

Mathias Bug is Research Associate in the Department of Development and Security of DIW Berlin | mbug@diw.de

+++++ Work in process – please do not cite +++++

## **Empirical Bases for Decision Making in Home Affairs – is there anything more than national differences in the EU!?**<sup>1</sup>

By Mathias Bug

Crime as well as fear of crime play a crucial role regarding societal development, public life and individual planning. The legitimacy of democratic society can only be held up if it is the state having the monopoly over violence (executed through police forces), whilst the executive is overseen by parliaments and full access to the legal system for every citizen. However, there is very different cultures in policing and police competences within the European Union. Here, Germany plays a special role. On the one hand Germany's history of fascism and also communist ruling until 1990 in Eastern Germany might have an impact upon a society highly aware of surveillance.<sup>2</sup> On the other hand, in the area of home affairs, German federalism is of a divisive nature, with the main competence upon home affairs in the hands of *Länder*-governments. This creates already on a German scale different cultures of policing and expectations towards the police etc. It is especially the trust in state institutions that is endangered in case of a powerless police and in case of a too far reaching police. This makes it most obvious that decision making in home affairs need a solid empirical base regarding both, the actual nature of crime as well as society's perception of crime.

This paper shows in a case study how the WISIND-project tried to shed light upon crime and fear of crime in Germany. It becomes obvious that there is actually comprehensive empirical work needed to get an overview over the distribution of crime/crime perception in a federal country of 80 million people. Two major trends become apparent: First, there is a north-south divide, with the northern regions experiencing a far higher risk of crime and having more fear of crime. Second, rural/urban differences can be accounted for by the higher levels of everyday crime that affect citizens of towns and cities. This, however, gets questioned when crime via the internet is kept in mind. The extent of crime via the internet actually seems to have the power to even level out major differ-

---

<sup>1</sup> This article was written as part of the research project WISIND, *an economic security indicator for Germany*. It is financed by the German Federal Ministry of Education and Research as part of their "Social Dimensions of Security Research" funding line. The WISIND project and WISIND data were developed in close cooperation between Martin Kroh, Kristina Meier, Johannes Rieckmann, Eric van Um and Nina Wald. The author would also like to thank Enrique Fernandez, Martina Kraus, Jan-Lucas Schanze, and Bartosz Walenda for their support throughout this process. Excerpts from this paper can be found in Bug, M., Kroh, M., Meier, K. (2015): Regionale Kriminalitätsbelastung und Kriminalitätsfurcht – Befunde der WISIND-Studie. DIW-Wochenbericht 12-2015 – publication as Economic bulletin on March 19 2015. M. Bug and K. Meier (2015) How to Obtain a More Accurate Picture of Crime through Crime Statistics — Proposals and Methods. In DIW Economic Bulletin 2015 - 3. accessed February, 26, 2015 [www.diw.de/documents/publikationen/73/diw\\_01.c.494746.de/diw\\_econ\\_bull\\_2015-03-1.pdf](http://www.diw.de/documents/publikationen/73/diw_01.c.494746.de/diw_econ_bull_2015-03-1.pdf). as well as in M. Bug and K. Meier, "Herausforderungen bei der Messung von Kriminalität," *DIW Roundup* (2014), accessed December 2, 2014, [http://www.diw.de/sixcms/detail.php?id=diw\\_01.c.466936.de](http://www.diw.de/sixcms/detail.php?id=diw_01.c.466936.de) (in German only).

<sup>2</sup> Bug, M. (2013): Societal Divisions regarding Attitudes towards Digitized Security Measures? British versus German Perspectives. In Löblich, M., Pfaff-Rüdiger, S.: *Communication and Media Policy in the Era of the Internet*. p. 159-174.

ences between urban and rural crime numbers. Looking at the fear of crime, it also becomes most obvious, that arguing on base of relatively small national branches of EU-wide surveys (such as the European Social Survey or Eurobarometer) only might restrict the analysis to a national base rather than a regional analysis – which is important when looking at the German outcomes. Based on the WISIND-approaches – and the issues the project had to face – this paper tries to discuss ways to optimise EU-wide data regarding crime and fear of crime.

### **Measuring Crime: WISIND approach regarding crime statistics**

This chapter aims to show the distribution of crime in Germany. For this, police crime statistics (polizeiliche Kriminalstatistik – PKS) are treated so that they integrate dark figures (unreported crime) of crime types along with their specific grade of burden. The different treatments are based on own recent survey data.

Up until 2012, police crime statistics (PKS) in Germany, compiled by the Federal Criminal Police Office (Bundeskriminalamt, BKA), have taken the form of a list of the main categories of offenses with relevant figures for each one. In this form, the distribution of offenses across Germany is depicted at federal state level only (as well as by city with populations exceeding 200,000), and the overall picture consists of little more than total raw case numbers.<sup>3</sup>

For some time now, however, both the economic research<sup>4</sup> and international criminological research community have been asking the same question: whether the method applied hitherto — mere totalling of individual criminal offenses reported to the police — enables the social burden from crime to be analyzed at all. In light of this, the present paper will outline possible methods of combating the two main criticisms leveled at police crime statistics in Germany<sup>5</sup> — i. e., the missing dark figure of crime<sup>6</sup> and the lack of individual weighting or classification of criminal offenses.<sup>7</sup> The alternative methods presented give a more accurate picture of the burden to society from everyday crime.

In order to take account of the very heterogeneous population distribution across the individual *Länder* and in Germany as a whole, the considerations here are based on an aggregate of

---

<sup>3</sup> Federal Criminal Police Office (2010-2013): *Jahrbuch Polizeiliche Kriminalstatistik*. From 2013 on, the official crime burden is shown on a local district level rather than on the *Länder*-aggregation. For a critical review of this, see H. Entorf, “Anmerkungen zur Herleitung eines schadensgewichteten Index der Kriminalitätsentwicklung,” *MPRA Paper*, no. 56626, 3 (2014).

<sup>4</sup> For an overview, see Entorf, “Anmerkungen.” See also: Heinz, W.: *Judicature*. In: RatSWD: *Building on Progress*, (2010): 1197-1216, last accessed January 12, 2015, [http://www.ratswd.de/publ/KVI/Building\\_on\\_Progress\\_Band\\_II.pdf](http://www.ratswd.de/publ/KVI/Building_on_Progress_Band_II.pdf). Rat für Sozial- und Wirtschaftsdaten (2009): *Optimierung des bestehenden kriminalistischen Systems in Deutschland*. Nomos. Baden Baden.

<sup>5</sup> An overview of the status quo in research on crime rate assessment can be found in S. Eifler and D. Pollich, eds., “Empirische Forschung über Kriminalität” (2015). A brief overview can be found in Bug and Meier, “Herausforderungen.”

<sup>6</sup> C. Birkel, “Gefährdungen durch Kriminalität in “offiziellen” Zahlen und subjektivem Erleben der Menschen: Polizeiliche Kriminalstatistik und Dunkelfeldbefragungen,” in *Wie die Statistik belegt...*, ed. J. Röllgen, 5th SIRA Conference Series, (2014): 23-43, last accessed November 24, 2014, <http://athene.bibl.unibw-muenchen.de:8081/node?id=92194>. C. Birkel, “Hellfeld versus Dunkelfeld,” in S. Eifler and D. Pollich, *Empirische Forschung über Kriminalität*, (2015): 67-94; J. Stock, “Stand und Perspektiven der Dunkelfeldforschung in Deutschland und international,” in *Festschrift für Wolfgang Heinz*, (Baden-Baden 2012): 317–331; K. Sessar, “Kriminalitätswirklichkeit im Licht des Dunkelfeldes,” in *Festschrift für Wolfgang Heinz*, (Baden-Baden 2012): 262–274, W. Heinz, “Zum Stand der Dunkelfeldforschung in Deutschland,” in *Nationale und internationale Entwicklungen in der Kriminologie-Festschrift für Helmut Kury zum 65. Geburtstag*, eds. J. Obergfell-Fuchs and M. Brandenstein, (Frankfurt am Main: 2006): 241–263.

<sup>7</sup> Entorf, “Anmerkungen”; H. Spengler, *Ursachen und Kosten der Kriminalität in Deutschland*, PhD thesis, Law and Economics Department, TU Darmstadt (2004), last accessed June 12, 2014, <http://tuprints.ulb.tu-darmstadt.de/531/>.

criminal offenses at administrative district level. This approach allows us to see urban/rural differences, as well as differences between individual rural districts when comparing crime statistics (see Figure 1, maps on the bottom).

### **Crime Risk Assessment — Gap between Reported and Non-Reported Crime (the “Dark Figure” of Crime)**

The central database used to calculate crime rates is the German Police Crime Statistics, which includes data on the number of attempted and actual crimes reported to the police in the given reference period.

The problem with police crime statistics in Germany, however, is — as mentioned above — they only include officially reported criminal acts.<sup>8</sup> Figure 1 shows the aggregate distribution of reported offenses under “Non-Weighted Aggregate (without dark-figure adjustment).” For certain forms of crime, evidence of considerable gaps between reported and unreported offenses exist. Errors on the part of law enforcement agencies also play a role here.<sup>9</sup> As a general rule of thumb, it can be assumed that, given the extent of the damage and the need for an official police report for compensatory insurance claims, the figure for reported crimes is a more reliable measure of the occurrence of criminal activity than might be expected.<sup>10</sup> In literature, however, even for violent crimes<sup>11</sup> including homicide,<sup>12</sup> official crime statistics have been reported to be of limited reliability as a data source. Here, it must also be borne in mind that the ratio of reported to unreported crime for individual offenses changes over time.<sup>13</sup> In the UK, the Netherlands and in the USA, this problem has been faced by regular dark field surveys.<sup>14</sup> In Germany, however, the political step to face the dark field has not been taken until recently.<sup>15</sup>

To obtain a more accurate picture of the actual offenses committed in the various administrative districts in Germany, the authors of this report suggest adjusting the official crime statistics by a calculated estimate of the “dark figure of crime.” This approach is based on dark figure studies on victimization experiences conducted among the German population as part of large-scale representative surveys. Even in dark figure studies with large sample sizes, however, the approach used will admittedly involve a certain degree of subjectivity since such studies can ultimately only record whether and how people recall a criminal act, as well as what they are willing to relate in the survey situation.<sup>16</sup> Another problem with such surveys is the difference between the legal definitions used in official crime statistics and the common understanding of certain forms of crime that are typical of such surveys. Consequently, adjusting crime statistics to factor in the dark figure is somewhat subjective since the adjustment factor is formed on the basis of the subjective perception of victimization (and not on the ba-

---

<sup>8</sup> Birkel, *Viktimisierungssurvey*.

<sup>9</sup> Birkel, *Viktimisierungssurvey*, 26.

<sup>10</sup> Heinz, “Zum Stand,” 242.

<sup>11</sup> Sessar, “Kriminalitätswirklichkeit,” 265.

<sup>12</sup> Brinkmann et al., “Fehlleistungen bei der Leichenschau in der Bundesrepublik Deutschland,” (1997). In: *Arch Kriminol* 199, 1–12 und 65–74.

<sup>13</sup> Kersting and Erdmann, “Analyse,” 16–17.

<sup>14</sup> A good overview gives Guzy, N. (2015): *International vergleichende Viktimisierungssurveys. Aktuelle Herausforderungen und Ergebnisse des Methodenstests “ICVS-2”*. In Eifler S., Pollich, D. (ed.) *Empirische Forschung über Kriminalität*. Springer. Wiesbaden. Aebi, M., Linde, A. (2008): *Review of the current situation in respect of the collection of survey data on victimisation*. Université de Lausanne. See also for the British case: Institute for Peace and Economics (2013): *UK Peace Index*. Accessed November 15 2013. <http://economicsandpeace.org/publications>.

<sup>15</sup> In December 2014, some findings of a Germany wide dark field study have been published: Birkel, C., Guzy, N., Hummelsheim, D., Oberwittler, D., Pritsch, J. (2014): *Der Deutsche Viktimisierungssurvey 2012*. Accessed December 8 2014 [http://www.bka.de/DE/Presse/Pressemitteilungen/Presse2014/141208\\_\\_Viktimisierungssurvey2012.html?\\_\\_nnn=true](http://www.bka.de/DE/Presse/Pressemitteilungen/Presse2014/141208__Viktimisierungssurvey2012.html?__nnn=true) More-over the northern Länder Niedersachsen, Schleswig-Holstein and Mecklenburg-Vorpommern are realizing big dark field studies at the moment.

<sup>16</sup> Heinz, “Zum Stand,” 243f.

sis of police reports or even court findings).

Another factor to be taken into account is population differences. For instance, dark figure studies are subject to a minimum age requirement (normally 16), and participants must not be in prison or institutionalized.<sup>17</sup> Data from dark figure studies are thus not necessarily 100% comparable with PKS crime statistics.<sup>18</sup> Nonetheless, dark figure surveys do produce approximate data that help to offset structural inaccuracies inherent in official crime statistics.

Owing to the aforementioned problems with crime statistics in Germany, the authors of this report were compelled to conduct their own survey for their dark figure calculations. To do so, a dark figure factor was created as the average of the calculated differences between the PKS and survey results for the years 2012 and 2013 (see Table 1).

For this, in the period July through September 2014, as part of the WISIND project, the opinion poll company TNS Emnid conducted a representative telephone survey among 12,094 individuals in Germany, who were all asked about their personal experience with crime. Twenty percent of respondents were interviewed on cellphone numbers. The sample is a proportionally representative sample distributed evenly across Germany, with a minimum of 15 participants in each administrative district. The interviewees were asked whether they had been the victim of crimes that have a direct impact on the individual and the everyday context and consequently affect the subjective perception of personal security; this type of crime is referred to as everyday crime.

**Table 1: Means of Dark field Estimates for 2012 and 2013**

	Mean	Standard Deviation
<u>Murder and Manslaughter (1)</u>	1,8285	
Burglary	5,565	0,039
Theft	2,937	0,128
Bodily Harm	4,047	0,721
Threat	28,911	0,339
Crime via the internet	247,151	1.848
[1] Calculated on base of a Germany wide study about autopsy mistakes (Brinkmann 1997).		
<i>Source: Bundeskriminalamt (2012, 2013): Polizeiliche Kriminalstatistik. Bug, M.; Kroh, M.; Meier, K.; Rieckmann, J.; van Um, E., Wald, N. (2015): WISIND-data files: Crime Survey. Calculations by DIW Berlin.</i>		

The following offenses form the data basis of the approach described here – and were as good as possible translated into a manageable interview situation: theft (PKS Index \*\*\*\*00 without 440\*00), burglary (PKS Index 435\*00 and 436\*00, as well as 440\*00), bodily harm (PKS Index 222000 and 224000), threat (PKS-Schlüssel 232300, 673000, 232200 und 232400), Crime via the internet (PKS-Schlüssel 980100 via Internet) murder and manslaughter (PKS Index 892500). The results shown in this article are based on what is referred to as the frequency of offense. These are calculated according to the formula

(Absolute number of offenses × 100000)/(Number of inhabitants).

<sup>17</sup> In addition, for reasons of demographic change, the low participation of elderly people who are in need of care is becoming increasingly relevant.

<sup>18</sup> Birkel, *Viktimisierungssurvey* 31; Birkel, “Hellfeld versus Dunkelfeld.”

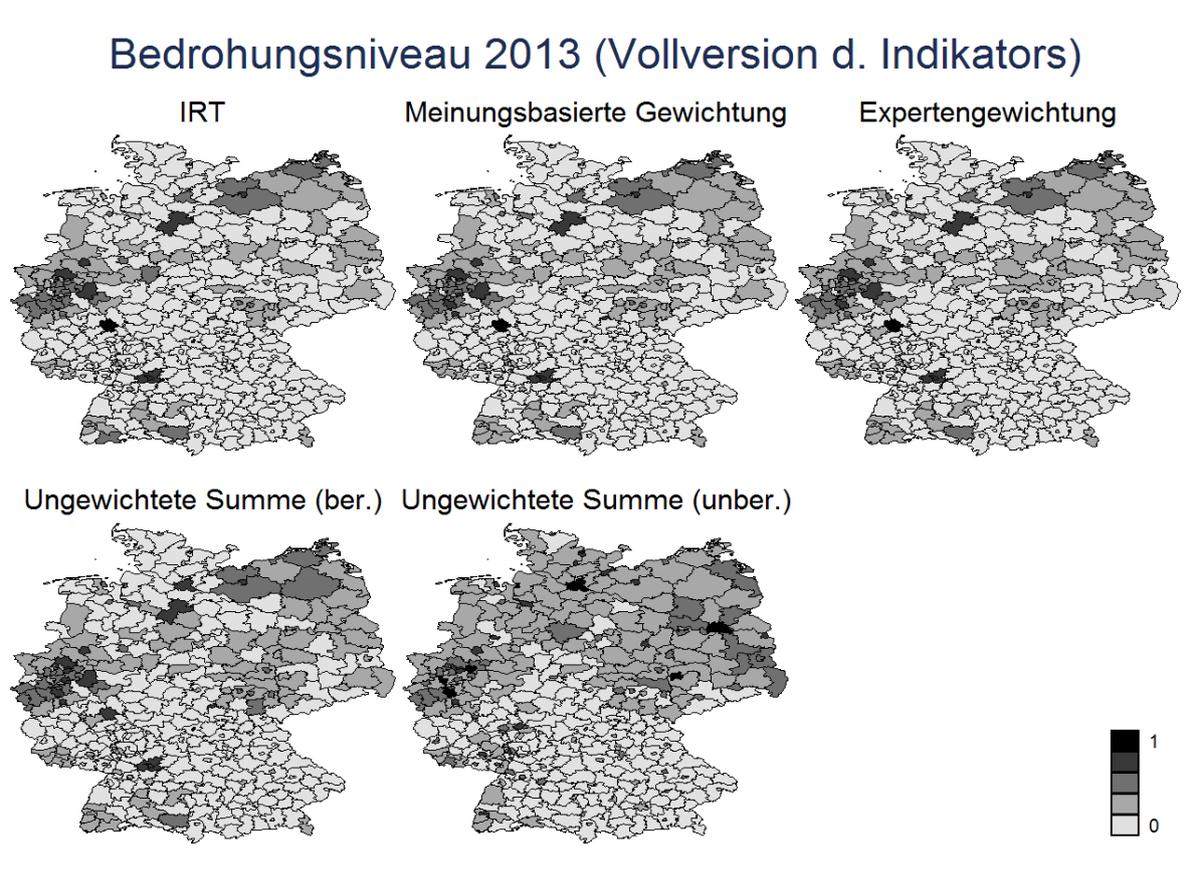
## Crime Risk Assessment — The Problem with Crime Statistics

The averages, which serve to incorporate the “dark figure” of crime, are calculated uniformly at national level in order to fully utilize the explanatory power of the entire sample. The resultant distribution of observed offenses is shown in Figure 1 under “Ungewichtete Summe (ber.)”

There are slight differences to the non-adjusted figures. The urban/rural gap does not remain as obvious. This is mainly caused by the extensive dark field correction of internet crime. This form of crime is pretty much the only sort of crime that entirely levels out the differences in crime between rural and urban areas. The north-south divide, however, stays somewhat in spite of dark field corrections.

Figure 1

Crime indicator based on crime statistics 2013, with and without dark figure correction, 3 weighting procedures, aggregated on district level.



Source: Bundeskriminalamt (2013): Polizeiliche Kriminalstatistik. Landesämter für Verfassungsschutz (2013) Verfassungsschutzberichte. Bug, M.; Kroh, M.; Meier, K.; Rieckmann, J.; van Um, E., Wald, N. (2015): WISIND-data files: Crime Survey and Weighting. Calculations by DIW Berlin.

## Criminal Offense Weighting for Crime Risk Assessment: Three Possible Approaches

In addition to the problems related to reported versus unreported crime, when it comes to

measuring crime itself there is another issue with the impact crime has on society. Adding up the total number of incidents and weighting them equally is unlikely to give a true indication of the actual risk that crime poses. Instead, what is called for is suitable weighting indexes for individual criminal offenses. Indexes of this type have already been published in other countries, such as the US or UK Peace Index.<sup>19</sup> Both of these are based on five key indicators, appropriately weighted and aggregated. The shortcoming of this type of weighting, however, is its subjectivity. Furthermore, our findings show extremely large dark fields for threat and crime via the internet. In both cases there are not yet conniving ways of monetization.

This is not the only conceivable approach, however. Indeed, various other methods are already being used in criminological research.<sup>20</sup> The calculations presented here are essentially derived from the concepts behind these methods. For reasons of comparison, the crime risk indicator is calculated using various weighting methods, which are briefly presented below.

### **Opinion-Based Weighting Using a Representative Public Opinion Poll**

On the basis of a representative online survey among 2.532 respondents and among 203 security experts, degrees of severity were calculated in order to categorize individual offenses. Respondents were asked to rank ten different offenses according to their relative degree of severity. This was done in two stages: first, respondents were asked to order the offenses according to severity, starting with the most minor (misdemeanor). The second step was to take the ranking from step one and compare the offenses in pairs. The resultant individual weightings were averaged across the entire sample to produce indicator weights for the respective types of crime.

### **Data-Based Weighting**

The third and least subjective approach is purely data-based and uses Item Response Theory (IRT),<sup>21</sup> which has also been used to assess pupil performance in PISA studies, as well as to measure corruption and democracy indexes.

The basic concept behind this method is that it attempts to estimate a latent variable (in this case, the crime risk level) using the severity of various subindicators (here, items). In other words, using the relevant data, the severity of the offense and its relevance for latent risk is ascertained. IRT is essentially the same as calculating a weighted aggregate from individual offense aggregates. However, unlike the latter, IRT does not need a priori assumptions regarding the severity of offenses, but, estimates the severity and relevance based on the data itself using an accepted and reconstructible method. In addition, IRT allows standard errors to be calculated, meaning conclusions can be drawn on the statistical significance of the estimated values. Table 2 shows the weighting that results from the different approaches. The coefficients from the IRT calculation are not to be interpreted in the same way, which is why they are not mentioned explicitly here. They are, however, included in the calculations below.

In all of the weighting methods, the different criminal offenses are placed in the selfsame order of priority (Table 2). As expected, murder and manslaughter are seen as the most severe.

<sup>19</sup> Institute for Economics and Peace, *Vision of Humanity* (2014), accessed June 12, 2014, <http://www.visionofhumanity.org>.

<sup>20</sup> T. Sellin and M. Wolfgang, *The Measurement of Delinquency*, (New York: Wiley, 1964); L. Riesner et al., *Die biografische Entwicklung junger Mehrfach- und Intensivtäter in der Stadt Neumünster*, Final Report, (Institute of Psychology, University of Kiel, 2012); J. Jäger, T. Klatt, and T. Bliesener, "Gewalt gegen Polizeibeamtinnen und Polizeibeamten," NRW study by the Institute of Psychology, University of Kiel; Entorf, "Anmerkungen."

<sup>21</sup> F.M. Lord, M.R. Novick, and A. Birnbaum, *Statistical theories of mental test scores*, (Reading, MA: Addison-Wesley, 1968). G. Rasch, *Probabilistic models for some intelligence and attainment tests*, (Copenhagen: Danish Institute for Educational Research) expanded edition (1980) with foreword and afterword by B.D. Wright. (Chicago: The University of Chicago Press, 1960/1980).

P.F. Lazarsfeld and N.W. Henry, *Latent Structure Analysis* (Boston: Houghton Mifflin, 1968).

An interesting fact, however, is that homicide comes last in the IRT method with regard to relevance to crime risk.<sup>22</sup> This may be because such extremely rare incidents are likely to be randomly spread across the country, meaning they are an unreliable indicator of the crime risk. This low relevance estimate is, however, balanced by the high gravity.

Another interesting aspect is the relatively high weight that is given to crime via the internet (especially by the experts) – scoring even higher than burglary. Presumably, all the imaginable risks connected to crime via the web were taken into account in this case (including becoming the victim of banking fraud or losing control over all accesses to social networks/mailling what comes with an extreme loss of privacy).

Table 2: Weights of crime

	Population	Experts	IRT (Rarity)	IRT (Relevance)
Murder and Manslaughter	0,9055	0,9585	1	0,000079
Politically motivated crime	0,1012	0,1067	0,053	0,035
Bodily Harm	0,0476	0,0661	0,001	1 (fix)
Crime via Internet	0,0263	0,0339	0,0003	13.224
Burglary	0,0193	0,0224	0,0017	1.406
Theft	0,0114	0,0112	0,0004	4.416
Threat	0,0089	0,0193	0,0002	6.654

*Source: Bug, M.; Kroh, M.; Meier, K.; Rieckmann, J.; van Um, E., Wald, N. (2015): WISIND-data files: Weighting. Calculations by DIW Berlin. Calculations by DIW Berlin.*

## Interpreting the Results

Figure 1 shows the main crime risk by administrative district for 2013, calculated on the basis of the raw PKS data, the figures adjusted for unrecorded crime, and the weighting methods presented here. To make the results more readily comparable, the indicator values for the given weighting methods were all normalized to lie within the interval [0.1].

All the weighting methods show a similar picture with very few surprises. The difference between rural and urban areas became less apparent with the far reaching dark field correction of internet crime.<sup>23</sup> It is only the uncorrected data that shows that conurbations display higher values (with the exception of Munich). It should be noted, however, that the low crime risk seen in Munich is very much in line with the general north-south divide.

Similarly, the much-bewailed higher crime rates in the border regions to Poland could not be observed across all of the weighting methods. Indeed, the results of monetization and opinion-based weighting showed nothing to confirm this.

The similarity between the different methods may seem surprising at first glance, especially given the dissimilar weighting given to the various types of offense (see Table 2). Owing to the distinct frequencies of individual offenses, these differences are almost negligible in the bigger picture. According to the population weighting, for example, the ratio of murder/manslaughter to theft is almost 1000:1; in relation to the weighted aggregates, this difference is less signifi-

<sup>22</sup> The relevance parameter is unique to IRT analysis, which is why it can be defined for this weighting method only.

<sup>23</sup> In a checking calculation this crime group was left out and the urban/rural differences stayed apparent.

cant owing to the high frequency with which offenses such as theft occur (in 2013, a total of 2,379,091 incidents involving theft were reported in Germany, compared to as few as 2,119 cases of murder and manslaughter).

In other words, the results are affected most by those forms of crime that occur most frequently. This makes intuitive sense, since it is these offenses that produce situations of constant risk and less so crimes such as murder and manslaughter which, for all their severity, are few and far between.

### **Measuring Perceptions of Crime**

Regarding perceptions of crime, there is nothing like police crime statistics for measuring crime. A basic and more or less trustworthy data base is lacking. In order to have a broad approach towards crime perception a complex mix of existing survey data, new WISIND-data as well as a social network analysis is integrated into an indicator. The aim of this multi-faceted approach is to balance shortcomings of single sources.

The core of the WISIND-approach however is an integration of several items about perception of crime into the above mentioned crime-survey. This included aside the so called standard indicator (“How safe do you feel when walking around in your neighbourhood at night?”) the fear of and the individual risk assessment of specific crime areas (property offence, bodily harm and internet crime). This brings in affective as well as cognitive perceptions upon crime. Within each surveyed crime area the two dimensions are significantly correlating why the means were used for further calculations. The offence specific perceptions were weighted with the mean of the suiting specific crime weights stemming from the above described crime indicator. In general, the findings of these items taken together are comparable to earlier surveys. There is a low fear of crime in Germany<sup>24</sup>, already in the EU-comparison.<sup>25</sup> However, the WISIND-survey did show some peculiarities, such as a relatively high worriedness about becoming the victim of internet crime – this mirrors the reported high victimisation rates mentioned above. The findings are backed by findings from other (international) surveys.<sup>26</sup>

Aside the WISIND-Items, the broad indicator of subjective crime perception includes further survey data in order to balance any disadvantages of the WISIND-sampling. The item connected to crime from the panel study Socio Economic Panel<sup>27</sup> (“Are you worried about the development of crime in Germany”) brings in another, more general, perception upon crime.

Furthermore, a somewhat more conative perception (which indicates individually taken measures of protection or avoidance) upon crime comes in with a social network analysis that was covering all sorts of social networks (and here of course only the openly accessible profiles) and blog content in summer/autumn 2014. The crawled content was filtered through search words indicating specific crime contexts. Furthermore information about locations in

---

<sup>24</sup> More detailed about these findings: Bug, M., Kraus, M, Walenda, B. (2015): Kriminalitätsfurcht oder Sicherheitsemfinden? In DIW Wochenbericht 12-2015, being published March 19 2015.

<sup>25</sup> TNS Opinion & Social (2012): Awareness of Home Affairs. Special Eurobarometer 380. p. 51-59. TNS Opinion & Social (2014): Standard Eurobarometer 81. Spring 2014. p. 21-26.

<sup>26</sup> LKA Niedersachsen (2013): Befragung zu Sicherheit und Kriminalität in Niedersachsen.

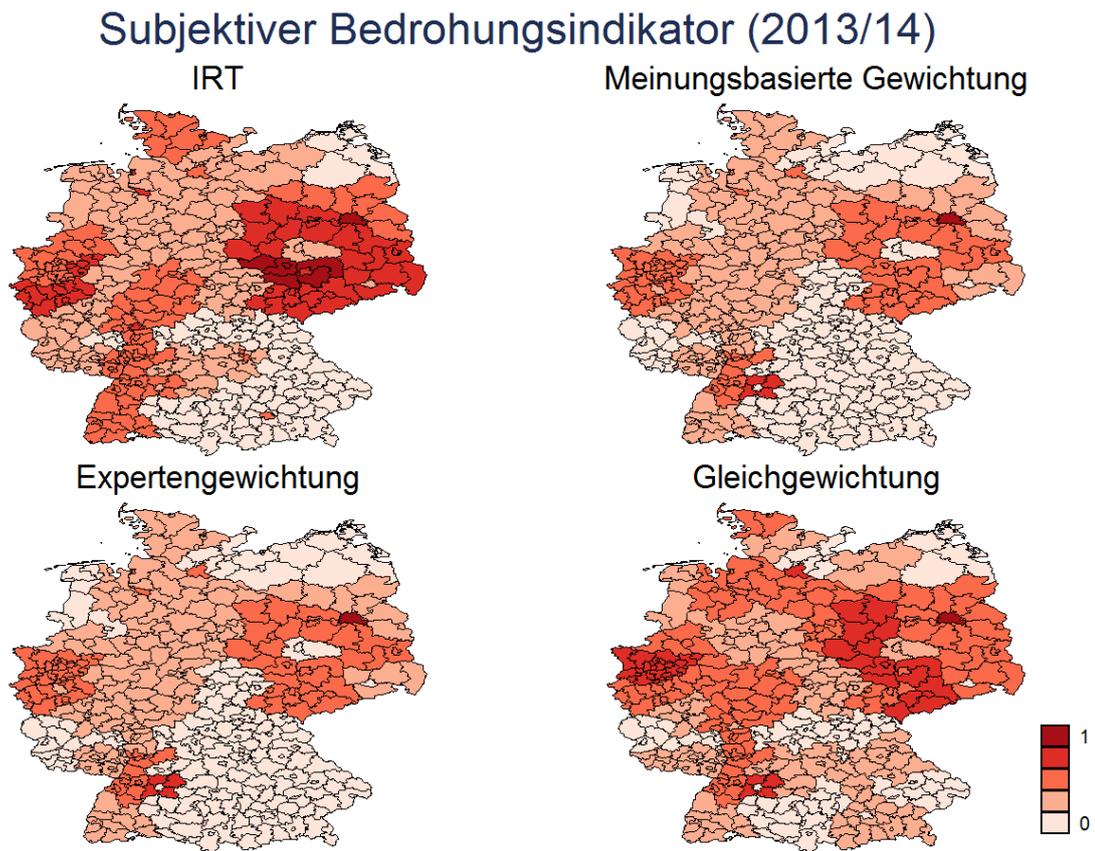
[www.mi.niedersachsen.de/download/82334](http://www.mi.niedersachsen.de/download/82334) (accessed 26.2.2015) p. 19/20. Birkel, C. et al. (2014): p. 10. 27, TNS Opinion & Social (2015): Cyber Security. Special Eurobarometer 423. p.54-66. More detailed about the WISIND-finding regardin Internet crime: Rieckmann, J., Kraus, M. (2015): Tatmittel Internet: Viktimisierung von Bürgern und Schaden durch Cyber-Delikte. in DIW Wochenbericht 12/2015 being published March 19 2015.

<sup>27</sup> <http://www.diw.de/en/soep>.

connection to postings led to the connection to districts.<sup>28</sup> This makes the social network data suitable for the integration into the indicator concerning crime perceptions. The data shows two things: the amount of communication about crime in specific regions as well as the specific crimes this communication is about.

The indicator itself can only be shown on a regional level, as the number of survey participants would be too little to aggregate for all districts. The regionalisation is oriented towards political regional borders or even police districts.

Table 2: Indicator Perception of crime, aggregated to regional level.



Source: Bug, M.; Kroh, M.; Meier, K.; Rieckmann, J.; van Um, E., Wald, N. (2015): WISIND-data files: Crime Survey/Weighting/Social Networks. Gruchmann, Y. et al. (2014): BIGS-Studie Sicherheitswirtschaft Juni 2014. Gummer, C. et al. (2013): BIGS-Studie Sicherheitswirtschaft Mai 2013. SOEPv30. Calculations by DIW Berlin.

Table 2 shows a slight north/south divide regarding fear of crime. Whilst in the northern regions of Germany there seems to be slightly more fear of crime, there is less fear especially in Bavaria. The findings do not show any consistent proof of the so called fear of crime paradoxon, that is a high fear of crime in areas where there is only little crime (such as in rural areas).

<sup>28</sup> More information about this: Rieckmann, J., Schnaze, J.-L. (2015): Ausdruck von Sicherheitsempfinden in sozialen Medien und Suchmaschinen - ein realistisches Abbild der Kriminalitätsbelastung? in DIW Wochenbericht 12/2015, being published March 19 2015.

The correlation between crime statistics and fear of crime exists – as the North-South divide in both indicators show. However, when looking for example at rural areas, this connection shows itself as not consistent. Whilst, for example, relatively much crime in Berlin comes with high fear rates, a comparable crime rate in Cologne comes with a slight relaxedness about perceptions of crime. Looking at the districts around Stuttgart there, a low crime rate meets high fear rates whereas low crime rates in Munich come with low fear rates.

What becomes obvious is an unevenly shared distribution of both, crime in general and perceptions upon crime. This shows how locally specified feelings about crime can be. Comparably extensive empirical work is needed to actually analyse these patterns. However, a more specific picture of the crime burden and of the populace's feelings about crime can be drawn.

This specific picture could decidedly support any kind of policy making in the area of home affairs. The introduction of surveillance measures or specific measures of policing and 'popular allergies' towards specific kinds of security measures would actually support decision making processes on a European scale as well.

### **Crime and Crime perception – EU wide!?**

Looking at a European level, there are several EU-run surveys covering items on fear of crime.<sup>29</sup> The disadvantage of these surveys, however, is twofold: On the one hand the single surveys do not allow for a broad approach towards the concept of fear of crime. The Eurobarometer covers about 1500 interviewees in the bigger member states. The European social survey is slightly larger, but still does not allow for a regionalisation that keeps in mind differences between rural and urban areas as well as macro differences between areas within countries. Nonetheless, if these studies are merged with existing national panel surveys, such as the SOEP in this paper, a more profound look at the distribution of crime might actually be eased.

Somewhat more difficult, however, is a reliable picture regarding actual crime rates. As Guzy describes in her paper, it is for the closer future not feasible to organise an EU-wide dark field study based on a parallel methodological proceeding. However there seems to open new possibilities through online approaches of surveying the populace.<sup>30</sup> This means a more pragmatic way might be needed. One possibility might actually lay within the connection with existing panel studies, such as the mentioned SOEP. The central problem of dark field studies is twofold: A high number of interviewees is needed to actually reliably cover seldom forms of victimisation. Furthermore a relatively long interview is needed to cover different kinds of crime (or its victimisations). Here, a pragmatic approach comparable to the WISIND-survey, might help. In the WISIND-survey, victimisation items regarded crime areas (like property theft) rather than more specific kinds of crime (such as bicycle theft). Keeping the interview short (whilst of course getting out not as precise data) and establishing a common and in the research area accepted brief version of dark field interview could open a way some (maybe annually changing) items regarding victimisation integrated in existing panel studies.

Whether this is actually a feasible undertaking will need some more research. However, already the attempt would be sort of honourable as it would actually grant the growing importance of EU-wide decision making in home affairs some empirical base.

---

<sup>29</sup> Especially the European Social Survey and the Eurobarometer.

<sup>30</sup> Guzy, N. (2015): p. 178