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Differences in subjective well-being between rural and urban areas in Denmark

Henrik Lauridsen Lolle

Introduction

In this chapter, we investigate the differences in subjective well-being between urban and rural areas in Denmark. We expect Denmark to be a good example of the reversing of the urban–rural gap in subjective well-being. As written in the framing essay to this section, in developing countries in general the level of subjective well-being is higher in cities than in rural areas, while in developed countries this gap is lessened or even reversed. We will undertake analysis on unique data, regarding the richness and size as well as the structure. The data includes a cross-sectional survey data set from 2015, merged with individual-level register data with yearly measures between 1982 and 2017.

The design of the survey questionnaire makes it possible for us to analyse the urban–rural difference in subjective well-being in several different ways. For instance, we can measure these differences on the dimension of *life satisfaction* as well as the dimension of *affects*, both positive and negative. Furthermore, we have measures of life satisfaction on several domains, like family, job and spare time. Lastly, we also have measures of *eudaimonic* aspects, like feeling of autonomy. It is rare to have access to all these different subjective well-being measures together with nearly ideal possibilities to investigate differences in these between urban and rural local areas.

The panel design of the register data opens possibilities to test a series of hypotheses concerning migration between urban and rural areas and subjective well-being. Unfortunately, we cannot follow individuals across time from the survey data, but the combination of cross-section survey data and panel register data enables analyses that are somewhat comparable to ‘real’ panel analyses. For instance, we can compare subjective well-being of people who have moved from the city to the countryside with the subjective well-being of alike people who we *know*, from the register data, will move from the city to the countryside one or two years later. This resembles to some degree panel analysis.

The independent variables of primary interest will be measures of a differentiation between rural and urban areas, but not as a simple dichotomy. Primarily, we will here use (1) a five-point municipality typology; (2) an individual-level measure from Statistics Denmark on degree of urbanisation; and (3) these two measures in combination.

Discussion of Denmark as a case

Denmark was, together with the other Scandinavian countries and the Netherlands, placed as one of the core *universal* (or *social democratic*) welfare states in Esping-Andersen's (1990) typology. Although there has been much debate of welfare state retrenchment, Denmark can still be characterised as a universal welfare state with a high degree of economic equality (Béland et al., 2014; van Kersbergen et al., 2014). Especially since the municipality reform in 1970, when around 1,200 municipalities were amalgamated to 275 and 'an advanced inter-municipal equalization system was established' (Blom-Hansen, 2012), this equality has to a high degree applied to differences between local areas too, including a diminishing difference in economic capabilities between urban and rural municipalities. For instance, Kurt Houllberg (2000) showed how the municipalities became ever more alike in respect of different key public service measures, indicating more homogeneity in public service quality. In 2007, the Danish municipal structure was once again reformed. Municipalities were amalgamated to now ninety-eight municipalities with a minimum of 20,000 inhabitants (besides a few exceptions, for instance some smaller islands). After this reform in the municipal structure there followed, among other things, reforms in the inter-municipal equalisation schemes that led to still more equalisation between rich and poor municipalities (Blom-Hansen, 2012; Etzerodt & Pedersen, 2018). Although relatively poor municipalities still complain about an unfair system, the municipalities in Denmark have a high degree of equality regarding public service. This said, there are more than marginal differences in public service expenditures between municipalities in Denmark. For instance (Jensen & Lolle, 2013) found rather large differences between municipalities in spending on elder care in 2005, especially that those municipalities with a large percentage of elderly had lower spending per elder citizen, and these municipalities are mostly rural municipalities. Furthermore, in Denmark we still see rural–urban migration, abandoned houses in rural areas, closure of shops in villages and closure of, for instance, public educational institutions and hospitals in rural areas because of centralisation.

Despite these developments, we can expect Denmark to be a good example of the reversal of the urban–rural gap in subjective well-being in

developed countries. Easterlin et al. (2011) wrote that the urban–rural difference in life satisfaction is sizeable in less developed countries with urban dwellers being the most satisfied, while it is negligible or even reversed in the developed countries due mostly to a levelling of urban and rural occupational structures, income levels and education. The authors further write that primarily two factors can possibly explain this: first, the weakening of the close bond between place of work and place of residence following from development in economy and information technology, and second, a growing proportion of elderly, free to decide where to live in their retirement. You could say, along with Meijers and Burger (2017) and Burger et al. (2020), that the countryside in this way also *borrow*s the positive effects from big cities. In geographically small Denmark, there is nowhere a very far from periphery to centre. Being also an economically highly developed universal welfare state, including a high degree of equality between citizens and between municipalities, we expect that the above-mentioned reversing trend will be pronounced in Denmark.

Overall, previous research supports this expectation. In relation to the two municipality structure reforms in 1970 and 2007, we have seen a number of research publications concerning mostly the effects from size of municipality on aspects of democracy and satisfaction with public service. Because of the high correlation between number of inhabitants and urbanisation, and because satisfaction with democracy and public service potentially relates to subjective well-being, these research results are relevant also in relation to the question on the urban–rural dimension and well-being. Democracy and autonomy are central elements of well-being, and satisfaction with public service can be considered as a domain satisfaction of the overall concept of subjective well-being. Some of this research mostly concerns the effect from jurisdictional geographical area, e.g. Lassen and Serritzlew (2010), while other studies, e.g. Kjær and Mouritzen (2003), Lolle (2000) and Nielsen and Vestergaard (2014), directly or indirectly also concern the division between urban and rural areas. The overall impression from these and other investigations is that there seems to be a weak negative effect from degree of urbanisation on evaluation of democracy and public service quality.

From the international literature, written about in the framing essay of this section, empirical analyses generally show a higher average level of social capital and participation in voluntary work in rural areas, things that positively affect subjective well-being. Research on Danish data has also found such results. For instance, Sørensen and Levinsen (2010) and Henriksen and Levinsen (2019) found large negative effects from big city areas on participation in voluntary work, and Svendsen and Svendsen (2014) found that, although generalised social trust is higher in cities, particularised social trust, understood as trust in neighbours and people in the neighbourhood,

is higher in rural areas. The authors argue that this kind of particularised social trust is more valuable with respect to reciprocal help and feeling of safety. These findings are in line with the theoretical propositions in urban sociological theory developed by Louis Wirth (1938), and used extensively by Adam Okulicz-Kozyran (for instance Okulicz-Kozaryn & Mazelis, 2018), hypothesising that in cities we will see a pecuniary nexus displacing personal relations, a growing tendency of anomie, restlessness, blasé attitude, etc.

All these things considered, it seems a bit strange that for many years we have seen a negative media discourse about rural areas in Denmark, with the use of terms like ‘the rotten banana’, indicating the overall geographical shape of the most concentrated rural areas. Several schools, hospitals and other public institutions have closed in recent years, especially in rural areas; people lose their jobs, people migrate to the city, villages have problems with abandoned houses, etc. Sørensen and Svendsen (2014) also show that the countryside in Denmark has a bad reputation in the population. This spurs Jens Fyhn Lykke Sørensen (2018) to ask in a report title, ‘Are things really so bad in the countryside?’ (author’s translation). He analyses survey data from the Danish sample of the European Social Survey 2002–2014, and his conclusion is that living in the countryside on average seems fine, no matter the bad reputation and media discourse. Before statistical controls for compositional effects, the average level of subjective well-being in the countryside lies a bit above subjective well-being in the city, and on the same level after controls. On newer data, the Danish sample of the European Value Study 2017, Lolle and Andersen (2019) find no subjective well-being divide between city and countryside either before or after statistical controls.

Empirical expectations as well as some more explorative hypotheses

Above, we have discussed some important issues in relation to the Danish case when investigating the divide in subjective well-being between urban and rural areas. As a geographically small, universal welfare state, Denmark most likely has only minor differences in subjective well-being between urban and rural areas. If we find any significant overall difference, we expect a higher level of subjective well-being in rural areas, and that denser social networks and a higher participation in voluntary work might explain at least some of this difference. Of course, the list of factors that potentially can cause differences in subjective well-being between urban and rural areas is very long, many of which are also discussed at some length in the framing essay. For instance, we know that in rural areas there are bigger proportions

of married people and elderly people, and both groups have higher average levels of subjective well-being. On the other hand, people in rural areas on average have lower incomes, which in general tends to lower subjective well-being. In the analyses, we therefore take account of the compositional effects from age, marital status and other background variables.

Besides these factors and the above discussion on local democracy, local service and civil associational life, big cities have more cultural offers, restaurants, museums, sporting events and so on. On the other hand, the city has its own problems, with noise, pollution and crime and with the social order, as argued by sociologists like Simmel, Durkheim, Wirth and much later Okulicz-Kozaryn. Likewise, urban areas in general have a higher degree of income inequality, and there is nowhere like the city to expose economic wealth. At the same time, the countryside can offer natural environmental qualities that cities cannot compete with, like open green space and forests.

In the regression analyses below, we are able to include many of the above-mentioned factors as potentially explaining variables. This counts, for instance, for variables measuring aspects of associational life, trust in local politicians and feeling of attachment to place of living. However, there are countless potentially explaining factors. Because of the hierarchical structure of the data, with samples of respondents from a series of municipalities, we have the possibility to pinpoint possible outlying municipalities and to do more case-oriented and detailed analyses on these. However, as evident from the analyses below, no municipalities stand out with respect to subjective well-being.

Somewhat exploratively, we investigate whether differences in subjective well-being between urban and rural areas are homogeneous across different dimensions of subjective well-being: cognitive, affective and eudaimonic. Parallel to this, we also analyse differences between domain-specific subjective satisfaction measures, and we investigate whether the effects from domain-specific measures on overall life satisfaction are homogeneous between urban and rural areas.

Whether or not we find any significant difference in the *average level* of subjective well-being between urban and rural areas, we might expect marked differences among specific groups of people. From a policy perspective, this could be an interesting question, regardless of whether we see a difference on average or not. The pinpointing of who thrives and who do not thrive in cities and countryside, respectively, might provide the policy-making process with valuable information. For this reason, we analyse some specific groups of people separately.

Okulicz-Kozaryn and Velente (2019) found that the youngest, millennial, generation in the US thrives significantly better in big cities, while Burger et al. (2020) found that, in developed countries in general, this only applies

to highly educated young people. Furthermore, these authors found that in recent years we have witnessed a growing number of low-educated people with low job security in the city that have worryingly low levels of subjective well-being. This hypothesis might be stretched to also include higher-educated young people facing job insecurity, referring to city well-being problems among members of the *precariat* (Standing, 2011). Anyway, we will, more or less exploratively, analyse young people aged 18–25 and 26–35 respectively. Like other developed countries, Denmark has had a net migration from rural to urban areas. However, in recent years more young women than men have migrated to cities for education, leaving the remaining young men potentially with problems of finding a partner. For this reason, we analyse an interaction effect between sex and urban–rural typology among young people.

Despite the net migration from rural to urban areas, a sizeable number of people still migrate the other way, from urban to rural areas. Not least, we see this type of migration among elderly people who want to spend their retirement in the countryside. We have register data on all respondents included in the survey, and these register data occur both before and after the survey interviews. Because of this structure of the data, we can construct several comparison groups that can help us in the conclusion about the effect of migration on well-being. Regarding the elderly who in their retirement have moved from the city to the countryside, we can compare these with similar people who will do the same one to three years after the time of the survey interviews. Likewise, we can compare these elderly urban–rural migrants with similar people that stay in the city.

Of course, groups other than elderly people migrate from urban to rural areas, both families with small children and middle-aged people. However, a large number of people migrating to the countryside move away again after a few years, and a sizeable number of the rural immigrants feel that they do not belong to the place (Nørgaard et al., 2010). Therefore, a working hypothesis is that newcomers in rural areas feel less recognition, participate less in local associations and do less voluntary work than do long-term residents, and that this affects their satisfaction with their everyday life. We therefore will also analyse newcomers in rural areas separately. As in the analysis on elderly urban–rural migrants, we match the migrants with comparable groups to measure the effect of migration. More exploratively, we analyse the well-being for both urban–rural and rural–urban migrants.

A few last issues that can complicate the analysis of potential differences in subjective well-being between urban and rural areas should be mentioned. First, people from different cultures potentially can give on average different answers to the same question about subjective well-being no matter that they have the same level of subjective well-being. This applies to cultures like nation cultures and language cultures as well as subcultures (Lolle &

Andersen, 2019). Second, people from different cultures can have different levels of expectations, which might result in well-being differences too (Mouritzen, 1985–1986; Hjortskov, 2018; Schwandt, 2015).

Data and the prime dependent and independent variables

The survey data covers thirty-eight (of ninety-eight) Danish municipalities with subjective well-being as the central theme. In each municipality, we have survey data from approximately 1,000 respondents. The rich, individual-level register data, measuring sex, age, place of residence, education, income, members of household etc., covers all people with a permanent address in Denmark, and we can match this data with the survey data. Added to this data are also several municipality-level key measures. The design of the survey data set, with representative data from many municipalities all around the country, makes it possible for us to investigate the difference between urban and rural municipalities with multilevel analysis, and thereby better differentiate individual-level explanations from place-level explanations.

In the main analysis on differences in subjective well-being between urban and rural areas, we use a measure of life satisfaction on a zero-to-ten-point scale as the dependent variable. The overall distribution of this variable is depicted in Figure 18.1. However, we will comment on a parallel analysis with a variable measuring the affect dimension of subjective well-being too. Furthermore, we include variables on the eudaimonic dimension as independent variables in the final regression model.

As the primary independent variable, measuring the urban–rural continuum, we use a municipality typology with five categories. The graphical distribution of these municipalities is shown in Figure 18.2 with a depiction of the municipality typology.

The primary research agenda is to investigate the distribution of levels of subjective well-being from urban (dark) to rural (light). In Figure 18.3 we show how the case municipalities distribute along factors that according to the theory could affect the feeling of well-being. It is apparent that these distributions to a high degree match the pattern in Figure 18.1, which shows the urban–rural typology. For instance, the periphery municipalities and the rural municipalities have had negative or zero population change in the years up to the survey period, they have a small proportion of higher-educated people, and they have a low Gini-coefficient, i.e. low level of inequality. However, whether this overall pattern suppresses the feeling of well-being in rural municipalities is hard to say. Furthermore, do rural areas then have resilience to resist this pressure (Scott, 2013; Li et al., 2019)?

In some of the analyses discussed below, we collapse some of the typology categories and even use a single urban–rural dummy variable. Measuring

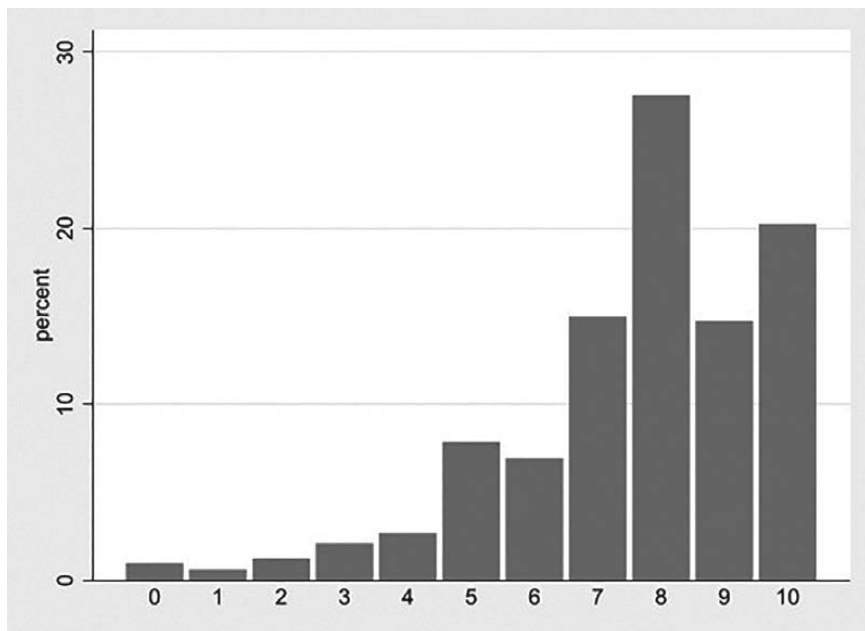


Figure 18.1 Distribution of life satisfaction, population weighted. Exact wording of survey question (translated from Danish): All in all, how satisfied are you with your life nowadays? 0 = Not at all satisfied; 10 = Fully satisfied.

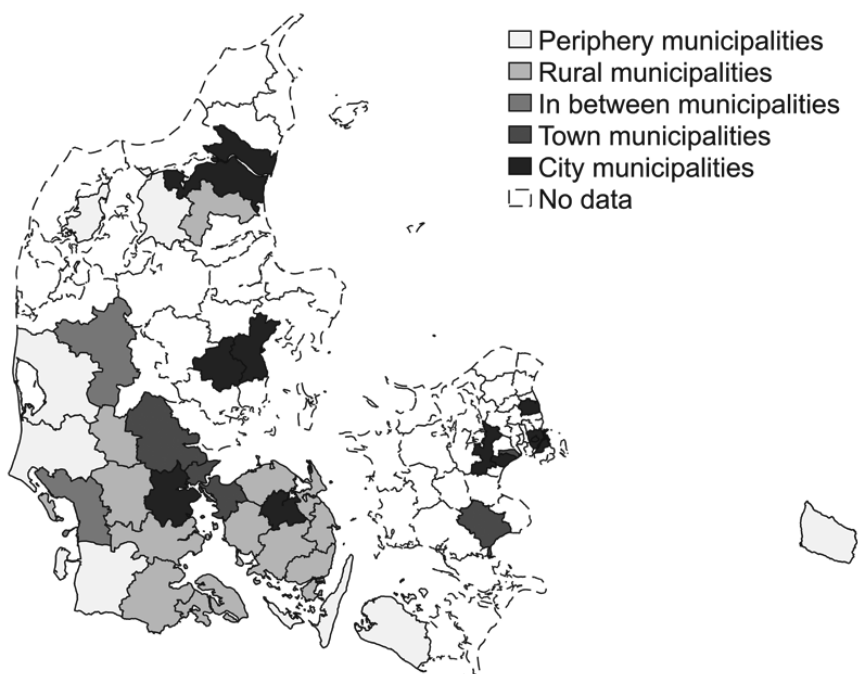


Figure 18.2 The thirty-eight Danish municipalities included in the survey data from 2015. Approximately 1,000 respondents from each of the thirty-eight municipalities.

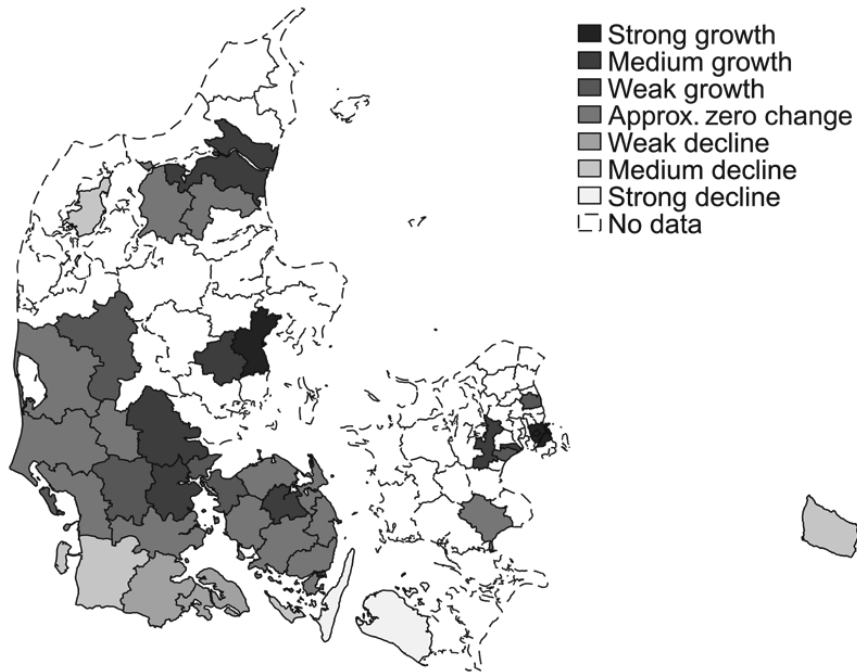


Figure 18.3 Graphical distribution of three municipality characteristics.
 (a) Population change in per cent 2007–2016. (b) Higher education (post-graduate)
 in per cent among 30+ years old. (c) Gini-coefficients.

the urban–rural dimension on the level of municipality alone could be problematic. Also, in city municipalities, one can live in the countryside. The degree of urbanisation and the centre–periphery dimension is of course strongly correlated. However, they are surely not the same thing. It would not be far-fetched to hypothesise a negative effect on well-being from periphery together with a positive effect from living outside dense urbanised areas. This is just a special case of the hypothesis about the countryside borrowing from the city, having the best of both worlds. For this reason, we include an individual-level variable from Statistics Denmark measuring degree of urbanisation at place of residence. This variable is originally on an ordinal scale in thirteen categories from city-area in the capital to place of residence with fewer than 200 inhabitants. However, we use it as a dummy variable, indicating whether the respondent is living either in a small village or in an area with fewer than 200 inhabitants.

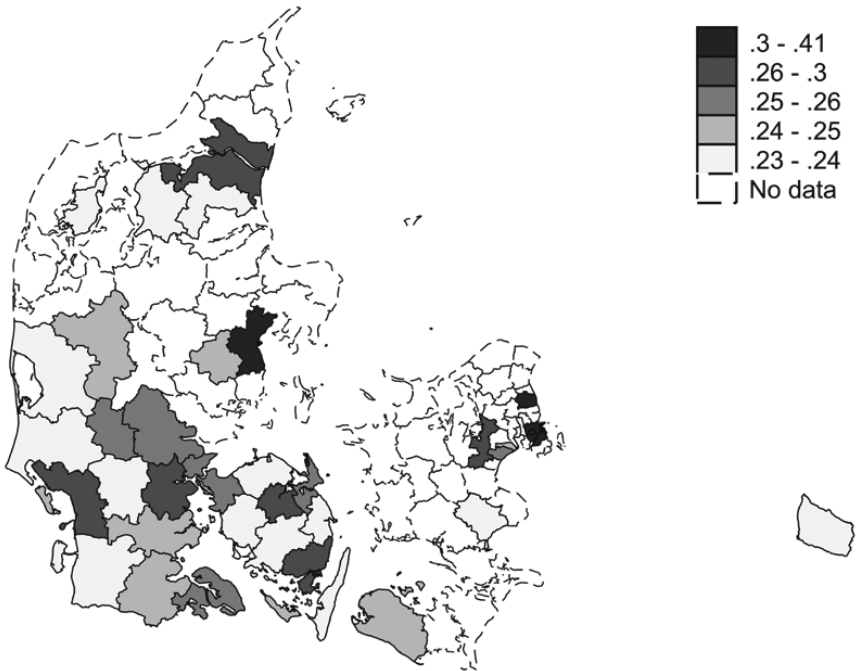
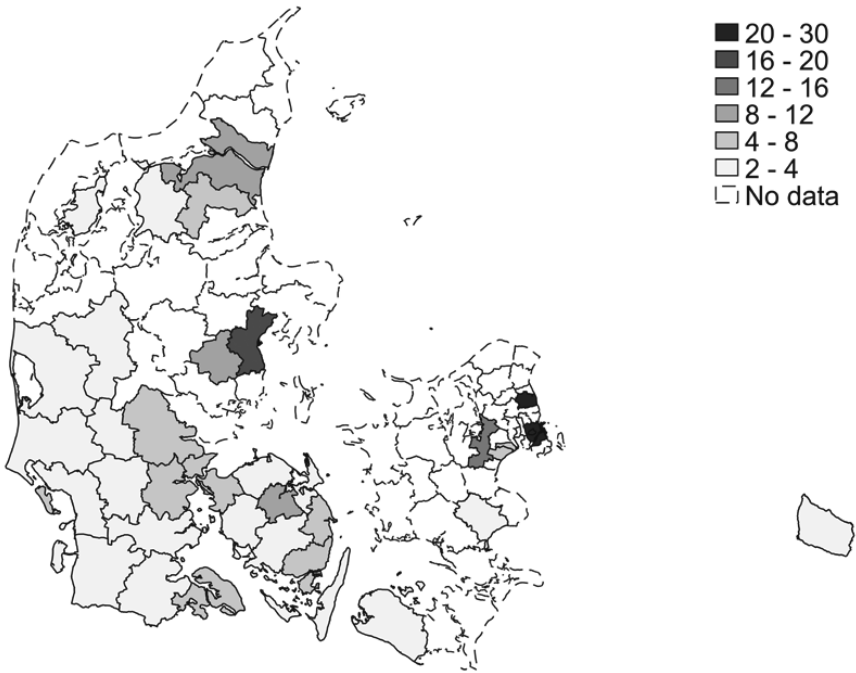


Figure 18.3 (cont.)

Results

We now present the results from the analyses of differences between urban and rural areas in subjective well-being. In the first part of this section, we use a series of regression models to explore differences in life satisfaction between urban and rural areas. In the regression models, we include several explanatory background factors that could possibly also explain some of the difference in subjective well-being between urban and rural areas. In the following subsection, we investigate potential mediating factors. Then we redo some of the analyses from the first subsection with different dimensions of subjective well-being and with several different domain satisfaction measures as dependent variables. In the last subsection, we test the hypotheses about specific groups of people, for instance young single men in rural areas, and we analyse subjective well-being in relation to different migration patterns.

Difference in life satisfaction between urban and rural areas

Because of the hierarchical structure of the data, with respondents embedded in municipalities, we use multilevel regression analysis. By way of this, we can investigate two kinds of variation in the dependent variable, variation between respondents in the different municipalities and variation between municipalities. Apart from the extra possibilities with multilevel analysis in comparison with ordinary regression analysis, we reduce the risk of bias in the estimation of regression coefficients and standard errors.

However, using life satisfaction on a zero-to-ten-point scale as dependent variable, it turns out that it does not matter much for the results whether we use multilevel regression or ordinary regression. Although we see a lot of variation in the dependent variable, nearly all of this variation is between individuals and not between municipalities. It is a bit surprising that the variation in average level of life satisfaction between municipalities was *that* small. However, and as discussed above, there are reasons to believe that differences in average life satisfaction between Danish municipalities would not be pronounced either.

In Table 18.1, we show the results from five regression models, where we successively include blocks of independent variables across the models. As just discussed above, we find only a minor variance in life satisfaction between municipalities. Still, however, the municipality typology has some explanatory power, as we show in the results from model 1. The level of life satisfaction in the *periphery* municipalities, the *rural* municipalities and the *in-between* municipalities is statistically significant, higher than the level of life satisfaction in the *city* and *town* municipalities. In model 2, we

Table 18.1 Effect from urban–rural municipality typology on life satisfaction. Multilevel linear regression. N=38,524^A (thirty-eight municipalities).

	Model 1	Model 2	Model 3	Model 4	Model 5 ^B
Cons	7.57***	7.57***	7.92***	7.79***	1.42***
Municipality typology	***	***	***	***	***
City municipality (ref.)	.00	.00	.00	.00	.00
Town municipality	.00 ^{NS}	.00 ^{NS}	-.03 ^{NS}	.01 ^{NS}	.03 ^{NS}
In-between municipality	.16***	.16***	.13***	.17***	.08***
Rural municipality	.11***	.11***	.04 ^{NS}	.09***	.04*
Periphery municipality	.14***	.14***	.07 ^{NS}	.13***	.06***
In the countryside		-.00 ^{NS}	-.02 ^{NS}	-.04 ^{NS}	-.05***
Woman			-.03 ^{NS}	.02 ^{NS}	-.04*
Age			***	***	***
18–29 (ref.)			.00	.00	.00
30–39			-.23***	-.27***	-.11***
40–49			-.30***	-.39***	-.15***
50–59			-.27***	-.38***	-.15***
60–69			.22***	.09 ^{NS}	-.06 ^{NS}
70–79			.31***	.18*	-.03 ^{NS}
80+			.13 ^{NS}	.02 ^{NS}	.00 ^{NS}
Marital status			***	***	***
Married (ref.)			.00	.00	.00
Cohabiting			-.21***	-.15***	-.05 ^{NS}
Widowed and single			-.27***	-.21***	-.14***
Divorced and single			-.67***	-.46***	-.20***
Single			-.77***	-.48***	-.13***
Education				*	***
Primary school (ref.)				.00	.00
Secondary school				.00 ^{NS}	-.03 ^{NS}
Further education, short				-.09 ^{NS}	-.07*
Higher education				-.07*	-.18***

(continued)

Table 18.1 (Cont.)

	Model 1	Model 2	Model 3	Model 4	Model 5 ^B
Labour marked status				***	***
Self-employed (ref.)				.00	.00
Employee				.05 ^{NS}	.18***
Assisting spouse				.68***	.43***
Unemployed				-1.22***	-.06 ^{NS}
Maternity leave				.68***	.77***
Cash assistance				-2.14***	-.01 ^{NS}
Rehabilitation				-2.24***	.09 ^{NS}
Early retirement				-.72***	.39***
Pensioner				.02 ^{NS}	.16***
Student				-.28***	.05 ^{NS}
Others, outside workforce				-.43***	.11 ^{NS}
Equivalent income				***	NS
1. quantile (ref.)				.00	.00
2. quantile				.12**	.03 ^{NS}
3. quantile				.22***	.03 ^{NS}
4. quantile				.39***	.01 ^{NS}

* $p < .05$; ** $p < .01$; *** $p < .005$ ^AIn model 5 a little less: 36,805^BModel 5 continues in Table 18.2

include an individual measured variable for living in the countryside. In all the included types in the municipality typology, a respondent can have residence in an area with an urban character or out in the countryside. As we discussed above, measuring instead the urban–rural continuum with an individual-level variable could potentially be a better choice in the investigation of an urban–rural happiness divide than by measuring at the municipality level. However, as is apparent from the results, this variable is not statistically significant, and it does not change the coefficients for the municipality typology at all.

In models 3 and 4 we include six individual-level categorical background variables to investigate whether compositional effects can explain

the difference in life satisfaction between urban and rural municipalities. As can be seen from model 3, gender is statistically insignificant, but age and marital status show rather strong and highly statistically significant effects, and these two variables explain a large part of the difference between urban and rural municipalities in life satisfaction. Older people, 60 years and above, are, on average and as expected, more satisfied with life than are younger people, and there is a larger proportion of older people in the rural municipalities. Furthermore, singles and divorced people are on average less satisfied with life than others, and the proportion of these two groups is larger in the urban municipalities.

In model 4, the variable for education is insignificant. From prior research, this was also expected. However, and as expected too, marital status, labour market status and income are statistically significant. The effect from these variables together nearly turns the urban–rural differences in life satisfaction back to the level from model 2. The urban municipalities have a marginally larger proportion of unemployed and people on cash assistance and rehabilitation, which actually explains a bit more of the higher life satisfaction in rural municipalities, but what really matters in model 4 is a powerful explanatory and positive effect from income. Income is on average significantly higher in urban municipalities, especially the proportion of equivalent household income in the 4th quantile, also shown in Figure 18.2, and the dummy variable for this category has a strong effect on life satisfaction. Adjusting for the higher proportion of households with high income in urban municipalities is the main reason why in model 4 we again see a difference in subjective well-being between urban and rural municipalities. In a model not shown, we also included a municipality-level variable measuring the proportion of households with high income. However, this variable is statistically insignificant, so the effect from income should be considered as mainly an individual-level effect, i.e. a compositional effect. Furthermore, we have checked the effect from two more municipality-level variables, proportion with higher education and a measure of the Gini-coefficient in the municipalities. In particular, one could expect an effect from the Gini-coefficient because inequality is found to affect happiness, although the findings have been mixed. Neither the Gini-coefficient nor the variable measuring proportion of people with higher education were anywhere near statistical significance.

The conclusion so far is that, when we just look at the differences in level of subjective well-being between urban and rural areas, people living in rural areas are on average slightly, but highly statistically significantly, more satisfied with life than are people living in urban areas. When we adjust for compositional factors, some of these factors make the difference larger, and others help to explain the difference. Income, especially, enlarges the difference, while age and marital status help explain it. Overall, the adjustments

of compositional effects do not change the difference in life satisfaction between urban and rural municipalities more than just marginally. At this point, we should mention that we also could consider the factors, which we here call *compositional* factors, to be *mediating factors*. For instance, the city life and environment could perhaps increase the ‘risk’ of becoming divorced. However, there is not a clear pattern between divorce percentages and city living. No matter what, when we compare individuals that are equal on all these different factors, people living in rural surroundings on average seems to be somewhat more satisfied with life than are people living in urban surroundings.

Mediating factors explaining the urban–rural well-being gap

We now turn to factors that we probably should consider as being mediating factors more than control factors. In model 5, we include several variables measuring mostly respondents’ emotions, opinions and conceptions on different matters. From theory and prior empirical research, we expect some of these factors to help explain the higher level of subjective well-being in rural areas. This applies to an expectation of better social networks and feeling of attachment to place in rural areas, and on the other hand to an expectation of more stress, pollution, noise and fear of crime in the city. These expectations are discussed above and, more thoroughly, in the framing essay to this section. Other variables are included here because of notoriously strong effects on subjective well-being. This applies to the respondent’s own perception of his or her health status and for the measure of autonomy and meaning in life, both of which related to the eudaimonic dimension of subjective well-being. Originally, these variables are scaled differently, some on a four- or five-point ordinal scale and others on a zero-to-ten scale. However, we have recoded all of them to have a minimum of zero and a maximum of one. We show the effect on life satisfaction from all these variables in Table 18.2, and the model is a continuation of model 5 in Table 18.1.

Four variables have effects above one point on life satisfaction, *meaning in life*, *autonomy*, *appreciation of others* and *subjective health*, while two have effects above 0.5, *help from friends and family* and *feeling of stress*. That these variables have strong effects is expected, and the signs of the effects were expected too. If we look back on part one of this model in Table 18.2, the municipality typology is still highly statistically significant, with the three rural types more satisfied than the two urban municipality types. However, the effects from the three rural municipality types are more than halved. Now, the question is which of these variables help explain the higher average life satisfaction in rural municipalities after control for compositional effects.

Table 18.2 Effects from feelings, opinions and beliefs.

	Model 5 ^A
Subjective health (1 = 'best health')	1.20***
Feeling stress (1 = most stress, 'every day')	-.62***
Social contacts (1 = 'every day')	-.10*
Help from friends and family (1 = 'always someone to talk with and not alone')	.72***
Voluntary work (1 = 'every day')	.05 ^{NS}
Exercising (1 = 'every day')	.00 ^{NS}
Pollution, noise and smell (1 = 'every day')	.01 ^{NS}
Income to serve needs (1 = 'very easy to pay bills and money enough')	.32***
Trust in local politicians (1 = 'very high trust')	-.04 ^{NS}
Trust in local service (1 = 'very high trust')	.18***
Trust national politicians (1 = 'very high trust')	.16***
Social trust (1 = 'trust people very much')	.17***
Feeling of safety outside at night (1 = 'very high degree')	-.11 ^{NS}
Crime in local area (1 = 'very high degree')	.10***
Meaning in life (1 = 'complete')	2.79***
Autonomy (1 = 'very high degree')	2.15***
Appreciation of others (1 = 'very high degree')	1.25***

^AThis model is continued from Table 18.1, model 5.

Note: All independent variables in this table are scaled from zero to one.

To investigate which variables are mainly responsible for the explanation of the difference in life satisfaction between urban and rural municipalities, we have made a *Blinder-Oaxaca decomposition* of the effects (Jann, 2008). The results from this analysis (not shown) reveal that *subjective health* actually widens the gap between urban and rural municipalities statistically significantly. The main responsible factors for *explaining*, i.e. diminishing, the gap are a lower average level of *feeling of stress* in rural municipalities and a higher average level of *meaning in life*. The other factors have only marginal explanatory power.

We can also consider domain satisfaction as mediating factors explaining differences in overall satisfaction with life between urban and rural areas. For this reason, we have made parallel analyses with just domain satisfaction

measures as independent variables instead. The domains are (1) economic situation, (2) family life, (3) social relations, (4) work, (5) transport time to work, (6) amount of spare time, (7) daily life, (8) possibilities for leisure time activities and (9) housing situation. At first, we ran the analyses without domains 4 and 5, including all respondents. Afterwards, we ran them again with the inclusion of these two domains, but only for employed people. In both setups, two domain satisfaction measures clearly stand out in explaining the overall higher level of life satisfaction in rural areas, namely satisfaction with daily life and satisfaction with family life. To a lesser degree, satisfaction with social relations is also an explanatory factor.

Domain satisfaction and different dimensions of subjective well-being

While we can consider domain satisfaction as mediating variables with overall life satisfaction as the dependent variable, it is also relevant to treat the variables measuring domain satisfaction as *dependent* variables. We have run a series of regression analyses with all domain satisfaction measures plus the measures for the other dimensions on subjective well-being as dependent variables. We show the effect from municipality typology and living in the countryside from all these analyses in Table 18.3. The effects shown are controlled for the same background variables as in model 4 in Table 18.1.

The general picture from these regression analyses on well-being domains is that respondents living in the three rural municipality types on average are statistically significantly more satisfied than are respondents in the city municipalities. Moreover, this tendency is greatest for the periphery municipality type. This applies to satisfaction with family life, social relations, job, commuting time, amount of spare time, everyday life and housing situation. Only concerning the possibilities for spare time activities is this general pattern reversed, which fits well with the higher supply of many kinds of cultural activities like sports, coffee shops, restaurants, museums, etc. On this domain, we also see a rather strong and highly statistically significant lower level of satisfaction among respondents living in the countryside, no matter the type of municipality. Besides, there is a highly statistically negative effect from the countryside dummy on satisfaction with the personal economic situation too.

Looking at the regression analyses on different dimensions of subjective well-being, it is the same overall picture, though more diffused. Without going into detail, there is an average tendency that, in rural municipality types, life is felt to be more meaningful, there is more joy, less anxiety and less feeling of depression. Furthermore, the effect estimates from the countryside dummy show a statistically significant more pronounced feeling of meaning in life, less anxiety and less feeling of depression in the countryside.

Table 18.3 Effect from municipality types and living in the countryside. Multilevel linear regression with samples from thirty-eight municipalities. Control from all background variables included in model 4, Table 1. All dependent variables are here scaled from zero to ten.

	Municipality typology (ref. = city)					
	Town	In between	Rural	Periphery	Country-side	N
DEPENDENT VARIABLES:						
Domain satisfaction						
<i>Satisfaction with ...</i>						
personal economic situation	.00 ^{NS}	.08 ^{NS}	.05 ^{NS}	.09 ^{NS}	-.12 ^{***}	38,546
family life	.04 ^{NS}	.17 ^{***}	.08 [*]	.14 ^{**}	-.00 ^{NS}	38,523
social relations	.04 [*]	.04 ^{NS}	.06 ^{NS}	.09 ^{***}	.04 ^{NS}	38,496
job	.05 ^{NS}	.01 ^{NS}	.11 [*]	.19 ^{***}	.03 ^{NS}	19,077
commuting time	.13 ^{NS}	.40 ^{***}	.39 ^{**}	.48 ^{***}	.03 ^{NS}	18,964
amount of spare time	-.00 ^{NS}	.14 ^{**}	.09 ^{NS}	.20 ^{***}	-.06 ^{NS}	22,211
everyday life	.02 ^{NS}	.18 ^{***}	.10 ^{**}	.17 ^{***}	.03 ^{NS}	38,562
possibilities for spare-time activities	-.26 ^{NS}	.19 ^{**}	-.21 ^{**}	-.35 ^{**}	-.45 ^{***}	38,003
housing situation	.01 ^{NS}	.18 ^{***}	.14 ^{**}	.20 ^{***}	.01 ^{NS}	38,568
Dimensions of subjective well-being						
Meaning in life	-.02 ^{NS}	.09 ^{***}	.08 [*]	.12 ^{***}	.08 ^{**}	38,441
Appreciation by others	-.02 ^{NS}	.02 ^{NS}	.07 [*]	.06 ^{NS}	.01 ^{NS}	38,434
Autonomy	-.04 ^{NS}	.14 ^{***}	.04 ^{NS}	.02 ^{NS}	.02 ^{NS}	38,408
Joyful	.03 ^{NS}	.19 ^{***}	.11 ^{**}	.16 ^{***}	.02 ^{NS}	38,517
Anxious	-.05 ^{NS}	-.09 ^{NS}	-.13 [*]	-.16 [*]	-.11 ^{**}	38,496
Depressed	.00 ^{NS}	-.06 ^{NS}	-.08 ^{NS}	-.10 ^{NS}	-.11 ^{**}	38,485

*p<.05; **p<.01; ***p<.005

Specific groups, migration and subjective well-being

Earlier we discussed some hypotheses regarding specific groups of people and about migration and subjective well-being. For instance, we discussed the young generation in the city, single younger men in rural areas and elderly people migrating from urban to rural areas. Although we have a very large number of respondents, it becomes difficult to analyse some of these groups. Investigating subjective well-being differences between urban and rural areas for specific groups is usually not problematic for us. However, when we investigate specific groups of *migrants*, the number of respondents gets rather small. This counts, for instance, for the elderly urban–rural immigrants. Only 101 respondents between 58 and 72 years of age had moved from a city area to the countryside during the three-year period before the survey interviews, and just 82 of these could be matched properly with similar people staying in the city. None of the analysed subjective well-being effects from elderly migrating from city to countryside were statistically significant either.

In general, when analysing the urban–rural gap in subjective well-being for specific groups, we do not find any pattern that markedly and statistically significantly stands out in comparison with the overall pattern. For instance, there is no indication that the younger generation should be happier and more satisfied with life if they live in the city. This is also the case when analysing the migration effect on subjective well-being measures. In Table 18.4 we show a series of matching comparisons of urban–rural migration as well as rural–urban migration.

There are no statistically significant effects on subjective well-being measures when analysing urban–rural migrants matched with urban stayers, and the same applies with rural–urban migrants matched with rural stayers. Only two effects from Table 18.4 are statistically significant. Urban–rural migrants are weakly statistically significantly more worried and feeling sad than are comparable rural dwellers.

Conclusions

We stated two main hypotheses about differences in subjective well-being between local Danish areas. First, that in the geographically small, highly developed universal Danish welfare state, with an advanced inter-municipal equalisation system, there would be no large differences in subjective well-being between local areas. Second, that any found differences between local areas would, on average, be with rural municipalities having higher levels of subjective well-being. A higher level of subjective well-being would be in

Table 18.4 'Effect' from migration (urban–rural and rural–urban). Coarsened exact matching¹, each with two different comparison groups.

	Urban–rural migrants		Rural–urban migrants	
	(N=690)	(N=687)	(N=553)	(N=558)
	1 Vs urban stayers	2 Vs rural inhabitants	3 Vs rural stayers	4 Vs urban inhabitants
Effect on:				
Life satisfaction	–.03 ^{NS}	–.13 ^{NS}	–.09 ^{NS}	–.01 ^{NS}
Feeling joy yesterday	–.03 ^{NS}	–.16 ^{NS}	–.03 ^{NS}	.05 ^{NS}
Feeling worried	–.04 ^{NS}	.24 [*]	.19 ^{NS}	.05 ^{NS}
Feeling sad yesterday	.00 ^{NS}	.21 [*]	.11 ^{NS}	–.06 ^{NS}

* $p < .05$

Matched on sex, age, marital status, education, labour market status and income.

¹See, for instance, Blackwell et al. (2009), King & Nielsen (2019).

accordance with the general trend in Western countries, where rural areas are able to 'borrow' the positive effects from big cities and at the same time still possess the values from the natural environment, social capital, lower fear of crime etc. Both main hypotheses were supported. There were only minor differences in subjective well-being between municipalities. However, on average, the rural municipalities had statistically higher levels of subjective well-being, and the higher average level of subjective well-being in rural areas was still highly statistically significant after controlling for several background variables measuring age, marital status, income etc.

In the main analysis of these differences, presented in Table 18.1, we used a zero-to-ten-point measure of life satisfaction. However, the higher level of subjective well-being was also seen in other subjective well-being dimensions and in nearly all domain satisfaction measures. Only regarding possibilities for spare time activities did city municipalities score higher on average. A lower level of experienced stress and a higher level of feeling meaning in life in rural municipalities were able to explain the higher level of satisfaction with life in rural municipalities. However, the difference in subjective well-being between urban and rural areas should not be overstated, and of course neither should the factors explaining this difference. At least as important is the fact that Denmark has quite a high degree of equality in subjective well-being between geographical areas. This also applies to specific groups, for instance highly educated people,

young people and people with low income. Likewise, there is not much difference in subjective well-being between urban–rural migrants and statistically matched stayers in the city, and the same can be said the other way around with rural–urban migrants.

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