



# A Guide on How Industry Classifications of the GBP Are Used

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March 15, 2022

**This guide gives instructions how to use the industry classifications of the German Business Panel (GBP). We explain the structure of the German industry classifications and how they are related to other European and international classifications. We then give advice how to use the industry classifications for the data analysis process.**

## 1 Introduction: How is the Industry Classification Constructed?

The German Business Panel (GBP) provides information on the industry of surveyed firms to conduct research at the industry level or to use this information in firm-level analysis. The surveyed firms are asked to indicate their main field of industry according to the industry classification of the German Federal Statistical Office (Klassifikation der Wirtschaftszweige, WZ 2008). The WZ 2008 is compatible with the Statistical Classification of Economic Activities in the European Community (Nomenclature statistique des activités économiques dans la Communauté européenne (NACE) Revision 2). In addition to the four-digit level of the NACE Rev. 2, the WZ 2008 contains an additional five-digit level (subclasses) to account for special industry characteristics in Germany. The two-digit level of the NACE Revision 2 and the German WZ 2008 are also similar to the International Standard Industrial Classification (ISIC) Revision 4 which is used at the international level. The three- and four-digit level in the NACE Rev. 2 and WZ 2008 differ from the ISIC Rev. 4 but can be aggregated to the three- and four-digit level used in the ISIC Rev. 4. The following table gives an overview on the different industry classifications and its code in the GBP variable *industry\_WZ08* as well as the number of categories for each industry level.

Table 1: Industry Classifications

Industry Level	ISIC Rev. 4	NACE Rev. 2	WZ 2008	Code
Sections	21	21	21	Letter: A - U
Divisions	88	88	88	Two-digit: 01 - 99
Groups	238	272	272	Three-digit: 011 - 990
Classes	419	615	615	Four-digit: 0111 - 9900
Subclasses	-	-	839	Five-digit: 01110 - 990000

In Wave 1 of the GBP, the surveyed firms were asked to indicate their industry up to the four-digit level. Starting from Wave 2 the five-digit level was elicited as well. Respondents could choose the level at which they indicated the industry describing their business activity from the three-digit level on. This allows to remain on a more general level, if a more general classification fits the actual business better or to go to a more finegrained level as appropriate. For example if a firm is active providing both services of qualified auditors (69.20.1) and tax consultants (69.20.3) the nature of the activity may be described better at the more aggregate level (69.20) that includes both. On the other hand, a firm focusing on tax consultancy only, can indicate this specialization. If a firm decided that the broader classification at the three- or four-digit level is more appropriate, the missing information on the lower level digits is indicated by X. Hence, a firm that processes and preserves any kind of meat and produces meat products (C10.1) only indicating its three-digit level, without further specification (poultry or non-poultry) is coded as being active in "C101XX".

Table 2 reports the population of German active firms in the German Statistical Business Register (Unternehmensregister) by different industry sections and the corresponding sample in the GBP in the first two survey waves. For some industry sections such as the agricultural sector or public administration the Unternehmensregister does not provide marginal distributions. Apparently, the distribution of firms across most industry sections is quite similar to the distribution in the Unternehmensregister. For some industries, the shares deviate from the population shares. To account for this, the GBP provides survey weights, based among others on the marginal distributions of the industry section in the population, allowing statements on the overall firm population in Germany. For more information, see the GBP Survey Weights Manual.

Table 2: Industry sections in the GBP

	Unternehmens- register (2019)	GBP sample
<b>WZ 2008 /NACE /ISIC sections</b>		
A (Agriculture, forestry, and fishing)	n/a	n/a*
B (Mining and quarrying)	0.1	0.3
C (Manufacturing)	6.4	13.7
D (Electricity, gas, steam, and air-conditioning supply)	2.2	1.1
E (Water supply, sewerage, waste management, and remediation)	0.3	0.6
F (Construction)	11.0	7.0
G (Wholesale and retail trade, repair of motor vehicles and motorcycles)	17.1	15.5
H (Transportation and storage)	3.2	2.5
I (Accommodation and food service activities)	7.1	3.5
J (Information and communication)	3.9	13.4
K (Financial and insurance activities)	2.1	3.3
L (Real estate activities)	5.3	3.2
M (Professional, scientific, and technical activities)	15.0	12.2
N (Administrative and support service activities)	6.4	7.4
O (Public administration and defence, compulsory social security)	n/a	n/a*
P (Education)	2.3	1.8
Q (Human health and social work activities)	7.1	4.3
R (Arts, entertainment, and recreation)	3.4	3.8
S (Other services)	6.9	4.2
T (Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use)	n/a	n/a*
U (Activities of extra-territorial organisations and bodies)	n/a	n/a*
<b>Total</b>	<b>3,559,197</b>	<b>15,283</b>

\* Note: Since the marginal distributions for sections A, O, T, and U are not available in the German Unternehmensregister, they are excluded from the GBP sample in the table.

## 2 Application in Data Analysis

Researchers can use the industry classifications of the GBP to conduct research on different industries. We provide sample Stata code how to obtain indicators for each respective industry level. Parts of the code which are adapted to the desired industry level are highlighted.

### \*\*\* first letter (sections)

```
gen industry_WZ08_1_letter = substr(industry_WZ08,1,1)
replace industry_WZ08_1_letter = "." if industry_WZ08 == "-9999" ///
| industry_WZ08 == "-9998" | industry_WZ08 == "-9997" | industry_WZ08 == "-9996" ///
| (strpos(industry_WZ08, "X") > 0 & strpos(industry_WZ08, "X") < 2)
```

### \*\*\* two-digits (divisions)

```
gen industry_WZ08_2_digit = substr(industry_WZ08,2,2)
replace industry_WZ08_2_digit = "." if industry_WZ08 == "-9999" ///
| industry_WZ08 == "-9998" | industry_WZ08 == "-9997" | industry_WZ08 == "-9996" ///
| (strpos(industry_WZ08, "X") > 0 & strpos(industry_WZ08, "X") < 4)
```

### \*\*\* three-digits (groups)

```
gen industry_WZ08_3_digit = substr(industry_WZ08,2,3)
replace industry_WZ08_3_digit = "." if industry_WZ08 == "-9999" ///
| industry_WZ08 == "-9998" | industry_WZ08 == "-9997" | industry_WZ08 == "-9996" ///
| (strpos(industry_WZ08, "X") > 0 & strpos(industry_WZ08, "X") < 5)
```

### \*\*\* four-digits (classes)

```
gen industry_WZ08_4_digit = substr(industry_WZ08,2,4)
replace industry_WZ08_4_digit = "." if industry_WZ08 == "-9999" ///
| industry_WZ08 == "-9998" | industry_WZ08 == "-9997" | industry_WZ08 == "-9996" ///
| (strpos(industry_WZ08, "X") > 0 & strpos(industry_WZ08, "X") < 6)
```

### \*\*\* five-digits (subclasses)

```
gen industry_WZ08_5_digit = substr(industry_WZ08,2,5)
replace industry_WZ08_5_digit = "." if industry_WZ08 == "-9999" ///
| industry_WZ08 == "-9998" | industry_WZ08 == "-9997" | industry_WZ08 == "-9996" ///
| (strpos(industry_WZ08, "X") > 0 & strpos(industry_WZ08, "X") < 7)
```

**Title:** German Business Panel Industry Classifications Manual

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**Funding:** Deutsche Forschungsgemeinschaft (DFG, German Research Foundation):

Collaborative Research Center (SFB/TRR) Project-ID 403041268 – TRR 266 Accounting for Transparency

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