurt (30 939 employees) and Stuttgart (29 087 employees). Significantly fewer employees were counted in the regions of the gamma category, i.a. Dusseldorf (23 831), Landkreis Munich (20 901) – which is the administrative district (*Kreis*) of the Munich hinterland – and the Hanover region (19 557).

Overall, therefore, not Berlin but the greater metropolitan area of Munich was the leading location of the Cultural and Creative Industries in Germany, because in addition to the 56 770 employees of the Cultural and Creative Industries in the city of Munich a further 20 901 employees worked in the surrounding hinterland of the *Landkreis* Munich (see fig. 1). Such an extension to the direct surrounding was not detected in the case of the other two leading cities of the alpha category Berlin and Hamburg.

Some theoretical arguments lead to the assumption that spatial concentrations have positive effects. Myrdal and Hirschman formulated the classical argument of polarisation (← p. 973) theories which postulate that external shocks of sufficient intensity initiate processes of circular and cumulative causation and spatial disequilibrium (Maier et al. 2006, p. 79ff., Richardson 1973). Another traditional argumentation for the advantages of spatial concentration refers to external economies of scale, which can be differentiated into urbanisation economies and localization economies (Hayter 1997, p. 91 f.). With reference to the work of Marshall, the noble-prize winner Krugman (1991) emphasises the pool of qualified workers and intermediate inputs (e.g. specialised suppliers and services as well as specific education facilities) as important advantages of spatial concentrations. But Krugman remarked some scepticism with the third Marshallian argument of technological (← p. 974) spill-over effects: They are

barely verifiable, because “knowledge flows [...] are invisible; they leave no paper trail by which they may be measured and tracked [...]” (Krugman 1991, p. 53.).

Figure 1: The most important clusters of the Cultural and Creative Industries in Germany 2003



Source: Based on data provided by Bundesagentur für Arbeit
 (← Figure 1 p. 974)

Since the 1990s the cluster approach has been used as a central concept for regional development. The term goes back to the work of Porter (1991), who explained competitive advantages on the national

scale by concentrations of particular branches. More recently Porter has defined a cluster as “[...] a geographically proximate group of interconnected companies and associated institutions in a particular field, linked by commonalities and complementarities” (Porter 2000, p. 254). A knowledge-based theory of a cluster (Maskell 2001, Bathelt et al. 2004) differentiates between vertical and horizontal dimensions of a cluster. The vertical cluster dimension relates to the complementarities of the enterprises and the flexible-specialised networks they build along the value chain through intensive buyer and supplier relations. The horizontal cluster dimension refers to co-localised enterprises at the same stage of production, which are in competition with each other. Besides the resulting rivalry as a central driving force for economic development, a larger variety and a broader spectrum of problem solving strategies exists in a cluster because of the numerous enterprises located there. The enterprises profit in particular from the informal and formal information flows within a cluster, which are decisive in the course of the creation and diffusion of tacit knowledge (Maskell 2001, Storper/Venables 2004, Bathelt et al. 2004). Against this background, a cluster can be understood in a simplified way as an agglomeration of specialised knowledge along the horizontal and vertical dimensions. Meanwhile, an abundance of conceptual work and empirical studies on clusters has arisen and it should be mentioned here that the popularity of a concept is by no means a guarantee of its profundity (for a critique cf. Martin/Sunley 2003, Schamp 2005).

The analysis shall prove whether the leading centres of Cultural and Creative Industries in Germany grew above average between 2003 and 2008. It must be pointed out that Cultural and Creative Industries consist of several sub-branches. These sub-branches tend to cluster at certain places. A dynamic location analysis will be carried out by using a shift-analysis. It takes the dynamics of different sub-branches at certain locations in account. The analysis will bring to light, whether locations with a high concentration in certain sub-branches of Cultural and Creative Industries show an above average growth in the respective segments.

2.4 Conclusion: Theoretical implications for spatial growth differences of Cultural and Creative Industries in Germany

Two recently stressed bodies of literature – urban amenities as well as clusters and agglomeration advantages - were discussed in the previous paragraphs dealing with the spatial distribution of economic activities in general and the Cultural and Creative Industries in particular. Following these popular

arguments it should be expected that the already existent concentrations of the Cultural and Creative Industries in the largest urban agglomerations in Germany (see fig. 1) grew above-average in the years from 2003 and 2008 because of the effects of urban amenities and agglomeration economies as well as cluster advantages. This implies on the other hand that peripheral or more rural regions normally did not benefit from the growth of the Cultural and Creative Industries in recent years. Whether these theoretical considerations are consistent with the (← p. 975) reality of the spatial dynamics of the Cultural and Creative Industries between 2003 and 2008 is an empirical question that will be analysed in the next sections.

Table 1: Classification of the Cultural and Creative Industries in Germany on the basis of the EU-commission and the enquete-commission of the German parliament

Classification of the cultural sector by the EU-commission	Classification of the enquete-commission in Germany	Branches and available data used in this analysis
22 Publishing, printing and reproduction of recorded media	Cultural industries 22.1 Publishing	Publishing (22.1 Publishing)
92 Recreational, cultural and sporting activities	92.1 Motion picture and video activities	Motion picture and video (92.1 Motion picture and video activities)
	92.2 Radio and television activities	Radio and TV (92.2 Radio and television activities)
	92.3 Other entertainment activities	Entertainment (92.3 Other entertainment activities)
	92.4 News agency activities	News agencies (92.4 News agency activities)
	92.5 Library, archive, museums and other cultural activities	Libraries, archives and museums (92.5 Library, archive, museums and other cultural activities)
not used	52.4 Other Retail Trade: 52.45.3 Retail with musical instruments 52.47.3 Retail with books and professional journals 52.48.2 Retail with objects of art (excluding antiques, carpets, stamps, coins etc.)	not available
74 Other business activities	74.2 Architectural and engineering activities and related technical consultancy	Architecture and engineering (74.2 Architectural and engineering activities and related technical consultancy)
	74.8 Miscellaneous business activities not elsewhere classified 74.20.6 Industrial Design	not available
	Creative branches 74.4 Advertising	Advertising (74.4 Advertising)
not used	72.2 Software/Games	Software/Games (72.2 Software/Games)

Source: Own description following Bundesministerium für Wirtschaft und Technologie (2009)

3 Methodology and Data

The classification of the Cultural and Creative Industries used in this study follows the definition of the enquete-commission of the German parliament "Culture in Germany". This (← p. 976) classification is compatible with the definition of the EU-commission and the global reference model, which is the British creative industries concept (Deutscher Bundestag 2007, Bundesministerium für Wirtschaft und Technologie 2009). This classification differentiated nine branches as segments of the cultural industries, and two further segments called creative branches (see table 1). Due to data security the detailed information on the 5-digit standard classification of economic activities for the small segments '*Other Retail Trade*' as well as '*Miscellaneous business activities not elsewhere classified*' were not available in the required spatial differentiation. Thus, these parts are excluded from the data analysis because the 3-digit level for these segments includes too many activities which are not compatible with the definition of the Cultural and Creative Industries (see table 1).

The thus-defined Cultural and Creative Industries are analysed by using employment data of the Bundesagentur für Arbeit (Federal agency for employment) for the years 2003 and 2008. This database includes all employees of the Cultural and Creative Industries paying into the national pension and social security funds on the spatial level of the 429 *Kreise* in Germany. A *Kreis* is an administrative district roughly comparable with a US county and corresponds to the NUTS-3 level in the official nomenclature of the European Union. A disadvantage of this dataset regards the exclusion of public officers and self employed freelancers, because these people do not pay into the national insurance systems. But, especially freelancers are very common in the Cultural and Creative Industries. On the other hand, not the total number of employees at the moment, but the development and spatial shifts will be analysed. It can be assumed, that the share of freelancers in the several regions has not changed that different from each other that greater distortions according to employment have to follow. The general conclusion of this analysis should not be questioned by this. Furthermore, the used database is the best available official statistic which allows a differentiated analysis with the desired spatial and sectoral level of disaggregation.

For the attribution of the 429 counties into more urban or more rural regions the official nine-level classification for spatial planning regions in Germany was used (see table 2). According to the aims of

this research, especially the *Kreise* with the greatest differences within this classification should be compared. Thus, the 43 cities of spatial planning category type 1 represent the most important and most densely populated urban cores in Germany. On the other hand, the *Kreise* of category 4 (23 *Kreise*), category 7 (66 *Kreise*), category 8 (56 *Kreise*) and category 9 (43 *Kreise*) can be summarised as rural regions in Germany. They can be differentiated by their functional connections to more or less important urban cores. Therefore, with regard to the theoretical assumptions addressed before, the Cultural and Creative Industries in rural regions in the surrounding of a Metropolitan region (category 4) might have better conditions for employment growth between 2003 – 2008 compared to the less populated *Kreise* in the most peripheral regions (category 9).

Table 2: Classification of spatial planning regions in Germany

<p>Regional type I: Metropolitan regions Regions with a central place of highest order with more than 300 000 inhabitants or with a population density ≥ 300 people/km². Spatial planning regions of type I <i>Metropolitan regions</i> are differentiated on the spatial basis of the <i>Kreise</i> into</p> <ol style="list-style-type: none"> 1. <u>Urban Cores</u>: Cities with more than 100 000 inhabitants 2. <u>Densely populated areas</u>: <i>Kreise</i> with a population density ≥ 300 people/km² 3. <u>Moderately settled areas</u>: <i>Kreise</i> with a population density ≥ 150 people/km² 4. <u>Rural areas</u>: <i>Kreise</i> with a population density < 150 people/km²
<p>Regional type II: Urban regions Regions with a central place of highest order with more than 100 000 inhabitants or with a population density ≥ 150 people/km² (and a minimum 100 inhabitants/km²). Spatial planning regions of type II <i>Urban regions</i> are differentiated on the spatial basis of the <i>Kreise</i> into</p> <ol style="list-style-type: none"> 5. <u>Urban Cores</u>: Cities with more than 100 000 inhabitants 6. <u>Moderately settled areas</u>: <i>Kreise</i> with a population density ≥ 150 people/km² 7. <u>Rural areas</u>: <i>Kreise</i> with a population density < 150 people/km²
<p>Regional type III: Rural regions Regions with a population density < 150 inhabitants/km² and without a central place of highest order with more than 100 000 inhabitants as well as regions with a central place of highest order with less than 100 000 inhabitants and a population density ≤ 100 people/km². Spatial planning regions of type III <i>Rural regions</i> are differentiated on the spatial basis of the <i>Kreise</i> into</p> <ol style="list-style-type: none"> 8. <u>More populated rural areas</u>: <i>Kreise</i> with a population density ≥ 100 people/km² 9. <u>Less populated rural areas</u>: <i>Kreise</i> with a population density < 100 people/km²

Source: Own description following Bundesamt für Bauwesen und Raumordnung (2009)

(← Table 2 p. 978)

The analysis of the data includes the spatially differentiated identification of absolute and relative employment shifts in the Cultural and Creative Industries. Furthermore simple concentration indices (gini-coefficient, location factors) (Schätzl 1994, p. 59 ff.) were calculated for the years 2003 and 2008 to analyse growth or decline of spatial concentrations in general. Afterwards, a shift-analysis is used to deal with the question, whether the employment shifts at the respective locations can be explained by the composition of the single subunits of the Cultural and Creative Industries. Thereby the hypothesis should be checked, whether the growth of the Cultural and Creative Industries is correlated with location advantages like urban amenities or whether the growth of a certain location (**← p. 977**) is triggered by a positive configuration of cultural and creative branches. Possibly, the employment growth of a city or region results from the location of more growing segments than declining sectors of the cultural and industries at this place.

4 Empirical findings

Figure 2 shows the most important hubs of the Cultural and Creative Industries in Germany in 2008. The employment shifts from 2003 - 2008 can be seen in table 3. Between 2003 and 2008 the number of employees in the Cultural and Creative Industries in Germany increased by 52,654 persons from 1,063,207 to 1,115,861. This equals a growth rate of 5.0%. There was no change observed with regard to the classification of the main hubs into the alpha, beta or gamma category. Merely Böblingen - a *Kreis* neighbouring Stuttgart - has newly joined the gamma category. As assumed by the theoretical framework, the cities of the alpha category made considerable employment increases with growth rates above average. Compared to the overall growth of the Cultural and Creative Industries of 5.0%, the alpha cities Hamburg (+7.5%) and especially Munich (+13.0%) had outstanding growth rates, while Berlin (+5.1%) grew nearly with the average. Even more remarkable was the growth rate of the *Landkreis* Munich (+23.7%). Thus, the whole metropolitan area of Munich extended its status as the leading hub of the Cultural and Creative Industries in Germany. Altogether, the above-average growth rates of the alpha cities (**← p. 978**) can be interpreted as a first indicator of the effectiveness of agglomeration economies, cluster advantages, and urban amenities in the largest cities.

Table 3: Employment changes of the leading clusters of the Cultural and Creative Industries in Germany 2003 – 2008

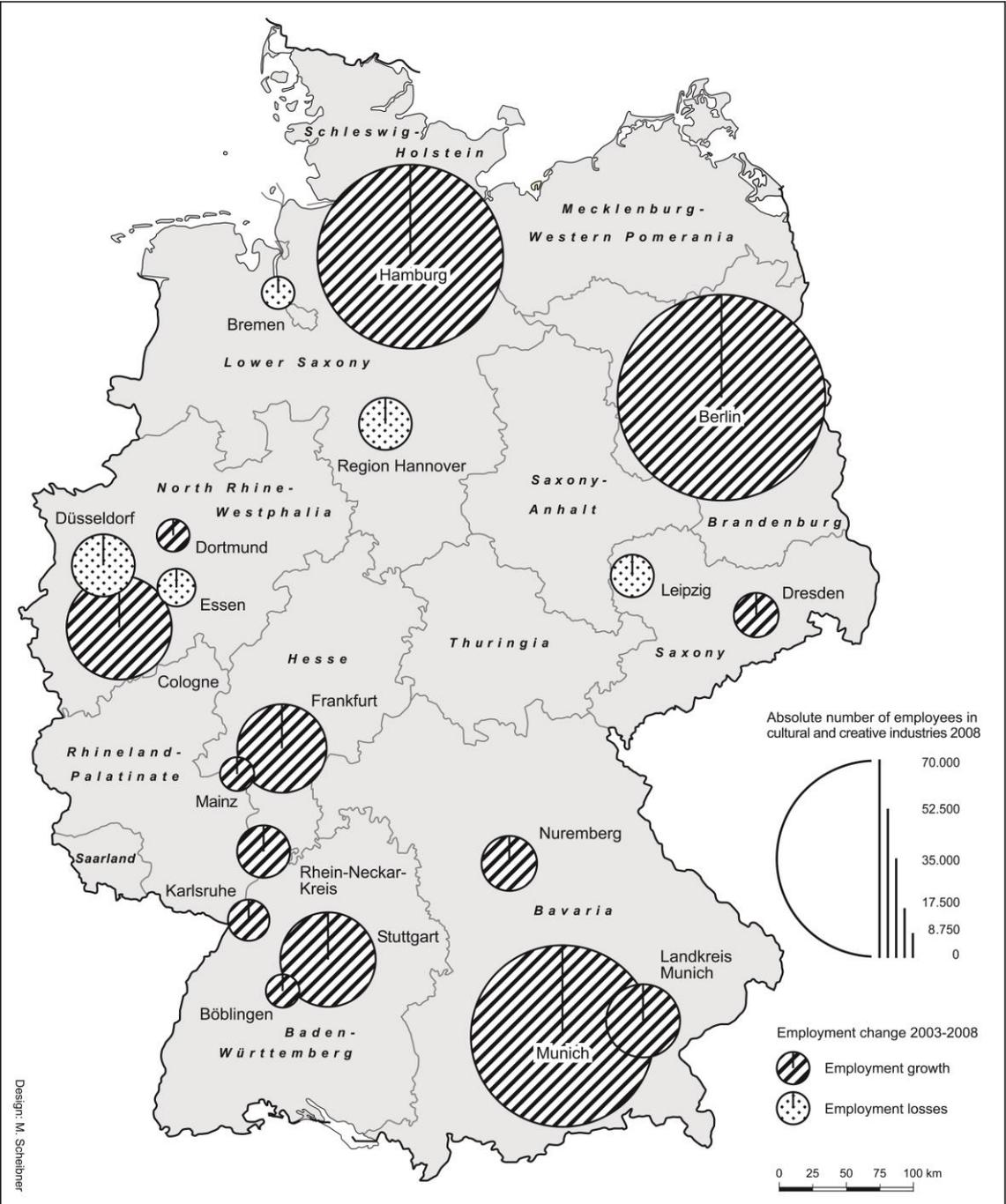
2003			2008			change	
	employees	%		employees	%	2003-08	%
Alpha category			Alpha category				
1. Berlin	69,235	6.5%	1. Berlin	72,733	6.5%	+ 3,498	5.1%
2. Hamburg	60,490	5.7%	2. Hamburg	65,022	5.8%	+ 4,532	7.5%
3. Munich (City of)	56,770	5.3%	3. Munich (City of)	64,131	5.7%	+ 7,361	13.0%
Beta category			Beta category				
4. Cologne	35,112	3.3%	4. Cologne	36,786	3.3%	+ 1,674	4.8%
5. Frankfurt	30,939	2.9%	5. Stuttgart (+1)	33,382	3.0%	+ 4,295	14.8%
6. Stuttgart	29,087	2.7%	6. Frankfurt (-1)	31,256	2.8%	+ 317	1.0%
Gamma category			Gamma category				
7. Düsseldorf	23,831	2.2%	7. Munich, Landkreis (+1)	25,861	2.3%	+ 4,960	23.7%
8. Munich, Landkreis	20,901	2.0%	8. Düsseldorf (-1)	22,020	2.0%	- 1,811	-7.6%
9. Hanover	19,557	1.8%	9. Nuremberg (+3)	19,423	1.7%	+ 4,725	32.1%
10. Leipzig	15,273	1.4%	10. Rhein-Neckar-Kr. (+3)	18,512	1.7%	+ 3,814	26.1%
11. Dresden	14,937	1.4%	11. Hanover (-2)	18,431	1.7%	+ 1,126	5.8%
12. Nuremberg	14,698	1.4%	12. Dresden (-1)	15,670	1.4%	+ 733	4.9%
13. Rhein-Neckar-Kreis	14,629	1.4%	13. Leipzig (-13)	15,066	1.4%	+ 207	1.4%
14. Essen	14,357	1.4%	14. Karlsruhe (+1)	14,520	1.3%	+ 1,681	13.1%
15. Karlsruhe	12,839	1.2%	15. Essen (-1)	13,332	1.2%	- 1,025	-7.1%
16. Mainz	11,775	1.1%	16. Mainz	11,921	1.1%	+ 146	1.2%
17. Bremen	11,552	1.1%	17. Böblingen (+3)	11,724	1.1%	+ 2,321	24.7%
18. Dortmund	11,214	1.1%	18. Dortmund	11,448	1.0%	+ 234	2.1%
19. Bremen (-2)			19. Bremen (-2)	11,427	1.0%	- 104	-0.9%
Cultural and creative industries in Germany	1,063,207	100%	Cultural and creative industries in Germany	1,115,861	100%	52,654	5.0%

Source: Based on data provided by Bundesagentur für Arbeit

(← Table 3 p. 980)

But, as soon as the absolute number of employees in the Cultural and Creative Industries as well as the number of inhabitants in the other cities is smaller, the picture becomes more differentiated. On the one hand, you can find some cities of the beta and gamma category with significant above-average growth rates (e.g. Stuttgart +14.8%, Nuremberg +32.1%), but on the other hand some locations of the beta and gamma category declined remarkably vis à vis the overall trend (e.g. Düsseldorf -7.6%, Essen -7.1%) (see table 3). In a later section of this paper it will be investigated by a shift-analysis, whether these (← p. 979) inconsistent growth rates can be explained by the cities' different composition, with more growing of declining sub-sectors of the Cultural and Creative Industries.

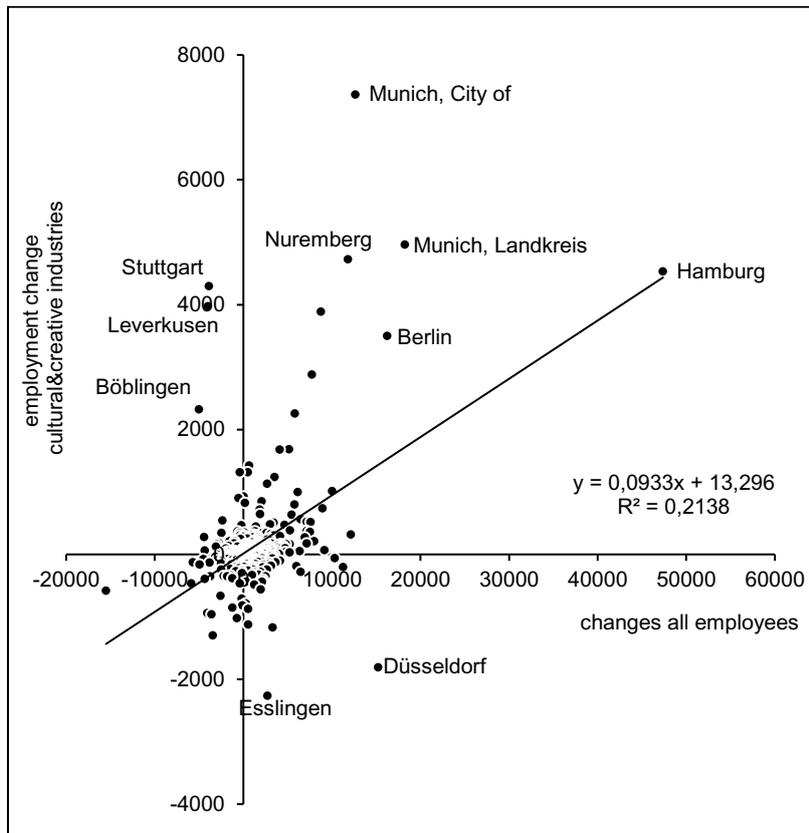
Figure 2: The most important clusters of the Cultural and Creative Industries in Germany 2008



Source: Based on data provided by Bundesagentur für Arbeit

(← Figure 2 p. 979)

Figure 3: Employment changes in the Cultural and Creative Industries depending on employment changes in Germany 2003 – 2008 on the spatial level of the 429 *Kreise*



Source: Based on data provided by Bundesagentur für Arbeit

Maybe, the spatial differentiations of the employment shifts in the Cultural and Creative Industries could be explained by the growth or decline of the single regions in general. But, figure 3 shows that there is only a weak correlation. The coefficient of determination $R^2 = 21.4\%$ indicates that only a small part of the explained variance of the employment shifts in the Cultural and Creative Industries can be explained by the variance of the total employment shifts of a *Kreis*. Cities and *Kreise* above the regression line (e.g. Munich, Nuremberg) had a higher employment growth between 2003 and 2008 in the field of Cultural and Creative Industries than in general. In Stuttgart, Leverkusen and Böblingen, the number of cultural and creative employees grew vis à vis the overall trend of employment lost at these locations. In contrast, Esslingen and Düsseldorf experienced increasing employment in all branches, but a declining number of employees in the Cultural and Creative Industries between 2003 and 2008. Overall, this analysis indicates that the regional differentiation of employment change in the Cultural and Creative Industries can not be explained by general trends of employment growth or loss. (← p. 981)

Table 4 shows the employment shifts between 2003-2008 in absolute and relative numbers as well as the location coefficients differentiated by spatial planning regions. As expected in the course of the theoretical assumptions, the more rural regions (planning categories 4, 7, 8 and 9) declined mostly against the overall employment growth of the Cultural and Creative Industries in Germany. Only the regions of category 7 (rural areas in type II: urban regions) grew slightly by 3.2%, but more slowly than the German average of 5.0%. Therefore, this data lends some credence to the hypothesis that rural or peripheral regions could obviously not benefit from the growth of the Cultural and Creative Industries in recent years.

Table 4: Employment change and location quotient of the Cultural and Creative Industries differentiated by spatial planning regions in Germany 2003 – 2008

	Employees cultural&creative industries				location quotient		All employees change 2003-2008 (%)
	2003	2008	change 2008-2003	%	2003	2008	
Regional type I: Metropolitan regions							
1. Urban cores	525,739	557,834	32,095	6.1 %	1.59	1.61	1.71%
2. Densely populated areas	168,859	175,206	6,347	3.8 %	1.08	1.07	1.67%
3. Moderately settled areas	40,112	41,533	1,421	3.5 %	0.61	0.60	1.69%
4. Rural areas	18,191	18,007	-184	-1.0 %	0.52	0.49	1.13%
Regional type II: Urban regions							
5. Urban cores	101,434	107,347	5,913	5.8 %	1.16	1.17	2.51%
6. Moderately settled areas	101,720	109,191	7,471	7.3 %	0.59	0.60	2.51%
7. Rural areas	42,501	43,861	1,360	3.2 %	0.46	0.45	0.94%
Regional type III: Rural regions							
8. More populated rural areas	44,089	43,594	-495	-1.1 %	0.58	0.54	3.72%
9. Less populated rural areas	20,562	19,288	-1,274	-6.2 %	0.44	0.40	-0.33%
Germany	1,063,207	1,115,861	52,654	5.0%	1.00	1.00	1.71%

Source: Based on data provided by Bundesagentur für Arbeit

On the other hand, as expected the urban cores recorded the largest employment growth. Regions of spatial planning category 1 (urban cores in type I: metropolitan regions) had 32,095 cultural and creative employees more than five years before. This equals an above-average growth rate of 6.1%. Regions of category 5 (urban cores in type II: urban regions) grew by 5.8% above-average, too, as well as regions of category 6 (moderately settled areas in type II: urban regions) with an increase of 7.3%. The

significant growth of the latter spatial planning category 6 is somewhat astonishing, because this type of region is not one of the expected growth regions. Nevertheless, the location coefficient significant smaller than 1 (0.60) for this category 6 in 2008 shows that in these regions (**← p. 982**) the Cultural and Creative Industries are still remarkably under-represented, just like five years earlier (0.59 in 2003).

The location quotient is a simple measure for identifying the spatial concentration of industries. Therefore a region's share of employees in the Cultural and Creative Industries of all employees in this particular industry is divided by the region's share of all employees in Germany.

$$\text{Location quotient region } i = \frac{\text{cultural \& creative employees in region } i}{\text{cultural \& creative employees in Germany}} : \frac{\text{all employees in region } i}{\text{all employees in Germany}}$$

A location quotient of 1 indicates that the share of Cultural and Creative Industries in a respective region equals the national average. A location quotient > 1 indicates for a region an above-average share of employed persons in these industries. Accordingly, a location quotient < 1 indicates a below-average proportion. The location quotients listed in table 4 again prove a high concentration of Cultural and Creative Industries in the urban cores of metropolitan regions (planning category 1). Between 2003 and 2008 the location quotient increased slightly from 1.59 to 1.61 once again. The urban influenced regions of planning category 5 (urban cores in urban regions) and 2 (densely populated areas in metropolitan regions) each show a well above-average location quotient, too. All the other planning categories display an employee share of the Cultural and Creative Industries considerably below average both in 2003 and 2008 and did not reflect any important increases concerning the location quotient.

The regions of planning category 6 that attracted attention with absolute growth did not record any significant increase of the location quotient. In 2003 it was at 0.59 and only slightly increased to 0.60 in 2008. The absolute growth in the field of Cultural and Creative (**← p. 983**) Industries was in accordance with the overall employment growth in these regions and hence the Cultural and Creative Industries neither played an important role in 2003 nor in 2008, as the location quotients considerably below 1 indicate.

The already very low location quotients of the rural regions (planning category 4, 7, 8 und 9) in 2003 actually decreased during the five years until 2008. This means that in these regions the Cultural and

Creative Industries developed more slowly than all the other industrial sectors together. Thus, also the analysis of locations quotients proves that rural regions cannot benefit from the Cultural and Creative Industries.

In order to deal with the question, whether spatial concentrations and related cluster advantages in certain fields of the Cultural and Creative Industries are notably developed and whether an unequal composition of the individual *Kreise* with fast growing and slow growing sub-segments can account for differences in regional economic development, a data analysis was conducted that differentiated between the particular sub-segments. Table 5 shows that the Cultural and Creative Industries did not grow between 2003 and 2008 per se. In contrast, the particular sub-segments developed very differently. The overall increase of 5.0 % is mainly caused by the large employment gains in the segment 'Software/Games' (+22.1%). All other sub-segments achieved considerably lower employment gains. In five industries even employment losses were recorded: 'Publishing' (-10.8%), 'Libraries, archives and museums' (-7.2%), 'News agencies' (-6.7%), 'Motion picture and video' (-2.2%) and 'Entertainment' (-1.3%). Leaving the segment 'Software/Games' out of the picture, the remaining segments of the Cultural and Creative Industries together actually realised employment losses between 2003 and 2008. This suggests that those locations that had already been well positioned in the sub-segment 'Software/Games' in 2003 had explicitly better growth opportunities than those *Kreise*, in which this sub-segment of the Cultural and Creative Industries has been underrepresented. The top locations in the sub-segment 'Software/Games' in 2003 were Munich (14,322 employees), Berlin (13,555 employees), the Rhein-Neckar-Kreis with the city of Heidelberg and the headquarters of Germanys leading software company SAP in Walldorf (12,069) and Hamburg (11,678).

Table 5: Employment changes differentiated by segments of the Cultural and Creative Industries in Germany 2003 – 2008

	Employees		Change	
	2003	2008	2003-2008	%
Publishing	150,992	134,682	-16,310	-10.8%
Motion picture and video	37,924	37,100	-824	-2.2%
Radio and TV	60,987	61,605	618	1.0%
Entertainment	79,189	78,154	-1,035	-1.3%
News agencies	9,146	8,533	-613	-6.7%
Libraries, archives and museums	36,214	33,618	-2,596	-7.2%
Architecture and engineering	329,186	343,742	14,556	4.4%

Advertising	108,559	112,007	3,448	3.2%
Software/Games	251,011	306,420	55,409	22.1%
culture and creative industries	1,063,208	1,115,861	52,653	5.0%
culture and creative industries without Software/Games	812,197	809,441	-2,756	-0.2%
Employees in Germany	26,954,686	27,457,715	503,029	1.9%

Source: Based on data provided by Bundesagentur für Arbeit

(← Table 5 p. 983)

The effects of specific configurations of successful or shrinking sub-branches of the Cultural and Creative Industries on the development of particular regions can be analysed by means of shift-analysis (e.g. Schätzl 1994, p. 67ff.). Shift-analysis aims to describe relative changes in employment in a particular region between two points in time in contrast to the total area (regional shift). Therefore, the parameter of the regional shift is split into two components, which are linked to each other:

regional shift = structural effect • locational effect

The structural effect is described as the hypothetical change in employment in a region that would have arisen if all branches of Cultural and Creative Industries had grown as fast as the total region (Germany). The measure shows in which regions dynamically growing sub-branches are over-represented. In this case the measure is greater than 1. Regions that are characterised by shrinking branches show values below 1.

The locational effect is the residuum between observed employment (regional shift) and the hypothetical change in employment (structural effect). Values above 1 indicate regional advantages. In this case employment growth is higher than could have been expected from actual regional structural configuration. If urban amenities, agglomeration effects (← p. 984) and cluster advantages are effective, values of the locational effects must be greater than 1 in urban agglomerations.

Table 6: Shift-Analyses of the Cultural and Creative Industries by spatial planning regions 2003-2008

	2003	Employees 2008	Difference	Regional shift	Structural effect	Locational effect
Regional type I: Metropolitan regions						
1. Urban cores	525,739	557,834	6.1 %	1.011	0.996	1.015
2. Densely populated areas	168,859	175,206	3.8 %	0.989	1.034	0.956
3. Moderately settled areas	40,112	41,533	3.5 %	0.987	1.011	0.976
4. Rural areas	18,191	18,007	-1.0 %	0.943	0.982	0.961
Regional type II: Urban regions						
5. Urban cores	101,434	107,347	5.8 %	1.008	0.984	1.025
6. Moderately settled areas	101,720	109,191	7.3 %	1.023	0.995	1.028
7. Rural areas	42,501	43,861	3.2 %	0.983	0.994	0.989
Regional type III: Rural regions						
8. More populated rural areas	44,089	43,594	-1.1 %	0.942	0.982	0.960
9. Less populated rural areas	20,562	19,288	-6.2 %	0.894	0.973	0.918
Germany	1,063,207	1,115,861	5.0 %			

Source: Based on data provided by Bundesagentur für Arbeit

Table 6 illustrates the above average employment growth (regional shift >1) in the urban cores (planning category 1 and 5) and additionally in planning category 6. The observed employment increase cannot be easily explained by advantageous configuration of dynamically growing sub-branches of the Cultural and Creative Industries, since the structural effects of planning category 1 (0.996) and planning category 5 (0.984) are smaller than one. Instead, if growth rates of Cultural and Creative Industries in the urban cores had been exactly the same as the growth rates of the respective branches, a decline in employment would have occurred. Since this has not been the case, it seems as if strong locational advantages contribute to urban regimes, which may explain the stronger employment increase. Noticeably, locational effects in rural regions (planning categories 4, 7, 8 and 9) are smaller than structural effects. This is further evidence in support of the hypothesis that Cultural and Creative Industries suffer from considerable unfavourable locational conditions in the rural regions. Obviously, there are positive impacts of urban amenities and cluster effects in agglomerations on the firms of Cultural and Creative Industries.

The important role of locational effects for the growth of Cultural and Creative Industries in the major urban regions is shown in table 7. Cities with an above-average growth in employment in the Cultural and Creative Industries exhibit regional shifts greater than 1. Moreover, (**← p. 985**) these cities are

characterised by locational effects higher 1. The most important cities (alpha-category) offset relatively poor branch configurations (structural effect < 1) by strong locational effects.

Table 7: Results of the shift analyses for leading clusters of the Cultural and Creative Industries in Germany 2003-2008

Rank 2003	Regional shift	Structural effect	Locational effect
Alpha-Category			
1. Berlin	1.001	0.989	1.012
2. Hamburg	1.024	0.979	1.046
3. Munich	1.076	0.994	1.083
Beta-Category			
4. Cologne	0.998	0.989	1.010
5. Frankfurt	0.963	0.999	0.964
6. Stuttgart	1.094	0.992	1.102
Gamma-Category			
7. Düsseldorf	0.880	1.004	0.877
8. Munich, <i>Landkreis</i>	1.179	1.028	1.146
9. Hanover	0.898	1.003	0.896
10. Leipzig	0.940	0.972	0.967
11. Dresden	1.000	0.993	1.007
12. Nuremberg	1.259	0.995	1.265
13. Rhein-Neckar-Kreis	1.206	1.126	1.071
14. Essen	0.885	1.009	0.877
15. Karlsruhe	1.078	1.039	1.037
16. Mainz	0.965	1.000	0.965
17. Bremen	0.943	1.001	0.941
18. Dortmund	0.973	1.029	0.945
19. Böblingen	1.188	1.013	1.173

Source: Based on data provided by Bundesagentur für Arbeit

Cities characterised by regional shifts clearly smaller than 1, which could not keep pace with the overall branch development, e.g. Düsseldorf (0.880), Hanover (0.898), Essen (0.885) should actually have, with regard to structural configuration, shown a growth in employment. The most obvious structural effects can be found in regions that are especially influenced by 'Software/Games' industry. Even though the Rhein-Neckar-Kreis does not belong to the urban cores, it is ranked third among the locations of 'Software/Games' in Germany. In 2003 about 82.5% of employees in the Cultural and Creative Industries were accounted for by this branch, which is expressed by the significant structural effect of 1.126. A comparable situation can be found in Karlsruhe, with a share of 42.5%. High shares can be also found

in the Landkreis Munich (37.6%) and Dortmund (35%). But Table 7 also shows that basically positive starting positions led to very different developments. The overall growth of Cultural and Creative Industries in the Rhein-Neckar-Kreis is grounded on the growth in 'Software/Games'. On the other hand, locational effects and structural effects play about the same role in Karlsruhe. Dortmund, in contrast, could not profit from the positive configuration, in the end it developed below average.

In total, the configuration of strong and weak sub-branches of the Cultural and Creative Industries does not seem to be of crucial importance. This is particularly true for the (**← p. 986**) leading urban agglomerations (see table 7). Locational effects play a more central role for employment growth in the cities of the alpha and beta categories. Hence, the importance of urban amenities and cluster effects is strengthened.

5 Conclusion

This research has dealt with the spatial dynamics and employment shifts in the Cultural and Creative Industries in Germany 2003 - 2008. The question was addressed, whether an increasing spatial concentration in urban cores can actually be observed and whether more rural or peripheral regions could benefit from the growth of the Cultural and Creative Industries, too. Furthermore, it was analysed whether the regional employment dynamics can be also explained by a favourable configuration with more fast-growing segments of the Cultural and Creative Industries.

As a first indicator of the effectiveness of urban amenities and agglomeration economies, the analysed data shows that the main hubs of the Cultural and Creative Industries in Germany, namely Munich, Berlin and Hamburg, generated above-average growth rates between 2003 and 2008. In these leading cities the Cultural and Creative Industries grew faster than employment in general. Yet, the regional employment development in the Cultural and Creative Industries cannot be explained by regional employment trends in general. There was only a very weak correlation ($R^2 = 21.4\%$).

The more rural regions of the spatial planning categories 4, 7, 8 and 9 declined in most cases against the overall employment growth of the Cultural and Creative Industries in Germany by 5.0%. Hence, the peripheral regions afar from the urban cores could not benefit from the growth of the Cultural and Creative Industries. Also the already low and declining location coefficients indicated that the lack of urban amenities as well as the lack of clusters and agglomeration economies in the field of the Cultural and Creative Industries appears to be an important disadvantage of these regions.

While the leading hubs in Germany - Munich, Berlin and Hamburg - generated above-average growth rates, the lower-ranked cities of the beta and gamma categories performed heterogeneously in the Cultural and Creative Industries. Some of the top locations like Stuttgart (+14.8%), Nuremberg (+32.1%) and Munich *Landkreis* (+23.7%) showed remarkable two-digit growth rates, but others declined vis à vis the general trend, for example Düsseldorf (-7.6%) and Essen (-7.1%). It was observed that the sub-segments of the Cultural and Creative Industries had remarkably different growth rates. For example 'Software/Games' grew by 22.1% between 2003 and 2008, while 'Publishing' declined by 10.8%. Hence, an examination was carried out by means of a shift-analysis to find out whether the performance of a region can be explained by the structural effect of the specific composition with more fast growing or declining parts of the Cultural and Creative Industries. The shift-analysis showed that the configuration with strong or weak sub-branches is less important than locational effects in explaining the regional employment dynamics of the Cultural and Creative Industries in Germany. This indicates the importance of location-specific advantages, which are among others urban amenities. The importance of urban amenities derived from the theoretical considerations is underlined by the results for the more rural and peripheral regions. The bad performance below average can be explained less by a structural disadvantage, but rather by the significant low locational effects, as the shift-analysis showed. (← p. 987)

Cultural and Creative Industries increasingly diffuse to the focus of development concepts of even smaller cities. But empirical results may justify major doubts whether this strategy turns out to be successful in locations away from major urban centers. It does not seem to be useful to promote Cultural and Creative Industries as engines of growth everywhere. This runs the risk of all regions following very similar strategies to be an attractive location for Cultural and Creative Industries. Finally, this may lead to the abolishment of the arrangements undertaken by regional authorities. (← p. 988)

References

- Argent, N. (2009): A Creativity-Led Rural Renaissance? Amenity-Led Migration, the Creative Class and the Development of Rural Australia. **Paper presented at the IGU-Meeting of the Commission on the Dynamics of Economic Spaces in July 2009 in Perth.**
- Asheim, B. (2009) Guest Editorial: Introduction to the Creative Class in European City Regions. **Economic Geography**, 85 (4), pp. 355 – 362.
- Bathelt, H., Malmberg, A. and Maskell, P. (2004) Clusters and knowledge: local buzz, global pipelines and the process of knowledge creation, **Progress in Human Geography**, 28, pp.31-56.
- Berry, M. (2005) Melbourne – Is there life after Florida? **Urban Policy and Research**, 23, pp. 381-392.
- Boschma, R. A. (2005) Proximity and innovation. A critical assessment. **Regional Studies**, 39 (1), pp. 61-74.
- Boschma, R. A. and Fritsch, M. (2009); Creative Class and Regional Growth: Empirical Evidence from Seven European Countries. **Economic Geography**, 85 (4), pp. 391 – 423.
- Bundesamt für Bauwesen und Raumordnung (2009) **Laufende Raumbeobachtung – Raumabgrenzungen. Siedlungsstrukturelle Gebietstypen.**
(www.bbr.bund.de/cln_005/nn_21360/BBSR/DE/Raumbeobachtung/Werkzeuge/Raumabgrenzungen/SiedlungsstrukturelleGebietstypen/gebietstypen.html) (27.05.2009)
- Bundesministerium für Wirtschaft und Technologie (2009) **Gesamtwirtschaftliche Perspektiven der Kultur- und Kreativwirtschaft in Deutschland.** Forschungsbericht Nr. 577, Berlin
- Clark, T.N. (2003) Urban Amenities: Lakes, Opera, and Juice Bars. Do they Drive Development? in: Clark, T.N. (ed.): **The city as an Entertainment Machine.** Research in Urban Policy 9. New York: Elsevier,.
- Clifton, N. (2008) The „Creative Class“ in the UK: An empirical analysis. **Geografiska Annaler B**, 90 (1), pp. 63 -82.
- Deutscher Bundestag (2007) **Schlussbericht der Enquete-Kommission „Kultur in Deutschland“.** Bundestagsdrucksache 16/7000 vom 11.12.2007
- European Commission (2006) **The Economy of Culture in Europe.**
(www.keanet.eu/ecoculture/studynew.pdf)
- Florida, R. (2002a) **The rise of the Creative Class - and how it's transforming work, leisure, community and everyday life.** New York: Basic Books,.

- Florida, R. (2002b) Bohemia and economic geography. **Journal of Economic Geography**, 2, pp. 55 - 71.
- Florida, R. (2002c) The Economic Geography of Talent: **Annals of the Association of American Geographers**, 92, pp. 743 - 755.
- Florida, R., Mellander, C. and Stolarick, K. (2008) Inside the black box of regional development - human capital, the Creative Class and tolerance. **Journal of Economic Geography**, 8, pp. 615-649.
- Glaeser, E. L. (2005) Education, Skilled Workers, the Future of Cold-Weather Cities. **Harvard Kennedy School, Taubman Center for State and Local Government, Policy Briefs**, PB-2005-1 (www.hks.harvard.edu/taubmancenter/pdfs/skilledcities.pdf).
- Glaeser, E. L. and Tobio, K. (2007) The Rise of the Sunbelt. **NBER Working Paper 13071**, Cambridge (Ma.). (www.nber.org/papers/w13071.pdf)
- Hansen, H.K. and Niedomysl, T. (2009); Migration of the Creative Class: evidence from Sweden. **Journal of Economic Geography**, 9 (2), pp. 191 -206.
- Hayter, R. (1997) **The Dynamics of Industrial Location. The Factory, the Firm and the Production System**. Chichester et al.: Wiley
- Hutton, T. A. (2009) Trajectories of the New Economy: Regeneration and Dislocation in the Inner City. **Urban Studies**, 46, pp. 987 – 1001.
- Ibert, O. (2010) Dynamische Geographien der Wissensproduktion. Die Bedeutung physischer wie relationaler Distanzen in interaktiven Lernprozessen. **IRS Working Paper 41. Leibniz-Institut für Regionalentwicklung und Strukturplanung**, Erkner.
- Kaufman, J. and Sternberg R.J. (2006) (Eds.) **The International Handbook of Creativity**. Cambridge: Cambridge University Press.
- Kloosterman, R. and Stegmeijer, E. (2004) Cultural Industries in the Netherlands – Path-Dependent Patterns and Institutional Contexts: The Case of Architecture in Rotterdam. **Petermanns Geographische Mitteilungen**, 148, pp. 68-75.
- Krätke, S. (2002) **Medienstadt. Urbane Cluster und globale Zentren der Kulturproduktion**. Opladen: Leske+Buderich.
- Krugman, P. (1991) **Geography and Trade**. Leuven et al.: Leuven University Press, MIT Press.
- Lange, B. (2007) **Die Räume der Kreativszenen. Culturepreneurs und ihre Orte in Berlin**. Bielefeld: Transcript.

- Maier, G., Tödttling, F. and Tripl, M (2006) **Regional- und Stadtökonomik 2, Regionalentwicklung und Regionalpolitik**. Wien, New York: Springer.
- Markusen, A. (2006) Urban development and the politics of a Creative Class: evidence from a study of artists. **Environment and Planning A**, 38, pp. 1921-1940.
- Martin, R. and Sunley, P. (2003) Deconstructing clusters: chaotic concept or policy panacea? **Journal of Economic Geography**, 3, pp. 5-35.
- Martin, R. and Sunley, P. (2006) Path dependence and regional economic evolution. **Journal of Economic Geography**, 6, pp. 395-437.
- Maskell, P. (2001) Towards a Knowledge-based Theory of the Geographical Cluster. **Industrial and Corporate Change**, 10, pp. 921-943.
- McGranahan, D. and Wojan, T. (2007) Recasting the Creative Class to Examine Growth Processes in Rural and Urban Countries. **Regional Studies**, 41 (2), pp. 197 – 216.
- Montgomery, J. (2005) Beware 'the Creative Class'- Creativity and the rise of wealth creation revisited. **Local Economy**, 20, S. 337-343.
- Mossig, I. (2006) **Netzwerke der Kulturökonomie. Lokale Knoten und globale Verflechtungen der Film- und Fernsehindustrie in Deutschland und den USA**. Bielefeld: Transcript.
- Mossig, I. (2008) Global Distribution and Cluster Development: Hollywood and the German Connection. in: Tamásy, C. and Taylor, M. (Eds.): **Globalising Worlds and New Economic Configurations. The Dynamics of Economic Space**. pp. 35 – 45. Surrey, Burlington: Ashgate.
- Peck, J. (2005) Struggling with the Creative Class. **International Journal of Urban and Regional Research**, 29, pp. 740-770.
- Porter, M. E. (1991) **Nationale Wettbewerbsvorteile. Erfolgreich konkurrieren auf dem Weltmarkt**. Wien: Ueberreuter.
- Porter, M. E. (2000) Locations, Clusters and Company Strategy. in: Clark, G., Feldman, M. P., Gertler, M. S. (Eds.): **The Oxford Handbook of Economic Geography**, pp. 253-274. Oxford: Oxford University Press.
- Power, D. (2002) „Cultural Industries” in Sweden: An Assessment of their Place in the Swedish Economy. **Economic Geography**, 78, pp. 103-127.
- Power, D. (2003) The Nordic „Cultural Industries”: a cross-national assessment of the cultural industries in Denmark, Finland, Norway and Sweden. **Geografiska Annaler B**, 85, pp. 167-180.
- Richardson, H. W. (1973) **Regional Growth Theory**. New York: Wiley.

- Sailer, U. and Papenheim, D. (2007) Kreative Unternehmen, Clusterinitiativen und Wirtschaftsentwicklung: Theoretische Diskurse und empirische Befunde aus Offenbach am Main. **Geographische Zeitschrift**, 95., pp. 115-137.
- Schamp, E. W. (2005) Cluster und Netzwerke als Werkzeuge der regionalen Entwicklungspolitik. Eine Kritik am Beispiel der Rhein-Main-Region. in: Cernavin, O., Führ, M., Kaltenbach, M., Theißen, F. (Eds.): **Cluster und Wettbewerbsfähigkeit von Regionen**, pp. 91-110. Berlin: Duncker und Humblot.
- Schätzl, L. (1994) **Wirtschaftsgeographie 2. Empirie**. Paderborn u.a.: UTB.
- Schuler, H. and Görlich, Y. (2007) **Kreativität. Praxis der Personalpsychologie**. Göttingen u.a.: Hofgrefe
- Scott, A. J. (1996) The Craft, Fashion, and Cultural-Products Industries of Los Angeles: Competitive Dynamics and Policy Dilemmas in a Multisectoral Image-Producing Complex. **Annals of the Association of American Geographers**, 86, pp. 306-323
- Scott, A. J. (2000) **The Cultural Economy of Cities. Essays on the Geography of Image-Producing Industries**. London, Thousand Oaks, New Delhi: Sage Publications.
- Siebel, W. (2008) Talent, Toleranz, Technologie. Kritische Anmerkungen zu drei neuen Zauberwörtern der Stadtpolitik. **RegioPol – Zeitschrift für Regionalwissenschaft**, 1/2008, pp. 31 - 39.
- Storper, M, and Scott, A.J. (2009) Rethinking human capital, creativity and urban growth. **Journal of Economic Geography**, 9, pp. 147 - 167.
- Storper, M. And Venables, A. J. (2004) Buzz: Face-to-face contact and the urban economy. **Journal of Economic Geography**, 4, pp.351-370.
- Throsby, D. (2001) **Economics and Culture**. Cambridge: Cambridge University Press.
- Veblen, T. (2007): **Theorie der feinen Leute**. Frankfurt: Fischer.
- Vollmar, R. and Hopf, C. (1987) "Der Sunbelt", das Wirtschaftswunderland der USA? **Geographische Rundschau**, 39, pp. 468-473.
- Zukin, S. (1991) Real cultural capital. in Bryson,J., Henry, N., Keeble, D., Martin, R. (1999) (eds.): **The economic geography reader**. pp. 295-300. Chichester: Wiley.