LLAKES
CENTRE FOR LEARNING AND
LIFE CHANCES IN KNOWLEDGE
ECONOMIES AND SOCIETIES

IOE LONDON
Leading education
and social research
Institute of Education
University of London

Mapping Demands of Social Change

Rainer K. Silbereisen and Martin J. Tomasik

LLAKES Research Paper 21

Centre for Learning and Life Chances in Knowledge Economies and Societies

LLAKES is an ESRC-funded Research Centre - grant reference RES-594-28-0001.

To request printed copies of this paper or other LLAKES Research Papers,
please contact the LLAKES Centre - llakescentre@ioe.ac.uk.

To view this and other LLAKES Research Papers online, please visit www.llakes.org.uk.

ISSN 2042-5929

Mapping Demands of Social Change

Rainer K. Silbereisen and Martin J. Tomasik

Foreword

The Centre for Applied Developmental Science (CADS) at Friedrich Schiller University, Jena, has a long-standing association with the Institute of Education and with researchers working on Life Chances and Learning throughout the Lifecourse, in Strand 3 of the LLAKES programme. Professor Rainer Silbereisen, Director of CADS, was invited, along with his colleague, Dr Martin Tomasik, to contribute this important paper to the LLAKES Research Paper Series.

The significance of the paper lies not only in its contribution to our understanding of how variations in the demands of social change can be mapped, but also in the challenges it makes to approaches that assume social changes affect whole populations in similar fashions. The insights the paper offers into the processes that link macro-level social change with individual-level adaptation and development provide some new points of departure for researchers seeking creatively to combine the macro-, meso- and micro-level approaches that structure the LLAKES Centre's three strands of inter-disciplinary activity. Moreover, research approaches that can systematically connect individual adaptation and social change over time promise findings of long-term significance to policy-makers at national and international levels.

LLAKES has pleasure in including this paper in its Research Papers series and looks forward to engaging in the methodological and substantive debates that this work will doubtless stimulate.

Karen Evans
January, 2011

List of Contents

Page

List of Figures

Abstract

Social change at the macro level confronts individuals with demands that index a new state of affairs as compared to what he or she was accustomed, and thus produces uncertainty that can result in negative effects on individual adaptation. Social change also brings about benefits for the individual which open new opportunities for individual development. This paper analyzes the distribution of the individual load of such demands and benefits in a sample of adults from four federal states of Germany. It is argued that the load of demands and benefits differs as a function of the individual's occupational and marital status as well as his or her educational attainment. Additionally, the regional distribution of demands of social change is analyzed at the level of NUTS-2 regions in Germany. Finally, correlations are computed between the load of demands and benefits on the one hand, and measures of psychological well-being on the other. The results show that individuals who are unemployed or outside the labour market, who are divorced, separated from their partner or widowed, who have a low educational attainment and who live in the Eastern regions of Germany report a higher load of demands. A higher load of benefits is reported by individuals who are employed, who are single, cohabitating or divorced, and who have medium or high educational attainment. Associations with measures of psychological well-being are correlated as negative with perceived demands of social change, and as positive with its perceived benefits.

Jena Model of Social Change and Human Development

Psychological research on social change often assumes implicitly that social change can be considered a natural experiment which affects the entire population in a similar fashion. Consequently, the typical design of studies that analyse the effects of social change on individuals involves the comparison of same-aged cohorts at different points in time. An extension to this design is the consideration of different political regions that are affected to greater or lesser extents by social change. Silbereisen and Wiesner (2000), for instance, compared cohorts of adolescents in the former East and West Germany in 1991 and 1996 in order to analyse patterns of different developmental transitions. The gradual disappearance of cohort differences in the two regions was attributed to the transformation of the political and economic systems in both parts of the country.

Although for some research questions cohort comparisons represent an appropriate and valid research design, this approach tends to underestimate the inter-individual variation in exposure to social change. Against the backdrop of many contradicting results (see Pinquart & Silbereisen, 2004) it soon becomes clear that social change does not affect every individual alike, and that one has to study individual level manifestations of social change in order to understand the psychological processes that link macro-level social change with individual-level adaptation and development (Silbereisen, 2005; Silbereisen, Pinquart, & Tomasik, 2010; Silbereisen, Reitzle, & Pinquart, 2005). This approach was influenced by Elder's landmark studies on the Great Depression (Elder, 1974), and by studies led by Conger on the farm crisis in Iowa during the 1980s (Conger & Elder, 1994). The authors and their colleagues assumed and confirmed that the consequences for well-being of negative economic changes on the societal level are mediated by the everyday manifestations of these changes. We used this approach as a starting point to develop our own model of how individuals are affected by social change. In contrast to research on economic hardship, however, we put our focus on a broad portfolio of current manifestations of social change, and aimed to understand the effects of a cumulation of these manifestations across different domains of life. The focus on accumulation of strongly endorsed demands (also called load in this paper) rather than on single demands is rooted in earlier psychological research that confirmed the cumulation of stressors as the actual risk factor for psychosocial (mal-)adaptation (e.g., Rutter, 1979; Sameroff, 2000).

The theoretical framework of our research is represented by the Jena Model of Social Change and Human Development depicted in Figure 1 (for details, see Pinquart & Silbereisen, 2004; Silbereisen & Pinquart, 2008). At the core of the Model (and also the focus of this paper) are the *demands of social change* which represent the new claims on individuals arising from changes at the macro level. An example is economic globalization (we will consider other societal changes in more detail below), which, among other things, has resulted in tighter competition, to which companies have responded by reducing employment rights and implementing more precarious work contracts. These changes at the macro level can be experienced by individuals in terms of a sense of uncertainty concerning their occupational careers. Demands of social change capture this sense of uncertainty in the very proximal developmental contexts of the individual, and are thus the individual level reflections of uncertainty at the macro level. At the same time, demands are the starting point of a longer cascade of adaptive processes that comprise their individual appraisal (e.g., Lazarus & Folkman, 1984), attempts to deal with them (e.g., Tomasik, Silbereisen, & Pinquart, in press), various individual and social resources that mediate and moderate an individual's efforts to overcome the demands (Reitzle, Blumenthal, & Fabel, 2008), as well as variables representing the individual and collective outcome of this process. This adaptive process at the individual level is embedded in all the different layers of the contexts that constitute the ecological system and which range from micro-contexts, such as the family, through the exo-contexts of neighbourhoods and regions, to the macro-context itself (see Bronfenbrenner, 1979). Of particular relevance for this paper is the role played by institutions, such as national and regional welfare regimes, and by an individual's employment situation and marital status, which are said to mediate and moderate the challenges of social change, thereby attenuating or enhancing their effect on the individual.

Against this framework, the purpose of this paper is to investigate the variation in the load of demands of social change across individuals and regions. Our goal is to provide information on the distribution of demands as a function of the political regions where individuals live, as well as of individuals' status in terms of employment, partnership and education. The region represents an important factor that may enhance or attenuate general trends of social change. The industrial structure in a region, for instance, may be particularly vulnerable to economic crises and thus enhance the exposure to individual level demands. Employment, partnership

and education are associated with resources that may also enhance or attenuate the challenges of social change. Regions – as well as employment, partnership and education status – represent entities relevant for the formulation of social policies and interventions for those who may be at risk of being overburdened with demands of social change.

The remainder of this paper consists of three parts. Firstly, we discuss briefly the different societal trends that have been shaping re-unified Germany in the first decade of the new millennium, and introduce a set of demands of social change that represents the most relevant manifestations of these trends. Secondly, we present our hypotheses about the role region and status play in individual load of demands. Finally, we present and discuss the results.

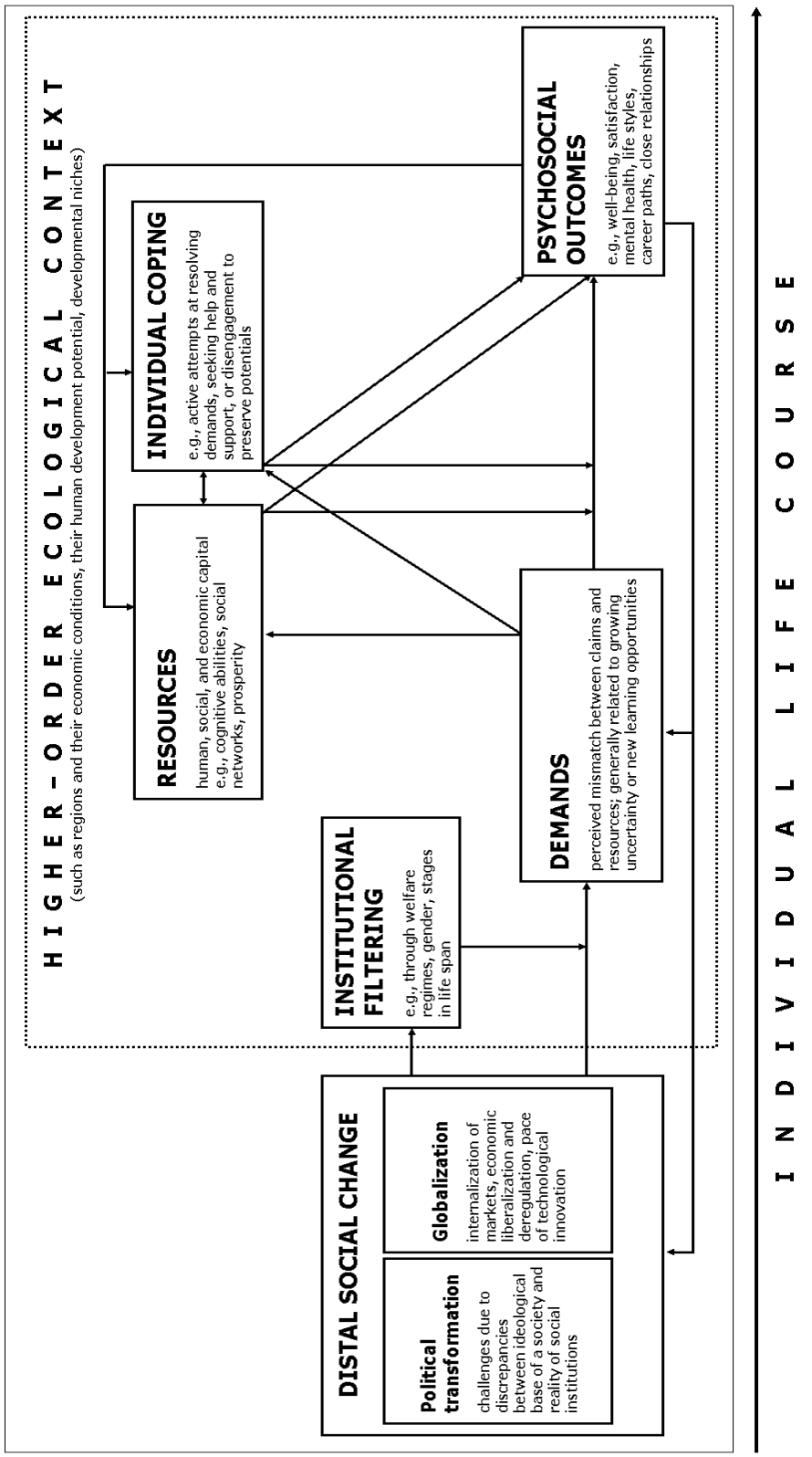

Figure 1 The Jena Model of Social Change and Human Development

Major Trends on the Societal Level

What is called ‘social change’ in actuality represents a manifestation of a large number of different trends at the societal level. We identified these trends from literature analysing social change in general (e.g., Beck, 1986; Fend, 2000; Fritzsche, 2000; Giddens, 2001; Glatzer, 2003; Glatzer & Hondrich, 1992; Hradil, 2000; Inglehart, 1990, 1997; Larson, Wilson, Brown, Furstenberg, & Verma, 2002; Schäfers, 2002; Sennett, 1998; Weymann, 1998), specific work life issues (e.g., Dostal & Kupka, 2001; Held, McGrew, Goldblatt, & Perraton, 1999; Holst & Schupp, 2004; Kastner, Kipfmüller, Quaas, & Sonntag, 2001; Mills & Blossfeld, 2003; Troll, 2000), family issues (e.g., Brooks-Gunn, Schley, & Hardy, 2000; Burkhardt & Kohli, 1989; Maihofer, Böhnisch & Wolf, 2001; Nave-Herz, 1994), and issues related to leisure (e.g., Deutsche Gesellschaft für Freizeit, 1999; Opaschowski, 2001).

The trends we found can be conveniently organized into three clusters. First, there are trends stemming from the globalization process, which is itself related to technological advancement in the means of transportation and communication. Two decades ago a world that had been divided into two incompatible political systems started to become more like a ‘global village’ (Nolan, 1999). Following the breakdown of the communist political system in Eastern Europe, the promotion of free trade by international agreements and the advancement of information technology, national financial markets are becoming globally integrated (e.g., Fligstein, 1998; Montanari, 2001; Regini, 2000a, 2000b). Furthermore, rapid technological development and dramatic decreases in the prices of information technologies have revolutionized workplace demands and opened up the way towards a knowledge-based society (Held et al., 1999; Troll, 2000; Schink, 2004; Voß, 2001). Although globalization primarily manifests itself economically, there are also cultural effects when people of different social backgrounds, religious convictions, and traditions of manners and customs meet each other (Huntington, 1997; Lash & Urry, 2004).

A second major trend is the growing individualization and pluralization of biographical trajectories (e.g., Berger, 1996; Berger, Steinmüller, & Sopp, 1993; Bertram & Kreher, 1996; Zapf, Breuer, & Hampel, 1987). Individuals in the Western world are increasingly being emancipated from traditional roles in most domains of their lives, including career, interpersonal and sexual relationships, family building, child rearing, and leisure activities

(Beck, 1986; Berger, 1996). The pluralization of the resulting developmental pathways is a consequence of individualization. Traditional life scripts, such as the male breadwinner model, become obsolete, which also results in a shift of the content and functionality of intergenerational communication and knowledge transfer. Simultaneously, a growing number of traditional institutions are losing their significance and organizing function for the lives of individuals (e.g., Luckmann, 1991; Hervieu-Léger, 1990; Gabriel, 1992; Ebertz, 1997; Krech, 1998). A case in point is the decreasing influence of the Church, paralleled by an increasing pluralization of religious convictions and cults (Hitzler, 1996; Pollack & Pickel, 1999).

The third trend is the historically unprecedented change in the demographic structure of Western societies (e.g., Birg, 2003; Bundesministerium des Inneren, 2000; Butler, 2003), rooted in increased life expectancy and unparalleled low fertility rates. These changes can have manifold consequences for intergenerational relationships, which are lasting longer than ever before, but which also demand stronger solidarity and mutual obligations (e.g., Backes, 1996; Bengston & Schütze, 1992; Lüscher, 2000; Stosberg, 1998). The younger generation have to cope with the burden of having to finance an increasing share of an economically unproductive population, while also having to make provisions for their own old age (Borgmann, 2005; see also Grimmer & Maas, 2002). Furthermore, members of the older generation, who generally show higher functional health as compared to the past cohorts, are volunteering to retire early, and are thereby spending a larger portion of their later life outside the traditional productive role (van Dyk & Lessenich, 2009).

Demands of Social Change

Our model suggests that individuals are not affected by these societal trends in a direct way. Rather, these trends translate first into the micro-contexts of individual development, such as work or family, where they confront individuals with different demands (see Figure 1). In defining demands of social change, we referred primarily to threats rooted in growing insecurities concerning the resolution of typical biographical tasks in adulthood, conceived as a function of all the societal trends described above. Based on intensive qualitative as well as quantitative pretexts, we derived a list of demands in three domains of life, namely: work and occupation; family and intimate relationships; and leisure and public life (for details, see Silbereisen et al., 2006). The demands were worded as statements entailing (a) a personal

experience rather than an attitude to society in general, and (b) a temporal comparison referring to the last five years. An example is 'When considering the past five years, it has become more difficult to plan my career path'. A reference to personal experience was necessary in order to avoid measuring general attitudes towards certain aspects of social change. The temporal comparison was chosen against the notion that individuals generally attempt to maintain self-continuity and their self-image (Keyes, 2006; Westerhof & Keyes, 2006) so that negative temporal comparisons (in combination with the reference to personal experience) most likely represent real change for the worse. Participants were asked for their level of endorsement of each of the statements. The presumed pace of change was not assessed as such but was built into the statements. The 'quantifier' used (in this example: 'more difficult') was based on the information gathered from the literature or public statistics (for details, see Silbereisen et al., 2006).

As we aimed to study these demands across a wide range of the adult life-span, the list comprised demands we deemed universal across all age groups investigated, as well as demands that are more specific for young and middle adulthood, and for old adulthood (in the following referred to *Cohort 1* and *Cohort 2*, respectively; see sample description for details). Being age-specific does not mean that the demands are irrelevant for the other age-group. Rather, as we had only limited interview time, we had to set a focus and so had to disregard demands that seem less suitable than others. In the following pages, we will introduce the age-universal demands first and then turn to the age-specific demands for young and old adults.

Age-universal Demands of Social Change

The demands that apply to the entire adulthood are listed in Table 1. In the domain of work we referred particularly to the issues of fewer job opportunities (Item 4) and a more unstable work career (Item 2). Both issues are rooted in labour market changes resulting from globalization and evinced in the raising unemployment rates (Item 1), increasing numbers of precarious work contracts (Item 3) and more frequent 'job hopping' due to temporary work contracts or employer insolvency. Beyond demands reflecting an increasing uncertainty, we were also interested in demands resulting from the need for new behaviour (Item 7), such as putting up with a longer journey to work (Item 6), or requiring more social skills at work (Item 5). In the domain of family, we focused on the increasing uncertainty concerning family

planning (Item 8), which included the demand that a partner might leave (Item 9). In the domain of public life, we asked about the need to deal with an increasing plurality of life-styles (Item 10).

Table 1 Means and standard deviations of the endorsement of age-universal demands

	M (*SD*)	
Demands: When considering the past 5 years …	Cohort 1	Cohort 2
Work and occupation		
(1) … the risk of losing my job has increased	4.82 (2.13)	4.29 (2.49)
(2) … my career plans were more often hindered by unforeseen events and circumstances	4.38 (2.03)	4.22 (2.24)
(3) … it is now more likely that I will be forced to accept a job requiring a lower qualification than those I have	4.58 (2.12)	4.48 (2.37)
(4) … there are currently fewer job opportunities for me	5.13 (2.03)	4.81 (2.26)
(5) … my job now demands increasingly more skills in dealing with other people	5.28 (1.62)	5.05 (1.96)
(6) … in my present job I have to put up with a longer journey to work	4.60 (2.22)	3.67 (2.48)
(7) … I now have to show more commitment and make a greater effort in order to attain the same standard of living	5.57 (1.51)	5.14 (1.92)
Partnership and family life		
(8) … I now have to take more things into account when it comes to decisions concerning the relationship with my partner or family	4.71 (2.06)	4.12 (2.25)
(9) … it is now more likely that my partner could leave me	3.24 (2.11)	2.57 (2.03)
Leisure		
(10) … more sense of tact is now required of me concerning the lifestyles of others	4.83 (1.69)	4.85 (1.93)

Note: N = 2,264 for Cohort 1 (young/middle adulthood) and N = 525 for Cohort 2 (old adulthood); scale ranges from 1 (does not apply at to) to 7 (fully applies).

Age-specific Demands for Younger Cohort

All age-specific demands for the younger cohort are listed in Table 2. Here, working only part-time against one's wish (Item 2) is a demand that many young adults, especially men, experience today. But the opposite is also true, in that many have to work overtime, even over the weekend (Item 4), since companies are reluctant to take on new employees because of increased market volatility. More generally, there is the demand resulting from the increased unpredictability of occupational careers (Item 1), which particularly applies to starting a

career. We also referred to the issue of life-long learning and asked about the need to learn new technologies, foreign languages (Item 3) or to work at higher levels of independence and autonomy (Item 5). Within the domain of family, we basically focused on three issues. First, the important issue of family planning in terms of child bearing (Item 9), which, for many reasons, has become more ambivalent. Extended phases of education, and being confronted with uncertain or even precarious work contracts, often result in young people postponing the idea to start a family. Postponement can also be the result of not being able to find a partner who is ready to enter into the obligation of raising a family. Second, we asked about intergenerational relationships and focused on financial dependence upon one's parents (Item 7) and on the changed value of parental knowledge and advice (Item 6). Whereas the former demands are rooted in extended education as well as higher unemployment rates for young people, the latter refers to the fact that rapid social change often makes the solutions of previous generations obsolete when it comes to solve problems under current social conditions. Finally, we were interested in the perceived reliability of personal contacts (Item 8), which we expected to have declined due to higher mobility, to more competition on the labour market and to other similar factors.

The demands that we collected in the domain of leisure and public life were multifaceted. With regard to increasing international migration, we were interested in whether individuals perceive the confrontation with foreign cultures and foreign religious convictions as demands (Items 15 and 18). We also tried to capture moral (Item 17) and political (Item 16) ambiguity that we supposed to be related with the increasing pluralisation of society. Two demand items referred to financial matters and tapped into the issue of leisure-time activities, which have become increasingly commercialized (Item 10), and into the issue of new financial products that increase the risk of individuals loosing track of their expenditure (Item 19). Another financially relevant demand is the need to organize one's old age provision (Item 14) against the backdrop of a demographic shift that brings the development of one's future pension rights into question. In terms of learning new behaviours, we asked about the demand to learn new technologies (Item 11) and to spend more leisure-time on further education (Item 12). These demands are at the core of technological change that in the last few decades has greatly influenced the everyday lives of individuals and families. Finally, we also asked about being affected by the general societal trend towards an increasing valuation of physical appearance and physical fitness (Item 13).

Table 2 Means and standard deviations of the endorsement of age specific demands for Cohort 1

Demands: When considering the past 5 years …	M (*SD*)
Work and occupation	
(1) … it has become more difficult to plan my career path	4.13 (2.16)
(2) … today, I have to be prepared more for the possibility of reluctantly only working part-time instead of full-time	4.43 (2.24)
(3) … at work I now have to learn more new things such as foreign languages or the use of new technologies	4.86 (1.82)
(4) … I now have to do more overtime and/or work more night- and weekend-shifts	4.75 (2.08)
(5) … my job now demands that I work at a higher level of independence and autonomy	5.67 (1.54)
Partnership and family life	
(6) … the knowledge and experiences of my parents now provide less sense of direction in my life	3.84 (1.92)
(7) … it is more likely the case that I now have to reckon with being or once again becoming financially long-term dependent on my parents	2.55 (1.92)
(8) … my personal contacts are now less reliable	3.22 (1.87)
(9) … it is more difficult to decide, given my present life circumstances, whether I want to have a(nother) child or not	4.44 (2.33)
Leisure	
(10) … leisure activities which I would like to take part in are no longer affordable for me	4.34 (1.94)
(11) … I now need to know more what's what in order to keep up to date with new technological developments in everyday life	5.29 (1.58)
(12) … I now have to spend more of my leisure time engaging in further education	4.64 (1.84)
(13) … I now have to pay more attention to my appearance and level of fitness in order to be noticed by others	4.70 (1.86)
(14) … I now have to take more precautions when it comes to being financially secure in my old age	6.02 (1.38)
(15) … my own personal view of life is now more strongly challenged by other philosophies and religious convictions	2.85 (1.92)
(16) … political parties are now less able to offer me answers to	5.20 (1.86)

important questions	
(17) … there are now less guidelines for me concerning what is right and wrong	3.97 (1.93)
(18) … my everyday life is now more strongly influenced by customs and traditions from foreign cultures	2.96 (1.95)
(19) … it is now more likely to happen that modern possibilities of paying without cash lead me to lose track of my finances	3.49 (2.11)

Note: N = 2,264; scale ranges from 1 (does not apply at to) to 7 (fully applies).

Age-specific Demands for Older Cohort

Age-specific demands for the older adults are presented in Table 3. Demands in the domain of work for the older cohort also referred to the issues of increased uncertainty and the call for life-long learning. Uncertainty in the domain of work referred to the transition to retirement (Item 1 and 4), to sudden changes of work times and work tasks (Item 2), and to the fact that work experience has partly become obsolete due to the fast pace of technological change at the work place (Item 3). The demand of life-long learning is a possible consequence of technological change and was addressed by one item (Item 5). Furthermore, we wanted to know whether individuals had to find a sideline in order to make ends meet (Item 6). In the domain of family, we asked about intergenerational transfers in terms of knowledge, money and support, from a broad perspective. Similar to the items for young adults, we asked from the perspective of the older adults, whether their knowledge had become increasingly obsolete when trying to help with the problems of next generations (Item 7), and whether they had had to support the next generations financially (Item 8). Against the backdrop of an increased geographical mobility and more multifaceted family compositions, we asked about close relatives living further away (Item 9) and about the risk of not having the family nearby to help care in the case of disability (Item 10). Health issues also play a role in demands related to leisure and public life. Here we focused on the issue of reduced benefits in the health care system (Item 12) and on the confusion that arises from contradicting health advice (Item 11). Whereas the former demand is related to demographic change and to the national states' policy to reduce public spending in the face of increasing international competition, the latter arises from the fast pace of scientific and medical progress, which almost weekly produces new knowledge that is immediately transported to the lay public. Numerous demands in the domain of public life result from the societal trend of an increasing encouragement of older people to maintain productive activities (Item 16).

This requires older people's investments into physical and mental health (Item 15), physical attractiveness (Item 19) as well as legal issues (Item 18). More autonomy is needed with regard to the operation of technological devices (Item 17), which increasingly replace face-to-face interactions with other people, especially in the service sector (Item 14). Finally, we addressed uncertainty with regard to retirement in general and to old age provision in particular (Item 13). Rapid social change can make long-term planning of retirement obsolete, and demographic change, as well as volatile financial markets, can disturb significantly financial planning for retirement. This is especially true for older people, who are faced with the immediate challenge of whether or not they have enough funds available for old age.

Table 3 Means and standard deviations of the endorsement of age specific demands for Cohort 2

Demands: When considering the past 5 years …	M (*SD*)
Work and occupation	
(1) … today it is more difficult to plan at what age I can retire	4.47 (2.33)
(2) … it is more likely today that my working hours or duties can suddenly change	5.07 (2.11)
(3) … my past work experience is of less and less use to me	3.55 (2.03)
(4) … I'm less and less able to plan for my retirement today because of unexpected developments	4.58 (2.14)
(5) … I have to learn more new things for my job today	5.26 (1.90)
(6) … It is more likely today that I'll have to look for another way to supplement my income in order to make ends meet	4.19 (2.33)
Partnership and family life	
(7) … when my children or grandchildren ask me for advice, I am less and less able to draw on my own experience in life	2.97 (1.91)
(8) … it is more likely today that I will have to (continue to) support my grown children financially	3.19 (2.14)
(9) … family members who are important to me live further away	3.99 (2.50)
(10) … there is a greater risk that no one in my family will be able to care of me should I need help or medical care	3.68 (2.28)
Leisure	
(11) … it is difficult to know what's good for my health because everyone says something different	4.36 (2.03)
(12) … I ask myself more and more if my medical insurance covers everything I need for my health	5.06 (1.99)

(13) … I'm more worried today about how I can supplement my state pension so I have enough when I get older	4.92 (2.17)
(14) … I have to accept ever more inconveniences today because service staff is being replaced by machines	4.71 (2.07)
(15) … the demands to stay physically and mentally fit are greater today	5.43 (1.69)
(16) … I am faced today with greater expectations to contribute in some way to the public	4.21 (1.92)
(17) … it is expected more of me today that I keep up to date with technical developments	5.31 (1.79)
(18) … it is more important today that I look out for my own rights	5.66 (1.60)
(19) … I have to devote more attention today to keeping up an attractive appearance	4.55 (1.95)

Note: $N = 525$; scale ranges from 1 (does not apply at to) to 7 (fully applies).

Benefits of Social Change

Our focus on negatively charged demands should not imply that social change does not bring any benefits for the individual, or even that the negative aspects of social change prevail. When thinking of the personal freedom citizens of the new democracies in Central and Eastern Europe experience today, or the new possibilities for interpersonal contacts due to electronic means of communication, one could even claim that the benefits outweigh the demands. Although in our study we focus on demands as the risk factors for psychosocial development, we nevertheless included some statements on the benefits of social change. These benefits comprise new personal freedom with regard to living and partnership arrangements (Item 1) and new personal freedom with regard to beliefs and convictions (Items 3). Furthermore, we referred to benefits that have resulted from technological advancement in communication and information technologies, and asked whether individuals experienced these benefits in their work place (Item 2) or during leisure (Item 4).

Table 4 Means and standard deviations of the endorsement of benefits

	M (*SD*)	
Benefits: When considering the past 5 years …	Cohort 1	Cohort 2
(1) … I am now more free to chose the form of relationship in which I want to live	4.28 (2.05)	3.99 (2.20)

(2) … computers and other technological developments have considerably eased my workload	4.57 (2.06)	4.76 (1.91)
(3) … it is now easier for me to live according to my own moral concepts	4.41 (1.74)	4.48 (1.89)
(4) … new forms of media now make it possible for me to become acquainted with things and experiences which were not accessible for me in the past	5.09 (1.62)	5.05 (1.94)

Note: N = 2,264 for Cohort 1 (young/middle adulthood) and N = 525 for Cohort 2 (old adulthood); scale ranges from 1 (does not apply at to) to 7 (fully applies.

Research Questions

The Role of the Regional Context

We expect that individuals are confronted differently with the demands of social change as a function of the extent and pace of change on the societal level, and as a function of the local institutional and administrative regimes that amplify, buffer or otherwise shape the way in which social change translates into the lives of individuals. Our first research question was thus concerned with the roles of the different regions in Germany for the load of demands. We consider the expected geographical variation of individual demands to be a result of different historical, cultural, economic and political-administrative factors. It is beyond the scope of this paper to introduce all factors that presumably shape the geographical distribution of an individual characteristic, such as our demands, and actually little is known about the social mechanisms at the regional level that mediate macro-level change to the individual. However, we can use a model that has already been successfully applied in analysing how institutional and administrative regimes at the national level mediate global social change to the individual. Research by Blossfeld and colleagues (e.g., Blossfeld & Mills, 2003; Hofäcker et al., 2010) has demonstrated that national welfare regimes can be considered to be *filters* that protect individuals from the negative effects of social change. For our purpose, this model can be applied to single regions. We hypothesize, therefore, that regions with high economic prosperity, well-functioning labour markets, healthy public finances, and high civic engagement can have the same function as welfare regimes in protecting individuals from demands of social change. As these regional characteristics have only little to do with benefits of social change, we have no expectations about the variation of benefits between the different regions.

Work and Family Status as Filters

Human development is embedded in micro-contexts among which work and family play the most prominent role (Bronfenbrenner, 1979). Even if these institutions have become subject to profound change themselves, they have not at all lost their normative power. Successful development in these domains of life is often a precondition for both subjective well-being and successful development in other domains of life. If functioning well, both contexts offer structure and direction, and protect individuals from challenges that they would have difficulty absorbing alone. Following Blossfeld and colleagues (e.g., Blossfeld & Mills, 2003), these institutions, too, may function as filters that buffer the effects of social change in terms of individual demands. These researchers have demonstrated that employment status can be a strong protective factor against the negative effects of globalization. Being employed not only provides better access to various resources, but is also associated with legal protection, acquired privileges, higher degree of organization, and support by labour unions. Unemployed individuals, or those who are not or not yet in the labour market, do not have access to all these resources and are thus most likely prone to experience the negative effects of globalization. In this regard, marital status can also be considered a filter. Marriage, for instance, is protected by legislation and associated with various privileges. Furthermore, having a partner has been shown to be an important social resource associated with higher physical and mental health and satisfaction with life (Coombs, 1991).

In the work domain, we distinguish between the employed, unemployed job-seekers, and individuals who are temporarily or permanently outside the labour market, such as homemakers. Reminiscent of research by the Blossfeld group (e.g., Blossfeld & Mills, 2003), we hypothesize that individuals in a more precarious occupational situation, specifically the unemployed job-seekers, are confronted with a higher load of demands of social change as compared to the other occupational groups. In the domain of family, we distinguish individuals according to their marital status. We hypothesize that separated or divorced people see themselves confronted with a higher load of demands than individuals who live in a steady relationship as indicated by an intact marriage.

Concerning the benefits of social change, we hypothesize that unemployed individuals, or those outside the labour market, will profit less from social change. Work not only provides the financial means necessary for participation in the information society, but it also instils the need for life-long learning, which then encourages individuals to learn new technologies, both inside and outside the work context. Our expectation for marital status, though, is somewhat different. We hypothesize that individuals who are *not* committed to a traditional marriage are more likely profit from benefits of social change. Our benefits comprise the freedom to choose the form of relationship in which one wants to live, or the freedom to live according to one's own moral concepts. These benefits fit perfectly to being single, cohabiting or being divorced.

Education as Resource

Theories of coping point out that the appraisal of a stressor depends on the amount of resources to which individuals have access (e.g., Lazarus & Folkman, 1984). Concerning social change, there is also evidence that individuals with limited personal and social resources are ill prepared for coping with the demands of social change (Worth, 2002). Education seems to be specifically effective in times of social change. For instance, Titma and Tuma (2005; see also Pinquart, Juang & Silbereisen, 2004) demonstrated that higher education predicted a more successful career development when the political situation stabilized in the aftermath of the collapse of the Soviet Union, whereas in times of turmoil during the break-up of the system, level of education attained had less relevance. We hypothesized that individuals with higher educational attainment will report a lower load of demands related to social change.

Concerning the benefits of social change, we have a similar expectation. Our hypothesis is that education is an important resource that enables individuals to profit from social change in terms of new technologies and new freedoms.

Associations of Demands and Benefits with Subjective Well-Being

We hypothesize that an accumulation of demands of social change is negatively associated with indicators of subjective well-being. Although single demands may represent stressors that individuals eventually cope with successfully, we expect that a high load of demands is a potential risk factor that can overburden the individual’s reserve capacities. This should be

indicated by lower subjective well-being, for which we want to use three conceptually different indicators. Satisfaction with life represents the cognitive-evaluative component, whereas positive affect and depressive symptoms represent the affective component of subjective well-being in its positive and negative dimensions. We have the opposite expectation for the accumulation of benefits of social change. Support of this hypothesis would mean that the demands and benefits indeed function as fits our theoretical model – demands require adjustments that possibly hurt, and benefits are thought to provide a boost for well-being.

Method

Sample

The *Jena Study on Social Change and Human Development* is a longitudinal study consisting of two independent samples that differ in age, but which otherwise have been sampled equivalently. Respondents were drawn from four federal states of Germany. These comprised two economically prosperous states (Thuringia and Baden-Wurttemberg) and two economically poorer states (Mecklenburg-Western Pomerania and Schleswig-Holstein). An identical number of participants from these states were interviewed. Each federal state was split further into smaller regional units (urban and rural administrative districts). Within each district, sampling points were selected at random from the often used ADM register, which is representative for the German household population aged 14 and over (von der Heyde & Loeffler, 1993). Respondents were subsequently identified based on a random route procedure. Trained personnel of a professional survey institute conducted face-to-face interviews.

Almost 3,000 interviews were performed with younger adults between October and December 2005. As reported by Reitzle (2008), the initial sample represents the population fairly well on socio-demographic variables including as age, gender, marital and occupational status as well as educational attainment. There is, however, a slight over-representation of unemployed individuals and a slight under-representation of singles, in the magnitude of a few percentage points. This discrepancy is probably attributable to the random route procedure itself which favours individuals who can be more likely encountered at home. For

the present analyses we excluded all subjects who were still in education and thus not yet in the labour market. The resulting sample comprised *N* = 2,264 German adolescents and adults between the ages of 16 and 42 years (*M* = 33.70, *SD* =7.10). Of the sample, 44.1% were male (*N* = 998), 24.0% were from the federal state of Mecklenburg-Western Pomerania (*N* = 544), 24.8% from Thuringia (*N* = 561), 27.3% from Baden-Wurttemberg (*N* = 620), and 23.8% from Schleswig-Holstein (*N* = 539).

About 1,500 interviews were conducted with older adults between July and August 2009. An accurate analysis of the representivity of the sample was not possible as census data for 2009 was not yet available at the time of publication. Comparisons with older census data, however, suggests that there were no substantial differences in the distribution of age and gender between the population and the sample. Nevertheless, there is some indication that our sample from the Western federal states consists of significantly more subjects who were divorced, separated or widowed as one would have expected from population values but this finding has to be confirmed with more recent data. For the present analyses we excluded all subjects who were retired and thus already out of the labour market. The resulting sample comprised *N* = 525 German adults between the ages of 56 and 75 years (*M* = 60.15, *SD* =3.96). Of the sample, 54.4% were male (*N* = 291), 23.6% were from the federal state of Mecklenburg-Western Pomerania (*N* = 124), 22.9% from Thuringia (*N* = 120), 28.6% from Baden-Wurttemberg (*N* = 150), and 25.0% from Schleswig-Holstein (*N* = 131).

Variables

Demands of social change

Concerning the growing insecurity about personal success in age-typical tasks of psychosocial development due to social change, we thought that individuals' temporal comparisons between their situation in the recent past and today's circumstances would represent changes that are salient enough to need a thorough reaction. Participants were provided with 29 statements addressing change over the last five years and then asked for their endorsement, expressed on a scale ranging from 1 (does not apply at all) to 7 (fully applies). For the following analyses, we computed two composite indices for each sample by counting all demands that were highly endorsed as indicated by a scale value of 6 or 7. For the first index, we considered the 10 demands that were equally worded in the two samples; referred to as age-universal in the following. For the second index, we considered all 29

demands, i.e., both the age-universal and the age-specific ones. We preferred to count high demands instead of calculating an average in order to reflect the idea of accumulation of stressors, which is, as already mentioned, the actual risk factor for psychosocial adaptation. The possible range of the index was from 0 (i.e., no single demands endorsed to a high degree) to 10 and 29, respectively (i.e., all demands were highly endorsed).

Benefits of social change

The four benefits were assessed in the same way as demands. We summed the highly endorsed benefits and computed an index with a possible range from 0 (i.e., no single benefit endorsed to a high degree) to 4 (i.e., all benefits were highly endorsed).

Region

We categorized the regions where the participants lived according to the *Nomenclature des unités territoriales statistiques* (NUTS) which is a geocode standard used by the European Union. For the regression analyses, we used the NUTS-2 level, which in our sample represents seven regions: the administrative districts (*Regierungsbezirke*) Stuttgart, Karlsruhe, Freiburg and Tübingen (all located in Baden-Wurttemberg) as well as the federal states (*Bundesländer*) Mecklenburg-Western Pomerania, Schleswig-Holstein, and Thuringia. Some regional statistics for the seven regions are provided in Table 5. One can see that the West German regions have a higher fertility rate (with the exception of Karlsruhe), a positive migration ratio and the highest density of apprenticeship positions. Concerning the labour market, the administrative districts of Baden-Wurttemberg stand out with the highest employment rate and the lowest unemployment rate. The unemployment rate in the East German states is more than twice as high and Schleswig-Holstein lies somewhere in between. With regard to the number of welfare recipients, the two North German states have rates almost twice as high as the South German ones, and this North-South difference is also reflected in the number of insolvencies, and in the balances of registration and suspension of businesses. Business activity is much higher in the North, but also results in more insolvency. Mecklenburg-Western Pomerania is remarkably low in voter turnout and high in per capita debts. It is also the region with almost the highest employment in the public sector and the highest number of places available in youth welfare facilities. Taken together, the demographic and economic structure seems to be most favourable in the administrative districts of Baden-Wurttemberg. Depending on which indicator one looks at, the districts of

Stuttgart or Freiburg are at the very top, followed by Tubingen and then Karlsruhe. The most unfavourable demographic and economic structure can be found in the East, where Mecklenburg-Western Pomerania comes last in almost every indicator. A somewhat better structure can be found in Thuringia, which, however, scores lower than Schleswig-Holstein in most domains. For the following analyses, we have chosen Stuttgart as the reference category and have effect-coded the other regions against this category.

For descriptive analyses, we also used the NUTS-3 level, which in Germany represents the rural and urban districts (*Land- und Stadtkreise*). The districts are located at an intermediate level of administration between the federal state and the municipal level, and are comparable to counties or *arrondissements* in other countries. Our sample represents a total of 95 districts. However, due to our sampling strategy, some of the units in Baden-Wurttemberg comprise only a few participants. We collapsed these low-frequency units with the neighbouring ones which reduced the number of districts to 77.

Employment status

Participants reported their current employment status and subsequently were assigned to the employed or unemployed group. The latter group was subdivided into those who reported searching for a job in the last four weeks *and* who were willing to accept a job offer in the next two weeks, and those who did not meet these criteria for unemployment, which were provided by the International Labour Office (ILO). In the young adult sample, the majority of participants (1,471 or 65.0%) were gainfully employed, 324 (14.3%) were unemployed and seeking work, and 469 (20.7%) were outside the labour market as defined above. The latter group comprised homemakers, men and women on parental leave, or unemployed people who did not meet the ILO criteria. In the old adult sample, the majority of the participants (360 or 68.6%) were gainfully employed, 54 (10.3%) were unemployed and seeking work, and 111 (21.1%) were outside the labour market as defined above.

Marital status

In the young adult sample, 1,028 (45.4%) of the participants were married, 472 (20.8%) were cohabiting, 494 (21.8%) were single, and 270 (11.9%) were separated, divorced or widowed. In the old adult sample, 315 (60.0%) participants were married, 24 (4.6%) were cohabiting, 45 (8.6%) were single, and 141 (26.9%) were separated, divorced or widowed.

Table 5 Means and standard deviations of different regional indicators for each region

	STU	KAR	FRE	TUB	MWP	SHS	THU
Fertility rate [a]	1.40	1.27	1.35	1.42	1.27	1.42	1.23
	(.13)	(.17)	(.18)	(.10)	(.07)	(.11)	(.06)
Balance of migration [b]	13.73	29.65	30.92	20.82	-56.02	41.95	-45.80
	(28.18)	(38.76)	(21.92)	(17.10)	(54.23)	(28.37)	(42.03)
Voter turnout [c]	77.97	77.40	77.75	79.58	70.98	78.76	75.35
	(2.52)	(2.97)	(1.69)	(1.57)	(1.76)	(3.09)	(1.65)
Youth welfare services [d]	1.29	1.75	.68	1.28	1.93	1.32	1.01
	(.47)	(1.33)	(.23)	(.44)	(.65)	(.67)	(.57)
Employment in public sector [e]	56.98	55.85	47.42	58.51	57.75	51.69	45.71
	(25.43)	(26.84)	(19.21)	(27.97)	(24.35)	(23.63)	(22.01)
Municipal depts [f]	1250.10	1428.40	1216.10	1382.03	1684.85	1024.16	1382.02
	(303.96)	(740.51)	(228.87)	(340.11)	(522.89)	(613.96)	(381.09)
Employment rate [g]	61.32	60.64	51.75	56.18	43.69	42.19	44.10
	(15.68)	(17.11)	(7.77)	(20.95)	(11.92)	(10.94)	(9.65)
Unemployment rate [h]	8.83	9.62	7.95	7.99	22.58	13.32	18.45
	(2.31)	(2.55)	(1.28)	(1.96)	(3.87)	(3.51)	(3.10)
Welfare recipients [i]	25.36	28.04	23.60	20.35	41.20	41.67	24.89
	(10.56)	(16.05)	(6.76)	(5.06)	(14.50)	(18.09)	(8.45)
Distance to next expressway [j]	13.39	9.07	13.75	21.24	20.21	12.08	14.91
	(4.61)	(5.45)	(4.41)	(9.60)	(14.09)	(8.99)	(7.68)
Apprenticeship positions [k]	101.03	100.75	103.19	102.21	90.53	98.65	92.94
	(1.74)	(.93)	(1.25)	(.81)	(1.98)	(2.48)	(2.39)
Insolvencies [l]	2.02	2.40	2.08	1.80	4.82	4.29	3.30
	(.50)	(.76)	(.61)	(.41)	(1.61)	(.91)	(.76)
Registration/suspension of businesses [m]	2.92	2.77	2.61	2.56	3.63	4.16	2.88
	(.49)	(.72)	(.30)	(.51)	(1.62)	(.65)	(.88)

Note: STU: Stuttgart; KAR: Karlsruhe; FRE: Freiburg; TUB: Tubingen; MWP: Mecklenburg-Western Pomerania; SHS: Schleswig-Holstein; THU: Thuringia; [a] Total fertility rate (TFR) for 2003; [b] Total number of move-outs from regional unit subtracted from total number of move-ins and related to the average population in 2004; [c] Turnout in elections to the German federal parliament (*Bundestag*) in 2005; [d] Number of available places in youth welfare facilities (e.g., orphanages, youth work, or educational and family counselling) not including child care per 100 children and adolescents aged 6 to 18 years in 2002; [e] Proportion of employees at all levels of administration (federal, state, municipal) per 1,000 inhabitants in 2004; [f] Debts per capita in Euro for 2004; [g] Number of employees subject to social insurance contribution related to 100 inhabitants capable of gainful employment for 2005; [h] Proportion of unemployed registered at the labour office of all civil and employable

persons for the year 2005; [i] Relative number of welfare recipients per 1,000 inhabitants for the year 2004; [j] Average driving time in minutes to next expressway (*Autobahn*) for 2003; [k] Percentage of available apprenticeship positions related to the number of school leavers for 2003; [l] Number of insolvencies per 1,000 employees in 2004; [m] Total number of local business suspensions subtracted for total number of local business registrations related to 1,000 inhabitants in 2004.

Educational attainment

Participants were asked to indicate the highest educational degree attained. The answers were recoded to indicate whether the participant had attained no formal degree or only very basic education (*Hauptschule*), intermediate education (*Realschule*) or a higher certificate that enabled university entrance (*Gymnasium*). In the younger adult sample, 606 (26.8%) participants reported no formal degree or only very basic schooling, 1,270 (56.1%) reported medium level schooling, and 388 (17.1%) participants reported having a high formal degree. In the old adult sample, about 154 (29.3%) participants reported no formal degree or only very basic schooling, 225 (42.9%) reported a medium level schooling, and 146 (27.8%) participants reported having a high formal degree. The higher average educational attainment in the older sample can be explained by the fact that this sample only comprises participants who are still in the labour market and thus excludes those who have retired early – a subgroup with substantially lower level of academic attainment as compared to those who work until regular retirement age.

Satisfaction with life

A single item asking, 'How satisfied are you currently with your life – all things considered?' was used to assess general satisfaction with life. Participants could indicate their satisfaction on a scale ranging from 1 (very unsatisfied) to 7 (very satisfied). Both younger (M = 5.04; SD = 1.38) and older adults (M = 5.21; SD = 1.30) were on average rather satisfied.

Depressive symptoms

The depressive symptoms subscale from the German version of the Brief Symptom Inventory (Franke, 2000) was used. This subscale is widely used to assess symptomatic manifestations ranging from mild disphoria to levels of symptomatology characteristic of depressive disorders. The temporal reference for the different symptoms was 'the last month'. The subscale consists of six items that were scored on a 7-point Likert scale ranging from 1 ('not at all') to 7 ('very severely'). The internal consistency was α = .88 for the younger and α =

.89 for the older adults. Items were averaged, which resulted in *M* = 1.71 (*SD* = 1.08) for the younger and *M* = 1.85 (*SD* = 1.13) for the older sample. Overall, this was a low level of depressive symptoms, as one would expect for a normal population sample.

Results

Descriptives for Regions

Before presenting the results related to our hypotheses on individual-level predictors of demands, we want to report some descriptive information concerning the geographical distribution of demand loads across Germany. Our analyses showed that the average load of highly endorsed demands was *M* = 11.07 (*SD* = 6.51) in the younger sample and *M* = 11.71 (SD = 6.89) in the older one. This means that out of the 29 possible demands, individuals endorsed one in three demands. Similar results pertain to the index of ten age-universal demands. In the younger sample, individuals on average endorsed *M* = 4.37 (*SD* = 2.78) of these demands to a high degree. In the older sample, the average was *M* = 4.04 (*SD* = 2.74). And out of four benefits, *M* = 1.47 (*SD* = 1.32) were highly endorsed in the younger sample and *M* = 1.08 (*SD* = 1.33) in the older one.

The regional distribution of demands at the NUTS-3 level is presented in Figure 2 for the younger sample and in Figure 3 for both samples collapsed. Figures 2a-c and 3a-c represent Figures 2 and 3 scaled up for readers' convenience. For the older cohort, the sample size within each regional unit was too small to depict the geographical distribution of demands. Furthermore, for some regions in Baden-Wurttemberg we had no data in our sample due to our sampling procedure. The missing regions, however, are missing at random. In both maps, dark red means a high average demand load in a region and dark blue means a low average demand load. Please note that differences in the average load of demands between the single regions are quite substantial in terms of effect size. The lowest category in the maps represents an average demand load of up to five demands, which means that one out of five demands was highly endorsed. The highest category represents an average load of 17 or more demands, which means that three out of five demands were highly endorsed. We are thus referring to substantial differences that are likely to affect the lives of individuals in the different regions.

Despite some differences between the younger and older sample, both maps allow us to draw similar conclusions. First, the regions with a particularly high load of demands cluster in the federal state of Thuringia and in the eastern part of Mecklenburg-Western Pomerania. We also find some single regions with very high demands in Schleswig-Holstein. Second, the regions with a particularly low load of demands cluster in the federal state of Baden-Wurttemberg. This is especially true for the south-western part of Baden-Wurttemberg bordering with Switzerland and France. Third, despite the general trend of higher demands in the East and lower demands in the South, we find strong exceptions to the rule in both directions. In Baden-Wurttemberg, participants from the region around the northern Black Forest reported particularly high loads of demands and this seems to be pronounced in the young sample. On the other side, we find regions that are quite well off in the Lübeck bay area, but also in some regions of Thuringia bordering with Bavaria and Hesse. Fourth, participants from urban areas seem to report lower demands as compared to participants from the surrounding rural regions, but there are many exceptions to that rule.

To sum up, the geographical distribution of the load of demands in Germany is complex and there seems to be substantial variance within the single federal states. Despite the complexity, the distribution of demands is not at all random, which is indicated by the obvious clustering of similar regions. If participants from one region report high demands, chances are good that participants from the neighbouring regions will also do so.

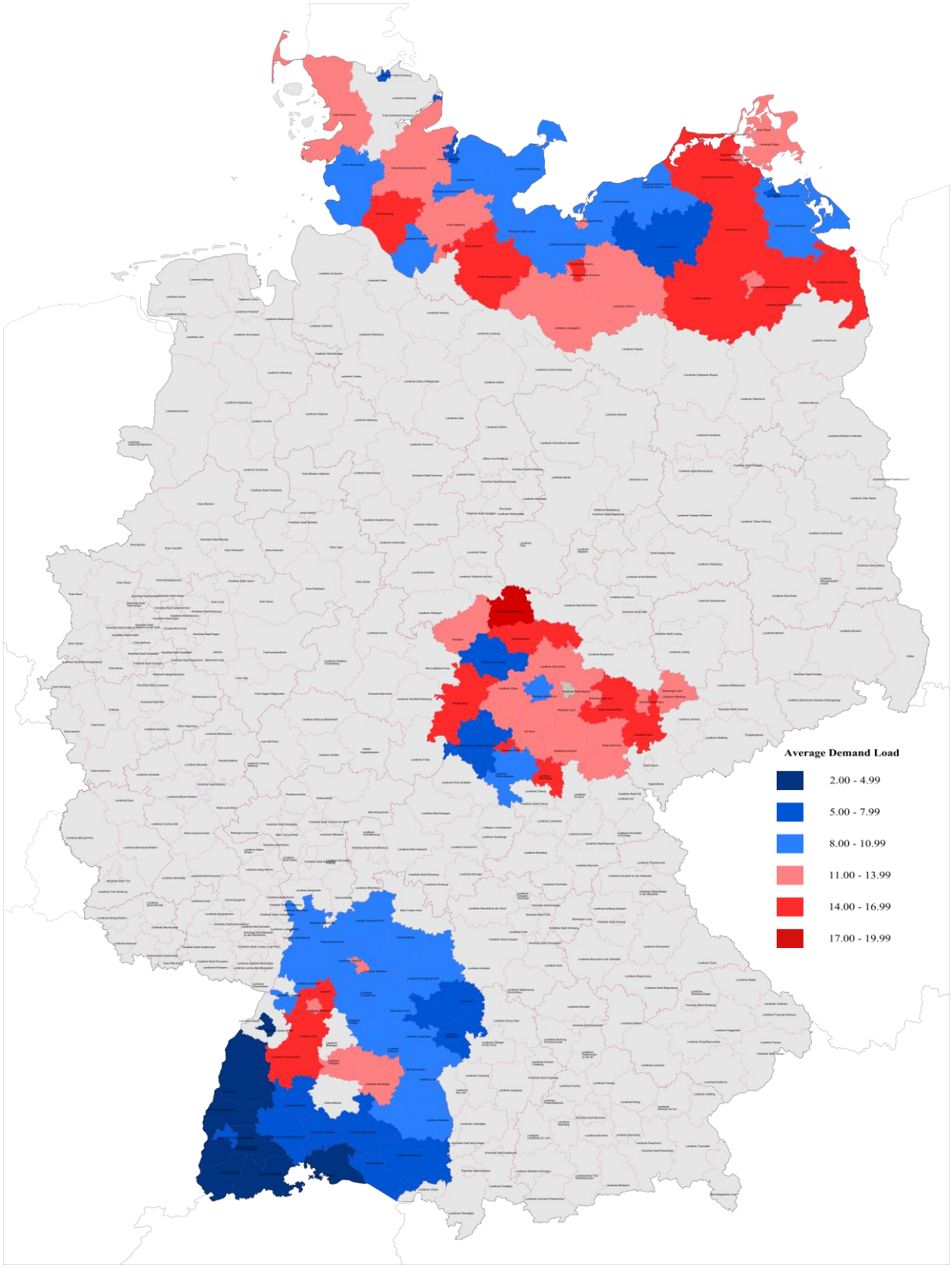

Figure 2 Regional distribution of demands in NUTS-3 regional units for younger cohort

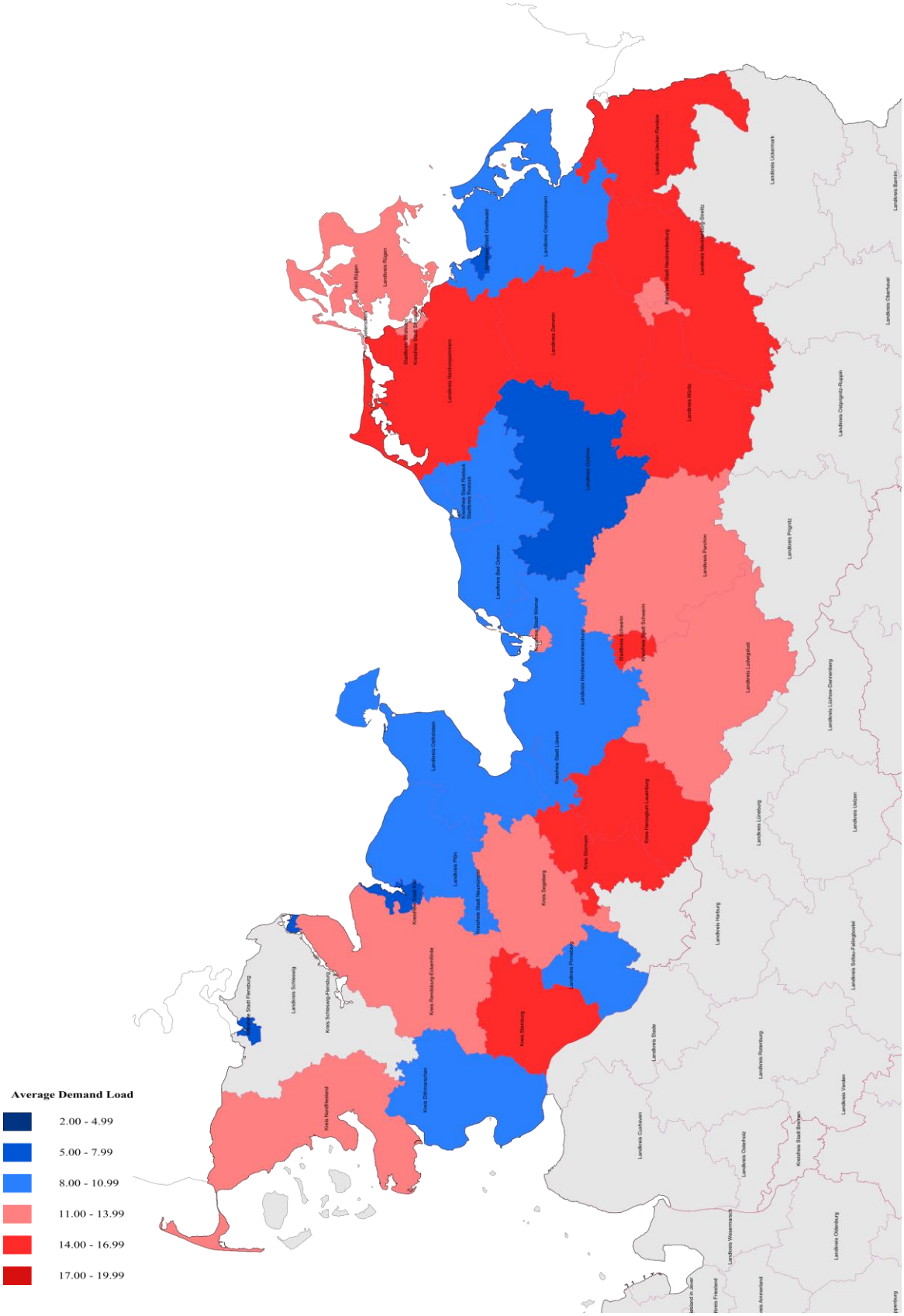

Figure 2a Regional distribution of demands in NUTS-3 regional units for younger cohort

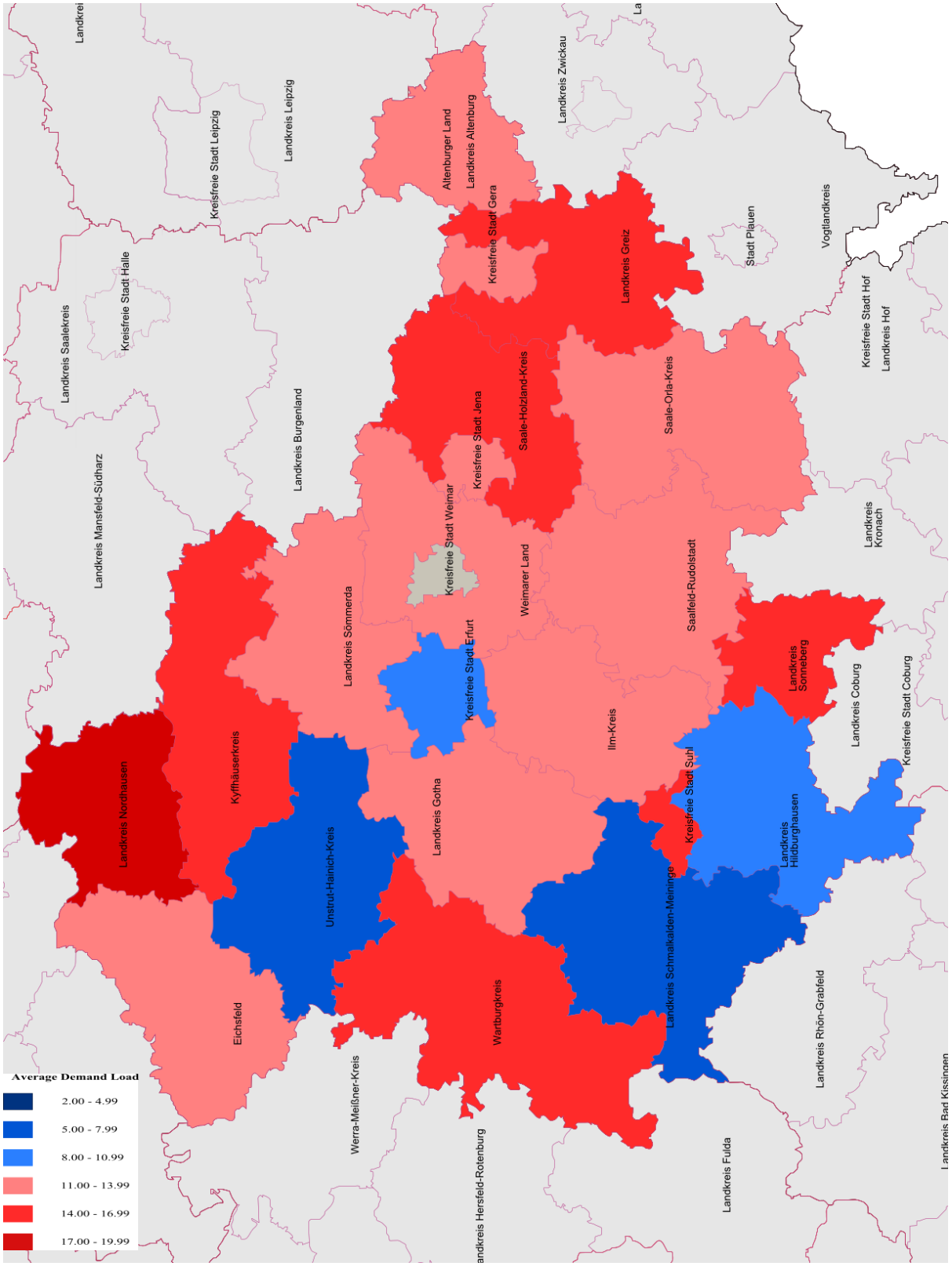

Figure 2b Regional distribution of demands in NUTS-3 regional units for younger cohort

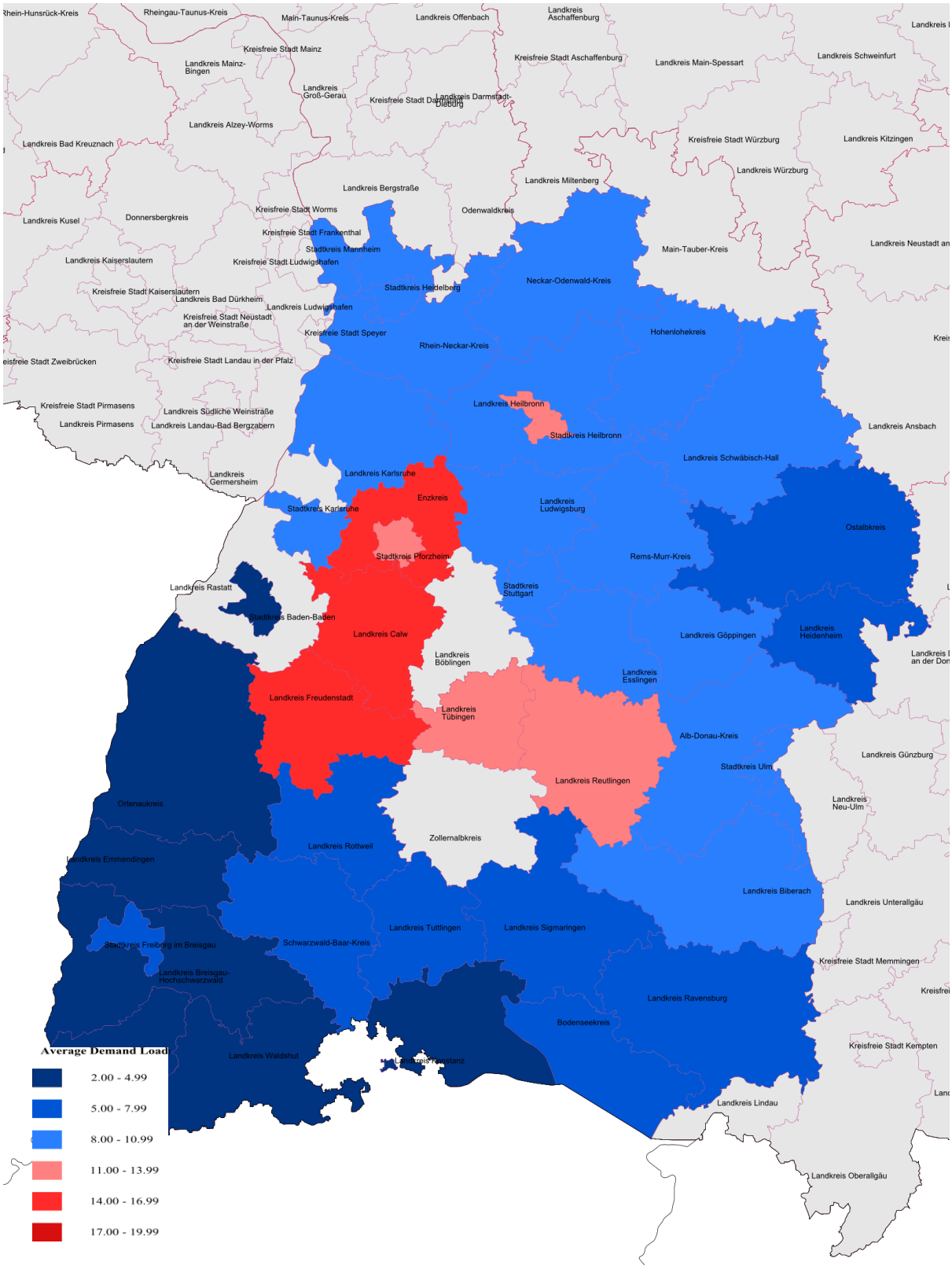

Figure 2c Regional distribution of demands in NUTS-3 regional units for younger cohort

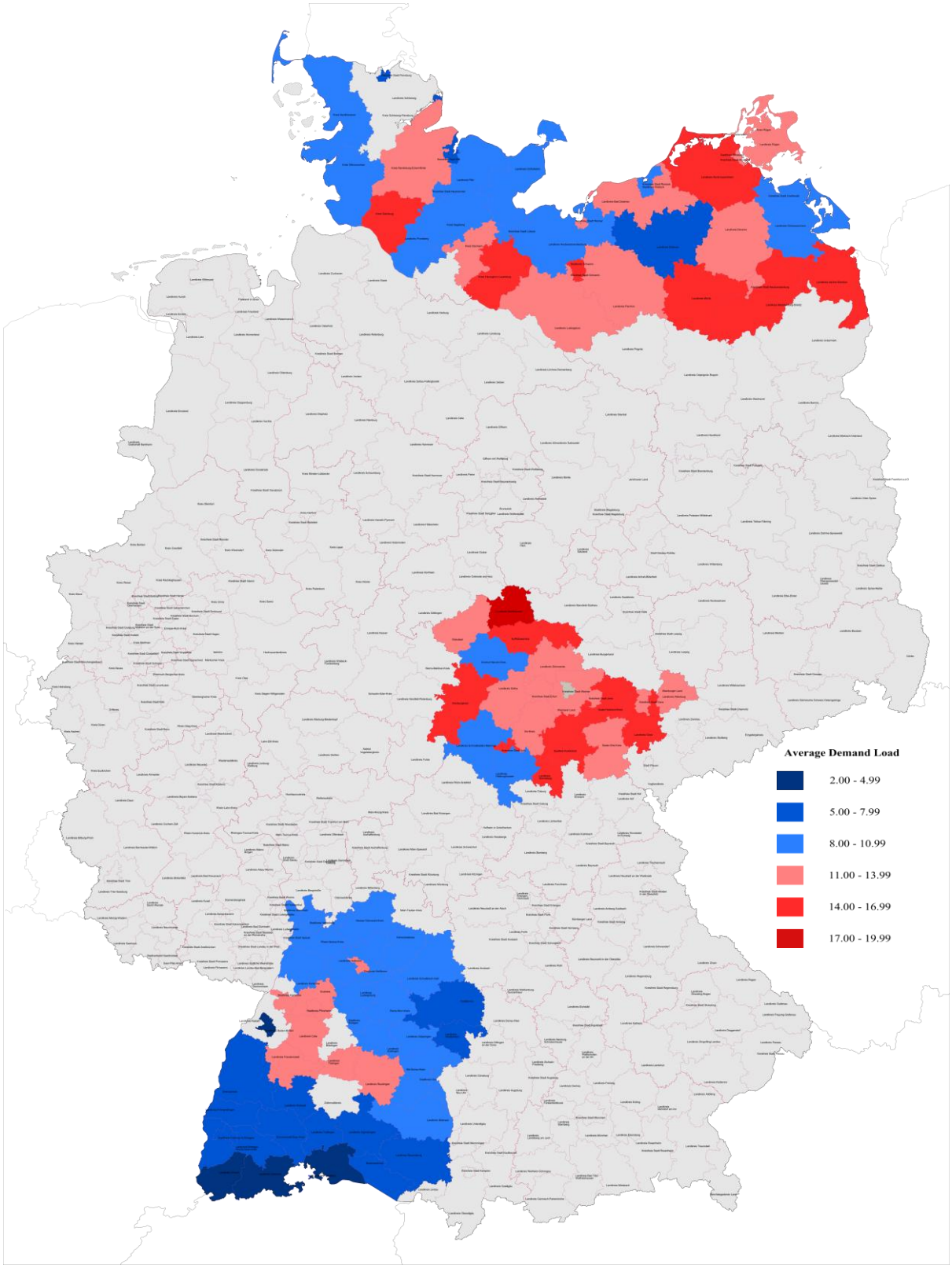

Figure 3 Regional distribution of demands in NUTS-3 regional units for younger and older cohort collapsed

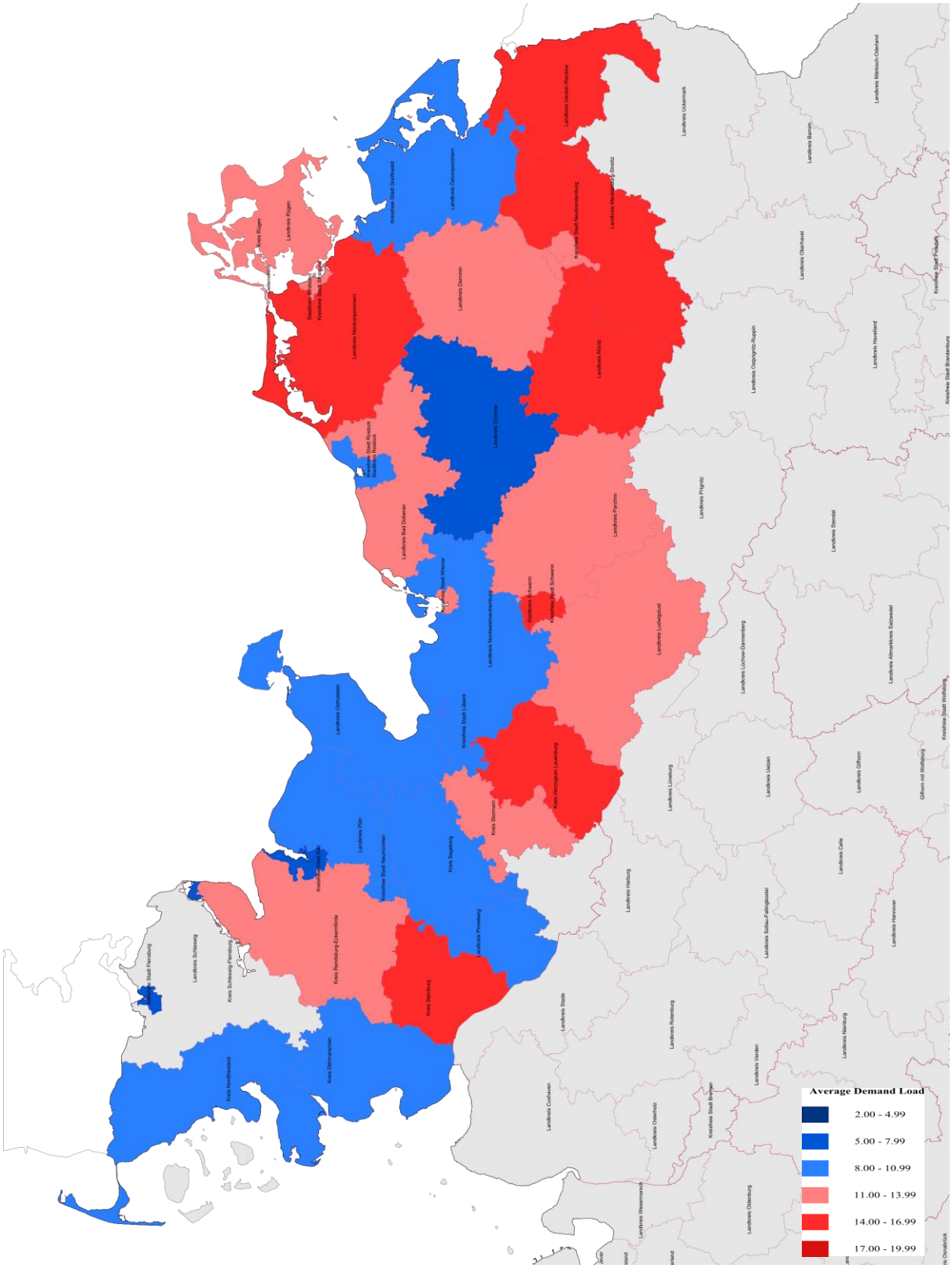

Figure 3a Regional distribution of demands in NUTS-3 regional units for younger and older cohort collapsed

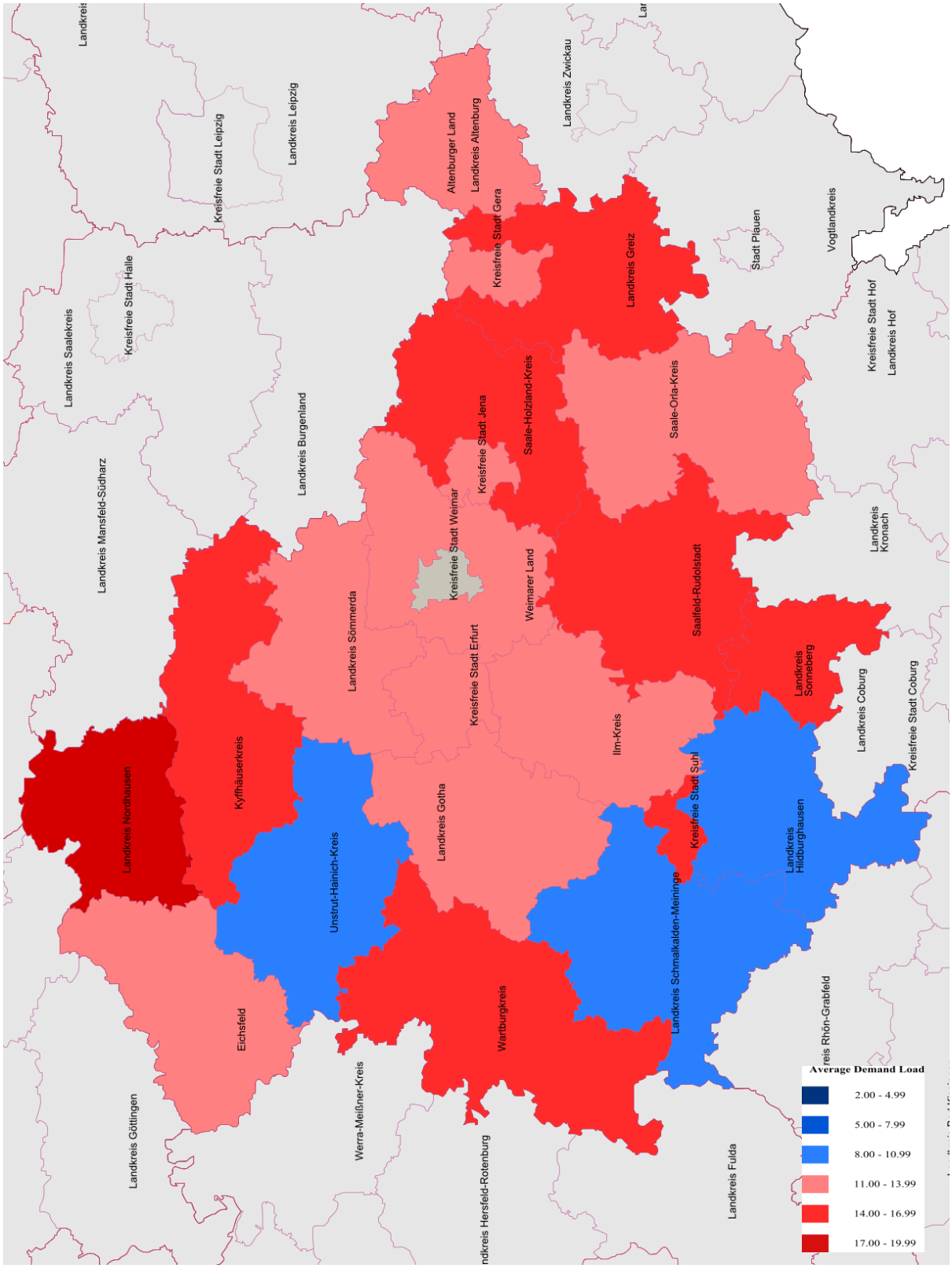

Figure 3b Regional distribution of demands in NUTS-3 regional units for younger and older cohort collapsed

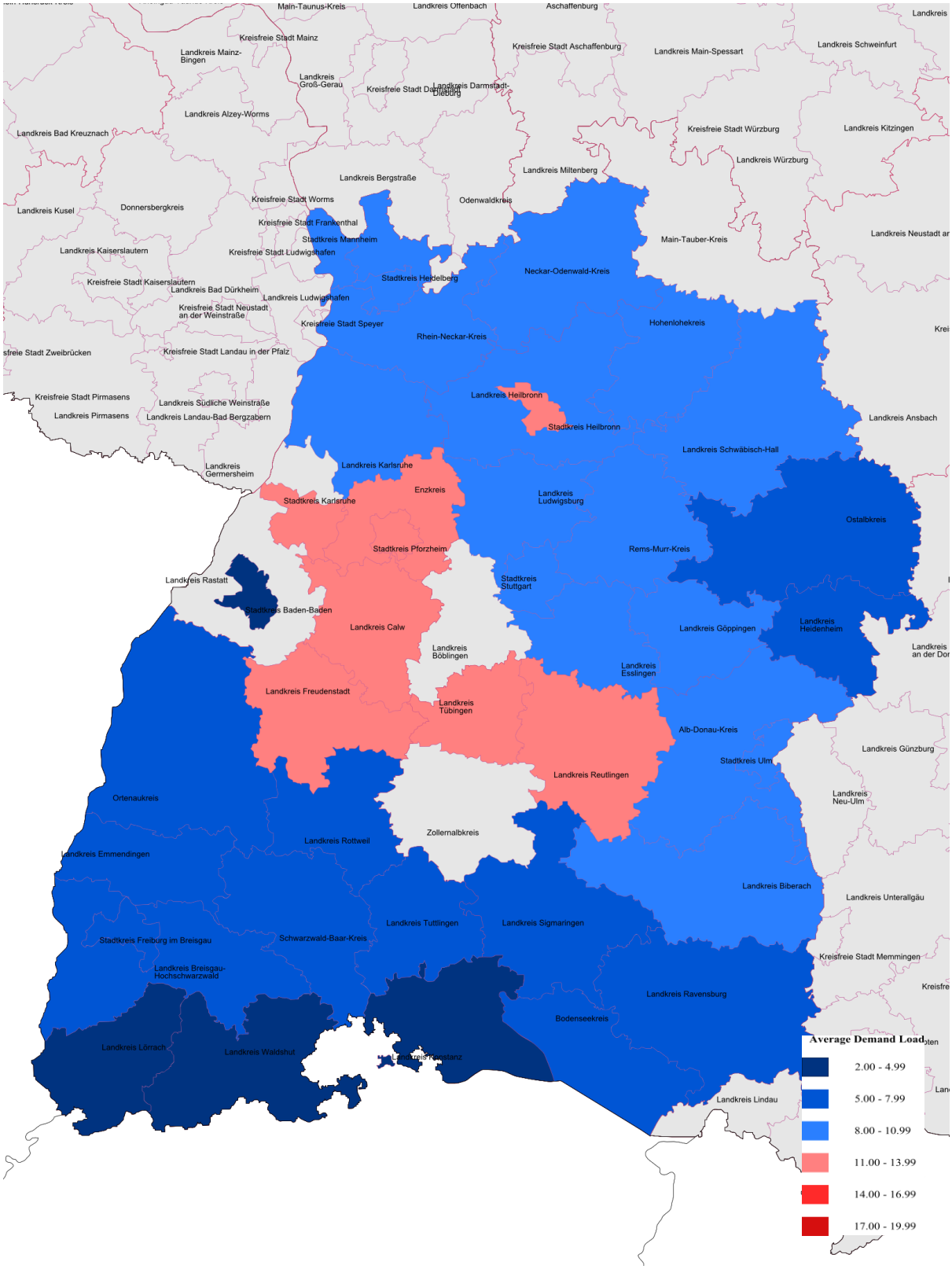

Figure 3c Regional distribution of demands in NUTS-3 regional units for younger and older cohort collapsed

The Role of Socio-demographics in Demand Load

In order to test statistically the hypothesized associations between demands on the one hand and region as well as status on the other, we set up linear regressions model for each of the two samples. Age and gender were entered as basic control variables, together with region at the level of NUTS-2, employment and marital status, as well as educational attainment, as filters of resources that protect individuals from demands. The load of highly endorsed demands was the criterion variable, and we used the index of ten age-universal demands first and then computed the same models for the index of 29 age-universal and age-specific demands.

Age-universal Demands

Results for the younger sample with regard to the accumulation of age-universal demands are displayed in Table 6. In this sample, no age or gender effects were found. There were, however, some significant regional effects, which show that young adults from the two East German regions and from Schleswig-Holstein experience more demands of social change compared to the reference category. In particular, individuals from Thuringia reported a very high average load of demands. Young adults from Freiburg experienced the least demands. The difference between the average demand load in Thuringia and in Freiburg amounted to d = 2.93 which is almost a third of the possible scale range and thus represents a substantial effect. Our hypotheses concerning employment, partnership and education as status variables were fully confirmed for the younger sample. The analyses showed that being unemployed was associated with almost two highly endorsed demands more (B = 1.79) as compared to the employed, and being outside the labour market was on average associated with B = .69 more demands. As expected, being divorced, separated or widowed was associated with more demands as compared to the married group. Being single or cohabiting did not significantly differ from being married. Finally, education was negatively associated with demands of social change. However, only high education became significant, indicating that individuals who have a certificate that allowed them to enrol in a college reported significantly lower demands.

Table 6 General linear model for the prediction of age-universal demand load for younger sample.

Variable	B	SE_B	*t*
(Intercept)	3.10	.41	7.53***
Age	.00	.01	.51
Gender [a]	.12	.11	1.01
Region [b]			
Karlsruhe	.26	.27	1.00
Freiburg	-1.61	.32	-4.97***
Tubingen	-.03	.32	-.10
Mecklenburg-Western Pomerania	.97	.24	4.01***
Schleswig-Holstein	.51	.24	2.15*
Thuringia	1.32	.24	5.49***
Employment status [c]			
Unemployed (ILO)	1.79	.16	10.86***
Outside labor market	.69	.14	4.86***
Partner status [d]			
Single	.08	.16	.51
Cohabitating	.29	.16	1.85
Divorced/separated/widowed	.53	.18	2.99**
Education [e]			
medium	-.02	.14	-.15
high	-.71	.18	-4.04***

Note: N = 2,264; R^2 = .147; [a]Reference category: male; [b]Reference category: Stuttgart; [c]Reference category: employed; [d]Reference category: married; [e]Reference category: low; Range of dependent variable from 0 to 10.
* $p < .05$; ** $p < .01$; *** $p < .001$

The results for the age-universal demands in the older sample are presented in Table 7. Unlike in the younger sample, the effect of age became significant and showed that, in this sample, higher age was associated with fewer demands of social change, though gender had no significant effect. In terms of regional differences, participants from the two East German regions, and from Thuringia in particular, again reported more demands of social change. Freiburg and Schleswig-Holstein, however, did not differ from the reference category in this sample. With regard to employment status, the effects in the older sample were similar to those obtained in the younger one, although the coefficients suggest that employment status is more important in the older sample. No significant effects were found for marital status and

education. Taken together, the analyses for the age-universal demands in the two age groups showed a similar pattern of results with regard to employment status and, to some extent, also region. Age had a unique effect only in the older sample, whereas marital status and education were relevant only for the younger adults.

Table 7 General linear model for the prediction of age-universal demand load for older sample.

Variable	B	SE_B	*t*
(Intercept)	7.46	1.77	4.21***
Age	-.08	.03	-2.84**
Gender [a]	-.13	.23	-.58
Region [b]			
Karlsruhe	.89	.53	1.66
Freiburg	.77	.61	1.25
Tubingen	.46	.59	.79
Mecklenburg-Western Pomerania	1.60	.45	3.54***
Schleswig-Holstein	.32	.44	.74
Thuringia	1.96	.45	4.30***
Employment status [c]			
Unemployed (ILO)	2.14	.37	5.71***
Outside labor market	1.11	.28	3.90***
Partner status [d]			
Single	-.23	.41	-.57
Cohabitating	-.40	.54	-.74
Divorced/separated/widowed	.36	.26	1.37
Education [e]			
Medium	.08	.28	.29
High	-.25	.30	-.81

Note: $N = 525$; $R^2 = .180$; [a]Reference category: male; [b]Reference category: Stuttgart; [c]Reference category: employed; [d]Reference category: married; [e]Reference category: low; Range of dependent variable from 0 to 10

* $p < .05$; ** $p < .01$; *** $p < .001$

Total Demands

In order to test whether these results also generalize to the entire set of 29 demands, we repeated the calculations for the second index. The results of these analyses are presented in Table 8 for the younger sample. It is obvious that the effects were almost identical to those obtained for the index of age-universal demands in this sample. Again, age and gender had no

predictive power, whereas region was a strong predictor. Participants from Freiburg reported the least demands, while participants from Mecklenburg-Western Pomerania and Thuringia the most. Individuals who were outside the labour market and the unemployed reported more demands as compared to the employed. Being divorced was a risk factor for a high load of demands, while having high education was a protective factor in this respect.

Table 8 General linear model for the prediction of the total demand load for younger sample.

Variable	B	SE_B	*t*
(Intercept)	8.51	.97	8.81***
Age	.01	.02	.35
Gender [a]	.52	.27	1.96
Region [b]			
Karlsruhe	.44	.63	.70
Freiburg	-4.63	.76	-6.11***
Tubingen	-.80	.76	-1.06
Mecklenburg-Western Pomerania	1.71	.57	2.99**
Schleswig-Holstein	.71	.56	.1.26
Thuringia	2.88	.56	5.09***
Employment status [c]			
Unemployed (ILO)	3.98	.39	10.31***
Outside labor market	1.22	.33	3.65***
Partner status [d]			
Single	.39	.38	1.03
Cohabitating	.64	.37	1.73
Divorced/separated/widowed	1.07	.42	2.54*
Education [e]			
medium	.03	.32	.09
High	-1.43	.41	-3.46**

Note: N = 2,264; R^2 = .145; [a]Reference category: male; [b]Reference category: Stuttgart; [c]Reference category: employed; [d]Reference category: married; [e]Reference category: low Range of dependent variable from 0 to 29

* $p < .05$; ** $p < .01$; *** $p < .001$

In the older cohort, the predictor variables for the index comprising all 29 demands were by and large comparable to the predictors for the shorter index comprising the 10 age-universal demands (see Table 9). The only difference was the effect of age, which was no longer significant. Older participants from the two Eastern regions reported more demands as

compared to older participants from the Western regions, and being unemployed or outside the labour market was positively associated with demands in this age sample.

Taken together, whether we used the age-universal or total demand indices, remarkable differences between the age groups emerged. Whereas among the young group partnership status and educational attainment played a role as expected, this was not the case among the older group. Divorced, separated or widowed people experienced more demands, and higher education meant fewer demands among the young, but both variables were irrelevant among the old.

Table 9 General linear model for the prediction of the total demand load for older sample.

Variable	B	SE_B	*t*
(Intercept)	13.17	4.48	2.94**
Age	-.10	.07	-1.38
Gender [a]	.39	.60	.66
Region [b]			
Karlsruhe	2.16	1.35	1.60
Freiburg	2.42	1.55	1.55
Tubingen	2.13	1.49	1.43
Mecklenburg-Western Pomerania	4.77	1.15	4.16***
Schleswig-Holstein	1.34	1.12	1.20
Thuringia	5.97	1.15	5.18***
Employment status [c]			
Unemployed (ILO)	4.88	.95	5.16***
Outside labor market	1.86	.72	2.58*
Partner status [d]			
Single	-.46	1.03	-.45
Cohabitating	-.52	1.37	-.38
Divorced/separated/widowed	.50	.66	.75
Education [e]			
medium	.23	.72	.32
High	.07	.77	.09

Note: $N = 525$; $R^2 = .168$; [a]Reference category: male; [b]Reference category: Stuttgart; [c]Reference category: employed; [d]Reference category: married; [e]Reference category: low; Range of dependent variable from 0 to 29
* $p < .05$; ** $p < .01$; *** $p < .001$

Benefits

Results from the regression analysis predicting the accumulation of benefits are presented in Table 10 for the younger sample and in Table 11 for the older one. In the younger sample,

neither age nor gender was related to benefits of social change. We had no hypotheses about regional effects and actually expected no regional differences, but we found that individuals from Freiburg and Tubingen reported significantly fewer benefits. Because these regions also stand for a very low load of demands of social change, the result may indicate a rather stable development in these regions. Concerning employment status, our hypotheses were fully confirmed and the effect sizes were quite remarkable. Interestingly, the unemployed and those outside the labour market revealed a similar negative relationship with benefits. This distinction was not the case for demands of social change, where the unemployed always had many more demands as compared to those outside the labour market. Our hypothesis concerning marital status was also confirmed, as individuals with a non-traditional status reported more benefits. We also found the expected positive association between education and benefits. As opposed to demands of social change, however, a medium level of education was already sufficient to experience more benefits of social change.

Table 10 General linear model for the prediction of benefit load for younger cohort

Variable	B	SE_B	*t*
(Intercept)	1.57	.20	7.75***
Age	-.01	.00	-1.45
Gender [a]	.05	.06	.96
Region [b]			
Karlsruhe	-.17	.13	-1.29
Freiburg	-1.00	.16	-6.30***
Tubingen	-.42	.16	-2.64**
Mecklenburg-Western Pomerania	-.13	.12	-1.1
Schleswig-Holstein	-.22	.12	-1.91
Thuringia	-.20	.12	-1.69
Employment status [c]			
Unemployed (ILO)	-.43	.08	-5.29***
Outside labor market	-.44	.07	-6.31***
Partner status [d]			
Single	.31	.08	3.95***
Cohabitating	.29	.08	3.74***
Divorced/separated/widowed	.27	.09	3.11***
Education [e]			
Medium	.39	.07	5.77***
High	.55	.09	6.32***

Note: N = 2,264; R^2 = .092; [a]Reference category: male; [b]Reference category: Stuttgart; [c]Reference category: employed; [d]Reference category: married; [e]Reference category: low; Range of dependent variable from 0 to 4 * $p < .05$; ** $p < .01$; *** $p < .001$

Results for the benefits in the older sample resemble that of the younger cohort but nevertheless there are some important differences. First, and as expected, we did not find any regional differences for the benefits. Second, the effect sizes for the employment status were very impressive, and show that employment is the crucial factor in older age. It determines whether someone profits from social change or not. Much of the explained variance of R^2 = .34 is attributable to the effect of employment status. Finally, only being single was associated with more benefits in the older sample, while the other forms of living did not differ from being married. This probably has to do with the fact that non-traditional partnership arrangements are less common in this age group (which is indicated by the low prevalence) and that widowhood is becoming increasingly dominant.

Taken together, the benefits for the younger and the older group look pretty similar in terms of the role of socio-demographic factors. The region was of almost no relevance, but employment, partnership, and education were. Those not in employment and with low educational attainment reported fewer benefits, whereas especially singles as expected endorsed more benefits.

Table 11 General linear model for the prediction of benefit load for older cohort

Variable	B	SE_B	*t*
(Intercept)	.64	.77	.83
Age	.01	.01	.71
Gender [a]	.14	.10	1.41
Region [b]			
Karlsruhe	.13	.23	.56
Freiburg	.14	.27	.53
Tubingen	-.07	.26	-.27
Mecklenburg-Western Pomerania	-.01	.20	-.03
Schleswig-Holstein	-.12	.19	-.61
Thuringia	.11	.20	.54
Employment status [c]			
Unemployed (ILO)	-1.61	.16	-9.88***
Outside labor market	-1.58	.12	-12.78***
Partner status [d]			
Single	.36	.18	2.01*
Cohabitating	.13	.24	.55
Divorced/separated/widowed	.20	.11	1.76
Education [e]			

Medium	.27	.12	2.02*
High	.44	.13	3.30**

Note: N = 525; R^2 = .335; [a]Reference category: male; [b]Reference category: Stuttgart; [c]Reference category: employed; [d]Reference category: married; [e]Reference category: low; Range of dependent variable from 0 to 4
* $p < .05$; ** $p < .01$; *** $p < .001$

Psychological Well-being

Finally, we have computed the correlations between the indices of demands and benefits on the one hand and the indicators of subjective well-being on the other. We used the index of all 29 demands for these analyses. In the younger sample, a high load of demands was associated with lower satisfaction with life (r = -.19, $p < .01$) and with more depressive symptoms (r = .17, $p < .01$). In the older sample, a higher load of demands was associated with lower satisfaction with life (r = -.19, $p < .01$) but not with depressive symptoms (r = .03, *n.s.*). Taking the two samples together, the benefits of social change were positively associated with satisfaction with life (r = .16, $p < .01$) and negatively with depressive symptoms (r = -.12, $p < .01$).

Discussion

The aim of this research report was to investigate the role of socio-demographic conditions for inter-individual differences in the load of demands of social change as experienced by younger (16 - 42 years) and older adults (56 - 75 years). The conditions referred to the region where the study participants lived, as well as to their occupational, marital and educational status, and were conceived as filters against the challenges of social change.

The demand indices are obviously at the heart of our entire endeavour. We used lists of demands derived from theoretical considerations about current social change in Germany. One entailed 10 items assessed in both age groups alike, and the other 29 items (including the 10) were formulated specific to the respective age group. The demands comprise retrospective reports of changes for the worse in various domains of life (particularly work, but also family and public life), and we based all analyses on a cumulative measure of highly endorsed demands, called demand load. This load measure was conceived to match the core notion of the Jena Model that it is an overtaxing with new claims beyond routine experience that requires adjustments to social change.

The analyses comprised two parts. First, we provided descriptive information by comparing demand load across regions characterized by the NUTS-3 geocode. This revealed a substantial variation of the load of demands across the different regions of Germany. We found a higher load of demands in East German regions and in Schleswig-Holstein, whereas participants from the regions located in Baden-Wurttemberg reported the least demands. Although a high load of demands was still more prevalent in the East German counties, there were also some districts with a particularly low load of demands. These were located in western Thuringia and were scattered in Mecklenburg-Western Pomerania. On the other hand, some districts of Baden-Wurttemberg had a very high average load of demands whereas the regions of this federal state had the lowest average demand load. The highly affected districts were located in the northern part of the Black Forest.

The results are important because they demonstrate that, in terms of our demands, a simple juxtaposition of East and West, at least now 20 years after the unification of Germany, is no longer an adequate description. The variation within the past political regions is larger than the variation between East and West. This does not make the distinction obsolete, but it shows the diversity of the experiences of people beyond the traditional divide. The fact that the demands vary so much across regions is plausible given the remarkable differences in various indicators of prosperity and life style that certainly have an influence on the individual level demands. The maps we provided illuminate the great variation within four of the federal states of Germany. They give testimony to need for highly differentiated policies if one wants to do justice to people's needs.

In the second step, we tested our hypotheses concerning the filtering function of people's socio-demography, including their regional background assessed on the NUTS-2 level. Most hypotheses were confirmed. With slight differences between the two samples, participants from the regions in the Eastern part of the country reported more demands as compared to participants from the West. About two decades after the political unification and in spite of virtually equal global challenges that affect the country, the population in the Eastern regions reported a different dynamic of change in their everyday experiences. These results most probably reflect the objective differences in regional economics, such as different rates of investments and employment, and other indicator of life circumstances. The negative balance

of migration in these regions might, in our understanding, reflect a way to deal with the high load of demands by escaping areas with limited opportunities. On the positive side of the continuum, we find regions, such as the administrative district of Freiburg, whose inhabitants turned out to be least affected by social change. Freiburg is characterized by the lowest unemployment rate in our selection of regions, although employment is below average. However, it offers the highest density of apprenticeship positions, which can be considered an indicator for the future orientation of the local economy. Somehow, in between the prosperous South of Germany and the disadvantaged East, is the region of Schleswig-Holstein. This position is also reflected in the objective regional indicators of economic prosperity.

Turning to the predictors related to status, we hypothesized that employment, marriage, and education are associated with resources that shield the negative effects of social change in terms of a high load of demands. This hypothesis could only be confirmed for employment in the two samples, whereas marital status and education were, as expected, relevant only in the younger sample. Employment obviously is the pivotal protective factor against demands of social change throughout the life-span. It provides numerous resources, which seem to reduce uncertainty in various domains of life. Being outside the labour market, however, whether voluntarily or not, is a status associated with increased uncertainty. This is no surprise as securing a job after such experiences has become quite difficult in times of globalization – both for young people (Blossfeld, Klijzing, Mills & Kurz, 2005) and for the older generations (Hofäcker, 2010).

Our results also tell that the role of divorce, separated, or widowed differs between the age groups. It is clearly a risk factor for high demand loads among the younger group, but of no relevance for the older group. We can only speculate about the reasons for this result, The fact that such marital status is presumably more prevalent, and thus less distinctive in older age may play a role, and that divorce and separation in the older sample will probably also have taken place earlier in the past, so that compared to the younger sample its effect on more recent demands may be weaker anyway.

We also found no effect of education in the older sample. At first glance this is surprising because research demonstrated the significance of socio-economic status for various domains

of life in older age, including education (e.g., Ouwehand, de Ridder & Bensing, 2009). However, when bearing in mind that the older adults of our sample were selected because they were still engaged in the labour market, it is actually quite understandable that their uncertainties experienced have less to do with education and probably more with seniority or age-related stereotypes (which we did not measure).

In the younger sample, we found effects of marital status and education as predicted by our hypotheses. Marital status was related to the individual load of demands and interestingly it was not the fact whether someone had a partner or not, but whether someone has *lost* a partner due to divorce, separation, or death. Although the loss of a partner does not always mean the loss of resources, it presumably produces uncertainty with regard to other domains of life. Our findings suggest that this uncertainty may be reduced with higher education. This may be due to a direct effect of education that shields an individual from uncertainty, for example, because better educated people have more opportunities on the labour market and are less frequently confronted with precarious work contracts. Furthermore, education may help in an indirect way, as it is associated with more access to information and to a higher likelihood for problem-oriented coping.

The analyses presented have several limitations. Firstly, and obviously, we could have analysed the demands in various other ways. As conducted now, the age-universal demands are part of the total index, and we sum up over various domains, and the number of items per domain varied. Taking it separately was no option, because this would not have enabled us to run the comparison of age groups that were at the core of this paper. We also think that the accumulated load index did function as planned, in spite of or even due to the diversity in the content of the demands. That we found similar results for the 10 and the 29 item index also speaks for this notion. Secondly, we have not yet analysed the relationship between demands and the prosperity and life style indicators on the NUTS-3 level of regions. This analysis would allow us to find out the degree to which the variation in demands is a function of the objective measures. But we know from earlier research (Pinquart, Silbereisen & Körner, 2009) that there is indeed a relationship, although the demands have variance of their own. We would have preferred utilizing the NUTS-3 level data for the regression analysis, but this would have required multi-level analyses to accommodate the more than 70 regional units.

We also had to leave out an analysis of interactions among the conditions studied for the same reason.

Thirdly, viewed against the backdrop of the Jena Model of Social Change and Human Development, the association between demands and well-being is moderated and mediated by various other conditions, including personal resources and regulation strategies, and the relationships we found are thus a very crude indicator. Nevertheless, these additional results demonstrated that the demands are associated with well-being in both age groups, as they should. Longitudinal data would be required to discuss the direction of effects, but we know from earlier research that a bi-directional relationship of similar size is plausible (Körner, Silbereisen & Cantner, 2010). Fourth, we have analysed data from four federal states of Germany, and the question is whether the results can be generalized to the entire country. The answer possibly is yes, as these states are often used to depict general trends in Germany. But additional data gathering is planned in a different (Eastern) state, and we can use the current data to predict the demand load to be expected. Furthermore, we have a joint project with a Polish research group that allows us to conduct equivalent analyses on the regional variation in demands in Poland, a country organized in regions similar to Germany.

In spite of all limitations, we conclude that demands of social change varied remarkably across regions differing in prosperity and life style, with higher average demands in more precarious regions. We also construe that people's socio-demography in terms of work and family status and educational attainment represent further factors that filter the societal challenges of political transformation and globalization, as manifested in the demands. Among the young, those most at risk are people outside stable work arrangements, not in marriage, with a low education, and reporting a lack of resources in dealing with the demands. These effects were stronger overall among the younger rather than the older adults still in the labour market. This difference may hint at age-typical risks for this group beyond the socio-demographic ones we studied. In a nutshell, our results demonstrated that the load of demands can be traced back to the role of various ecological niches (comprising region, work, family, and education) that themselves can be addressed by social policy in order to relieve the pressures of social change.

References

Backes, G. M. (1996) 'Familienbeziehungen und informelle soziale Netzwerke im sozialstrukturellen und demographischen Wandel', *Zeitschrift für Gerontologie und Geriatrie*, 29, pp. 29-33.

Beck, U. (1986) *Risikogesellschaft: Auf dem Weg in eine andere Moderne*. Suhrkamp, Frankfurt am Main.

Bengston, V. L. & Schütze, Y. (1992) 'Altern und Generationenbeziehungen: Aussichten für das kommende Jahrhundert.' In P. B. Baltes and J. Mittelstraß (eds) *Zukunft des Alterns und gesellschaftliche Entwicklung.* De Gruyter, Berlin, pp. 492-517.

Berger, P.A. (1996) *Individualisierung. Statusunsicherheit und Erfahrungsvielfalt*. Westdeutscher Verlag, Opladen.

Berger, P. A., Steinmüller, P., & Sopp, P. (1993) 'Differentiation of life courses? Changing patterns of labour market sequences in West Germany', *European Sociological Review,* 9, pp. 43-67.

Bertram, H. & Kreher, S. (1996) 'Lebensformen und Lebensverläufe in diesem Jahrhundert', *Politik und Zeitgeschichte,* B 42, pp. 18-29.

Birg, H. (2003) *Die demographische Zeitenwende: Der Bevölkerungsrückgang in Deutschland und Europa.* Verlag C.H. Beck, München.

Blossfeld, H.-P., Klijzing, E., Mills, M., & Kurz, K. (2005) *Globalization, uncertainty and youth in society*. Routledge, New York.

Blossfeld, H.-P. & Mills, M. (2003) 'Globalization, uncertainty and changes in early life courses', *Zeitschrift für Erziehungswissenschaft,* 6, pp. 188-218.

Borgmann, C. (2005) *Social security, demographics, and risk*. Springer, Berlin.

Bronfenbrenner, U. (1979) *The ecology of human development*. Harvard University Press, Cambridge.

Brooks-Gunn, J., Schley, S., & Hardy, J. (2000) 'Marriage and the baby carriage: Historical change and intergenerational continuity in early parenthood.' In L. Crockett and R.K. Silbereisen (eds) *Negotiating adolescence in times of social change. Cross-national perspectives on developmental process and social intervention.* Cambridge University, New York, pp. 36-57.

Bundesministerium des Innern (2000) *Modellrechnungen zur Bevölkerungsentwicklung in der Bundesrepublik Deutschland bis zum Jahr 2050.* Bundesministerium des Innern, Berlin.

Burkhart, G. & Kohli, M. (1989) 'Ehe und Elternschaft im Individualisierungsprozess: Bedeutungswandel und Milieudifferenzierung,' *Zeitschrift für Bevölkerungswissenschaft,* 15, pp. 405-426.

Buttler, G. (2003) 'Steigende Lebenserwartung: Was verspricht die Demographie?', *Zeitschrift für Gerontologie und Geriatrie*, 36, pp. 90-94.

Conger, R. D. & Elder, G. H., Jr. (1994) *Families in troubled times: Adapting to change in rural America*. Aldine DeGruyter, Hawthorne, NY.

Coombs, R. H. (1991) 'Marital status and personal well-being: A literature review', *Family Relations*, 40, pp. 97-102.

Deutsche Gesellschaft für Freizeit (1999) *Freizeit in Deutschland 2000plus*. Verlag Deutsche Gesellschaft für Freizeit, Erkarth.

Dostal, W. & Kupcka, P. (2001) *Globalisierung, veränderte Arbeitsorganisation und Berufswandel.* IAB, Nürnberg.

Ebertz, M. N. (1997) *Kirche im Gegenwind: Zum Umbruch der religiösen Landschaft.* Herder Verlag, Freiburg.

Elder, G.H. (1974) *Children of the Great Depression: Social change in life experiences.* University of Chicago Press, Chicago.

Fend, H. (2000) 'The cultural scripts of control and individualization: Consequences for growing up during adolescence in modern societies.' In W. Perrig and A. Grob (eds) *Control of human behavior, mental processes, and consciousness*. Erlbaum, Mahwah, pp. 487-503.

Fligstein, N. (1998) 'Is globalization the cause of the crisis of welfare states?' *European University Institute Working Paper SPS No.5.* University of California, San Domenico.

Franke, G. H. (2000) *BSI. Brief Symptom Inventory – Deutsche Version* [Manual]. Beltz, Göttingen.

Fritzsche, Y. (2000) 'Modernes Leben: Gewandelt, vernetzt und verkabelt.' In Deutsche Shell (eds) *Jugend 2000.* Leske & Budrich, Opladen, pp. 93-180.

Gabriel, K. (1992) *Christentum zwischen Tradition und Postmoderne.* Herder Verlag, Freiburg.

Giddens, A. (2001) *Entfesselte Welt: Wie die Globalisierung unser Leben verändert.* Suhrkamp Verlag, Frankfurt am Main.

Glatzer, W. (2003) 'Sozialer Wandel: Langfristige gesellschaftliche Entwicklungstendenzen [Social change: Long-term societal developmental trends].' In: Statistisches Bundesamt (eds) *Sozialer Wandel: Daten, Analysen, Gesamtrechnungen*. Metzler-Poeschel, Stuttgart, pp. 37-54.

Glatzer, W. & Hondrich, K. O. (1992) *Recent social trends in West Germany 1960 - 1990.* Campus-Verlag, Frankfurt am Main.

Grimmer, W. & Maas, J. (2002) ‘Zur Psychologie der Altersvorsorge’, *Wirtschaftspsycholologie,* 4, pp. 71-80.

Held, D., McGrew, A., Goldblatt, D. & Perraton, J. (1999) *Global transformations: Politics, economics and culture.* Stanford University Press, Oxford.

Hervieu-Léger, D. (1990) ‘Religion and modernity in the French context: For a new approach to secularization’, *Sociological Analysis*, 51, pp. 15-25.

Hitzler, R. (1996) ‘Orientierungsprobleme: Das Dilemma der Kirchen angesichts der Individualisierung der Menschen’, *Leviathan*, 24, pp. 272-286.

Hofäcker, D. (2010) *Older workers under globalization: An international comparison of retirement ans late-career patterns among older workers in Western industrailized countries*. Edward Elgar, Northampton, MA.

Hofäcker, D., Buchholz, S. & Blossfeld, H.-P. (2010) ‘Globalization, institutional filters and changing life course. Patterns in modern societies: A summary of the results from the GLOBALIFE-Project.’ In R. K. Silbereisen and X. Chen (eds) *Social change and Human Development: Concept and results*. Sage, London, pp. 101-124.

Holst, E. & Schupp, J. (2004) *Gestiegene berufliche Mobilität geprägt von Frauen und Jüngeren: Erfolgreiche Arbeitssuche durch private Initiative*. Deutsches Institut für Wirtschaftsforschung, Berlin.

Huntington, S. P. (1997**)** *Der Kampf der Kulturen*. Btb Verlag, München.

Hradil, S. (2000) ‘Sozialer Wandel. Gesellschaftliche Entwicklungstrends [Social change: Societal developmental trends].’ In G. Schäfers and W. Zapf (eds) *Handwörterbuch zur Gesellschaft Deutschlands*. Leske + Budrich, Opladen, pp. 642-653.

Inglehart, R. (1990) *Culture shift in advanced industrial society*. Princeton University Press, Princeton, NJ.

Inglehart, R. (1997) *Modernization and Postmodernization. Cultural, economic, and political change in 43 societies*. Princeton University Press, Princeton, NJ.

Kastner, M., Kipfmüller, K., Quaas, W., & Sonntag, K. (2001) *Gesundheit und Sicherheit in Arbeits- und Organisationsformen der Zukunft: Ergebnisbericht des Projektes gesina.* Wirtschaftsverlag, Bremerhaven.

Keyes, C. L. M. (2006) ‘Subjective change and its consequences for emotional well-being’, *Motivation and Emotion*, 24, pp. 67-84.

Körner, A., Silbereisen, R. K., & Cantner, U. (2010) ‘The role of loss and gains in times of social change’, Unpublished manuscript, Center for Applied Developmental Science, University of Jena.

Krech, V. (1998) ‘Missionarische Gemeinde: Bedingungen und Möglichkeiten aus soziologischer Sicht’, *Evangelische Theologie,* 58, pp. 433-444.

Larson, R.W., Wilson, S., Brown, B.B., Furstenberg, F.F., & Verma, S. (2002) ‘Changes in adolescents‘ interpersonal experiences: Are they being prepared for adult relationships in the twenty-first century?’, *Journal of Research on Adolescence,* 12, pp. 31-68.

Lash, S. & Urry, J. (2004) *Die globale Kulturindustrie.* Suhrkamp Verlag, Frankfurt am Main.

Lazarus, R. S. & Folkman, S. (1984) *Stress, appraisal, and coping*. Springer, New York.

Luckmann, T. (1991) *Die unsichtbare Religion.* Suhrkamp Verlag, Frankfurt am Main.

Lüscher, K. (2000) ‘Die Ambivalenz von Generationenbeziehungen: Eine allgemeine heuristische Hypothese.’ In M. Kohli and M. Szydlik (eds) *Generationen in Familie und Gesellschaft*. Leske + Budrich, Opladen, pp. 138-161.

Maihofer, A., Böhnisch, T., & Wolf, A. (2001) *Wandel der Familie. Literaturstudie.* Hans-Böckler-Stiftung, Düsseldorf.

Montanari, I. (2001) ‘Modernization, globalization and the welfare state: A comparative analysis of old and new convergence of social insurance since 1930’, *British Journal of Sociology,* 52, pp. 469-494.

Mills, M. & Blossfeld, H. P. (2003) ‘Globalization, uncertainty and changes in early life courses’, *Zeitschrift für Erziehungswissenschaft,* 6, pp. 187-218.

Nave-Herz, R. (1994) *Familie heute – Wandel der Familienstrukturen und Folgen für die Erziehung.* Wissenschaftliche Buchgesellschaft, Darmstadt.

Nolan, R. W. (1999) *Communicating and adapting across cultures: Living and working in the global village.* Bergin & Garvey, Westport, CT.

Opaschowski, H. W. (2001) *Deutschland 2010. Wie wir morgen arbeiten und leben – Voraussagen der Wissenschaft zur Zukunft unserer Gesellschaft*. Germa Press, Hamburg.

Ouwehand, C., de Ridder, D. T. D., & Bensing, J. M. (2009) ‘Who can afford to look to the future? The relationship between socio-economic status and proactive coping’, *European Journal of Public Health,* 19, pp. 412-417.

Pinquart, M., Juang, L. P., & Silbereisen, R. K. (2004) ‘The role of self-efficacy, academic abilities, and parental education in the change in career decisions of adolescents facing German unification’, *Journal of Career Development,* 31, pp. 125-141.

Pinquart, M., & Silbereisen, R.K. (2004) ‘Human development in times of social change: Theoretical considerations and research needs’, *International Journal of Behavioral Development,* 28, pp. 289-298.

Pinquart, M., Silbereisen, R. K., & Körner, A. (2009) ‘Do associations between perceived

social change, coping, and psychological well-being vary by regional economic conditions? Evidence from Germany,' *European Psychologist,* 14, pp. 207-219.

Pollack, D., & Pickel, G. (1999) 'Individualisierung und religiöser Wandel in der Bundesrepublik Deutschland', *Zeitschrift für Soziologie*, 28, pp. 465-483.

Reitzle, M., Blumenthal, A., & Fabel, K. (2008) 'Psychosoziale Ressourcen.' In R. K. Silbereisen and M. Pinquart (eds) *Individuum und sozialer Wandel: Eine Studie zu Anforderungen, psychosozialen Ressourcen und individueller Bewältigung.* Juventa, Weinheim, pp. 126-148.

Reitzle, M. (2008) 'Stichprobe.' In R. K. Silbereisen and M. Pinquart (eds) *Individuum und sozialer Wandel: Eine Studie zu Anforderungen, psychosozialen Ressourcen und individueller Bewältigung.* Juventa, Weinheim, pp. 37-54.

Regini, M. (2000a) 'Between deregulation and social pacts: The responses of European economies to globalization', *Politics and Society,* 28, pp. 5-33

Regini, M. (2000b) 'The dilemmas of labor market regulation.' In G. Esping-Anderson and M. Regini (eds) *Why deregulate labor markets?* Oxford University Press, Oxford, pp. 11-29.

Rutter, M. L. (1979) 'Protective factors in children's responses to stress and disadvantage.' In M. W. Kent and J. E. Rolf (eds) *Primary prevention of psychopathology. Social competence in children*. University Press of New England, Hanover, NH, pp. 49-74.

Sameroff, A. J. (2000) 'Developmental systems and psychopathology', *Development and psychopathology,* 12, pp. 297-312.

Schäfers, B. (2002) *Sozialstruktur und sozialer Wandel in Deutschland*. Lucius und Lucius, Stuttgart.

Schink, M. A. (2004**)** *Die Informationsgesellschaft : Charakterisierung eines neuen gesellschaftlichen Konzeptes anhand quantitativer Indikatoren und qualitativer Veränderungen*. Lang Verlag, Frankfurt am Main.

Schoon, I., & Duckworth, K. (in press) 'Leaving school early – and making it! Evidence from two British birth cohorts,' *European Psychologist*.

Sennett, D. (1998) *Der flexible Mensch: Die Kultur des neuen Kapitalismus*. Berlin Verlag, Berlin.

Silbereisen, R.K. (2005) "Social change and human development: Experiences from German unification", *International Journal of Behavioral Development*, 29, pp. 2-13

Silbereisen, R. K., & Pinquart, M. (2008) *Individuum und sozialer Wandel: Eine Studie zu Anforderungen, psychosozialen Ressourcen und individueller Bewältigung.* Juventa, Weinheim.

Silbereisen, R. K., Pinquart, M., Reitzle, M., Tomasik, M. J., Fabel, K., & Grümer, S. (2006) *Psychosocial resources and coping with social change* (SFB 580 Mitteilungen Band 19). Sonderforschungsbereich 580 – Gesellschaftliche Entwicklungen nach dem Systemumbruch, Jena.

Silbereisen, R. K., Pinquart, M., & Tomasik, M. J. (2010) 'Demands of social change and psychosocial adjustment: Results from the Jena study.' In R. K. Silbereisen and X. Chen (eds) *Social change and Human Development: Concept and results*. Sage, London, pp. 125-147.

Silbereisen, R.K., Reitzle, M., & Pinquart, M. (2005) 'Social change and individual development: A challenge-response-approach.' In K.W. Schaie and G. Elder (eds) *Historical influences on lives and aging.* Springer, New York, pp. 148-165.

Silbereisen, R. K. & Wiesner, M. (2000) 'Cohort change in adolescent developmental timetables after German unification: Trends and possible reasons.' In J. Heckhausen (eds) *Motivational psychology of human development: Developing motivation and motivating development*. Elsevier, Amsterdam, pp.271-284.

Stosberg, M. (1998) 'Alternde Gesellschaft und die Entwicklung von Familien- und Netzwerkbeziehungen.' In W. Clemens and G. M. Backes (eds) *Altern und Gesellschaft: Gesellschaftliche Modernisierung durch Altersstrukturwandel*. Leske + Budrich, Opladen, pp. 171-185.

Titma, M. & Tuma, N. B. (2005) 'Human agency in the transition from communism: Perspectives on the life-course and aging.' In K. W. Shaie and G. H. Elder Jr. (eds) *Histroical influences on lives and aging*. Springer, New York, pp. 108-143.

Tomasik, M. J., Silbereisen, R. K., & Pinquart, M. (in press) 'Individuals negotiating demands of social and economic change: A control theoretical approach,' *European Psychologist*.

Troll, L. (2000) *Moderne Technik bringt Vielfalt in die Arbeitswelt: Der Computer prägt immer mehr Arbeitsplätze ohne die herkömmlichen Arbeitsmittel zu verdrängen*. Institut für Arbeitsmarkt- und Berufsforschung, Nürnberg.

van Dyk, S., & Lessenich, S. (2009) *Die jungen Alten. Analysen einer neuen Sozialfigur*. Campus Verlag, Frankfurt am Main.

von der Heyde, C. & Loeffler, U. (1993) 'Die ADM Stichprobe,' *Planung und Analyse,* 20, pp. 49-53.

Voß, G. G. (2001) 'Der Arbeitskraftunternehmer und sein Beruf.' In W. Dostal and P. Kupcka (eds) *Globalisierung, veränderte Arbeitsorganisation und Berufswandel*. IAB, Nürnberg, pp. 155-171.

Westerhof, G. J. & Keyes, C. L. (2006) 'After the fall of Berlin wall: Perceptions and consequences of stability and change among middle-aged and older East and West Germans', *Journals of Gerontology: Psychological Sciences and Social Sciences,* 61B, pp. 240-S247.

Weymann, A. (1998) *Sozialer Wandel: Theorien zur Dynamik der modernen Gesellschaft*. Juventa, Weinheim.

Worth, S. (2002) 'Education and employability: School leavers' attitudes to the prospect of non-standard work', *Journal of Education,* 15, pp. 163-180.

Zapf, W., Breuer, S., & Hampel, J. (1987) *Individualisierung und Sicherheit: Untersuchungen zur Lebensqualität in der Bundesrepublik Deutschland.* Verlag C.H. Beck, München.

Authors' Note

Rainer K. Silbereisen, Department of Developmental Psychology and Center for Applied Developmental Science, Friedrich Schiller University, Jena. Martin J. Tomasik, Center for Applied Developmental Science, Friedrich Schiller University, Jena. The Jena Study on Social Change and Human Development (PI: Prof. Dr. Rainer K. Silbereisen) was funded by the German Research Foundation (DFG) as a subproject (SFB580-04-C6) of the Collaborative Research Center 580 'Social Developments in Post-Socialistic Societies: Discontinuity, Tradition, and Structural Formation'. We thank cand. psych. Claudia Recksiedler for assistance in data analysis and in map preparation.

For more information, please contact
llakescentre@ioe.ac.uk
LLAKES Centre
Institute of Education
20 Bedford Way
WC1H 0AL
London
UK


National
Institute of
Economic and
Social Research


University of
BRISTOL


UNIVERSITY OF
Southampton
School of Education


E·S·R·C
ECONOMIC
& SOCIAL
RESEARCH
COUNCIL