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Entorf, Horst; Spengler, Hannes

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The European Regional Crime Database: Data from the Book 'Crime in Europe'

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# **Darmstadt Discussion Papers** in **Economics**

### The European Regional Crime Database:

Data from the Book 'Crime in Europe'

Horst Entorf and Hannes Spengler

Nr. 132

Arbeitspapiere des Instituts für Volkswirtschaftslehre Technische Universität Darmstadt





## The European Regional Crime Database: Data from the Book 'Crime in Europe'\*

Horst Entorf§

Hannes Spengler§

April, 2004

**Abstract:** This paper contains a documentation of the EU regional crime database (EURCD). The EURCD is the basis of the analyses presented in our recently published book 'Crime in Europe' which, in turn, is the result of a research project conducted on behalf of the EU Commission. The EURCD is a panel dataset containing information on 12 Interpol crime categories (murder, sex offences, rape, serious assault, theft, aggravated theft, robbery and violent theft, breaking and entering, theft of motor cars, fraud, drug offences and total offences) across eight EU member states (Denmark, Germany, Spain, Italy, the Netherlands, Finland, Sweden and England & Wales) for the maximal period 1980-1998 (length of period depends on country and region). The spatial structure of the EURCD is organised according to Eurostat's NUTS-system, meaning that it contains data broken down into, for instance, German 'Kreise', Spanish 'Provincias' and Italian 'Provincias'. Crime data obtained for countries which, for reasons explained in the paper, could not (Belgium, Greece, Portugal) or only partly (England & Wales) be integrated into the analyses is (or will soon be) provided in country-specific files. There is a lack of data for Ireland and Luxemburg because regional crime data does not exist for these countries, and for France and Austria which refused to participate in the project. In order to allow multivariate analyses of the causes and consequences of crime the EURCD also contains a sizeable number of non-crime variables. By providing this data to the public we hope to enhance empirical crime research in Europe which until today has been denied adequate attention by both criminologists and economists.

**JEL-Classification:** K42

**Correspondence:** Horst Entorf, Hannes Spengler

Technische Universität Darmstadt Institut für Volkswirtschaftslehre Residenzschloss, Marktplatz 15

64283 Darmstadt

Germany

**\*\*** +49 6151 16-2436, 2636

**4** +49 6151 16-5652

eucrimedata@vwl.tu-darmstadt.de

http://www.tu-darmstadt.de/fb/fb1/vwl2/

<sup>\*</sup> We are grateful to Philip Savage for proof-reading and to Oliver Schmid for creating the EU regional crime database website.

<sup>§</sup> Darmstadt University of Technology

#### 1. General Information:

In 2002 the authors published the book 'Crime in Europe: Causes and Consequences' This book is a further development of the final report of the research project "Development and Validation of Scientific Indicators of the Relationship between Criminality, Social Cohesion and Economic Performance" which was conducted by the authors on behalf of the European Commission during the period 1/12/1998-29/2/2000. One of the major tasks of the project was to empirically analyse the causes and consequences of crime in Europe on a spatially disaggregated basis in order to exploit the variation of crime across regions. The fact that, in contrast to the US, empirical crime research in Europe is not widely spread, does apparently affect the publication and accessibility of crime data. Generally, institutions and services in charge of official crime statistics in the EU member states do publish their data exclusively on highly aggregated spatial levels (e.g. for the whole country and for states). Crime data of higher spatial detail, in contrast, is normally only available on request and may require nonroutine (mainframe) evaluations on the part of the relevant agencies. To our knowledge the only EU member state which makes highly disaggregated crime data available on the Internet is Sweden. In order to improve this situation and to encourage empirical crime research in and for Europe we have decided to make all the regional crime data collected in the course of our project accessible to the public.

This documentation is structured as follows: in the remaining part of this section you will find the download instructions for the password-protected files and an overview of the most important features of the EU regional crime database. Section 2 explains the national peculiarities of regional crime data from the EU member states which participated in our project. Section 3 briefly discusses possible applications of the data and provides some practical examples. Finally, in Section 4 you find the links to the downloadable EU regional crime database and to another file exclusively containing data on the national level.

In order to be able to download the data you must request a username and a password by sending an Email to <a href="mailto:eucrimedata@vwl.tu-darmstadt.de">eucrimedata@vwl.tu-darmstadt.de</a>. This Email should contain the following information:

<sup>-</sup>

<sup>&</sup>lt;sup>1</sup> Entorf, H. & Spengler, H. (2002). Crime in Europe – Causes and Consequences. Berlin Heidelberg New York. Springer.

**Subject:** Data Request

Mail-Body: [Last Name]

> [First name] [Affiliation]

[Title of the project for which you intend to use the data]

Furthermore, the mail body must contain the declaration:

"I undertake to cite the requested regional data as follows: Horst Entorf and

Hannes Spengler, European Regional Crime Database, Darmstadt

University of Technology, March 2004"

We provide crime data for EU member states both at the regional level, e.g. for German states ('Bundesländer'), administrative districts ('Regierungsbezirke') and districts ('Kreise'), and at the national level, whereby the highlight is, of course, the regional data, as crime figures for nations can be found in the publications and on the websites of supranational organizations such as Interpol, the World Health Organization (WHO), the United Nations (UN) and the Council of Europe. For the analyses in our book the source of national crime data is the "European Sourcebook of Crime and Criminal Justice Statistics" from the Council of Europe which you can find at http://www.europeansourcebook.org/esb/.2 This choice was based on the fact that due to an extensive quality control the Council of Europe crime data is obviously more reliable than that of Interpol, the WHO or the UN.<sup>3</sup>

In contrast to data on the national level European regional crime data is not available from a common source. This data had to be requested directly from the data-collecting institutions of the EU member states. Since the basic idea of our research was to investigate the interaction between crime and socio-economic variables we had to be sure that both types of data refer to the same type of spatial entity. Since non-crime data at the regional level is mainly available according to the so-called 'NUTS classification' (see Table 1) we decided to request crime data according to the same classification. Of course, our main interest was directed towards the NUTS-3 level which provides the highest degree of spatial detail within the NUTS classification.

<sup>&</sup>lt;sup>2</sup> If you use this data in your work, you should cite it appropriately (e.g. Council of Europe (1999): European Sourcebook of Crime and Criminal Justice Statistics. Strasbourg.).

The UN, incidentally, only provide data on homicide.

<sup>&</sup>lt;sup>4</sup> The abbreviation NUTS stands for "Nomenclature des Unités Territoriales Statistiques".

**Table 1: NUTS structure of the EU member states** 

NUTS 0	NUTS 1		NUTS 2		NUTS 3		Population /#NUTS 3	Area /#NUTS 3
Belgium	Régions	3	Provinces	11	Arrondissements	43	237,298	710
Denmark		1		1	Amter	15	353,613	2,873
Germany	Bundesländer	91	Regierungsbezirke	40	Kreise	440	186,448	811
Greece	Group of Development Regions*	4	Development Regions	13	Nomoi	51	206,204	2,581
Spain	Agrupacion de Comu-nidades Autonomas*	L	Comunidades Autono-mas + Ceuta y Melilla	17+1	Provincias + Ceuta y Melilla	20+2	757,137	9,708
France	Z.E.A.T. + Départements d'Outre Mer	8+1	Régions + DOM	22+4	Départements + DOM	96+4	583,982	5,440
Ireland		1		1	Regional Authority Regions	8	463,113	8,784
Italy	Gruppi di Regioni*	11	Regioni	20	Provincie	103	558,922	2,925
Luxembourg		1	-	1	-	1	426,500	2,586
Netherlands	Landsdelen	4	Provincies	12	COROP-Regio's	40	392,680	847
Austria	Gruppen von Bundesländern*	3	Bundesländer	6	Gruppen von Politischen Bezirken*	35	230,811	2,396
Portugal	Continente + Regioes Autonomas	1+2	Comissaoes de Coordenaçao Regional + R. A.	5+2	Grupos de Concelhos + Regioes Autonamas	28+2	332,280	3,064
Finland	Manner-Suomi / Ahvenanmaa	2	Suuralueet	9	Maakunnat	20	257,675	15,226
Sweden		1	Riksområden	8	Län	21	421,476	19,568
United Kingdom (England & Wales)	Standard Regions	12 (10)	Counties, Groups of Counties*	36 (31)	Counties / Local Authority Regions	133 (105)	445,387 (499,313)	1,833 (1,443)
EU 15		75+3		202+7		1084+8	342,973	2,888

Note: If NUTS 0, NUTS 1 or NUTS 2 categories have no sub-categories, then they are also counted on deeper levels (see for example Luxemburg). \* put together for the purpose of Eurostat REGIO.

Besides the regional entities, we had to specify crime categories for the data request. Since the intention of the project was to carry out comparable analyses for all EU member states we borrowed from Interpol and selected the following popular crime categories (Interpol code in parentheses) for which we requested the number of cases known to the police and the respective number of cleared-up cases:

```
Murder (1)

Sex offences (2)

Rape (2.1; contained in 2)

Serious assault

Theft (all kinds of theft; 4)

Aggravated theft (4.1; contained in 4)

Robbery and violent theft (4.1.1; contained in 4.1)

Breaking and entering (4.1.2; contained in 4.1)

Theft of motor cars (4.2; contained in 4)

Fraud (5)

Drug offences (7)

Total offences (8)
```

It is very important to stress that even though these crime categories are used by Interpol and, as a consequence of this, familiar to the institutions in charge of crime statistics in the EU member states "[...] nations differ widely in the way they organise their police and court systems, the way they define their legal concepts, and the way they collect and present their statistics" (Council of Europe 1999:11). Thus, we discourage use of our crime data for international comparisons, especially for comparisons of crime levels. If at all, international comparisons should be carried out with respect to growth rates of crime categories. However, the major asset of the regional crime database is to be found in country-specific descriptive and multivariate analyses.

Although our book Crime in Europe was published in 2002, the underlying EU project had already been executed during the period 1/12/1998-29/2/2000 and the crime data was collected in the second half of 1999. Thus, the most up-to-date crime figures you will find in the downloadable files stem from 1998. If you are interested in more recent data you might try to contact our national correspondents, (see <u>Table 2</u>), bearing in mind the fact that the information in question reflects the status quo of 1999.

**Table 2: Contact persons in the EU member states** 

В	Mr Gerad de Coninck, Service General D'Appui Policier, Division Appui en matière de politique policière, 47 Rue Royale, 1000 Bruxelles.   ★ +32/(0)2 500 2621.   ★ +32/(0)2 500 2640.					
DK	Mr A. P. Jørgensen, Interpol Copenhagen, Polititorvet 14, 1780 Copenhagen.   ⊕ +45/33 14 88 88 (op.).  ⊨ +45/33 32 27 71.					
D	For national statistics and information about contact persons in the states:					
	Mr Franz Rohrer, KI 12, <u>Bundeskriminalamt</u> , 65173 Wiesbaden. 2 +49/(0)611 551 6834 and +49/(0)611 551					
	6840. = +49/(0)611 551 6804. <u>franz.rohrer@bka.bund.de</u>					
	For regional statistics:					
	Ms Ludtke, <u>LKA Baden-Württemberg</u> , Taubenheimstr. 85, 70372 Stuttgart.					
	Ms Eichinger, <u>Bayerisches LKA</u> , Maillingerstraße 15, 80636 München. № +49/(0)89 1212-4125 (-0 op.).					
	Mr KP. Obst, Der Polizeipräsident in Berlin, Platz der Luftbrücke 6, 12101 Berlin. ★ +49/(0)30 699-37930.					
	Mr Linke, LKA Brandenburg, Prenzlauer Straße 66-70, 16352 Basdorf. № +49/(0)33397 4-2310 (-02 op.).					
	Ms M. Galow, Der Senator für Inneres, Kultur und Sport des Landes Bremen, Contrescarpe 22-44, 28203 Bremen					
	## +49/(0)421 36-212320 (-10 op.).  Mr E Weber J V A Homburg Point Strebbourg 21, 20007 Homburg ## +40/(0)40 42865, 8004					
	Mr E. Weber, <u>LKA Hamburg</u> , Beim Strohhause 31, 20097 Hamburg. ** +49/(0)40 42865-8094.					
	Mr Dreyer, <u>Hessisches LKA</u> , Hölderlinstraße 5, 65187 Wiesbaden. ** +49/(0)611 83-2112 (-0 op.).					
	Mr Lesske, <u>LKA Mecklenburg Vorpommern</u> , Retgendorfer Str. 02, 19067 Rampe.  \$\mathrepsilon +49/(0)3866-660 (-0 op.) Mr Brattke LKA Niedersachsen, Schützenstraße 25, 30161 Hannover \$\mathre{\pi} +49/(0)511 330-3101 (-0 op.)					
	Mr Brattke, LKA Niedersachsen, Schützenstraße 25, 30161 Hannover. # +49/(0)511 330-3101 (-0 op.).  Mr Bäumler, LKA Niedersachsen, Westfalen, Völklinger Str. 49, 40221 Düsseldorf. # +49/(0)211 939, 6038 (-0 op.)					
	Mr Bäumler, <u>LKA Nordrhein-Westfalen</u> , Völklinger Str. 49, 40221 Düsseldorf. ≅ +49/(0)211 939-6038 (-0 op.). Mr W. B. Munk, <u>LKA Rheinland-Pfalz</u> , Valenciaplatz 1-7, 551188 Mainz. ≅ +49/(0)6131 65-0 (op.).					
	Mr Christian, <u>LKA Saarland</u> , Hellwigstraße 14, 66121 Saarbrücken.  +49/(0)681 962-0 (op.).					
	Mr Dr. Michaelis, <u>LKA Sachsen</u> , Neuländer Straße 60, 01129 Dresden. — +49/(0)351 855-0 (op.).					
	Mr Reichelt, LKA Sachsen-Anhalt, Lübecker Straße 53-63, 39124 Magdeburg.  \$\alpha +49/(0)391 250-2112 (-0 op.).					
	Mr E. Schubert, <u>LKA Schleswig-Holstein</u> , Mühlenweg 166, 24116 Kiel. ≅ +49/(0)431 160-4560 (-33 op.).					
	Mr Kurzawsky, LKA Thüringen, Am Schwemmbach, 99099 Erfurt. 🕾 +49/(0)361 341-1227 (op.).					
GR	Mr Nikolaos Tassiopoulos, Interpol Athens, 173 Alexandras Ave., Athens (T. 11522). 🕾 +30/1 69 25178.					
	<b>≞</b> +301/69 24006.					
Е	Mr Francisco Javier Cirujano González, Comisaría General de Policía Judical, Sección de Estadística, C/ Julián González Segador s/n, 28043 Madrid. 🕾 +34/91 582 2404. 🗏 +34/91 582 2401.					
F	Mr Philippe Sassenhoff, Direction Central de la Police, 11 Rue des Saussaies, 75008 Paris. ☎ +33/(0)1 49 274 038. ᠍ +33/(0)1 49 240 402.					
IR	Mr Noel Carolan, Garda Síochána, Phoenix Park, Dublin 8. 🕾 +353/1 6662619. Fax: +353/1 6704558.					
	Mr Patrick Cregg, Garda Síochána, Phoenix Park, Dublin 8. 🕾 +353/1 6662620. ≜ +353/1 6704558.					
I	Mr Antonio D'Acunto, Ministero Dell'Interno, Dipartimento della P.S., Ufficio Cordinamento E Planificazione					
	Forze Di Polizia, Roma. № +39/06 46537401. ≜ +39/06 4818671. <u>dacunto@katamail.com</u>					
NL	Mr Frits Huls, Statistics Netherlands, P.O. Box 4000, 2270 Voorburg. № +31/70 337 5667. ♣ +31/70 337 5979.					
	FHLS@cbs.nl					
A	Mr Ahss, Bundesministerium Für Inneres, Referat II/1, Herrengasse 7, 1014 Wien. ★ +43/1 53126-5287 (-0 op.). ♣ +43/1 53126-5165.					
P	Sílvia Pedrosa, Ministério Da Justiça, Polícia Judiciária, Rua Gomes Freire 174, 1169-007 Lisboa. → +351/(0)1 3533131 (op.).  → +351/(0)1 3575844.					
FIN	Jorma Kallio, Statistics Finland, P.O. Box HB, FIN-00022 Helsinki. Fax: +358/9 1734 2191. Jorma.Kallio@stat.fi					
1111	Risto Lättilä, Statistics Finland, P.O. Box HB, FIN-00022 Helsinki.    2					
S	Gabriella Bremberg, National Council for Crime Prevention, Statistical Unit, P.O. Box 1386, SE-11193					
	Stockholm. **\frac{2468}{401-8723} \begin{align*} \					
	Tove Sporre, National Council for Crime Prevention, Statistical Unit, P.O. Box 1386, SE-11193 Stockholm.					
	## +468/411-9075. <a href="mailto:tove.sporre@brottsforebygganderadet.se">tove.sporre@brottsforebygganderadet.se</a>					
UK	Mr Gordon Barclay, Home Office RDS, 50 Queen Anne's Gate, London S W 1 H 9AT. ☎ +44/171 273-3960.					
	### +44/171 273-3362. Gordon.Barclay@homeoffice.gsi.gov.uk					

Note: The information provided on the contact persons may be out of date since it reflects the status quo at the time of our data collection. The German WWW-links, however, are up-to-date.

<u>Table 3</u> provides an overview of the EU member states, excluding Luxemburg (which due to its small size does not posses a regional structure), with respect to the general availability of spatially disaggregated crime data, the fact whether the country met our request, the format and period of the delivered data, as well as to whether the provided data could be used in our analyses. From column 5 you can infer that the data, at least for some countries, has a high potential for elaborated panel studies since the time series may cover up to 19 years.

Table 3: Availability of regional crime data from the EU member states

Country (1)	Does country collect regional crime data?	Did country deliver regional crime data?	Data were delivered in which form? (4))	Available period (5)	Could provided data be used in analyses?
Belgium	Yes	Yes	Electronically	1994-1998	No
Denmark	Yes	Yes	Hard copy	1982-1998	Yes
Germany	Yes	Yes	Irregular*	Irregular	Yes
Greece	Yes	Yes	Hard copy	1991-1998	No
Spain	Yes	Yes	Electronically	1980-1998	Yes
France	Yes	No			
Ireland	No				
Italy	Yes	Yes	Electronically	1983-1998	Yes
Netherlands	Yes	Yes	Electronically	1983-1998	Yes
Austria	Yes	No			
Portugal	Yes	Yes	Hard copy	1984-1998	No
Finland	Yes	Yes	Electronically	1980-1998	Yes
Sweden	Yes	Yes	Electronically	1988-1998	Yes
E & W	Yes	Yes	Hard copy	1982-1997	Partly

<sup>\*</sup> With respect to the form and period covered, the data delivered from the respective German states can be summarised as follows: Baden-Wuerttemberg (electronically, 1984-1998), Bavaria (el., 83-98), Berlin (el., 80-98), Brandenburg (hard copy, 95-98), Bremen (el., 80-98), Hamburg (h. c., 89-98), Hesse (el., 84-98), Mecklenburg-Vorpommern (h. c., 93-98), Northrhine-Westfalia (el., 80/81-98), Lower Saxony (h. c., 80-98), Rhineland-Palatinate (h. c., 94-98), Saarland (el., 80-98), Saxony-Anhalt (el., 97-98), Schleswig-Holstein (el., 80-98), Thuringia (el., 93-98).

Whilst assembling the regional crime database we had to confront many problems, such as, for example, the reluctance on the part of some national correspondents to support the project, the non-electronic submission of data from some EU members states requiring manual data input, and obvious data-inconsistencies which made queries and occasional adjustments necessary. Given the great amount of time the project team invested in the collection and processing of the regional crime data, we suggest citing it as follows: Horst Entorf and Hannes Spengler, European Regional Crime Database, Darmstadt University of Technology, March 2004.

In addition to crime data, the files we provide also happen to contain a couple of non-crime variables which may be used as covariates in multivariate analyses of crime. The covariates

stem mainly from Eurotstat's New Cronos Database which to our knowledge is the only supranational source containing spatially disaggregated socio-economic information on the EU member states.

# 2. National peculiarities of regional crime data from EU member states which complied with our request

#### Belgium:

- No distinction between "aggravated theft" and "breaking and entering"
- No information on cleared-up offences

Crime data submitted by Belgium was not utilisable in our project for several reasons. Firstly, Belgian crime statistics only date back to 1994, the resulting time series being too short for the kind of investigations we undertook. Secondly, and also as a result of the belated keeping of statistics, not all local police services delivered their data to the central office in charge of Belgian crime statistics in each of the years considered. As can be gathered from the downloadable Excel file below, the number of towns reporting became larger over the years. A variation in crime figures (partly) caused by a variation in the number of observational units would, of course, negatively affect the quality of investigations exploiting the time variance of crime by regions, as is the case for panel estimations. You find two figures for the years 1995, 96, and 97, respectively, for each crime category and region in the Excel file. This is due to the fact that in order to enable comparisons of changes in crime from one year to another there had to be a restriction on the attention paid to the largest common number of local police services reporting, i.e. to 368 towns in 1994 and 95, 518 towns in 1995 and 96, 553 towns in 1996 and 97 and 560 towns in 1997 and 98. Finally, there is a certain incompatibility between the structure of the regions relevant for crime statistics and the NUTS regions for which covariates are available. In Belgium, regional crime data is collected for 28 judicial 'Arrondissements' which, according to our correspondent, cannot be exactly matched with the 43 administrative 'Arrondissements' constituting the Belgian NUTS 3 level. However, with two exceptions judicial 'Arrondissements' can be aggregated to match Provinces – the Belgian NUTS 2 regions.

Download the crime data for Belgium (Excel format, 52 KB, password-protected)

#### Denmark:

- The crime category "sex offences" is not available.
- No information on cleared-up offences is available.

Apart from this, Danish crime data exhibits no peculiarities. However, due to its small size Denmark has no NUTS1 or NUTS2 level.

#### Germany:

As a consequence of the police authorities being a matter for individual states, German crime data had to be collected directly from the 16 state criminal police offices. With the exception of Thuringia, all states could provide NUTS 3 level data. Nevertheless, we decided to base our multivariate analyses on an exclusively West German panel, because crime data for the East German regions was only available for short periods (see the notes to <u>Table 3</u>). Nevertheless, East German crime data, provided it was available, is included in the downloadable file. The exception is Thuringia were the regional structure of the crime data (according to 'police authority') does not match the NUTS structure.

Download the crime data for Thuringia (Excel format, 32 KB, password-protected)

#### Greece:

Crime data for Greece could not be included in the analyses because it arrived after the project deadline. However, in the meantime in a joint project with George Saridakis, University of Leicester, we have fed the hard-copy data into the computer and will soon analyse it. A paper will be completed by the end of 2004, after which time we will make the data publicly available.

#### Spain:

The crime category "drug offences" is not available.

From Spain, we obtained provincial (i.e. NUTS 3) data on crime from the national police (Cuerpo Nacional de Policía, CNP). However, according to the notes of our correspondent, the crimes registered by the CNP represent only a fraction of the entire Spanish crime picture, since there are two further police organisations (Guardia Civil and Policías Autonómicas), which are not obliged to report offences within their jurisdiction to the CNP. Furthermore, the CNP data only covers the reported crimes from provincial capitals and cities with at least 20,000 inhabitants. When working with Spanish data these shortcomings should always be kept in mind. Especially if the share of crimes reported to the CNP by the two other police forces varies both across areas and over time, the quality of multivariate analyses may be

negatively affected. According to our correspondent, there are at least four provinces for which the time-variance of the reporting shares is clearly different from that of other regions. The affected provinces (Alava, Guipúzoco, Vizcaya and Gerona) were excluded from the analyses in our project. For Spain the number of drug offences is missing.

Download comments on crime data by our contact person in Spanish (PDF format, 229 KB)

#### Italy:

The crime categories "sex offences" and "fraud" are not available.

Italy underwent a (moderate) change in its NUTS structure in the mid-nineties. For the affected regions (selectable by the Stata® option "change\_i = = 1" in the EU regional crime database) the covariates show only short time-series or even implausible values as in the case of the variable measuring average annual population size (avpopt). In order to allow for an adequate calculation of relative crime frequencies we provide an alternative population variable (avpop\_i) which takes the population figures into account which were submitted by our national correspondent.

#### Netherlands:

The crime category "drug offences" should not be used due to poor data quality.

#### Portugal:

Crime data submitted by Portugal was not used for our empirical investigations since we could not clarify whether the 13 police directions / inspections for which crime data was provided were compatible with the Portuguese NUTS structure, exhibiting 28 NUTS 3 regions ("Groupos de Concelhos"). We directed an inquiry to our correspondent in order to resolve the question as to whether the NUTS 3 regions might possibly be aggregated, in order to match the police directions. Since this request remained unanswered we decided not to feed the hard-copy-data in the computer and to exclude Portugal from the analyses.

Download crime data with comments by our contact person (zipped JPG files, 4.7 MB, password-protected)

#### Finland:

Data on cleared-up cases for the crime categories "aggravated theft", "robbery and violent theft" and "breaking and entering" is not available.

#### Sweden:

Sweden underwent a change in its NUTS structure in the mid-nineties (the grouping of some NUTS 3 level regions) to the effect that the time series on the (restructured) NUTS 3 level are short for some covariates which constrains estimations applying lag structures. Nuts 3 crime data, however, is available from 1988 onwards. Sweden was – and presumably is – the sole EU member state which provides an online-database containing regional crime data (http://www.bra.se/).

#### **United Kingdom:**

No data on the number of cleared-up cases is available.

In addition, it has to be noted that there are no common crime statistics for the United Kingdom. Instead, according to the police sovereignty, crime statistics fall under the responsibility of England & Wales, Northern Ireland and Scotland. We only requested the data of England & Wales, since according to our correspondent crime data for Northern Ireland and Scotland is not reliable on a regional basis. To a lesser extent the problems encountered with the Belgian and Portuguese crime data also exist for England and Wales; here we could only use part of the submitted data. Since regional crime statistics are generated for 43 police force areas there are much fewer police force areas than NUTS 3 regions (105), and more police force areas than NUTS 2 units. However, in contrast to Belgium and Portugal, we were able to use some of the British data, since most police force areas are identical with counties which, in turn, constitute the majority of the NUTS 2 regions. To be precise, there are 21 - direct or indirect (two or more police force areas constitute a NUTS 2 region) - matches between NUTS 2 regions and police force areas on which a multivariate analysis can be based. Analyses on the NUTS3 level cannot be performed. In a multivariate analysis the number of observations for England & Wales is further reduced by a recent reorganisation (in the mid-nineties) of the whole British NUTS structure which led to missing data in the covariates.

Download the complete crime data for England & Wales (Excel format, 131 KB, password-protected)

#### 3. Possible Applications of the Data

The data we provide can be used for descriptive analyses of crime and for multivariate estimations of the determinants and consequences of crime.

Descriptive analyses of crime can be carried out with respect to time, region and/or offence category. The deepest insights can probably be gained from crime-mapping using geographic information systems like ArcView<sup>®</sup> GIS. In order to demonstrate the power of such an application we have generated crime maps for five offence categories and for the population size of the 440 German NUTS 3 regions ("Kreise"). Since the relative distribution of the crime burden across regions is relatively stable over time these crime maps – although not reflecting the most actual figures – may be equally interesting for decision makers in the area of criminal policy. Maps based on disaggregated spatial data make it easier to identify regional crime topics in general as, for instance, the striking differences in theft and robbery between the northern and southern part of Germany as well as certain crime hot spots which often but not always coincide with urban centres. An example of the latter are the rural districts ("Landkreise") of Nordvorpommern, Rügen, Demmin and Ostvorpommern in the north-easternmost part of the country which exhibit relatively high murder rates.

- o NUTS 3 crime map for Germany: Murder and manslaughter (Figure 1, appendix)
- o NUTS 3 crime map for Germany: Rape (Figure 2, appendix)
- o NUTS 3 crime map for Germany: Serious and aggravated assault (<u>Figure 3</u>, appendix)
- o NUTS 3 crime map for Germany: Robbery (Figure 4, appendix)
- o NUTS 3 crime map for Germany: Theft (Figure 5, appendix)
- o NUTS 3 population map for Germany (Figure 6, appendix)

As interesting as descriptive analyses may be, they are not able to explain the complex phenomenon of why some regions show more crime than others. To answer this question we have to analyse crime in a **multivariate** context allowing for simultaneous influence of various potential determinants of crime such as poverty, urbanity, ethnic heterogeneity, family disruption and law enforcement. Since the non-crime information in our dataset is restricted to the variables available in the Eurostat New Cronos database, you will not readily find a comprehensive set of covariates in the file provided. If you plan to use our data for a more extensive multivariate analysis, feel free to add new variables from alternative sources (e.g. from national or regional statistical offices of the EU member states) to the crime database.

#### 4. Download Section

Our major file – the EU regional crime database – is provided in two common formats: as a Stata® and as a SPSS® file. The data should be comprehensible without further documentation since every variable is labelled and a number of filters allow restriction of the sample in every reasonable way. Provided you work with Stata® and intend to restrict your analysis say to the Italian "Provincie" in 1998, you simply type in the option "if country = "it" & nuts3 = = 1 & time = 1998" after your basic command. If you are primarily interested in analyses for Germany and want to add data from other sources, you can use the variable "code\_d" (the official district code ("Kreiskennziffer") of the Federal Statistical Office) in order to match the datasets. The regional as well as the national crime database are password-protected. In order to download the files please follow the instructions provided in Section 1.

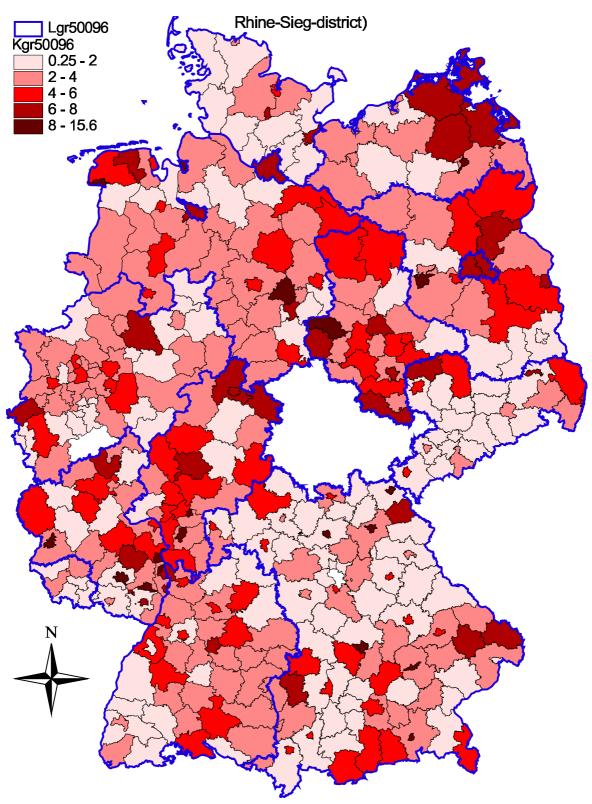
EU regional crime database including covariates (zipped Stata 7.0 file, 2.4 MB)

EU regional crime database including covariates (zipped SPSS 11.0 file, 2.7 MB)

EU national crime database including covariates (Excel, 183 KB)

# 5. Appendix

Figure 1: Murder and manslaughter per 100.000 inhabitants in German NUTS 3 regions 1998



Note: Without Thuringia, city-districts of Bonn, Fuerth, Nuremberg and Rhine-Sieg-district. State boarders are depicted with blue lines.

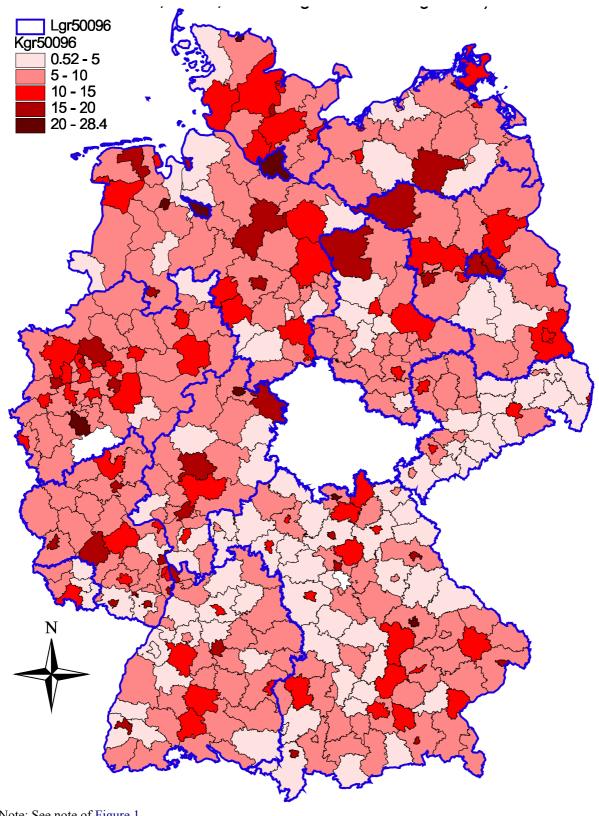
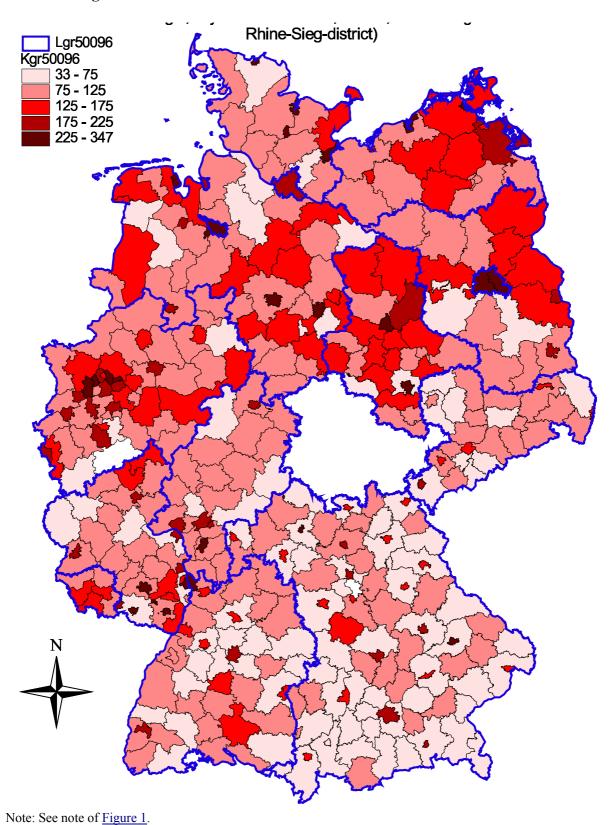


Figure 2: Rape per 100.000 inhabitants in German NUTS 3 regions 1998

Note: See note of <u>Figure 1</u>.

Figure 3: Serious and aggravated assault per 100.000 inhabitants in German NUTS 3 regions 1998



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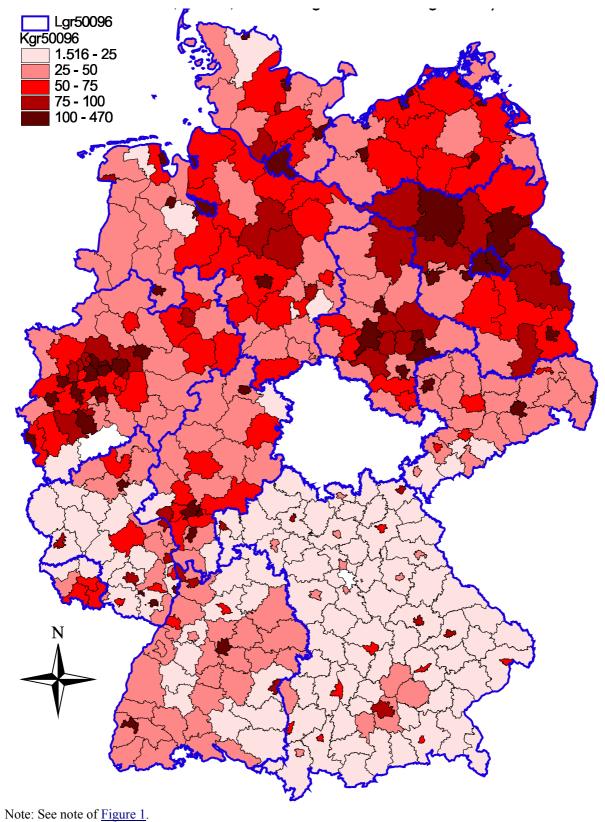


Figure 4: Robbery per 100.000 inhabitants in German NUTS 3 regions 1998

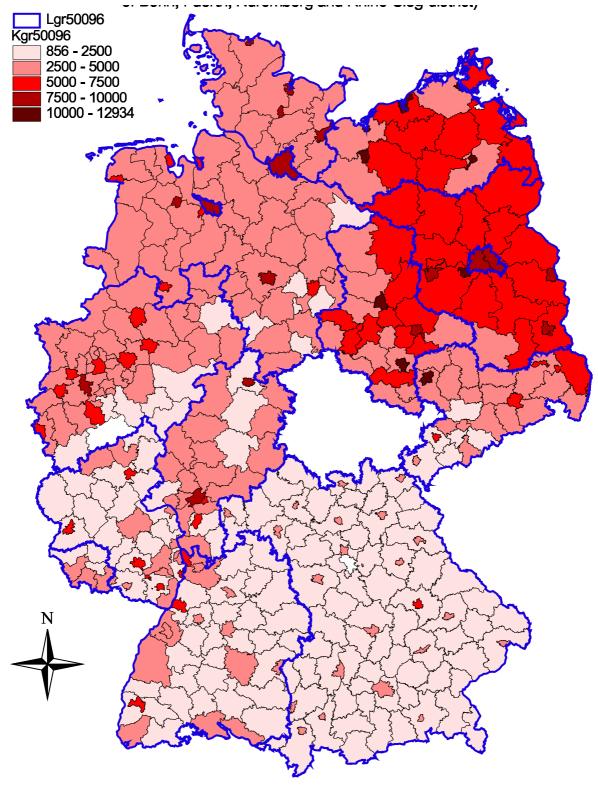
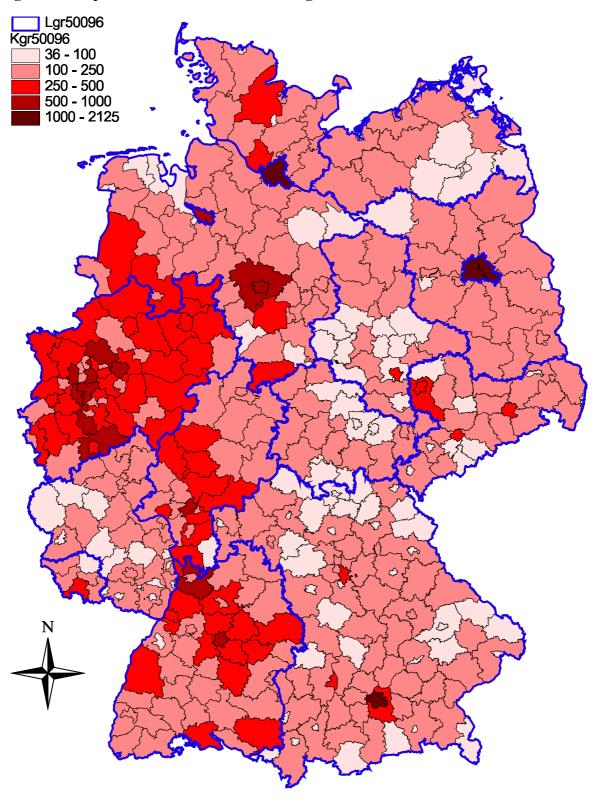


Figure 5: Theft per 100.000 inhabitants in German NUTS 3 regions 1998

Note: See note of <u>Figure 1</u>.





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