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Security-Related Issues in EU-SILC Surveys

Descriptive analysis of data from the 2007–2016 period

SILC (Statistics on Income and Living Conditions) is an annual statutory survey on income and living conditions in all Member States of the European Union. In Austria, around 6,000 households comprising about 11,000 people are surveyed by Statistics Austria every year. The survey also contains a number of questions relevant to security and questions which should be assigned to the topic of security and society. This includes, for example, the issue of crime in the living environment, the sense of security and the accessibility of a police station. The evaluation results of the 2007–2016 surveys will be presented in this paper, focusing on the descriptive evaluation.



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1. INTRODUCTION

The aim of this article is to summarise the results of any items relevant to security from the SILC survey series in a journal article and to point out some anomalies. In this respect, the article fits into the multitude of surveys and questions around the so-called subjective sense of security. Research in this area has experienced a great boom; however, a large, comprehensive security theory that combines different approaches is not (yet) in sight. In the author's opinion, the studies, which were limited in scope, especially in terms of sample size and number of items have led to a lot of "noise" and sometimes conflicting results rather than clarifying the causes and relationships around the "sense of security" construct.¹ The figures presented here are not intended to reduce these noise signals; the goal is rather to make the results, not widely known thus far, more accessible to a wider public. A synopsis of the results of the years 2007–2016 (ten sur-

veys) are provided. The focus is on items that measure the existence of crime in the neighbourhood, the accessibility of police stations and the sense of security and trust in the police.

2. ABOUT EU-SILC

SILC is an annual survey of income and living conditions in all EU Member States and some non-Member States. The surveys have been carried out since 2003 in Austria by the Austrian Federal Statistics Institute (Statistics Austria). "The employment situation and income of household members, household equipment and housing situation, including expenditure on housing, but also education, health and satisfaction are of particular interest in the SILC. Conclusions can be drawn from this information about the living conditions of various population groups, about poverty and about social exclusion. These results constitute an important basis for social policy in Austria and the EU" (Statistik

Austria 2018a). In Austria, the BMASK (Federal Ministry of Labour, Social Affairs, Health and Consumer Protection) in particular deals with the results relating to poverty and risk of poverty. The current legal basis for SILC is the BMASK National Statistics Regulation on Income and Living Conditions (ELStV) (RIS 2018).

Around 6,000 households take part in the survey every year in Austria. They are interviewed in person via CAPI (Computer Assisted Personal Interview) or CATI (Computer Assisted Telephone Interview). Each household participating in the survey answers a household questionnaire, and each member of the household answers a personal questionnaire (approximately 11,000 people per year). The present evaluation includes items from the household questionnaire as well as from the personal questionnaire. The addresses are taken at random from the central civil register. SILC is a rotating panel survey, in which three-quarters of households surveyed are interviewed again. This allows changes to be observed over time (Statistik Austria 2018a). The use of complex weighting measures enables an extrapolation to the population of Austria. Detailed questionnaires, methodical reports and data tables are available for download on the SILC homepage of Statistics Austria.² The evaluated datasets (SILC microdata 2007–2016) can be obtained free of charge from Statistics Austria for scientific purposes.

3. CRIME, VIOLENCE AND VANDALISM IN THE NEIGHBOURHOOD

The issue of the existence of crime in the neighbourhood is included in the household questionnaire every year. It is the only question directly related to security that is raised every year by EU-SILC. The exact question is as follows: “(Do you have this problem with your area ...) Crime, violence or vandalism in the area?” (Statistik

Austria 2016, 26). The answer options are “Yes” and “No”. The explanations in the questionnaire provide more information on the question: “Only problems that arise in the living environment. This question refers to behaviour that deviates from usual behaviour patterns, e.g. theft, drug dealing and aggressive, threatening people. It is also about issues that exist currently but are not expected to become permanent (e.g. major events). Personal perception of the respondent” (ibid., 259).

Contrary to interpretations made in the daily press, the so-called subjective sense of security cannot be measured by this item.³ This question only provides information on whether crime exists or is perceived in the neighbourhood. Conclusions regarding the extent of the interviewee’s sense of security or fear of crime cannot be drawn; this relates to two separate items. For example, a respondent may be aware of a crime issue in the neighbourhood, but this does not necessarily affect his or her sense of security. The results of the evaluation of the connection between the items “crime in the neighbourhood” and “sense of security in the neighbourhood after dark” will be presented later in the article.

The existence of crime has been proven to have a certain impact on sense of security. However, it should be noted at this point that people’s living environment and municipality of residence are far from being the only spaces in which they move. In times of increased occupational and private mobility and apparently diminishing distances between city centres and peripheries, other spaces are also gaining importance with regard to the sense of security. Commuters, who may experience crime, violence or vandalism in large cities and metropolitan areas, should be considered in this context. Thinking of security and the sense of security exclusively in local terms would therefore be inadequate.

The overall results for Austria on the question of crime ranged between 11.1 % (2008) and 15.1 % (2009) in the last ten years. Figure 1 shows that the proportion of “Yes” answers in the 2007–2016 period is consistently below the EU-27 average (Eurostat 2018).

In the last survey for which data are available (SILC 2016), 12.4 % of the respondents answered the question in the affirmative. To put this simply, over a long-term average, one in ten households in Austria say that there is a problem with crime in their neighbourhood. The comparison of the national overall results of European countries shows that Austria is in the middle range (see Figure 2).

3.1 The problem of crime by municipality size class and degree of urbanisation

The degree of urbanisation (three-tier structure, area with high, medium and low population density)⁴ and municipality size class (four-tier regional structure) were evaluated in order to determine spatial differences. The municipality size class distinguishes Vienna (1), municipalities with more than 100,000 inhabitants other than Vienna (Graz, Linz, Salzburg, Innsbruck – 2), municipalities with more than 10,000 and fewer than 100,000 inhabitants (3) and municipalities with 10,000 or fewer inhabitants (4).⁵ The usual evaluation by federal state was not carried out, as in the opinion of the author, the state level, especially for large, heterogeneous states such as Lower Austria or Styria, although popular, is of little significance. Furthermore, the evaluation of smaller states would have been subject to greater statistical uncertainties.

A striking urban-rural gradient can be seen in the “crime in the neighbourhood” item both when evaluated by municipality size class and by degree of urbanisation.

Source: Mاتیasek

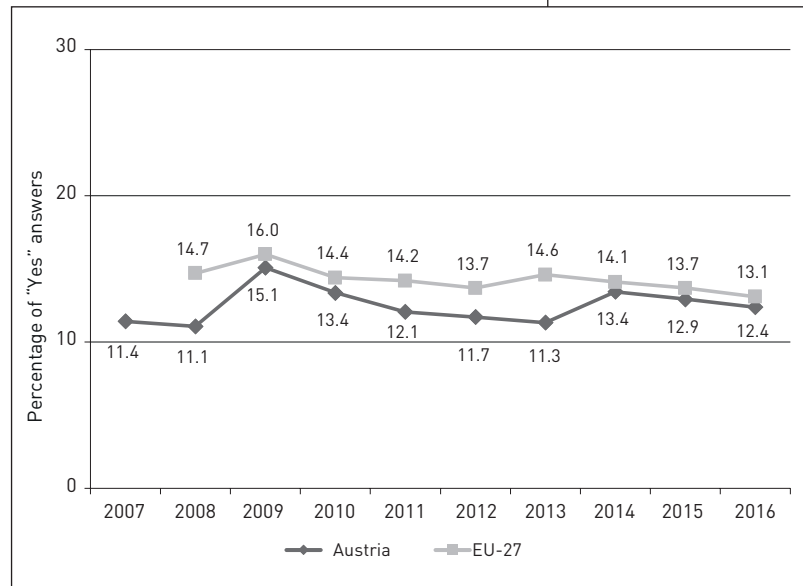


Figure 1: Crime, violence or vandalism in the neighbourhood, Austria/EU-27, SILC 2007–2016

Problems such as crime and vandalism in the neighbourhood are primarily found in metropolitan areas and large cities. The analysis, separated by municipality

Source: Mاتیasek

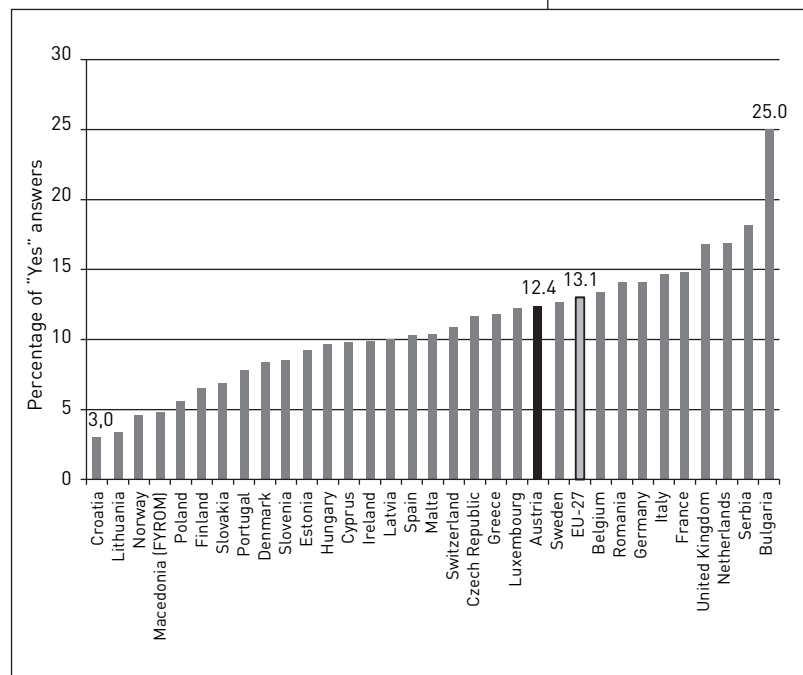


Figure 2: Crime, violence or vandalism in the neighbourhood, comparison of European states, SILC 2016

Source: Matiassek

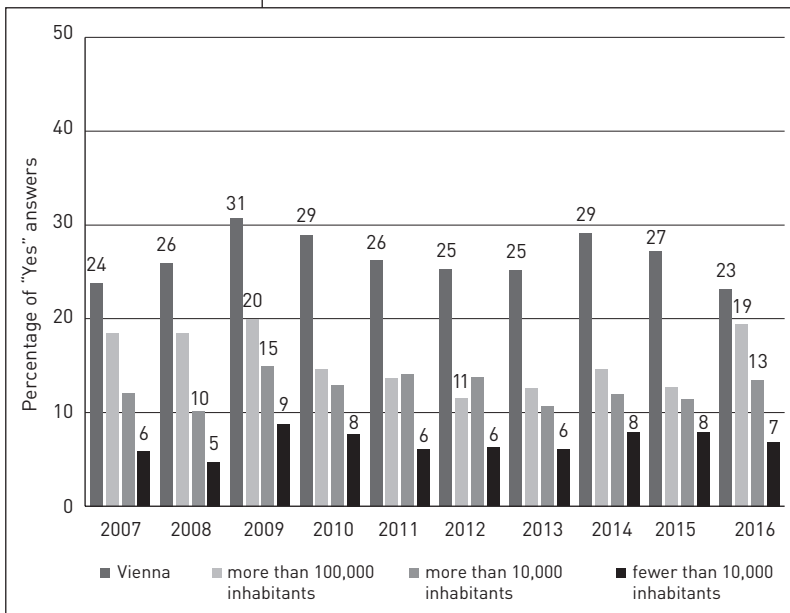


Figure 3: Crime, violence or vandalism in the neighbourhood by municipality size class, SILC 2007–2016

size class, indicates that the problems are mentioned most frequently in the federal capital Vienna. This is hardly surprising, given the so-called “objective crime situation”, which shows that this metropolitan area has a significantly higher crime rate than rural, especially peripheral areas. However, in the context of the presumption expressed both here and there, it is worth mentioning the fact that there is a disproportionate perception of offences in the countryside, an irrationally high level of fear of crime associated with this and a low sense of security.

In more detail, Vienna’s values range from 23 % (2016) to 31 % (2009) in terms of “Yes” answers. Municipalities with more than 100,000 inhabitants (Graz, Linz, Salzburg, Innsbruck) are between 11.5 % (2012) and 20 % (2009), municipalities of size class 3 are between 10.1 % (2008) and 14.9 % (2009) and municipalities of size class 4 are between 5 % (2008) and 9 % (2009) (see Figure 3).

The proportion of those who indicate a problem with crime is more than three

times higher in Vienna than in small municipalities. The municipalities in size classes 3 and 4 are very closely correlated in some surveys, and in 2011 and 2012, the percentages for size class 3 were even higher than those in class 2. In each of the SILC surveys carried out between 2007 and 2016, municipality size class (2016: $r=0.20$, $p=0.01$) and degree of urbanisation (2016: $r=0.20$, $p=0.01$) correlate weakly, but significantly with the “crime in the neighbourhood” item.⁶

4. NOISE POLLUTION

The question of noise pollution is raised annually using a household questionnaire. Noise pollution is relevant in the police and security context in that a considerable proportion of night-time operations at the weekend, especially during the summer, can be attributed to this problem. The exact question is as follows: “(Do you have this problem with your accommodation or area ...) Noise from neighbours or noise from the street (traffic, business, factories etc.?)” (Statistik Austria 2016, 26). As with the problem of crime, the only answer options are “Yes” and “No”.

Overall, noise is one of the most commonly reported issues of the housing problems (dampness, darkness, bad air and crime) surveyed. In the 2014–2016 surveys, 17 to 18 % indicated that noise pollution was a problem. The value is therefore somewhat lower than in the 2007–2013 period. Most recently (SILC 2016), around 17.3 % of the population, or one in five Austrian households, perceived noise pollution as a problem in their living environment. When considering the level of noise pollution by degree of urbanisation, between 2007 and 2016, around 25 % of those surveyed in densely populated areas, around 20 % of those in areas with intermediate population density and around 14 % of those in thinly-populated areas indicated

experiencing noise pollution in their living environment. In the evaluation by municipality size class, Vienna has the highest proportion, at 27 %, of people bothered by noise.

4.1 Correlation between “crime” and “noise pollution” in the neighbourhood

The evaluation of the cross-classified table (crime, noise pollution) shows that around 41 % of those respondents perceiving crime as a problem in their neighbourhood also report noise pollution, whereas only 16 % of respondents who do not have a problem with crime also indicate noise problems. A four-field correlation shows that in the survey years 2007–2016, there are no correlations between the existence of noise and crime in the neighbourhood ($0.1 < \phi < 0.2$, $p = 0.01$); only one survey (SILC 2009) shows a very weak correlation with $\phi = 0.20$, $p = 0.01$.

5. ACCESSIBILITY OF POLICE STATIONS AND OTHER IMPORTANT FACILITIES

The accessibility of important facilities and local infrastructure was surveyed within the framework of SILC 2007 and SILC 2012 in the “Housing Conditions” module of the household questionnaire. “Police station” was also among the facilities surveyed. Both surveys took place before the 2014 police station reform, which merged police stations throughout Austria in the following years. A before-and-after comparison is, unfortunately, not possible. The exact question was as follows: “How easy or difficult is it for your household to reach the following facilities (...)?” (Statistik Austria 2015a, 30). The answer options were “very easy” (4), “easy” (3), “somewhat difficult” (2) and “very difficult” (1).

Throughout Austria, three-quarters (2007: 70.1 %) indicated in the 2012 survey that they could reach a police station “very

easily” or “easily”. Around a quarter said in 2012 that the accessibility of the police was “somewhat difficult” or “difficult” (2007: 29.9 %). In 2012, police stations were very difficult to reach for 4.2 % of the Austrian population (about 340,000 people). In comparison: reaching a hospital was “very difficult” for 10.3 % or around 855,000 people.

The issue of police accessibility was a hot potato politically in 2014, especially in rural, peripheral areas, and was the subject of intense debate and negotiation. Hence, accessibility in 2012 was evaluated by municipality size classes. While accessibility was evaluated very highly in Vienna or the major cities (Graz, Linz, Salzburg, Innsbruck), it shows that accessibility decreases with both degree of urbanisation and municipality size. Table 1 shows the evaluations of the accessibility of individual facilities for municipalities with fewer than 10,000 inhabitants, arranged in descending order by mean value.

The police station (mean value/MV=2.85, standard deviation/SD=0.78) falls in the lower third of this “accessibility ranking”. Poorer accessibility is only demonstrated for hospitals and cultural and recreational

Source: Matiassek

Accessibility 2012	Mean	Standard-deviation
Municipalities with fewer than 10,000 inhabitants		
Accessibility of cafés and restaurants	3.25	0.70
Accessibility of banks	3.18	0.78
Accessibility of grocery stores	3.16	0.80
Accessibility of a general practitioner	3.10	0.76
Accessibility of a public park	3.04	0.88
Accessibility of postal services	2.96	0.84
Accessibility of a pharmacy	2.94	0.83
Accessibility of public transport	2.89	0.95
Accessibility of a police station	2.85	0.78
Accessibility of cultural and recreational facilities	2.66	0.86
Accessibility of a hospital	2.41	0.82
SILC 2012, own evaluation, scale: very easy=4 to very difficult=1 Modal value for all items=3, N=4.7 million		

Table 1: Accessibility of various facilities in municipalities with fewer than 10,000 inhabitants, SILC 2012

Source: Matiassek

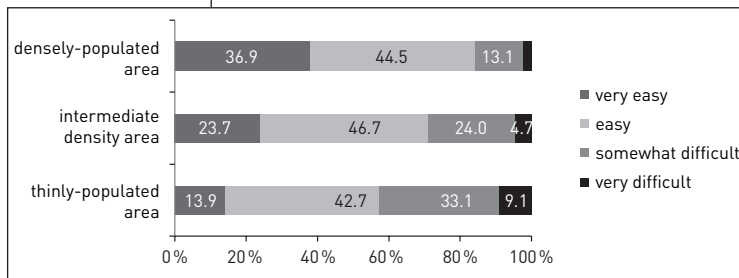


Figure 4: Evaluation of accessibility of a police station by degree of urbanisation, SILC 2012

Source: Matiassek

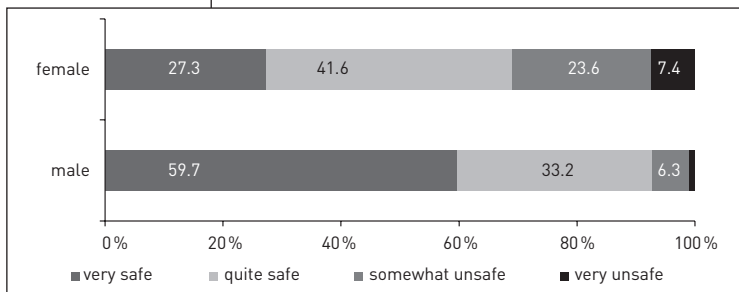


Figure 5: Sense of security in the neighbourhood after dark by sex, SILC 2013

Source: Matiassek

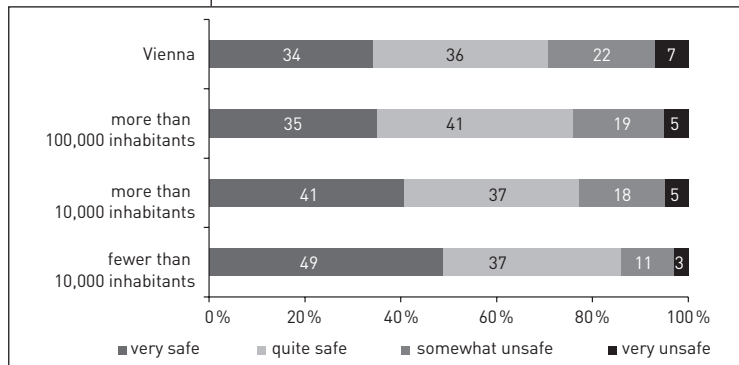


Figure 6: Sense of security in the neighbourhood after dark by municipality size class, SILC 2013

facilities. An evaluation disaggregated by degree of urbanisation illustrates the relatively poor accessibility of the police in rural areas: while in densely populated areas, 15.5 % describe accessibility as “somewhat difficult” or “difficult”, in areas with a low population density, it is around 42.2 %. It should be noted in the evaluation of this item that a desire for better accessibility cannot necessarily be inferred from the answers.

6. SENSE OF SECURITY

As part of SILC 2013, sense of security was surveyed in the “Material deprivation, well-being” module of the personal questionnaire. The exact question was as follows: “How safe do you feel when you are walking alone in your neighbourhood after dark?” The answer options range from “very safe” (1) to “very unsafe” (4) (Statistik Austria 2015b, 129). Overall, 80 % said they felt “very safe” or “quite safe”, while 19 % said they felt “a little unsafe” or “very unsafe”.

Significant differences between the sub-groups result in the evaluation by gender. A consistent pattern in the research results on fear of crime and sense of security is that women are more fearful of crime and feel more unsafe. The SILC results confirm the results of other studies. However, the fact that the difference between female and male respondents is so stark is still surprising. Thus, men demonstrate a mean value of 1.48 (SD=0.64) and women a mean value of 2.11 (SD=0.89). While only 7.2 % of men feel “very unsafe” or “somewhat unsafe” in their neighbourhood, the combined value for women is 31 % (see Figure 5).

The sense of security, evaluated according to degree of urbanisation and municipality size class makes this clear: as regards sense of security, there is also a city-countryside gap, although no significant linear correlation was found ($r > -0.15$). A comparison of the mean values by municipality size shows a greater sense of security in the small (MV=1.70, SD=0.8) and medium-sized municipalities (MV=1.87, SD=0.86) compared to a lower one in the major cities (MV=1.95, SD=0.86) and Vienna (MV=2.01, SD=0.92). The relative frequencies, shown separately in Figure 6 by municipality size class, illustrate this pattern.

6.1 Crime and sense of security in the neighbourhood

Respondents who perceive crime in their neighbourhood have a less pronounced sense of security in their neighbourhood after dark (MV=2.18, SD=0.92) than those who report no issues with crime (MV=1.76, SD=0.82). As can be seen in Figure 7, 82.4 % of respondents who have no issues with crime in their neighbourhood say they feel “very safe” or “quite safe”, while this was only 64.2 % for those who do perceive an issue.

7. TRUST IN THE POLICE AND OTHER IMPORTANT ORGANISATIONS

Trust in the police and other important institutions was surveyed in the module of the SILC 2013 personal questionnaire. The question for measuring trust in the police is: “How much do you personally trust the police in Austria?” The following were also surveyed: The “political system in Austria”, the “legal system in Austria”, the “municipal or district authorities” and the “media in Austria”. The answer options ranged from 0 (“do not trust”) to 10 (“fully trust”) (Statistik Austria 2015b, 129 f). Trust in these institutions is a condition for social peace and social cohesion in a democratic country. Since the data come from 2013, it would be particularly interesting to see current results.

The police enjoy the most trust, followed by the municipal or district authorities. The legal system falls into the upper mid-range. The Austrian media and the political system in Austria enjoy considerably less trust (see Table 2). An evaluation of trust in the police, broken down by presence of crime in the neighbourhood, yields the following results: trust in the police is higher for those who do not experience any issue with crime in their neighbour-

Source: Mاتيasek

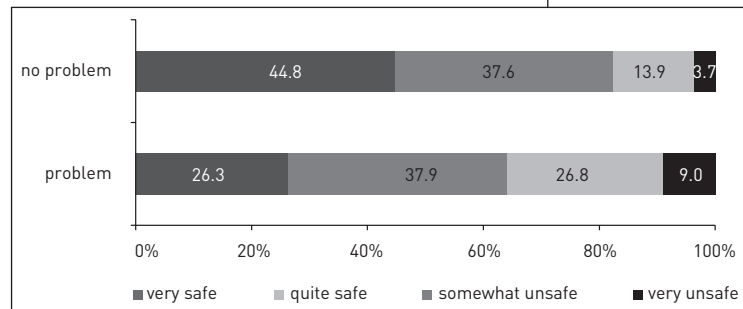


Figure 7: Sense of security in the neighbourhood after dark by crime as a problem in the neighbourhood, SILC 2013

hood (MV=7.18, SD=2.12) than for those who indicate experiencing crime, violence or vandalism in their neighbourhood (MV=6.58, SD=2.34).

However, no linear correlation can be demonstrated when examining the relationship between trust in the police and sense of security in the neighbourhood after dark (r=-0.06). A closer look at the cross-classification table explains this: clusters of the extreme value combinations “do not trust”/“feel very safe” and “feel very unsafe”/“do not trust at all” area responsible for the lack of correlation. It would also be interesting at this point to explore the background and motivation for this answer selection in more detail.

Source: Mاتيasek

	Mean	Median	Modal value	Standard-deviation
Trust in the police in Austria	7.12	8	8	2.15
Trust in municipal or district authorities in Austria	6.53	7	8	2.19
Trust in the legal system in Austria	5.91	6	5	2.37
Trust in the media in Austria	4.73	5	5	2.24
Trust in the political system in Austria	4.32	5	5	2.52

EU-SILC 2013, answer options from 0 (“do not trust”) to 10 (“fully trust”), own evaluation, N=6.2 million.

Table 2: Trust in institutions. Statistical indicators, SILC 2013

8. CONCLUSION

The results of the evaluation can be summarised as follows: Austria falls in

the European middle range with regard to problems with crime in the neighbourhood, with the proportion of those experiencing crime, violence or vandalism remaining relatively constant over the years. When differentiated by degree of urbanisation or municipality size class, a striking city-countryside gradient is shown. An equally large difference between city and countryside can be seen in the 2012 survey in the assessment of accessibility of key local facilities, such as police stations. A before-and-after comparison relating to the 2014 police station reform can, unfortunately, not be made due to lack of data. The question of trust in institutions raised in SILC 2013 ranks the police in first place. The executive (police and administrative authorities) and the judiciary enjoy a much

higher level of trust than the political system and the media.

The subjective sense of security was surveyed in 2013 and its range was at a high level in Austria. A particularly noticeable difference was between the sense of security of men and women, with the latter feeling significantly more unsafe. The sense of security is lower in urban areas and cities than in rural areas. Those who have a problem with crime in their neighbourhood also tend to feel more unsafe.

Of course, the wealth of data from the SILC surveys enables not only a brief overview, but also a large number of further exploratory analyses and an evaluation of the longitudinal dimension. Another contribution is being planned.

¹ See, for example, Goritzka/Kury 2006 and Kreuter 2002 on the methodological problems surrounding surveys on the subject of "subjective security".

² Comprehensive information can be found on the SILC website: Statistik Austria 2018a.

³ Szigetvari 2017.

⁴ The degree of urbanisation corresponds to the Eurostat definition (Statistik Austria 2018b).

⁵ For the definition of municipality size, see: Statistik Austria 2016, 20.

⁶ Based on the sample size (weighted more than eight million cases), all values have a statistical significance.

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