

OECD/AIAS ICTWSS Database

Note on definitions, measurement and sources

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Foreword

The database on *Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts* (ICTWSS) has been developed by Prof. Jelle Visser at the University of Amsterdam. It was first released in May 2007. In its initial form, the ICTWSS database combined data from various sources and projects with a main focus on trade union in EU and OECD countries (Visser and Ebbinghaus, 2000^[1]; Visser, 1991^[2]; Visser, 2006^[3]), collective bargaining and employment relations in Europe (European Commission, 2004^[4]), and social pacts (Avdagic, Rhodes and Visser, 2011^[5]). After its first release, the database has been updated every second or third year and more variables and countries have been added. According to Prof. Jelle Visser, “*creating this database has been a process of turning texts, like laws, agreements and organisation statutes, as well as descriptions of practices, customs and traditions, into intelligible numbers open to statistical treatment in comparative research and thus adding a third choice to Ronald Coase (1984, p. 230^[6]) famous quote on institutionalism in economics: ‘Nothing to pass on but a mass of descriptive material waiting for a theory or a fire’*”.

In 2021, the ICTWSS database has been rebranded as the OECD/AIAS ICTWSS database. This new name reflects the joint effort by the OECD and AIAS-HSI to ensure the continuation of the database after Prof. Visser’s retirement. The OECD/AIAS ICTWSS database develops and consolidate earlier versions

of the ICTWSS database, notably in providing more detailed information on minimum wage settings in OECD and expanding geographical coverage to Western Balkan countries.

The first version of the OECD/AIAS ICTWSS database has been released in February 2021 and has been produced with the financial assistance of the European Union Programme for Employment and Social Innovation “EaSI” (2014-2020), VS/2019/0185. The views expressed herein can in no way be taken to reflect the official opinion of the European Union.

This note provides an overview of the definition and measurement of the variables in the OECD/AIAS ICTWSS database as well as a summary of the main sources used. More details can be found in the note by Jelle Visser available on the OECD/AIAS ICTWSS webpage. Details on definitions and sources on the variables covering statutory minimum wages can be found in the note by Janna Besamusca, Andrea Garnero and Hannah Korinth, also available on the OECD/AIAS ICTWSS webpage.

The OECD/AIAS ICTWSS database is publicly available at www.oecd.org/employment/ictwss-database.htm. The previous versions of the ICTWSS database (1-6.1) can be found at the following page <https://www.ictwss.org/downloads>.

For any information or correction, please contact CollectiveBargaining@oecd.org.

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The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

A. Rights

Definition and measurement

Section A of the OECD/AIAS ICTWSS database deals with the right of association (**RA**), the right of collective bargaining (**RCB**), and the right to strike (**RS**). These rights take a central place, as fundamental rights, in the ILO Constitution and are defined in ILO Conventions No. 87 of 1948 and No. 98 of 1949. The coding of the six rights variables tries to capture the degree of enforcement of the rights guaranteed under C087 and C098, separately for the market and the government sector. Where they are fully granted and realised, without any of the infringements or restrictions mentioned before, they are coded “3”, for “yes”. At the opposite end, where these rights are fully absent, repressed or suspended, they are coded “0”, for “no”. In between the codes “2” and “1” apply for “minor” and “major” restrictions. Based on the text of the conventions, restrictions can be of three types: (i) lack of protection against discrimination and interference by employers or governments; (ii) imposition of monopoly unionism and banning, dissolution or suppression of minority unions; and (iii) exclusion of particular categories of workers (beyond what is allowed under the conventions), directly or indirectly through recognition or government authorisation procedures and thresholds that de facto exclude particular groups of workers.

Sources

The Labour Regulation Index (LRI) of the Cambridge Centre for Business Research (Adams, Bishop and Deakin, 2016^[7]) has several indicators for collective labour rights and covers all countries in the data set, with annual data from 1970-2016, for some, mainly post-Communist countries, from 1990-2016.¹ The

¹ <https://www.repository.cam.ac.uk/bitstream/handle/1810/256566/cbr-lri-117-countries-codebook-and-methodology.pdf;sequence=1>

second main source is the ILO Legal Database on Industrial Relations (IRLex)². IRLex contains information on the current (about 2016) regulatory framework of industrial relations and labour law in six thematic areas including the freedom of association, the right to collective bargaining, and the right to strike, as defined in the relevant ILO conventions. For each of these rights, IRLex registers which groups are legally excluded from coverage and thus addresses one of the key issues in coding our variables. IRLex does not address weaknesses in enforcement of the law, like LRI it is about “law on the books”, though other sources of law such as precedential judicial decisions and collective agreements with statutory effect are also referred to where necessary. IRLex is based on the ILO Database of National Labour, Social Security and Related Human Rights Legislation (NATlex)³, which is the primary source for identifying national legislation and used for those countries not covered by IRLex.

For the data on rights violations, employer or government interference, suppression of minority unions and imposition of monopoly unionism, the main sources are based on the supervisory system of the ILO, which has also been used as an additional source to track exclusions.

B. Wage setting

Section B of the OECD/AIAS ICTWSS Database deals with wage setting and the various institutions that “govern” the negotiation and setting of wages, in specific (1) statutory minimum wages; (2) the degree of centralisation of collective bargaining and the organisation of multi-level bargaining, derogation and opening clauses as well as the extension, indexation and length of agreements; (3) the degree and type of co-ordination and government intervention in wage setting and (4) conflict resolutions and contract enforcement.

Minimum wages

Definition and measurement

Statutory minimum wages are the most direct policy lever governments have for influencing wage levels, especially at the bottom of the distribution. More than two-thirds of OECD countries have a statutory minimum wage of some form in place. Minimum wages also exist in most non-OECD emerging economies.

The process of setting the minimum wage varies significantly across countries. In some countries, all or most employees are covered, in others only specific sectors, occupations or regions (**NMW**). **MW_type** distinguishes between countries with a single rate and differentiated rates.⁴ **MW_dif** lists the type of differentiation(s) applicable in each country. The process leading to an adjustment (i.e. an increase) of the minimum wage also differs significantly across countries. In some countries, the adjustment is based on a regular schedule while this is not the case in other. The variable **MW_yrset** indicates the last year in which the minimum wage was increased (i.e. when the new rate(s) entered into force, not when the decision was adopted). The variable **MW_uprate** indicates how the level of the minimum wage is defined, in particular, if the increase is based on a fully automatic indexation or at the discretion of the public institutions or body setting the MW. In case of multiple rates, the rate covering most workers is selected. **MW_comm** provides information on the existence of a permanent committee or body to set the minimum wage and the role that it plays (pure consultation or binding advice). In case of multiple minimum wage fixing institutions, the

² IRLex <https://www.ilo.org/dyn/irlex/en/f?p=14100:1:0::NO>

³ https://www.ilo.org/dyn/natlex/natlex4.home?p_lang=en

⁴ This covers exemptions from the general rate (e.g. 70% of MW for long term unemployed), youth subminimum wages, geographical/territorial rates (e.g. districts or urban/rural), and hierarchies (e.g. sector, occupation, skill level). Full exemptions from the minimum wage are not counted as differentiations. Differentiations based on standard weekly working hours are also not counted as differentiation, unless they are specifically limited to one sector/occupation.

process covering most workers is selected (e.g. federal MW in the United States over state/city level). The variables **MW_act_work**, **MW_act_empl**, **MW_act_gov**, **MW_act_acad**, **MW_act_othe** provide information on the role that, respectively, workers' representatives, employers, government representatives, independent experts or others play in the permanent committee or body to set the minimum wage. These variables only code actors' roles in the committee and do not reflect their tasks and functions in adjusting the minimum wage in as far as they take place outside the permanent body or committee.

Sources

The most complete database on statutory minimum wages around the world is probably WageIndicator⁵ which, among other things, provides minimum wage rates for around 140 countries in the world. The information in WageIndicator, checked and benchmarked with other sources such as the OECD Employment Database, the ILO and Eurofound, has been used to code the variables **NMW**, **MW_type**, **MW_dif** and **MW_yrset**. Chapter 1 of the OECD Employment Outlook 2015 (OECD, 2015^[8]), checked against national sources, has been used to code the remaining variables (**MW_uprate**, **MW_comm**, **MW_act_work**, **MW_act_empl**, **MW_act_gov**, **MW_act_acad**, **MW_act_othe**). Eurofound's annual reports on minimum wages were also used as a source for all EU countries for the **MW_uprate**, **MW_comm** and **MW_act*** variables.

Centralisation and organisation of multi-level bargaining

Definition and measurement

Two variables – **Level** and **Multilevel** – measures the degree of centralisation of wage negotiations. Fully decentralised is a wage bargaining system in which all negotiations take place in the enterprise. In principle, this allows maximum variation in procedures and outcomes across enterprises, reflecting differences across firms in business and labour market conditions, in union strength and in management and union preferences. Data on what happens within enterprises, whether separate negotiations occur at plant and workshop level, is not collected or coded. At the other end stands a fully centralised system in which all wages are negotiated at the central (cross-industry) level without further amendments (for instance, as a result of a central agreement or government wage order). Most wage bargaining systems are located somewhere in between.

The variable **Level** is operationalized as the dominant level of collective bargaining over wages in terms of the coverage of agreements negotiated. This recognizes that not all bargaining takes place at one level and makes a first quantitative assessment of centralization in terms of relative size, i.e. the number of employees affected by agreements negotiated and signed at a particular level. When more workers are covered by agreements negotiated at industry level than by agreements negotiated at enterprise level, the system is more centralized. Note, however, that this operationalization refers to wage bargaining and excludes central bargaining and cross-industry agreements over non-wage issues, like training, social insurance, pensions or social policy reforms (issues that might be important for coordination). A level is "predominant" if it accounts for more than two-thirds of the total bargaining coverage rate (code 1, 3 or 5). If it accounts for less, but more than one-third of the coverage rate, there is a mixed or intermediate situation, between two levels (code 2). A mixed situation also occurs when bargaining levels alternate and/or it is impossible to assess which of the two contributes more to the actual coverage of agreements (code 4).

⁵ <https://wageindicator.org/>

The **Multilevel** variable is a straightforward nominal scale listing the seven possible combinations when there are three-levels, without any assessment of the importance or weight of each level. Again, it is important to recall that the variable is about wage bargaining.

A second block of variables – **rAEB**, **Art**, **Fav**, **DR**, **WSSA**, **OCG** and **OCT** – denotes the presence of additional enterprise bargaining, where there is already a sectoral or cross-sectoral agreement (**rAEB**); the definition of responsibilities of union or employee representatives negotiating agreements (**Art**); the hierarchical relationship of agreements to each other, as defined in law, in basic agreements or by custom (**Fav**); the possibility to derogate by agreement from the law (**DR**); the tightness of wage norms, and space for additional wage bargaining, as defined in sector or cross-sector agreements (**WSSA**); the use of “general” opening clauses in sector or cross-sector agreements, allowing different outcomes at enterprise level (**OCG**), and crisis-related opening clauses, allowing the suspension or alteration of any contract or agreement after its signature (**OCT**).

rAEB is mostly about additional bargaining over wage issues, but given the calculation of weekly, monthly or even hourly wages there is a close connection with bargaining over (shorter or rescheduled) working hours, for instance when setting the time frame for overtime unsocial hours to which penalty wage rates apply, etc. The focus is on the private sector, more in particular, on manufacturing and metal-engineering industries where practices across sectors vary. Since it is very difficult to find or calculate exact coverage figures, an ordinal scale has been chosen. Since the data is based on studies and survey in particular years, the annual series is based on interpolated data (assuming no change) until and unless there is evidence of change based on institutional features (laws, central agreements) or shown in surveys and empirical studies. It is important to note that **rAEB** is concerned with *additional* bargaining and must not be confused with (stand-alone) single-employer bargaining (companies preferring to bargain outside the sectoral organization or agreement, like for instance Volkswagen in Germany or Philips in the Netherlands).

Art is formally defined as mutual dependence of union negotiations at different bargaining levels such that *“the actions of the centre are frequently predicated on securing the consent of lower levels, and the autonomous action of lower levels is bounded by rules of delegation and scope for discretion ultimately controlled by successively higher levels”* (Crouch, 1994, pp. 54-5_[9]). The term “articulated bargaining” (*contrattazione articolata*) was adopted by the Italian labour lawyer Gino Giugni to indicated the transition from a form of exclusive national-level industry bargaining into a system in which the national agreement (for metal-engineering, for example) was split up in various sub-sectors (steel, electronics, ship-building, cars, etc.) and supplemented by enterprise bargaining over, for instance, piece rates and productivity bonuses in each of these subsectors (Giugni, 1965_[10]). In such multi-level bargaining, the crucial governance issue is whether “the different levels are integrated so as to prevent them from mutual blocking their respective purpose” (Traxler, 1994, p. 174_[11]). Crouch (1994, pp. 53-54_[9]) defined articulation as similarity in purpose and mutual dependence of union negotiators at different levels (the assumption being that this is less problematic on the employers’ side). The examples of articulated systems that Crouch had in mind all came from Scandinavia, with strong union workplace representation guaranteed by centrally agreed rules defining competences and responsibilities, and local negotiations taking place under a “peace” rule defined at the central level.

DR, derogation⁶, refers to the possibility to deviate by collective agreement from statutory minimum standards of labour protection. This is sometimes called “partly” or “three-quarters” binding law (Ascher-

⁶ Sometimes the term “derogation” is used to indicate the possibility to set lower standards through enterprise bargaining than those in sectoral collective agreements. Here the term “derogation” is reserved for “deviation by agreement” from legal standards and deal with “deviation from agreements” or setting lower norms than those agreed in “higher-order” agreements under the variable “favourability”. The two variables measure two different outcomes: for instance, deviation from sectoral agreements may be possible and lower standards can be applied in enterprise agreements than those in the sectoral agreement, in contrast to the favourability rule, but not below the standards

Vonk, 2005^[12]) and stresses the “autonomy” of collective bargaining as a source of law (Sinzheimer, 1916^[13]). Standards set by collective agreement are regarded as “the law for the industry” and leave it to the groups thus covered to enforce the norms “by such social sanctions as are at their disposal”, no matter whether the law of the land imposes its own standards (Kahn-Freund, 1972^[14]). **DR** typically applies to such issues as working time, dismissal protection, social insurance or employee representation (it rarely applies to the mandatory minimum wage). Through collective bargaining, the social partners can thus adapt legal standards to specific conditions in industries or firms. For obvious reasons, derogation is probably least important in countries where few labour standards are set by statute (in some sense, there has been derogation right from the start, even before legislating on labour standards, for example in a country like Denmark) and it is important to keep this in mind when using the **DR** variable in comparative analysis.

FAV, favourability, is a cornerstone of labour law in many countries (CCNCC, 2005^[15]; Sciarra, 2006^[16]) and holds that sector agreements can only deviate from central agreements, and company agreements can only deviate from sector agreements, in ways that are favourable for workers. The favourability issue has in recent times come up as a labour reform issue in an attempt to “unlock” enterprise bargaining where it seems blocked, especially in countries where such issues are regulated by law rather than collective agreement (Visser, 2016^[17]). It may thus be seen, like opening clauses, as an alternative to “organised decentralization” (Ibsen and Keune, 2018^[18]).

Higher-order agreements affecting particular sectors or the entire economy can entail different types of standards regarding wages and working conditions. This is captured by the variable **WSSA**. Depending on these different types, there will be more or less space for subsequent bargaining at lower levels. At the sectoral level, Ibsen and Keune (2018^[18]) distinguish between:

- *Standard agreements*, prescribing wages and working conditions and leaving no or little space to company agreements;
- *Minimum agreements*, setting minimum standards and leaving the definition of actual wages and working conditions up to company agreements, with the condition that they respect the minimum standards;
- *Corridor agreements*, defining minimum and maximum levels that have to be respected at company level;
- *Default agreements*, setting wages and working conditions that come into force only when local parties do not manage to agree on them. Company agreements can hence also set wages and working conditions below the default levels;
- *Figureless agreements*, containing no wage standard and leaving wage-setting entirely to the local level (company or workplace) and possibly on an individual basis;
- *Mixed agreements*, a mix of the types above.

The same distinctions can be applied to central or cross-industry agreements.⁷ At whatever level, these different types imply different degrees of decentralisation, with “figureless” agreements the least prescriptive (in a sense fully decentralised) and “standard” agreements the most prescriptive (most centralised). In practice few “pure” agreements are likely to exist as even figureless and default agreements may set some common standards (on non-pay issues, or on procedures of how pay decisions are reached), whereas standard agreements may offer some opportunities for additional company-level

defined in the law (no derogation, for instance on the minimum wage); or collective agreements can derogate and set lower standards than those defined in the law, for instance on working hours, but only in sectoral agreements, with or without the possibility to go below the sectoral norm in enterprise agreements.

⁷ For example, the 1972 central agreement in the Netherlands was a mixture between a standard and a minimum agreement, setting a standard for some (wage) and a minimum for other (non-wage) conditions; the 1982 *Wassenaar* agreement was a “figureless agreement” (Visser and Hemerijck, 1997^[93]).

adjustments on specific issues. In measuring this variable (**WSSA**) onto a three-point scale, default and figureless agreements are grouped together as “framework agreements” as they are mostly about setting procedural rules (for instance, that all outcomes need to be negotiated and be approved by the union and its representatives). Corridor agreements are grouped together with minimum agreements.

Opening clauses are another important feature of collective bargaining systems and refer to the possibility to suspend particular clauses in collective agreements or negotiate deviant solutions. It is possible to distinguish between *hardship* or *survival* clauses (**OCT**), which are temporary and relate to a crisis situation confronting a particular enterprise or industry, and *general opening* clauses (**OCG**) which allow deviation from contractual obligations under a much wider class of circumstances (Visser, 2016^[17]). Hardship clauses, which allow a temporary suspension of (pay clauses in) the contract, have been used in many countries to face the immediate closure and loss of jobs in firms or sectors falling on hard times. They often come with conditions like “opening the books” and social plans that accompany restructuring and guarantee benefits in case of collective dismissals. General opening clauses can be used as a means to raise the competitive position of the firm and a way to circumvent favourability constraints.

The last three variables of this section, **Index**, **Ext** and **Length**, measure features that are important for the stability, protection standards and flexibility of collective agreements for both workers and employers (indexation, length of agreements) and for the coverage of agreements and competitive relations across firms (extensions).

Extension (**Ext**) is a legal act in which (clauses in) a collective agreement negotiated between one or more unions and one or more employers’ associations is (are) declared binding on firms that are not member of the contracting parties. Extension as defined is based on an administrative decision by the government, a public agency or the court. Voluntary extension, or the adoption of the agreement, after its conclusion, by non-organised firms is not covered. Nor does extension include the practice of employers that orient their pay policies on the collective agreement of organised firms. Included under extension are, however, such “functional equivalents” that produce a similar outcome of general agreements, binding all employers in a particular sector. Such functional equivalents include mandatory membership of employers’ associations (Austria, Slovenia before 2006); the legal interpretation of collective agreements as generally “*erga omnes*” applicable in their domain (Argentina, Spain); judicial awards (Brazil; New Zealand before 1991; Australia, scaled down in 1992, 1996 and 2005, and upgraded in 2009; and Italy based on court rulings on pay scales).

The following general rules or hypotheses have guided the distinction between codes 1, 2, and 3:

- a) Besides the (near) absence of sector agreements, which can be both the cause and effect of the non-application of extension orders, the distinctive feature of code 1 is probably the possibility that one party, usually the employers, can veto the extension decision, even against applications from its own member organisations which represent a particular industry or occupation. Where this is a feature in the law, code 2 and 3 are ruled out.
- b) Code 2 applies when at least three conditions are fulfilled: extension cannot result from court, board or Minister decisions without a prior request from the signatories to the agreement; requests can be, and occasionally are, rejected or sent back for renegotiation; representation criteria or thresholds exist and are applied. At least one of these conditions is violated when **Ext** is coded 3.
- c) Representation thresholds and legal conformity and public interest tests are not distinctive criteria and exist in different forms in each of these extension orders.
- d) When **Ext** is coded 1, the variable **ExtE** (which appears under the bargaining coverage variables in section G and measures the direct coverage effect of extension orders, will be small, below 5 percentage points)

Table 1 presents an overview of the main features of the extension instrument. The main sources are the ILO study on extension (Hayter and Visser, 2018^[19]) and the OECD policy questionnaire of 2017 and 2020 (for the Western Balkans).

Table 1. Extension of collective agreements, current situation (2020): Origins, use, procedures, criteria, rules of exemption, and coding

ISO	Use	Trend	Request	Decision	Advice	representation criteria	public interest	exemption	code old 10	code new 11
1	2	3	4	5	6	7	8	9		
ALB	..									0
ARG	general	=	registr	Min		most representative	Y	Y	3	3
AUS	¥ (new award)	=	third	..	E	n.a.	Y	..	2	2
AUT	¥ (empl org)	=	n.a.	n.a.	TC	n.a.	n.a.		3	3
BEL	general	=	registr	Ex Lege		parity committee	no	no	3	3
BIH	¥ (gen. agr)	?	n.a.	n.a.		n.a.	n.a.	..		3
BLG	limited	<	parties	Min		..	no	Y	1	1
BRA	limited	?	third	courts		registration	no	Y	1	1
CAN	not used / rare		parties	..		..	Y	..	0	0
CHE	common	>	third	Min		50% or less	Y	no	2	2
CHN	none								0	0
COL	not used		..	..		..	..	..	1	0
CRI	not used		..	..		..	..	..	1	0
CYP	none								0	0
CZE	limited	=	parties	Min		most representative	no	Y	1	1
DEU	limited	>?	parties	Min	TC (binding)	overriding importance	Y	Y	1	1
DNK	none								0	0
ESP	general	=	registr	Ex Lege		50%	no	n.a.	3	3
EST	rare	<	parties	Min		50%	no	no	1	1
FIN	general	=	registr	Ex Lege	E (threshold)	50% or less	no	no	3	3
FRA	general	=	third	Min	E (impact)	unions >30%	Y	no	3	3
GBR	none								0	0
GRC	suspended		..	MIn	..	50%	..	..	0	0
HRV	limited	<	parties	Min		50%	no	..	1	1
HUN	limited	<	parties	Min		50%	no	no	1	1
IDN	not used / rare		parties	Min		'important majority'	..	..	1	0
IND	limited	<	third	Tribunal		n.a.	n.a.	n.a.	1	1
IRL	limited	<?	parties	IR Court		registration	Y	Y	1	1
ISL	general	=	registr	Ex Lege		n.a.	no	n.a.	3	3
ISR	common	<	parties	Min	TC	dominant	no	Y	2	2
ITA	¥ (court ruling)		n.a.	n.a.		n.a.	n.a.	n.a.	3	3
JPN	non used / rare		parties	Min	TC	..	no	no	1	0
KOR	not used (rare)		parties	Min	TC	67%	..	..	1	0
Kosovo	none									0
LTU	not used / rare		parties	Min		'important'	no	no	1	0
LUX	common	<	parties	Min	TC	50%	no	no	3	2
LVA	limited	=	parties	Min		50%	no	no	1	1
MEX	not used / rare		parties	Min	TC	..	no	Y	1	0
MLT	none								0	0
MNE	¥ (gen agr)	?	n.a.	n.a.		general agreement	n.a.	..		3
NLD	common	=	parties	Min	BC	60% or less	Y	Y	2	2
MKD	¥ (gen agr)	?	n.a.	n.a.		general agreement	n.a.	..		3
NOR	targeted	>	third	Tripart. Board		foreign workers	Y	no	1	1
NZL	none								0	0
POL	not used		parties	Min		..	no	Y	1	0
PRT	common	>?	parties	Min	E (impact)	no (revised)	Y	Y	2	2
ROU	limited	<	parties	Min					1	1
RUS	not used / rare		parties	Min	TC	..	..	..	1	0
SRB	not used / rare		parties	Min						0

SVK	limited	<?	parties	Min	TC (binding)	50%	Y	Y	1	1
SVN	common	=	parties	Min	TC	50%	no	no	3	2
SWE	none								0	0
TUR	not used / rare		parties	Min	TC	most representative	no	..	1	0
USA	none								0	0
ZAF	common	<	partes	Min		50% or less	Y	Y	2	2

Note: ¥ =functional equivalent (e.g., compulsory membership of employer organisation; general agreement with binding effect; court rulings); n.a.= not applicable; .. = no data.

Columns:

- 1) Countries (ISO codes)
- 2) The degree of use of extension orders (general, common, limited, or rare/not used),
- 3) Indication of trend in use of extension orders (increasing >, stable =, decreasing (<), or uncertain/many recent changes
- 4) Initiative to extend collective agreements, whether requiring an explicit request from (one or more) parties to the agreement (parties), occurs automatic upon registration of the agreement (registr), or allows the initiative of third parties, including the Minister, the court or a commission, even in cases where the parties have not requested extension (third).
- 5) Decision taker (Minister, Court, Tribunal, Commission or Board)
- 6) Advise, usually non-binding, from Tripartite or Bipartite Committee (TC or BC, in Ministry or as independent council), or mixed expert group /E).
- 7) Decision criterion: representation thresholds and/or target groups
- 8) Presence (Y) or absence (N) of public interest criterion, like unemployment, budget, equal pay, etc.
- 9) Presence (Y) or absence (N) of rules on exemption applicable to firms or minority interests (unions, particular groups of workers)
- 10) Coding in ICTWSS database (6.1)
- 11) Proposed coding in new database.

Sources: LRI-CBR database (Adams, Bishop and Deakin, 2016^[7]); OECD policy questionnaires of 2017 and 2020 (for Western Balkans), IRLX database, and overview in Hayter and Visser (forthcoming^[20]).

A summary variable of the degree of centralisation, called **Central**, is provided in the database. Starting with the code for the dominant level of bargaining, **Central** takes three additional elements into account: the incidence of and control over additional bargaining at enterprise level (**raEB**, rescaled to a 3-level measure so that it is the same as **WSSA** and **OCG** by combining codes 1 and 2); the “space” that central or sectoral agreements assign, delegate or allow for such additional bargaining to take place (**WSSA**); and the degree to which agreements can be perforated through the use of “opening clauses” (**OCG**).

In formal terms:

$$Central = Level - (raEB*2+WSSA+OCG)/8$$

Sources

There are no national or international registers of central or sectoral agreements and the data has to be reconstructed from various international and national overviews and studies. Golden and Wallerstein (1997^[21]), Golden et al. (2006^[22]), and Lange et al. (1993^[23]) have served as the principal source for methodology and data, with coverage extended to other countries and recent years from the sources mentioned above, with additional data from the comparative country studies in Bamber and Lansbury (1987^[24]; 1994^[25]); Blanpain (1986^[26]), Baglioni and Crouch (1991^[27]); Calmfors (1991^[28]); Bispinck and Lecher (1993^[29]); Ferner and Hyman (1992^[30]; 1998^[31]); Hartog and Theeuwes (1993^[32]); Katz (1993^[33]); Locke et al. (1995^[34]); Katz and Darbishire (1999^[35]), and Scharpf and Schmidt (2000^[36]); and Traxler et al. (2001^[37]), and Moerel (1994^[38]), Kohl and Platzer (2004^[39]), and Bohle and Greskovits (2012^[40]) for developments in Central and Eastern Europe. Recent data for EU countries, with greater detail of multi-level bargaining and opening clauses, has been obtained from Keune (2011^[41]); Visser (2013^[42]; 2016^[43]); Koukiadaki et al. (2016^[44]), Leonardi and Pedersini (2018^[45]); and Müller et al. (2019^[46]), and related to the EIRO and EURworks database from Schulten and Stückler (2000^[47]), Schulten (2005^[48]), Arrowsmith and Marginson (2011^[49]), Broughton (2010^[50]), Cultarelli et al. (2011^[51]) Marginson and Welz (2014^[52]), as well as the OECD questionnaire of 2016 (OECD, 2019^[53]).

The data and sources on extension are generally found in legal texts and amendments; decisions by Ministers, courts or special authorities. In this case the ICTWSS data collection strategy has started with identifying the first comparative study in the field, i.e. Eurofound's report on Collective Bargaining Coverage and Extension Procedures, written by Franz Traxler and Martin Behrens, and published in 2002.⁸ That study covered 15 EU countries, Norway and 4 new EU member states (Hungary, Poland, Slovak republic, Slovenia), specified thresholds and procedures used, distinguished between (quasi-) automatic and non-automatic extension, identified functional equivalents, and estimated the effect of extension (**ExtE**) on the bargaining coverage rate with data for 2000. After checking the data with legal sources (in NATLEX or IRLEX), the Traxler/Behrens study has been used as a baseline, both for building a time series and creating similar data entries for other countries. Interpolation is in this case not an issue: the institution remains the same until it changes, which will be shown in a legal text or decision. In this case, the original law or regulatory order was identified for each country together with information on its application, and later amendments. Besides NATLEX or IRLEX, the entries on national systems and labour laws in the *Encyclopaedia of Labour Law and Industrial Relations*, edited by prof. Roger Blanpain, was consulted.

The OECD/AIAS ICTWSS data has been compared with entries in five other datasets: CBR-LRI (variable 28: extension of collective agreements); EFDB (variable ExtFreq, frequency of extension); LABREF (regulation by the Government of the wage bargaining framework, e.g. extension of collective agreements), Traxler/Behrens (existence and type of extension), and the OECD survey of 2017 and, recently, on the West-Balkans (use and coverage of extension):

- CBR-LRI covers 1970-2013 (1990-2013 for the post-Communist European countries) and codes the existence of extension laws (irrespective of their use).
- EFDB and LABREF cover the years 2000-2017.
- Traxler/Behrens survey the situation in 2000.
- The OECD policy questionnaires document the situation in 2015 (or 2019 in the case of the West Balkans).

Table 2 summarises the data in each of these data collections, with reference to the year(s) in which changes in the institution of extension occurred. As can be seen, the main inconsistencies relate to the treatment of “laws on the book” versus “laws on action”. Must, for example, Poland be coded “1”, according to its laws, or ‘0’ given the non-use of the extension instrument? The first (political science) choice identifies an institution that is there for a reason and allows questions like – how did it get there?, why is it not used?, under what conditions could it be revived? The second (economist) choice focuses on the functioning of labour markets and asks questions like – is wage setting and collective bargaining in this country shaped by extension orders? The (newly) proposed coding follows the second approach. This approach also codes situations in which, formally, there is no extension law, as de facto applying extension (coded 1-3) when there is a functional equivalent, like a general binding agreement applying to all firms, compulsory membership of firms in employers’ associations signing agreements, binding and generalised decisions of courts, applying the collective agreements to all workers in the domain, etc. Generally, the coding has tried to identify the “use” or “application” of extension orders or its functional equivalents.

Table 2. Coding comparison on extension

country	legisl. year	CBR-LRI	EF	LABREF	Traxler	OECD	years	codes in
		1970-2013	2000-2017	2000-2017	2000	2015/19	ICTWSS	ICTWSS
1	2	3	4	5	6	7	8	9
ALB						N	2019	
ARG	1953,1988	1					1960-	3

⁸ <https://www.eurofound.europa.eu/publications/report/2002/collective-bargaining-coverage-and-extension-procedures>

AUS	1904, 1930	1					1960-1991	3
	1992	1					1992-1995	2
	1996	0,33					1996-2004	1
	2005	0,33					2005-2008	0
	2009	0,67					2009-	2
AUT	1918,1945	1	3	E	Y, ¥	Y, ¥	1960-	3
BEL	1945,1968	1	3		Y,A	Y	1960-	3
BIH						¥		
BLG		0					1990-2000	0
	2001	1	1				2001-2009	1
	2010	1	1	E			2010-2012	2
		1	1				2013-	1
BRA	1943	1					1960-1987	2
	1988	1					1988-	1
CAN	1942	0				N	1960-	0
CHE	1956, 1998	1				Y	1960-	2
CHL		0					1980-90	0
	1991	0,33				N	1991-	0
CHN		0					1988-	0
COL	1950	1				N	2015-	0
CRI	1943	1				N	2015-	0
CYP		0	0				1974-	0
CZE		0					1990	0
	1991	1	1	I,S,I		Y, rare	1991-	1
DEN		0	0		(Y)*	N	1970-	0
ESP		0					1977-1979	..
	1980	1	3		N, ¥		1980-2010	3
		0,67	3				2011	3
		0,5	3			N, ¥	2012-	3
EST		0					1991-1992	0
	1993	0,5	1			Y, rare	1993-	1
FIN		0					1960-70	0
	1970, 2001	1	3	I	Y,A	Y	1971-	3
FRA	1936, 2017	1	3	R?	Y,A	Y, common	1960-	3
DEU	1918,1949	1	2	E	Y	Y, rare	1960-	1
GBR	1934,1975	1					1960-1979	1
	1980	0			N	N	1980-	0
GRC	1955	1					1974-1989	2
	1990	1	3		Y,A		1990-2010	3
	2011	0	0	S,I		N	2011-2019	0
HRV		0					1991	0
	1992	1		R			1992-	1
HUN	1951	0,5					1990-1991	0
	1992	1	1		Y	Y, rare	1992-	1
IDN	1954,2003	1					1980-	0
IND	1947	0,5					1960-	1
IRL	1946	0,5	1		Y		1946-2012	1
	2013	0	1	S			2013-2014	0
	2015		1	I		N	2015-	1
ISL		0					1960-79	0
	1980	1					1980-	3
ISR	1970, 1975	1					1970-1986	3
	1987	1					1987-2004	2
	2005	1				Y, rare	2005-	1
ITA		0	3		¥	N, ¥	1960-	3
JPN	1946	1				Y, rare	1960-	0
KOR		0					1960-2013	0
	2014	1				N	2014-	0
Kosovo						0	2019	
LVA		0					1991-2001	0
	2002	1	3			Y, rare	2002-	1
LTU		0					1991-2003	0
	2004	1	0			Y, rare	2004-	0

LUX							1960-1964	0
	1965	1	3	I	Y,A	Y, common	1965-	2
MEX	1936,1979	0,5				Y, rare	1980-	0
MLT		0	0				1960-	0
MNE						¥	2019	3
NDL	1937	1	2		Y	Y, common	1960-	2
MKD						0	2019	
NOR		0					1960-1992	0
	1993	1	0				1993-2003	0
		1	1		N	Y, rare	2004-	1
NZL	1894	1					1960-1990	3
		0				N	1991-	0
POL	1956	0					1990-1993	0
	1994	0	0				1994-2007	1
	2008	1	0		Y	N	2008-	0
PRT	1969,1976	1	3		Y,A		1975-2011	3
		1	1	S,R			2012-2013	0
		1	2	E			2014-2016	2
			2			Y	2017-	3
ROU	1996	1	3				1996	3
	2011	0	1	R			2011	1
RUS		0					1991-2001	0
	2002	0,5					2002-	1
SRB						1	2019	0
SVK	1993	1	2		Y		1993-2003	2
	2004	0,33	1	R			2004-2006	1
	2007	1	1	E			2007-2009	2
	2010	0,33	1	R			2010-2013	1
	2014	1	2	E		Y, rare	2014-2015	2
	2016		0	S,I			2016-2017	0
	2018						2018-	1
SVN	1991	0,5	0		N,¥		1991-2005	3
		1				Y	2006-2016	2
			2				2017	2
SWE		0			N	N	1960-	0
TUR							1960-1962	0
TUR	1963	1					1963-1979	1
	1983	1				Y, rare	1983-	0
USA		0				N	1960-	0
ZAF	1924,1995	1					1970-	2

Legend:

Column 1: countries (ISO code)

Column 2: year in which original legislation or regulation on extension was adopted, was re-issued or changed

Column 3: 1=law extends CAs to third parties at national or sectoral level; 0=CAs may not be extended; values between 0 and 1 reflect graduations in strength of law or regulations

Column 4: coding from 0 to 3 is the same as in column 9 (inverse coding in European Foundation Database has been adapted)

Column 5: E=extension decisions made easier; I=implementation (re-introduction of extension and/or specification of decision rules);

R=extension decisions made more restrictive; S=suspension of extension orders, by government decision or court order

Column 6: A=(quasi-)automatic; N=no; Y=yes; ¥=functional equivalent

Column 7: N=no; Y=yes (extension decision are common or rare); ¥=functional equivalent,

Column 8: years of data entries in ICTWSS (first and last year in dataset, and years in which change was registered)

Column 9: ICTWSS coding from 0 (=no) to 3 (quasi-automatic)

Coordination and government intervention

Definition and measurement

Centralisation is the “vertical ordering” of wage bargaining. Coordination stresses the “horizontal” relations between distinct bargaining units or actors (Soskice, 1990^[54]) though surely vertical relations based on

authority, power and prestige of the bargaining parties also enter into the concept of coordination (Traxler and Brandl, 2012^[55]).

In the OECD/AIAS ICTWSS database there are three variables that attempt to capture the presence and degree of *coordination*: **Coord**, the degree of coordination, **Type**, the type of coordination, and **Govint**, the role of the government in wage bargaining.

Coord tries to capture the degree of coordination in wage bargaining on an ordinal 5-point scale.

Type describes a particular behavioural patterns of activities of the major players (unions, employers, governments) involved in wage setting. Types or modes of coordination often exist in combination—trendsetting in Austria, Germany, Sweden, Norway and Denmark is combined with associational controls and even an element of state support, especially regarding dispute regulation. Such combinations also exist regarding other forms of coordination—for instance, a combination between state-imposed norms in Belgium and inter-associational coordination based on national agreements, or social pacts and informal centralisation, based on norm setting and guidance by associations in the Netherlands. In such cases, it would be possible to distinguish between the main or dominant source of coordination, and auxiliary sources, a useful distinction made by Roche (1986^[56]) regarding various type of government intervention in addition to other forms of coordination. The coding in the OECD/AIAS ICTWSS database reflects the dominant type or source of coordination. **Type** is based on *observed* characteristics of the wage bargaining process while **Coord** infers from such characteristics particular behaviour of bargainers and a *prediction* regarding bargaining outcomes.

Govint ranks various forms of government involvement in wage bargaining on an ordinal scale. The coding follows Hassel (2006, p. 75^[57]) with some changes and the coding by Golden, Wallerstein and Lange (Golden, Wallerstein and Lange, 2006^[22]).

Sources

The main source is Kenworthy (2001^[58]). Kenworthy's survey covers 18 OECD countries (Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Netherlands, New Zealand, Norway, Sweden, Switzerland, United Kingdom, United States) for the years 1960 to 2000, and provides rationales, in the form of comments and notes, for the wage setting coordination scores given. Kenworthy draws on a variety of sources, the most important of which are: Soskice (1990^[59]), Iversen (1999, pp. 84-85^[60]), Traxler, Blashke, and Kittel (2001^[37]), the Golden-Lange-Wallerstein indexes of wage centralization (Golden, Wallerstein and Lange, 2006^[22]), Ferner and Hyman (1998^[31]), the monthly European Industrial Relations Review (EIRR), and the European Industrial Relations Observatory (EIRO) website (<http://www.eiro.eurofound.ie>). In some cases the scores have been revised based on newer literature and small differences in the coding. The post-2000 data are based on EIRR and EIRO, from 2003: the European Observatory of Working Life (Eurwork), 2000-19, Country updates. <https://www.eurofound.europa.eu/observatories/eurwork/country-updates>. This source has also been used for extending the database to the European countries not covered by Kenworthy (Bulgaria, Czechoslovakia/Czech Republic, Croatia, Cyprus⁹, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovenia, Slovak Republic). All member states of the European Union (EU) and Norway are covered by the Eurofound Database on wages, working time and collective disputes (EFDB, version 2.1),

⁹ Note by Turkey: The information in this document with reference to "Cyprus" relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the "Cyprus issue".

Note by all the European Union Member States of the OECD and the European Union: The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

which contains a section on “features of wage setting systems”, including variables with information about the type and stringency of coordination, government intervention and the level(s) of bargaining. <http://www.eurofound.europa.eu/eiro/structure.htm>. The “Industrial Relations in Europe” reports of the European Commission, biennial from 2000 till 2015, have been an additional source, especially for identifying the actors involved in wage setting and coordination. In addition, use has been made of the literature on social pacts (Avdagic, Rhodes and Visser, 2011^[5]; Fajertag and Pochet, 1997^[61]; Fajertag and Pochet, 2000^[62]; Tóth and Neumann, 2004^[63]; Pochet, Keune and Natali, 2010^[64]; Ebbinghaus and Weishaupt, forthcoming^[65]). For non-European countries the additional sources are Hartog and Theeuwes (1993^[32]) (US, Australia, New Zealand, Japan), Fraile (2010^[66]) (Korea, Chile, South Africa), Cardoso (Cardoso, 2004^[67]), and Cardoso and Gindin (2009^[68]) (Argentina, Brazil, Mexico). On government intervention the main source is Hassel (2006^[57]), with additional information from Addison (1981^[69]), Flanagan et al. (1983^[70]), and Armingeon (1982^[71]; 1994^[72]).

Conflict resolution and enforcement of agreements

Definition and measurement

There are three variables in this group: **Peace** (existence of peace obligation in agreements), **CoR** (treatment of conflict of rights, during agreements), and **Col** (treatment of conflict of interests, over new agreements or renewals). These three variables capture key aspects of bargaining control defined as the ability of the contracting parties to monitor and secure compliance with what they agree. In labour law and collective bargaining, a distinction is sometimes made between “dispute of rights” and “dispute of interests”. A “dispute of rights”, or grievance, concerns the violation of an existing entitlement embodied in the law, a collective agreement, work rule, regulation, custom, or employment contract. A “dispute of interests” originates from claims aimed at the modification of terms and conditions of employment and usually result from the breakdown of the bargaining process when the parties fail to reach agreement on the terms and conditions of employment that will apply in future. The “right” and “ability” for unions to call and for workers to participate in a strike in these two types of disputes is treated differently in many (though not all) countries, hence the difference of the two variables **CoR** and **Col**.

“Disputes of rights” typically take the form of a claim by the worker or the union against the employer. ILO Recommendation 130 of 1967 advocates that workers have the right to have such grievances “examined pursuant to an appropriate procedure”. **CoR** procedures which commit the union to redress grievances through a mediation or arbitration mechanism established for this purpose rather than to call a work stoppage or litigate in court, can be based on “custom and practice” (for example, in Britain and Ireland), be required by law (as in Canada and the USA), or be part of a general or basic agreement between the central union and employers’ organizations (as in Scandinavia). Usually, such rules are copied into the collective agreement and become part of the so-called “obligatory clauses” which define procedures and rights of the contracting parties, distinct from the normative clauses which define the standards and rights of workers.

Such obligations may be combined with an implicit or explicit peace clause, which prohibits the calling of, or participation in, a strike over issues settled by the agreement (a peace clause need not prohibit strikes on other issues, including solidarity or political strikes). **Peace** clauses may be obligatory, prescribed by law, or become accepted as a common practice agreed between the contracting parties, documented in the basic or main agreement between unions and employers (as is the case in Scandinavia, Finland or Switzerland), or be part of works council legislation (as is the case in Germany).

Finally, the **Col** is about the use of mediation and arbitration in case of conflict over recognition (first agreements) or the renewal and renegotiation of agreements. Unions and employers may customarily seek mediation or arbitration before they call a strike or lockout in such situations, or they set up special boards

or procedures for this purpose. Such procedures may also become obligatory, deeming strikes and lockouts unlawful that make not full use of them.

Sources

The main source is the national law or statute, or in some countries the general, basic or main agreement between unions and employers, or in some cases the main agreement between unions and employers in manufacturing industries (as in Sweden or Switzerland). In some case, without either law or agreement laying down the rules on these matters, the relevant source is the case law and how judges rule on the permissibility of strikes. The issue of peace clauses and procedures for mediation/arbitration of industrial disputes figures in some of the other databases, in particular CBR-LRI (items 38 and 39), the European Foundation's database (various variables), the OECD questionnaire of 2016 and the IRlex database of the ILO. Traxler and Kittel (2000^[73]) present data for 18 OECD member countries from 1970 to 1990 on "governability" of collective agreements (low or high, "0" or "1"), defined as legal enforceability of collective agreements and the presence of a peace obligation. Limited variation over time occurs in all these database, except in the data of Traxler and Kittel, where the scores are constant for all years from 1970 to 1990.

C. Social pacts and agreements

Social pacts

Two core aspects are covered in section C of the OECD/AIAS ICTWSS database:

1. Social pacts, defined as "publicly announced formal policy contracts between the government and social partners over income, labour market or welfare policies that identify explicitly policy issues and targets, means to achieve them, and tasks and responsibilities of the signatories" (Avdagic, Rhodes and Visser, 2011, p. 11^[5]).
2. Central (cross-industry or inter-professional) agreements, covering the entire economy or the entire private sector, negotiated by central organisations or coalitions of unions and employers' associations, and publicly announced, registered or documented.

These definitions exclude:

- a. tacit understandings or non-written agreements that are not publicly announced, registered or documented;
- b. agreements and pacts on policy issues outside the domain of economics, labour, welfare and social policies (e.g., dealing exclusively or primarily with environmental or health issues);
- c. agreements and pacts at the sub-national (local, regional) level or dealing with one branch of the economy only (e.g., agriculture, banking, steel and cars).

The difference between pacts and agreements is defined by the role of the government as a formal (signing) party to the agreement. In addition to the variables "**SPA_negot**" (Has a pact or agreement been proposed and did negotiations actually take place?) and "**SPA_signed**" (Has a pact or agreement been signed and ratified?), there is a third variable "**SPA_comp**" with information on the composition of signatory parties (notably, whether the government was involved or not).

The rest of the variables provides a summary of the content of the pact or agreement. The database codes 10 different issues, three related to wages (**WAGE_PROC**, **WAGE_MIN**, **WAGE_MAX**), one related to the budget or taxes (**TAX_BUDGET**), and 6 specific policy issues: working time, including work-family issues (**WRK_HRS**); employment or job creation, including activation (**EMPL_POL**); employment protection

legislation (**EMPL_LEG**); social insurance, including unemployment, sickness and disability (**SOC_SEC**); pensions (old age and pre-retirement, **PENSIONS**); and training (**TRAINING**). Additionally two “promotional” issues are coded, one related to union and employee representation rights (**UNION_RIGHTS**); and one related to concertation or arrangements (**CONCERT**) that guarantee social partner involvement in public policy choice and design (for instance through creating or upgrading a tripartite council for social and economic policy)¹⁰. On the basis of coding pacts by content, it is possible to distinguish between wage and non-wage, and between narrow (single-issue) and broad (multiple-issue) pacts and agreements (Avdagic, Rhodes and Visser, 2011, p. 62^[5]).

SPA_signed refers to the year in which the social pact or agreement is signed and ratified. Where the negotiators fail to obtain the approval of their members after they have signed the agreement, this is registered as failure; there is no agreement or pact. Agreements and pacts that change the rules usually do so for an indeterminate time in the future, although they may be revisited or recalled at a later time. Agreements and pacts that set a norm for maximum or minimum wage norm typically apply for one or more years, and this need not be the same year in which the agreement or pact was signed. For this purpose and only when the agreement or pact establishes a maximum or minimum wage norm (**WAGE_MAX** and/or **WAGE_MIN=1**), a special variable (**SPA_applies**) registers the year or years in which the (wage norm of) the pact or agreement applies. This usually varies between 3 years (most Irish pacts since 1987), 2 years (Belgian agreements or Finnish pacts), or 1 year (Swedish central agreements before 1983) and in many cases starts the year after the pact or agreement has signed.

Sources

There are no central or national registers of social pacts or central agreements and the data has to be reconstructed from various international and national overviews and studies. The most important sources are listed below.

On social pacts:

- Avdagic, S., M. Rhodes, and J. Visser, eds. 2011. *Social Pacts in Europe: Emergence, Evolution and Institutionalisation*, Oxford University Press.
- Fajertag, G., and Ph. Pochet, eds. 1997. *Social Pacts in Europe.*, eds. Brussels: European Trade Union Institute (ETUI) / Observatoire Social Européen (OSE).
- Fajertag, G., and Ph. Pochet, eds. 2000. *Social Pacts in Europe. New Dynamics*, eds. Brussels: ETUI/OSE.
- Fraile, L. ed. 2010. *Blunting Neoliberalism. Tripartism and economic reforms in the developing world*. Geneva: ILO and Palgrave-McMillan.
- Hassel, A. 2006. *Wage-Setting, Social Pacts and the Euro*. Amsterdam: Amsterdam University Press.
- Koukiadaki, A., I Távora and M. Martínez Lucio, eds. 2016. *Joint Regulation and Labour Market Policy in Europe during the Crisis*. Brussels: ETUI.
- Pochet, Ph., M. Keune, and D. Natali, ed. 2010. *After the Euro and Enlargement: Social Pacts in the EU*. Brussels: ETUI.

On industrial relations, wage setting and central agreements:

- Auer, P. ed. 2001. *Changing Labour Markets in Europe. The role of institutions and policies*. Geneva: ILO.

¹⁰ Examples are the pacts marking the transition to democracy in Chile (1990), the end of Apartheid in South Africa (1990, 1994), democratization in Korea (1997) and various pacts in Central and Eastern Europe following the end of Communism.

- Baglioni, G., and C.J. Crouch, eds. 1990. *European Industrial Relations. The challenge of flexibility*. London: Sage.
- Bispinck, R., and W. Lecher, eds. *Tarifpolitik und Tarifsysteme in Europa*. Cologne: Bund Verlag.
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- Lange, P., M. Wallerstein, and Miriam Golden. 1993. "The End of Corporatism? Wage Setting in the Nordic and Germanic Countries.", in: S. Jacoby, ed. 1995. *The Workers of Nations. Industrial relations in a global economy*. New York: Oxford University Press, pp. 76-100.
- Leonardi, S., and R. Pedersini, eds. 2018. "Multi-Employer Bargaining Under Pressure. Decentralisation trends in five European countries". Brussels: ETUI.
- Locke, R., Th. Kochan and M. Piore, eds. 1995. *Employment Relations in a Changing World Economy*. Cambridge Mass. The MIT Press.
- Moerel, H., ed. 1994. *Labour Relations in Transition*. Nijmegen: ITS.
- Müller, Th., K. Vandaele, and J. Waddington, eds. 2019. "Collective Bargaining in Europe: Towards an endgame". 4 vols. Brussels: ETUI
- Scharpf, F.W. and V.A. Schmidt, eds. *Work and Welfare in the Open Economy*. 2 vols. Oxford: Oxford University Press.
- Traxler, F., S. Blaschke, and B. Kittel. 2001. *National Labor Relations in Internationalized Markets: A comparative study of institutions, change, and performance*. Oxford, Oxford University Press.
- Van Ruysseveldt, J.J., and J. Visser, eds. *Industrial Relations in Europe. Traditions and transitions*. London: Sage.

Further sources:

- EIRR (European Industrial Relations Review). Monthly data. 1990-2000.
- EIRO (European Industrial Relations Observatory). 1997-2003 Annual reviews. <http://www.eiro.eurofound.ie/1997/review/eiroar03.htm>
- EURwork (European Observatory of Working Life), 2000-2019. Country updates. <https://www.eurofound.europa.eu/observatories/eurwork/country-updates>

Tripartite and Bipartite (Social-Economic or Labour) Councils

Definition and measurement

The variables Tripartite (**TC**) and Bipartite (**BC**) (Social-Economic or Labour) Councils document the presence of nation-wide institutions founded for the purpose of social dialogue between the government and the central organisations of trade unions and employers (*tripartite*) or between unions and employers' organisations (*bipartite*).

For coding purposes, four decision rules apply:

1. Social dialogue, as defined here, refers to *social and economic issues*. Councils or social dialogue institutions dedicated to other policy areas (environment, health, agriculture, security, culture, science, etc.) are not considered; however, social and economic councils that include representatives from these domains are increasingly common and considered in the database, with a special code.
2. Only those councils are considered that have representation from employers *and* employees, usually selected by and represented through their organisations. This excludes councils that represent only one party or organize the relationship of one party with the government, i.e. Business Councils, Labour Councils, Liaison Committees.
3. Only *national* councils are considered and only those that cover *various policy areas* related to economic and social affairs. Excluded are regional or local councils, and such institutions that deal with only policy area or technical issue (e.g., joint health, safety or training councils; mediation and arbitration boards, committees within a single government department to advice on administrative decisions or proposals for legislation, as exist in, for instance, Germany, India, Japan or Switzerland).
4. Coding decisions reflect the situation in the *private or market sector*. This is especially relevant in the case of bipartite councils, which, established and maintained by employers' and trade union organisations under private law, often do not represent public sector (local and central government) interests and organisations. Councils specifically created for social dialogue in the public sector are not considered.

To distinguish between bipartite and tripartite councils the following rule applies. In tripartite councils there is a "third" (or even "fourth" party), whereas in bipartite councils there are two parties (capital and labour) without the representation of a "third" party, i.e. the government (i.e., Cabinet ministers or government appointed experts, or members representing other sectoral interests). Bipartite institutions may be chaired by an independent person and they may co-opt experts for advice. However, where such institutions are chaired and coordinated by Cabinet Ministers, or where the government appoints experts and members which constitute a "third party", the institution is no longer bipartite. Tripartite councils may include a "fourth sector", like environmental and civil society organisations.

Data and sources

The International Association of Economic and Social Councils and Similar Institutions (AICESIS) maintains, jointly with the International Labour Organisation (ILO), a membership database, presently containing 75 institutions, with a brief descriptions of their purpose and organisation (<http://www.aicesis.org/members/list/>). This list covers most countries in the database, but omits bipartite institutions. The AICESIS list includes sub- and supra-national councils and institutions. A second source is CESlink, which is the voluntary on-line cooperation network of economic and social councils in the EU (<https://www.eesc.europa.eu/ceslink/en/documents>). The Country Profiles, and reports on social dialogue,

of the European Foundation for the Improvement of Living and Working Conditions represent another source (<https://www.eurofound.europa.eu/country>).

D. Works councils and employee representation in the enterprise

Definition and measurement

Section D of the OECD/AIAS ICTWSS Database deals with works councils and employee representation in the enterprise and consists of five variables: (1) the existence and voluntary or mandatory status of works councils, (2) the structure of representation and cooperation with unions (single or dual channel representation), (3) the rights of works councils or similar workplace representation (information, consultation and co-determination), (4) the right and practice of trade unions to appoint or elect union workplace representatives (shop stewards), and (5) the (legal and actual) involvement of works councils in wage negotiations.

A works council is defined as the institutionalised body for representative communication between a single employer and the employees in a single plant, enterprise or workplace (Rogers and Streeck, 1995^[74]). The variable **WC** measures the presence or absence of such bodies, and registers whether their presence is mandatory or voluntary for firms of a particular size. A generally binding national (central or basic) agreement is treated as equivalent to mandatory law. The required minimum firm size for works councils varies across countries from 5 to 100 employees, and the resources and rights of works councils generally increase with firm size. As a rule, when works councils are mandatory or established under a basic agreement they are common in 100+ firms.

Works councils can be organised in different ways, both in their relation with the union(s) and with management (**WC_struct**). The first basic distinction is between “employee (only) councils” and “joint (worker and management) councils”.

Works councils also differ in terms of their actual role and rights in the company (**WC_rights**). In some cases, they only have a right to *information*, in other cases to *consultation* while in other cases, under co-determination, works councils have a veto power on some companies’ decisions (Rogers and Streeck, 1995^[74]).

These rights can also be assigned to the works council or directly to the union, without the intermediation of a works council, where the union has recognized workplace representation rights under collective bargaining. This, for instance, happens in Australia under the 2009 Fair Work Act, which requires all enterprise agreements to include a provision for consultation between management and employees. The (additional) variable **WP_union** measures the presence in and rights of unions in the workplace, independently from the works council, and has the same coding as the “WC” variable,

Finally, the involvement of works councils in enterprise-level collective bargaining over wages and working hours may take different forms. Typically, under the “dual system”, with separate functions for unions and councils, works councils cannot call or support strikes and are barred from collective bargaining over wages, but some bargaining tasks may be assigned to the councils in sectoral agreements when there is no union interlocutor at enterprise level. When “Joint councils” are involved in collective bargaining, the independence of the workers side may be compromised. The variable **WC_negot** measures several (formal and actual) gradations of involvement.

Sources

There are four major sources for this part of the database. In addition to the Rogers/Streeck volume, with detailed (historical) case studies for Germany, France, Italy, Spain, the Netherlands, Sweden, Poland and Canada, these are: the *Labour Rights Index* (LRI) of the Cambridge Business Research group (Adams,

Bishop and Deakin, 2016^[71]); the detailed country studies in *Employee representatives in an enlarged Europe* (EREE), published by the European Commission, DG for Employment, Social Affairs and Equal Opportunities, 2008, 2 volumes; the *Worker Participation database* and website, updated to 2016, of the European Trade Union Institute (ETUI), and the new IRLEX database of the International Labour Organisation. Additionally, national sources have been consulted and cited (where countries are missing, ILO's NATLEX database has been consulted).

E. Employer organisations

Section E of the OECD/AIAS ICTWSS database deals with the number of employer organisations engaged in collective bargaining and the extent of these organisations in terms of employees in firms organised in employer organisations. Assessing the extent of employer organisations is relevant for evaluating the organisation, development and coordination of collective bargaining since this is potentially the precondition for durable multi-employer bargaining.

Definition and measurement

An employer organisation may have different tasks and functions (Windmuller and Gladstone, 1984^[75]; Behrens and Traxler, 2004^[76]) and can be classified into three categories:

- An “economic” association/organisation dealing with matters of trade regulation, tax policy, product standardisation, cartel arrangements, and export promotion,
- A “social” organisation, which take responsibility for all aspects of the employment relationship, (relations with trade unions, human resource management policies, and the legislative, administrative and adjudicatory role of the state and its agencies in matters of labour and employment).
- Or a “mixed” organisation combining both the “economic” and “social” functions as described above.

As only employer organisations engaged in collective bargaining are relevant for the purpose of the OECD/AIAS ICTWSS Database, the economic association are *de facto* excluded.

As a general rule, an employer organisation refers only to those representing at least 5% of employees in firms organised in employer organisations in a particular country or in case, this information is not available, employer organisations that are members of the main tripartite (or bipartite) institutions regulating collective bargaining at sectoral or national level.

Sources

The list of employer organisations included in the OECD/AIAS ICTWSS Database has been established by combining the membership lists of the key international organisations:

- The International Organisation of Employers, which is the voice of business in social and employment policy debates in the ILO, the UN and the G20 (<https://www.ioe-emp.org>),
- the Business and Industry Advisory Committee to the OECD (<http://biac.org>),
- BusinessEurope, the main organisation representing 35 national federations in the European Union (<https://www.buinessseurope.eu>), and SMEUnited, which does the same for crafts and small and medium-sized enterprises (<https://smeunited.eu>).

In total 98 employers' organisations have been identified with an additional 45 organisations based on their membership in national social and economic councils based on [national information](#) collected by Eurofound, bringing the total up to 143 employers' peak associations (NECFs).

There are very few comparative studies of employer organisations and their membership (**ED** and **EDpriv**). The study of Windmuller and Gladstone (1984^[75]), for the International Industrial Relations Research Association, contains case studies on Australia, France, Germany, Israel, Italy, Japan, the Netherlands, Sweden, the United Kingdom and the United States, and allows an assessment of the degree of employer organization in these countries in the 1970s, but with the partial exceptions of the chapters on Italy and Sweden, data on membership and density rates is scarce. Crouch (1994^[9]), in his comparative study of industrial relations in Western Europe, gives a qualitative assessment of ‘the extent of employer organisation’ (comprehensive, extensive or limited) in industry and services over a period of four decades. Continuing from the “Organisation of Business Interest” project (Schmitter and Streeck, 1981^[77]; van Waarden, 1995^[78]; Visser, 1999^[79]; Traxler, 2000^[80]; Traxler, 2006^[81]) give a quantitative assessment for several organisations and countries. For the European Commission, the Institut des Sciences du Travail of the Université Catholique de Louvain produced a set of reports on the situation of the social partners in the new member states of the European Union, describing the situation around 2000 and summarised in the Commission’s industrial Relation in Europe report of 2004. The IRE reports of various years have been used as a source (EC, various years), especially for the new EU member states in Central and Eastern Europe, in addition to the overview work of Kohl and Platzer (2004^[39]). For other EU member states the two collections of comparative case studies edited by Ferner and Hyman (1992^[82]; 1998^[31]) have constituted an important source.

The European Foundation for the Improvement of Living and Working Conditions has undertaken two studies on employer organisations, the first in 2004 and second in 2019, published on its website (Behrens and Traxler, 2004^[76]; Carley, 2010^[83]). Both reports are based on reports of national correspondent; the questionnaires for the 2010 are still available on the website and have been used for assembling data. In its country profiles, also based on correspondent’s reports, the EURWORK website of the European Foundation provides more recent data (2012, 2019).

Finally, the only available comparative survey on employer organisation (**ED_s** and **EDpriv_s**) are the European Company Survey of 2013 and 2019, which asked management representatives in establishments with 10 or more employees, except agriculture, household services: “Is your company a member of any employers’ organisation which participates in collective bargaining?” It is not always clear what is meant by “participate in collective bargaining” (conduct negotiations and sign multi-employer agreements; assist and advice company negotiators; present statistics and data for negotiators?) and the question tends to exclude the many employers’ organisations that do not engage in collective bargaining but represent firms in legal matters (litigation), lobby governments and influence employment legislation, or conduct campaigns to prevent and influence union organisation. The result is that the ECS density rates are significantly lower than the rates calculated from (self-reported) administrative data, in many countries, especially where there is limited multi-employer bargaining, by a large margin.

F. Trade union membership and union density

Section F of the OECD/AIAS ICTWSS database provides data on membership to trade unions.

Union density (**UD**), or union membership as a proportion of employees, is probably the most widely used summary measure in industrial relations and the standard indicator of union bargaining strength in econometric research. If defined and measured in a comparable way, it describes how the position of unions changes over time and differs across countries, industries and social groups. If large variations or swings in union density rates are observed, there “must” have been major changes in the policies of trade unions or in their legal-political, social, or economic environment. In this sense, the union density statistic provides a useful comparative indicator of political and socio-economic change, as was claimed by Bain and Price (1982^[84]) in their seminal work on union growth.

Definition and measurement

A “trade union” is defined as an organisation, consisting predominantly of employees, the principal activities of which include the negotiation of rates of pay and conditions of employment for its members. This definition does include employee organisations and professional associations, even when collective bargaining is not their main activity; however, it excludes associations who are dependent on employers, who reject collective in favour of individual representation, do not seek a role in negotiations, or consist mainly of self-employed persons.

The number of union confederations (**NUCFs**) only refers to peak-level trade (labour) union organisations (e.g. at cross-sectoral or sectoral level) that have affiliate unions and membership that exceeds 5% of total union membership at national level, or in case this information is not available, union confederations that are members of the main tripartite (or bipartite) institution regulating collective bargaining at sectoral, cross-sectoral or national level.)

Two main methods are used to estimate unionisation rate (**UD** or **UD_s**, see Table 3 for further details on data sources by country). The first is to ask respondents about membership in a household or labour force survey. This method has clear advantages when the purpose is the calculation and comparison of detailed union density rates (**NUM_s** and **UD_s**), broken down by gender, public and private sectors and other workforce characteristics (such as part-time/full-time employment or temporary/permanent contract). 18 countries have time- series unionisation data of this kind.

In a number of countries, notably France, limited data on union membership at one or several points in time can be extracted from some smaller surveys designed for other purposes. An advantage of such surveys is that employees' personal characteristics and attitudes can be related to union membership.

The second method is the compilation of membership statistics from questionnaires completed by individual trade unions or trade union federations (**TUM**). In most countries the results are published by the official registrar, the national statistical office, the labour ministry or the respective trade union federation. Except for the United States, only this method gives long-term, annual time-series data on union membership. Its disadvantage is that the data are influenced by administrative practices.

Unions may have political or financial reasons to overstate or understate their membership figures in reports to peak federations, government agencies, employers or competitors. They may also apply different definitions as to who is a member “in good standing”, and be slow to remove members who have left the industry or are in arrears with union dues (membership fees), leading to inclusion in the data of persons who are not in the labour force or who do not (or do no longer) consider themselves as members. Another possible source of distortion concerns “double counting”, especially between trade unions and professional associations. The comparison with survey data, for the countries and years where this is possible, suggests that these factors lead to some overstatement in membership statistics reported by unions, but the overstatement is in most cases slight, provided union membership is defined consistently.

Unions often maintain the membership of unemployed and retired workers, and may in some cases also include self-employed persons (professionals, salesmen, small farmers) as for Chile and Colombia. Such groups would normally be excluded in survey data, which report union membership for employees only. Care has been taken to present statistics on a similar basis, excluding self-employed, retired and unemployed persons. This is necessary to ensure consistency in density rates, which are calculated by dividing union membership by the number of employees. Density rates after this adjustment are called “net” rates (**NUM**), though some “gross” rates will also be given to allow comparison with the data in their original form.

In Finland, Italy, Norway and Sweden, enough individual unions provide data on retired members and students to allow a reasonably accurate estimate of their share. For the main union federations in Denmark and Finland, the deflator applying to the comparable Swedish federation has been used (supplemented by information from recent surveys), and for Belgium, deflators were taken from secondary studies. For

Ireland, estimates used for the United Kingdom have been applied. The surveys undertaken in Australia, Sweden, the United Kingdom and the United States exclude retired persons. Retired workers may also be included in the data for Japan, but the fact that union density declines substantially among employees aged 45 and over suggests that they are only a small proportion.

In Belgium, Denmark and Finland, the number of unemployed members included in the “gross” statistics is high enough to distort the density rates seriously. Together with Sweden, these are the only countries in which unions have retained a role in administering unemployment insurance benefits, creating a real or perceived advantage for workers to join unions when they anticipate or experience unemployment. While Sweden has experienced low unemployment rates throughout the period considered, rates have soared in the other three countries. In Belgium, it was found that 80 per cent of all unemployed workers are union members, a proportion even higher than among employed workers. Using this information, and the corresponding figures for Sweden, when calculating the “net” membership figures for Belgium, Denmark and Finland, 80 per cent of the number of unemployed were subtracted from the “gross” membership figures.

In France, Italy, Norway, Sweden, and Switzerland the available data on union membership allow the exclusion of the unemployed (between 1 and 5% of “gross” membership); in Italy the union federations organise unemployed workers separately and publish separate statistics on them. A small proportion of unemployed members (between 1 and 3% in recent years) is included in the data for Austria, Canada and Germany. In New Zealand and Turkey, unemployed workers are not covered by the statistics; this is also true for the survey data in Australia and the United States. However, as in the case of the retired, it is impossible to determine whether membership in Greece, Iceland, Japan, Portugal and Spain includes unemployed persons. For the United Kingdom it has been estimated that on average 2% of the reported members were unemployed in the 1980s; the same estimate was applied for the Republic of Ireland.

To calculate unionisation rates (**UD** also referred to as union density rates) from these membership statistics, separate data on employee (**WSEE**) were used. These were in most cases taken from OECD Labour Force Statistics (OECD ALFS). These series refer to the civilian employees (according to the ISCE-93 classification) aged 15 years or over residing in the country (national concept) and in private households (excluding prisons, hospitals, boarding schools etc.). Major exceptions are:

- Luxembourg and Switzerland where data on employees refer to the domestic concept based on employment series from the annual national account data to account for the significant number of employees from neighbouring countries who come to work in the country (cross-border workers);
- Chile where data are from the *Nueva Encuesta Nacional de Empleo* and have been backcasted by taking into account provinces that were not included in the survey and adjusting the data to the 2017 Census database;
- Colombia where data are from the national labour force survey (*Gran Encuesta Integrada de Hogares*);
- European Union countries not covered by the OECD Annual Labour Force Statistics (Bulgaria, Croatia for example) where the EU-LFS data were used;
- and employee data published by the International Labour Office (ILOstat) for all other countries not covered by the sources mentioned above (Argentina, Brazil, China etc.).

Union density rates (**UD_s**, **UD_s_fem**, **UD_s_men** etc.) based on (household) labour force surveys or other survey data (such as in Australia and the United States) are estimated using the corresponding employment data. However, to ensure international comparability with the OECD ALFS data, the number of employees in Australia, Canada and the United States includes some workers’ categories recognized as employees by the ISCE-93 (owner managers of incorporated enterprise in Australia and incorporated self-employed in Canada and the United States).

Table 3. Union membership data sources and adjustment for non-active and self-employed union members

Country	(Household) Labour Force surveys	Other survey data	Questionnaires completed by individual trade unions or official register	Aggregation of trade union membership from trade union confederations	Adjustment for non-active and non-wage and salary union members, administrative data sources (latest year available)
Albania				•	0% (2017)
Argentina				•	-
Australia	• [M]			•	10% (2015)
Austria				•	17.5% (2019)
Belgium				•	38.3% (2019)
Bosnia and Herzegovina				•	0% (2017)
Brazil	• [M]			•	-
Bulgaria				•	0% (2016)
Canada	• [M]		• [D]		0% (2015)
Chile			•		11% (2018)
China				•	-
Colombia				•	0% (2017)
Costa Rica			•		0% (2019)
Croatia				•	0% (2018)
Cyprus			•		19.6% (2016)
Czech Republic				•	0% (2018)
Denmark			•		-
Estonia	• [M]			•	5.4% (2019)
Finland	•		• [M]		35.5% (2019)
France		• [M]		•	3.7% (2018)
Germany				•	21% (2019)
Greece				•	25% (2016)
Hungary	•			• [M]	9.5% (2018)
Iceland	• [M]			•	10.1% (2018)
India				•	-
Indonesia	•			•	-
Ireland	• [M]			•	10% (2020)
Israel				•	0% (2016)
Italy				•	46.8% (2019)
Japan			•		0% (2019)
Korea	•		• [M]		0% (2018)
Kosovo	-	-	-	-	-
Latvia				•	5.1% (2018)
Lithuania			•		0% (2019)
Luxembourg	•			• [M]	20.1% (2019)
Malta			•		11.5% (2020)
Mexico	• [M]			• [D]	0% (2010)
Montenegro				•	0% (2017)
Netherlands	• [D]		• [M]		28.1% (2019)
New Zealand	•		• [M]		0% (2018)
North Macedonia				•	0% (2017)
Norway	•		• [M]		32.8% (2019)
Poland		•		• [M]	0% (2017)

Country	(Household) Labour Force surveys	Other survey data	Questionnaires completed by individual trade unions or official register	Aggregation of trade union membership from trade union confederations	Adjustment for non- active and non-wage and salary union members, administrative data sources (latest year available)
Portugal				•	0% (2016)
Romania				•	0% (2018)
Russian Federation				•	16.5% (2017)
Serbia				•	30% (2014)
Slovak Republic				•	0% (2018)
Slovenia				•	0% (2015)
South Africa	• [M]		• [D]		-
Spain				•	16% (2019)
Sweden	• [M]		•		24.4% (2019)
Switzerland			•		6% (2018)
Turkey			•		0% (2019)
United Kingdom	• [M]		•		7% (2019)
United States	• [M]		• [D]		0% (2016)

[D]: Discontinued series; [M]: Main data source.

Country notes

Generally, the labour force data, of employees, or wage and salary earners in employment (**WSEE**), are from the OECD Labour Force Statistics. In some cases, LFS data on union membership are matched with LFS data on employment of employees that are different. This is separately given in the series "**WSEE_s**", to match the data in the union membership series based on LFS data (**NUM_s**) and producing the corresponding union density (**UD_s**) series. Without the suffix **_s**, **NUM** and **UD** refer to administrative membership data obtained from the unions.

Albania

Administrative data: Total union membership (**TUM**) figures are based on data from the two main union confederations (the Confederation of Trade Unions of Albania, KSSH and the Union of the Albanian Independent Trade Unions, BSPSH) and estimates of union membership in the unaffiliated unions. No adjustments are made for the inactive (pensioners, students), unemployed and non-salaried employed members (self-employed) called in Albania "supporter members" due to lack of reliable information. However, these groups may represent at least 50% of total union membership (See Doçi, 2019). Hence, the net union membership (**NUM**) and the trade union density (**UD**) are overestimated and should be interpreted and compared having these caveats in mind.

References:

- Doçi N. (2019), Annual Review 2018 on Labour Relations and Social Dialogue in South East Europe: Albania, Friedrich-Ebert-Stiftung, www.fes-socialdialogue.org

Argentina

Administrative data: The trade union density rate (**UD**) is from the International Labour Organisation (ILO), Industrial Relations Data (IRData): https://www.ilo.org/global/docs/WCMS_408983/lang-en/index.htm.

Australia

Administrative data: Until 1975, figures are from the administrative data reported in ABS, Trade Union Statistics (ABS Cat. No. 6323.0). This membership data was compiled from questionnaires completed by individual trade unions. For the years after 1975 these figures were collected from reports by ABS and the Australian Council of Trade Unions (ACTU). These figures may be slightly overstated due to the same person holding two jobs and counted twice as member of two different unions.

Survey data: Figures in 1976, 1982, 1986, 1990 and 1992 onwards are based on the August labour force statistics (November in 1976 and March to May in 1982) in ABS, Employee Earnings, Benefits and Trade Union Membership and ABS, Trade Union Members, Australia (ABS Cat. No. 6310.0, 6325.0 and 6333.0, respectively). This survey collects characteristics only of respondents who are trade union members in relation to their main job of employees and owner managers of incorporated enterprises (OMIEs). Official statistics published by ABS since 2004 exclude OMIEs. However, statistics reported in the OECD/AIAS/ICTWSS database are based on data provided by ABS including those workers. This category of workers is included to both ensure comparability of trade union figures over time and to ensure international comparability with a measure of the number of employees that is consistent with the International Classification of Status in Employment (ICSE-93)

The historical trend in trade union density (**UD_hist**) refers to the administrative data before 1995 and to the survey estimates afterwards.

Austria

Administrative data: Total union membership data (**TUM**) is obtained directly from the Austrian Federation of Trade Unions, ÖGB, reported as “Mitgliederstatistik nach Gewerkschaften, https://www.oegb.at/cms/S06/S06_2.1.2/ueber-uns/wir-machen/oegb-in-zahlen.”

The share of non-salaried members (mostly pensioners) is estimated at 17% and held constant since 2000. This estimation had been based in detailed research of the membership composition of the affiliated unions (Ebbinghaus and Visser 2000) but probably should be considered as a conservative estimate. This is why in the net union membership series (**NUM**) there may be a small number of self-employed and unemployed members, but this is believed to be small.

Statistics by gender and sector (public and private), i.e. **UM_female**, **UD_male**, **UD_female**, **UM_public**, **UD_private** and **UD_public**, refer to all union members including all non-salaried members and are not strictly consistent with the current definitions.

Reference:

- Ebbinghaus, B, Visser, J (2000) Trade Unions in Western Europe Since 1945. London: Palgrave Macmillan.

Belgium

Administrative data: Total union membership (**TUM**) data is the aggregates of union membership obtained from the three major union confederations (CSC/ACV, FGTB/ABVV and CGSLB). Non-affiliated unions, if they exist, are not considered (with the exception of a small management staff union they play no role in Belgian industrial relations).

The net union membership (**NUM**) is estimated in two steps. The first correction is to deflate the reported membership numbers (**TUM**). The Belgian confederations consistently report higher membership numbers than they actually have. This is described by Patrick Pasture in his joint contribution in Ebbinghaus and Visser (2000) and is confirmed in a publication of Vandaele (2006). Reported membership is estimated to be overstated by a percentage of 14.9% on average, declining from 16.7% in the 1960s to 12.9% in the 1990s. This percentage is held constant since 1990 and applies to all three confederation.

Once total membership corrected for this overstatement, net union membership (**NUM**) is obtained by removing the estimated share of the non-salaried members (i.e. pensioners, those in early retirement, full-time students and ‘unemployed’ members).

For the years since 2000 the share of pensioned members has been estimated at 18.5%, which corresponds with data available for some years and reported in the Belgian press.

Data reported by Vandaele (2019) for the two largest union confederations show that between 2006 and 2016 on average 3% of their members were full-time students.

Given the involvement of Belgian unions in the administration of the unemployment insurance system and the important role of unions in judging unemployment claims (over 80% of state-collected fees are reimbursed to the unions for their efforts – Vandaele 2017), union members tend to retain their membership when unemployed. Detailed research of the files of unions affiliated with the largest (Christian) federation showed that the share of unemployed members rose from for 2-3% in the 1960s to 10% in the late 1970s and nearly 20% in the late 1980s (Ebbinghaus and Visser 2000). Nearly one of every five union members was unemployed. Measured against the OECD (standardized) unemployment statistic, the ‘density rate’ of the unemployed was until 1970 in line with, or below, the density rate of the employed, but from the late 1970s much higher and in all years but 1983 well above 80%, suggesting that Belgian workers not only retain their membership when becoming unemployed but that some take up membership for the first time and are willing to pay the fee for the union services when filing for unemployment benefits or job search

assistance market (Van Rie 2011). The shares found for the Christian unions have been equally applied to the other two federations, probably an underestimation in the case of the Socialist federation with its basis in heavy industry hard hit by declining employment. For the series after 2000 the share of unemployed members has been estimated by assuming a constant density rate of 80% of the unemployed, using the OECD labour force statistic.

Statistics by gender and sector (public and private), i.e **UM_female**, **UD_male**, **UD_female**, **UM_public**, **UD_private** and **UD_public**, refer to all union members including all non-salaried members and are not strictly consistent with the current definitions

Reference:

- Ebbinghaus, B, Visser, J (2000) Trade Unions in Western Europe Since 1945. London: Palgrave Macmillan.
- Pasture, P., and J. Mampuy, In de ban van het getal. Ledenanalyse van het ACV 1900-1990. Louvain, KU Louvain publication.
- Vandaele, K. 2006. A report from the homeland of the Ghent system: the relationship between unemployment and trade union membership in Belgium. Transfer 06/04: 647-57.
- Vandaele, K. 2017. Les syndicats sur le qui-vive pour soutenir les travailleurs des plates-formes. Chroniques internationale de l'IRES, no. 160
- Vandaele, K. 2018. "Will trade unions survive in the platform economy? Emerging patterns of platform workers' collective voice and representation in Europe". Brussels, ETUI Working Paper 2018.
- Van Rie, T.; Marx, I.; Horemans, J. 2011. 'Ghent revisited: Unemployment insurance and union membership in Belgium and the Nordic countries', European Journal of Industrial Relations, 17 (2), pp. 125–139).

Bosnia and Herzegovina

Administrative data: Total union membership (**TUM**) figures are based on statements from the Confederation of Trade Unions of Bosnia-Herzegovina (KSBiH) to the International Trade Union confederation (ITUC), <https://www.ituc-csi.org/?lang=en>. No adjustments are made for (potential) inactive (pensioners, students), unemployed and non-salaried employed members (self-employed) nor for the non-paying union members since it is not specified. Hence, the net union membership (**NUM**) and the trade union density (**UD**) are certainly overestimated by this crude estimate but at the same time also underestimated by the absence of data on other existing trade unions (although it is difficult to assess the magnitude of the two effects). For all these reasons, these estimates should be interpreted and compared with cautious.

Brazil

Survey data: The net union membership (**NUM_s**), the trade union density (**UD_s**) and all related statistics are OECD estimates based on the National Household Sample Survey (PNAD) til 2012 and the Continuous National Household Sample Survey (PNAD-C) afterwards.

Bulgaria

Administrative data. There are two main union confederations, CITUB (KHCE in Bulgarian), which is the successor organization of the official union confederation of the communist period, and Podkrepa, which was established in February 1989. There are, or were, also some independent unions (journalists, firefighters, transport, electricity, banking, police), some rallied around a third confederation, Promyana

("Change"), founded in 1996. Under new rules established in 2012 only CITUB and Prodkrepa have representative status.

The membership data of the recognized confederations is included in the census of unions and union membership conducted by the National Statistical Institute, with data available for 1998, 2003, 2012 and 2016. Data for other years and for other confederations and independent unions is obtained from the organisations themselves and reported in Dimitrov 1994; Kirov 2003, 2019, and the two surveys of unions and union membership, 1993-2003, and 2003-2008, conducted by the European Foundation and authored by Mark Carley.

Survey data: derived from the representative national survey, called "work-climate index", by the National Statistical Institute, run on behalf of the trade unions. Data for 2010-2018 are presented in the 2018 Annual Review of Labour Relations and Social Dialogue in Bulgaria, by Dimitrov (2019).

Reference:

- M. Carley (2004), Trade union membership 1993-2003, Eurofound, <https://www.eurofound.europa.eu/publications/report/2004/trade-union-membership-1993-2003>.
- M. Carley (2009), Trade union membership 2003-2008, Eurofound, <https://www.eurofound.europa.eu/publications/report/2009/trade-union-membership-2003-2008>.
- P. Dimitrov, Annual Review 2018 on Labour Relations and Social Dialogue in South East Europe: Bulgaria, Friedrich-Ebert-Stiftung, 2019, <http://library.fes.de/pdf-files/bueros/bratislava/15354.pdf>.
- Kirov V. (2003) Bulgaria: a still undeveloped component of industrial relations, in Ghellab Y. and Vaughan-Whitehead D. (eds.) Sectoral social dialogue in future EU Member States: the weakest link, Budapest, International Labour Office, 77–104.

Canada

Administrative data: Until 1986 the data are based on a survey of unions operating in Canada (including US union, and unaffiliated unions), published by Statistics Canada, "Historical Statistics of Canada (Series E175-177)". From 1984 to 1995 the membership data are provided under the Corporations and Labour Unions Returns Act (CALURA), revised to take into account the members of small unions, under 100 members. Since 1999 and until 2015 data are from a survey of all labour organizations in Canada, undertaken by the Workplace Information and Research Division of the Labour Program, that represent bargaining units of 50 or more workers. Statistics Canada, Labour Organizations in Canada in 2015. <https://www.canada.ca/en/employment-social-development/services/collective-bargaining-data/reports/union-coverage.html#appendix1>

Survey data: Survey estimates are based on the Survey of Work History for the year 1981, the Survey of Union Membership for the year 1984, the Labour Market Activity Survey for the year 1986, 1989 and 1990 (Galarneau & Sohn, 2013), and the Labour Force survey in 1997 onwards. For international comparison purpose and in accordance with the definition of employee (**WSEE**) used in this database (ISCE-93), trade union density includes the incorporated self-employed in the denominator. As a consequence trade union density is lower than official rates published by Statistics Canada.

To ensure time series comparability, trade union densities (**UD_s**) before 1997 (using the number of employees as denominator) have been adjusted by the ratio of the number employees to the number of employees and incorporated self-employed. Data before 1997 refer to employees aged 17-64.

The historical trend in trade union density (**UD_hist**) refers to the administrative data before 1990 and to the survey estimates, afterwards.

Reference:

- Galarneau, D., and Th Soh, Long-term Trends in Unionisation. Statistics Canada. https://www150.statcan.gc.ca/n1/en/pub/75-006-x/2013001/article/11878-eng.pdf?st=uwUr_sgg.

Chile

Administrative data: Total union membership (**TUM**), net union membership (**NUM**), union statistics by gender (**UM_female**, **UD_female** and **UD_male**) and by sector (**UM_public**, **UD_public** and **UD_private**) are based on union data collected and published by the Labour Directory of the Ministry of Labour and Social Prevision (Dirección del Trabajo, División de Relaciones Laborales) for the employees of the private sector (employees in public administration cannot be member of a trade union): <https://www.dt.gob.cl/portal/1629/w3-channel.html>. Net union membership (**NUM**), union statistics by gender (**UM_female**, **UD_female** and **UD_male**) and by sector (**UM_public**, **UD_public** and **UD_private**) refer to all union members excluding those in union of independent workers (“Independiente”).

Total union membership (**TUM**), net union membership (**NUM**), and trade union density (**UD**) before 1981 are based on estimates reported in Campero (2001) and Atzeni et al (2011) and employment data from the ILO and the national employment survey.

Campero cites membership figures collected by Tarud 1978, which show a strong rise in membership after 1965 until 1973, followed by stagnation and decline. In 1973 association, bargaining and strike rights were suppressed, the main trade union confederation was dissolved and unions were deprived of the right to hold meetings. Decrees in 1978 dissolved all major federations, declared activity on behalf of workers by unofficial groups as liable to criminal penalties, and restricted the legal existence of unions and right of collective bargaining to the enterprise level. The 1980 Constitution provides a right to free association without prior authorisation and a limited right to collective bargaining at workplace level “except as prohibited in legislation”. From alternative data, also discussed in Campero, it can be observed that most of the decline after 1973 occurred in manufacturing and construction. Without agriculture (where government friendly associations continued) the drop would have been much more severe and they are more in line with the evolution observed in the statistics after 1980. Campero quotes: “The lack of precise figures between 1977 and the end of the 1970s makes it difficult to obtain statistical evidence for this period, but after 1980, when reliable data was available, membership had fallen to 386,910 (Department of Labour). On the social level, the trade unions succeeded in leading a vast social protest movement against the military regime and its policies, despite the fact that by 1981-82, trade union membership had fallen to a third of what it was in 1977 (347,470 against 916,569).

Reference:

- Campero, G. 2001. ‘Trade union responses to globalization: Chile’. Geneva, International Institute for Labour Studies, DP 126/2001.
- Tarud, J, 1978, ‘Trade Union Statistics’. Department of Labour Relations and Organization Studies

China

Administrative data: The trade union density rate (**UD**) is from the International Labour Organisation (ILO), Industrial Relations Data (IRData): https://www.ilo.org/global/docs/WCMS_408983/lang-en/index.htm.

Colombia

Administrative data: Trade union membership data are from the annual reports of the Sistema de información laboral y sindical (Sislab Reporte) published by the Escuela Nacional Sindical, <https://www.ens.org.co/lee-y-aprende/lee-y-descarga-nuestras-publicaciones/informes-sislab/>.

Costa Rica

Administrative data: All data are from the Statistical Yearbook published by the Ministry of Labour and Social Security (MTSS): <http://www.mtss.go.cr/elministerio/despacho/memorias.html>. It is worth to note that union membership statistics (**TUM** and **NUM**) include own-account workers and employers as stated by the labour code (article 343) resulting in an overestimation of the union density rate (**UD**) compared to the official rate calculated in percentage of the employed population as published by the Ministry of Labour.

Croatia

Administrative data: Trade union membership data provided or reported by the union confederations, as collected and reported in Seperic (2019). There are three representative union confederations in Croatia, recognised since the law was changed in 2014 and a 50,000 minimum threshold was established. Membership is reported without retired members (up to one-third in some of the older unions). Two further smaller federations exist, only of the largest of these the membership number is known for some years. The independent police union affiliated with the SSH in 2017.

Reference:

- Seperic D. (2019), Annual Reviews on labour relations and social dialogue in South East Europe: Croatia, Friedrich Ebert Stiftung, <http://library.fes.de/pdf-files/bueros/bratislava/15355.pdf>.

Cyprus (from 1974: Greek part)

Administrative data: Membership data is obtained from the unions and published by the Department of Labour Relations within the Ministry of Labour, Welfare and Social Insurance, which runs a Trade Union Registrar (http://www.mlsi.gov.cy/mlsi/dlr/dlr.nsf/index_en/).

Czech Republic (before 1993: Czechoslovakia)

Administrative data: Total union membership (**TUM**) data are based on reports from the trade union organisations, published in the study of Myant (2010), with an annual series for the main confederation CMKOS, and data for the various breakaway confederations (ASO, KOK, KUK etc.). For these minority organisations, the two surveys of the European Foundation have served as an additional source. The recent data is obtained from the main organisations (reports of the Friedrich Ebert Stiftung, and European Foundation). The reported data from 2013 is without retired and unemployed union members (about 8% of the two largest federations in 2017 according to congress documents, not included in the total union membership figures, **TUM**).

Reference:

- Myant M. (2010) Trade unions in the Czech Republic, Report 115, Brussels, ETUI. <http://www.etui.org/Publications2/Reports/Trade-unions-in-the-Czech-Republic>

Denmark

Administrative data: Union membership data (**TUM**) are provided by individual union organisations and compiled by Statistics Denmark. Until 2008 the results were published annually in the Statistical Yearbook. From 2008 membership statistics are available from Statbank Denmark, <https://www.statbank.dk>. In 2015, the date of reference was changed from 1 January of a year to 31 December of the previous year. The statistics are revised and adjusted backwards to 31 December 2007. Until 2012, the largest confederation, LO, reported total union membership, from 2012, LO and its successor organisation LH report 'active membership' (employed and unemployed members).

The share of retired members (pensioners and early retirement) and those who are unemployed have been calculated from individual union records for the years 1975-95 (Ebbinghaus and Visser 2000, Table DK14), which has been the basis for the backward and forward extrapolation for the years 1960-74 and 1995-2019. Between 1975 and 1995 on average 71% of all unemployed were union members, slightly below the union density rate. For the years 1960-74 and 1996-2019, the trade union density of the unemployed has been assumed to be equal to the union density of both employees and unemployed (i.e. total union members, **TUM**, minus the share of retired members divided by the total number of employees and unemployed), and, on this basis, the share of unemployed among union members has been derived (based on the number of unemployed from the OECD Annual Labour Force Statistics). As in Sweden, through the introduction of cheaper, non-union related unemployment insurance funds the link with union membership has been loosened (Kjellberg and Ibsen 2016).

Reference:

- Ebbinghaus, B, Visser, J (2000) Trade Unions in Western Europe Since 1945. London: Palgrave Macmillan.
- Kjellberg, A., & Lyhne Ibsen, C. (2016). Attacks on union organizing: Reversible and irreversible changes to the Ghent-systems in Sweden and Denmark . In T. P. Larsen, & A. Ilsøe (Eds.), Den Danske Model set udefra - komparative perspektiver på dansk arbejdsmarkedsregulering : Et festskrift til professor emeritus Jesper Due og professor emeritus Jørgen Steen Madsen (pp. 279-302). Jurist- og Økonomforbundets Forlag.

Estonia

Administrative data: reported union membership (on request) by the two main union confederation, LBAS and TALO. LBAS figures are based on Carley (2004; 2008) and the European Commission (2004, 2008, 2012), with the latest data reported in L. Fulton (2020) and ETUI Online publication. There are about 10,000 members outside LBAS, of which about 3000 in the white collar organization TALO. For the years after 2010 these numbers has been held constant. The share of retired and self-employed union members, is estimated at 15% of total union membership based on the LFS results and kept constant from 2000.

Survey data: All statistics are based on estimates from the Labour force survey since 2000 provided by Statistics Estonia.

The historical trend in trade union density (**UD_hist**) refers to the administrative data before 2000 and to estimates based on the Labour Force Survey afterwards.

Reference:

- M. Carley (2004), Trade union membership 1993-2003, Eurofound, <https://www.eurofound.europa.eu/publications/report/2004/trade-union-membership-1993-2003>.
- M. Carley (2009), Trade union membership 2003-2008, Eurofound, <https://www.eurofound.europa.eu/publications/report/2009/trade-union-membership-2003-2008>. with additional data, and corrections, from the reports of the European Commission (EC 2004, 2008, 2014).
- European Commission (2004), Industrial Relations in Europe 2004, Office for Official Publications of the European Communities, Luxembourg, <https://ec.europa.eu/social/BlobServlet?docId=2754&langId=en>.
- European Commission (2008), Industrial Relations in Europe 2008, Office for Official Publications of the European Communities, Luxembourg <https://op.europa.eu/en/publication-detail/-/publication/ee5602eb-4ab7-41fc-9873-0e7caf7e8de9>.

- European Commission (2014), Industrial Relations in Europe 2014, Office for Official Publications of the European Communities, Luxembourg <https://op.europa.eu/en/publication-detail/-/publication/b2d95e33-4c47-4280-a963-c9aa4c7675c2/language-en>.
- L. Fulton (2020) National Industrial Relations, an update. Labour Research Department and ETUI (online publication). Online publication available at <http://www.worker-participation.eu/National-Industrial-Relations>.

Finland

Administrative data: collected from union organisations by Statistics Finland and published annually in the Yearbook until recently. This data has also been the basis for the figures published in Ebbinghaus and Visser (2000), with additional data (on female and non-active membership) obtained directly from the main confederations. A special survey of the Ministry of Labour of this organizational data in the year 1989 (Kauppinen and Köykkä 1991) allowed estimates of separate membership groups (employees, self-employed, students, pensioners, unemployed) for each of the major confederations. This has been the basis of backward extrapolation, with demographic and unemployment data from the OECD, for earlier years. The Kauppinen/Köykkä study of 1989 has been repeated by Linda Sandqvist in 1994 and Lasse Ahtiainen, of the Ministry of Employment and the Economy, in the years 2001, 2004, 2009, 2013 and 2017, using the same questionnaire regarding membership composition. These studies have been the basis for estimating the share of retired, unemployed and self-employed (including student) members.

Survey data: All union statistics are based on results from the Labour Force Survey (LFS) provided by Statistics Finland for employees aged 15-74.

The historical trend in trade union density (**UD_hist**) refers to the administrative data only.

Reference:

- Ahtiainen L. (2019), Organization of wage and salary earners in 2017, Publications of the Ministry of Economic Affairs and Employment, 2019:10, Ministry of Economic Affairs and Employment, <https://julkaisut.valtioneuvosto.fi/handle/10024/161433>.
- Ebbinghaus, B, Visser, J (2000) Trade Unions in Western Europe Since 1945. London: Palgrave Macmillan.
- Kauppinen, T. and Köykkä, V. (1991). Union Membership and Density in Finland 1989 (In Finnish), Ministry of Labour, Publication No. 9.
- Sandqvist, L (1994), Palkansaajien järjestäytyminen Suomessa 1994, Suomi. Työministeriö.

France

Administrative data: data include the union membership of the main French union confederations CFTD, CGT, CGT-FO, CFTC, CFE-CGC, FEN/UNSA, Groupe de Dix, SUD. (Ebbinghaus and Visser 2000), updated with data obtained from confederations, with application of the same adjustment for dues payments and retired members. An alternative series, based on estimations by D. Andolfatto and D. Labbé (2007), with slightly lower numbers but similar trends and year to year changes, also based on administrative records of the confederations and corrected for regular dues payments, however with a standard reduction of 14% for retired members is published by Dares on its (<https://dares.travail-emploi.gouv.fr/donnees/la-syndicalisation>).

Survey data: available from 1996 on the basis of diverse surveys covering different years and collated by Dares. 1996-2005, estimates by Dares based on the "Enquêtes permanentes sur les conditions de vie des ménages (EPCV)" of the statistical office INSEE; 2008 and 2010, calculation of Dares based on "Statistiques sur les ressources et les conditions de vie" (SRCV), of INSEE; and 2013 and 2016, calculation

of Dares based on the surveys "Conditions de travail" and RPS-Conditions de travail, conducted by Dares-DGAFP-Drees-INSEE.

The historical trend in trade union density (**UD_hist**) refers to the administrative data before 1994 and to estimates based survey data, afterwards.

Reference:

- D. Andolfatto and D. Labbé (2007), Les syndiqués en France, Éditions Liaisons.
- Ebbinghaus, B, Visser, J (2000) Trade Unions in Western Europe Since 1945. London: Palgrave Macmillan.
- M.T Pignoni (2016), La syndicalisation en France, des salariés deux fois plus syndiqués dans la fonction publique, Dares Analyses-Dares Indicateurs-Dares Résultats, n° 025, mai 2016, <https://dares.travail-emploi.gouv.fr/sites/default/files/pdf/2016-025.pdf>

Germany

Administrative data: membership data obtained from the main confederations (DGB, DBB, CGB) and some independent unions, among them ULA (managers), AMChI (academics and managers in chemical industry; Marburger Bund (physicians), ADEXA (pharmacists), Journalist Union, Banking Staff, Cockpit (pilots). DGB: <https://www.dgb.de/uber-uns/dgb-heute/mitgliederzahlen/2010-2019>, membership by sex, status, and affiliates; DBB: Zahlen, Daten, Fakten 2019 (1,78 Mb), membership by sex and status, and "Eckdaten zu Personal und Einkommen im öffentlichen Dienst, Stand" in <https://www.dbb.de/presse/mediathek/broschueren.html>; and for the CGB general membership data, <https://www.cgb.info/aktuell/aktuelles.html>, without further details. Together these organisations cover over 96% of total membership in Germany, with the independent smaller unions representing 4% (but their coverage many not be complete and misses out on the very small unions, without however distorting the overall picture, see: Dribbusch and Birke 2019). The reported data of the DGB and DBB have been corrected for the share of inactive, mostly retired members. The estimates for the smaller organisations, representing professionals, are without the self-employed. The share of pensioned members in the DGB is based on membership records and estimates in the affiliate unions, as documented in Ebbinghaus and Visser (2000). This share had risen to nearly 21% in the early 2000s and is since assumed to be constant, which accords with the scarce data provided by some of the DGB unions. Dribbusch and Birke (2019:8) estimate the share of retired members in the DGB unions in 2019 at 20% and the share of (temporally) unemployed at 5%.

Reference:

- Dribbusch, H., and O.Birke. 2019. Gewerkschaften in Deutschland. Berlin Friedrich Ebert Stiftung. <http://library.fes.de/pdf-files/id/ipa/15308-20190418.pdf>
- Ebbinghaus, B, Visser, J (2000) Trade Unions in Western Europe Since 1945. London: Palgrave Macmillan.

Greece

Administrative data: Membership calculated from certified voting records at triennial conferences of the two main trade union confederations, GSEE and ADEDY (available on request).

Hungary

Administrative data: the union landscape is extremely fragmented, with competitive relations between some of the major organisations and sectoral unions switching affiliates, which complicates the collection of data. The early data, 1988-1992, is reported in Moerel (1994). Based on tax-deduction files of the Hungarian authorities Hungarian researchers have estimated a share of inactive membership, or

overstatement of reported membership, between 20 and 35 percent, varying between the years and reaching a peak in the 2008-9 recession. With the merger of the largest federations in 2014, membership files have been controlled and updated, and some of the unions now state active membership only. For most years and most organisations reliable estimates of the true membership can be found in various publications of László Neumann, who is Hungary's main expert and the main contributor to publications of the European Trade Union Institute and the Friedrich Ebert Stiftung and its Annual Review of Labour Relations and Social Dialogue, of which the latest edition, 2018, contains recent data on all of the major organisations. The declining trend in recent times, with an estimated 5% density rate in the private sector and a sharp decline in public administration caused by the phasing out of the check off system used for dues collection (Neuman 2018), is confirmed in survey data.

Survey data: Results based on ad hoc modules or supplements to the Labour Force Survey (data provided by Statistics Hungary upon request). Data refer to the second quarter in 2001, 2004, 2015 and 2020 and to the first quarter in 2009 and to employees aged 15-74.

The historical trend in trade union density (**UD_hist**) refers to the administrative data only.

Iceland

Administrative data: Until 1992, administrative data on aggregate active membership of affiliated and independent unions reported in the Statistical Yearbook, adjusted for active members. For recent years the estimations are from Prof. Jelle Visser.

Survey data: All statistics are based on estimates from the Labour force survey since 2003 provided by Statistics Iceland and available online at: https://px.hagstofa.is/pxen/pxweb/en/Samfelag/Samfelag_vinnumarkadur_vinnumarkadsrannsokn_3_arstolur/VIN01007.px.

The historical trend in trade union density (**UD_hist**) refers to the administrative data before 2003 and to the survey estimates, afterwards.

India

Administrative data: The trade union density rate (**UD**) is from the International Labour Organisation (ILO), Industrial Relations Data (IRData): https://www.ilo.org/global/docs/WCMS_408983/lang--en/index.htm.

Indonesia

Administrative data: The trade union density rate (**UD**) is from the International Labour Organisation (ILO), Industrial Relations Data (IRData): https://www.ilo.org/global/docs/WCMS_408983/lang--en/index.htm.

Ireland

Administrative data: the 1960-1995 membership data are collected by William Roche and Joe Larragy based on the returns to the Registry of Friendly Societies, internal union data of Irish and British based unions, excluding the membership in Northern Ireland (Ebbinghaus and Visser 2000). Data from 1985 is reported by the Irish Congress of Trade Unions, separate for the Republic and Northern Ireland. Independent unions have become marginal since the 1990s and their combined membership has been assumed constant at a mere 2.5% of the total for 1996-1999, 2.25% from 2000-2004 and 2% since. Throughout the series, for all years, union membership of employees in employment in the Republic is estimated at 90% of the reported membership, allowing for 10% members that have retired from the labour market, are self-employed, or work outside the Republic.

Survey data: All data since 1994 are based on results from the Quarterly National Household Survey (April supplement in 1994-97, March to May supplements in 2001-04 and April to June supplements afterwards), and the Labour Force Survey since 2017 published by the Central Statistical Office (CSO) and available online at: <https://www.cso.ie/en/statistics/labourmarket/labourforcesurvey/fstimeseries/>. Series refer to employees aged 15 or more member of a trade union or staff association which represents its members in labour and industrial relations issues. It should be noticed that statistics on part-time and full-time jobs reported in the OECD/AIS/ICTWSS database are based on the number of usually working hours (more or less 30 hours a week) and not on the status reported by the respondent. Consequently, these statistics will not correspond to those published by the CSO.

The historical trend in trade union density (**UD_hist**) refers to the administrative data before 2003 and to the survey estimates, afterwards.

Israel

Administrative data: Total and net union membership (**TUM** and **NUM**) data are collected directly from the three main confederations (Histadrut, Histadrut HaLeumit and Koach L'Ovdim) and estimates from Prof. Jelle Visser for independent unions.

Italy

Administrative data: Total and net union membership data are collected directly from the three main confederations (CGIL, CISL, and UIL). For a description of the different sources and methodological issues see the chapter on Italy in Ebbinghaus and Visser (2000). Independent union centres outside CGIL-CISL-UIL are not reported. Regarding the reported membership data obtained from the three main confederations it is important to note that paying membership in Italy operates through an employer check-off system and that the continuation of membership from one year to the next requires confirmation, usually under the collective agreement.

Reference:

- Ebbinghaus, B, Visser, J (2000) Trade Unions in Western Europe Since 1945. London: Palgrave Macmillan.

Japan

Administrative data: Information on trade union membership is based on the Basic Survey on Labor Unions (BSLU), available on the website of the Ministry of Health, Labour and Welfare: https://www.mhlw.go.jp/english/database/db-l/labour_unions.html. No adjustment for non-salaried is made, as the data, collected from enterprise unions, as the base unit of Japanese unions, only collected the workforce employed in companies. However, it is worth to be noted that military forces, police, judiciary, prison officials are excluded and that most enterprise unions exclude temporary workers.

Statistics by gender (**UM_female**, **UD_female** and **UD_male**) and by sector (**UM_public**, **UD_public** and **UD_private**) refer to unit labor unions only and then exclude some union members of the headquarters of trade union (less than 1% of total union membership).

Korea

Administrative data: Information on trade union membership, by union confederation, is based on the information collected and centralised by the Ministry ("Nationwide Organization of Labor Unions" (전국노동조합 조직현황) and published by KOSTAT, https://kosis.kr/statHtml/statHtml.do?orgId=118&tblId=TX_11824_A001&conn_path=I3.

As is noted in OECD (2000), until 1997, the law specified that only one union was permitted at company, industry and national levels. Rival unions were prohibited. The 1997 Trade Union and Labor Relations Adjustment Act (TULRAA) allowed multiple unions at industry level, at company level this was allowed from 2002 onwards. TULRAA excludes public servants and teachers from the right to freely establish or join a union of their choice. The Public Services Act has prohibited public officials from joining trade union organisations. This provision refers to all levels and categories of government personnel, with the exception of manual workers employed mainly in telecommunication and the national railroads. Workplace associations, involved in consultations and grievance handling, will be permitted from 1999. These associations can only be joined by lower-grade public servants and exclude more than one-third of public servants. Teachers had been granted trade union organising rights before 1999, the right to negotiate collective will be granted from 1999. *“While many OECD countries do not conform fully to the requirements of these conventions (C087 and C098), Korea remains unique in that it a) does not recognise the right of public officials to establish and join trade unions, and b) even restricts membership in consultative workplace associations to support staff alone.”*

Military, police, prison officials and higher-level public servants are excluded from the right of association (IRLex). The ILO Supervisory system noted in 2018: *“Current laws restrict the scope of public officials’ right to organise. This remains a barrier for the ratification of the C087 and C098. Teachers are being threatened with the cancellation of registration of their trade unions and public officials have been refused trade union registration for the last four years. Workers in the public sector have been dismissed in retaliation for involvement in trade union activities. Collective bargaining agreements are being ignored or unilaterally terminated in public institutions. In the market sector, precarious employment is widespread and many precarious workers are employed by employment agencies and therefore considered as self-employed. Regulations forbid them to form unions and to bargain collectively. Trade unions attempting to organize these self-employed workers risk having their trade union registration withdrawn. Unemployed, dismissed and contract workers are disallowed from union organization. A 2015 Supreme Court decision affirmed the right of all migrant workers, including undocumented workers, to form or join a union, but this has not yet been enforced. Essential services, with restricted rights to strike, are defined broadly and include services such as railroads, air transport, communications, water supply and other utilities, and hospitals. Individuals designated as essential by management may not strike”.*

Survey data: are based on results from the August Supplement of the Economically Active Population Survey (EAPS) published by KOSTAT.

The historical trend in trade union density (**UD_hist**) refers to the administrative data only.

Reference:

- OECD (2000), Pushing Ahead with Reform in Korea: Labour Market and Social Safety-net Policies, OECD Publishing, Paris, <https://doi.org/10.1787/9789264181922-en>.

Kosovo

There are no official data that could accurately indicate the actual number of employees (or even persons) members of a trade union (**TUM** and **NUM**) or the share of unionised employees (**UD**) in Kosovo and consequently no statistics are reported in the OECD/AIAS/ICTWSS Database.

Latvia

Administrative data. Total union membership (**TUM**) reported by the main trade union confederation, LBAS. Outside the LBAS there are few independent unions, mainly in the public sector, though their membership share since some of these joined LBAS in recent years. Net union membership (**NUM**) is estimated by excluding retired and self-employed members based on reports of the LBAS in some years

(2003, 2008 and 2017). Figures by sex (**UM_female**, **UD_male**, **UD_female**) and by sector (**UM_public**, **UD_private** and **UD_public**) are from LBAS and include non-salaried union members.

Lithuania

Administrative data: Union membership data are collected annually and published by Statistics Lithuania since 2006: <https://osp.stat.gov.lt/statistiniu-rodikliu-analize?indicator=S3R335#/>. No adjustment for members who are not employees is needed for these years.

For earlier years, total union membership (**TUM**) are based on data by confederation from Kohl and Platzer (2004) and from Eurofound study with data for 2003-2008. Total union membership (**TUM**) for these years is adjusted for retired union members to obtain net union membership (**NUM**) mainly based on data from the largest organisation, LPSK.

Luxembourg

Administrative data: Administrative data on aggregate membership of main confederations organising blue and white collar employees, and independent unions of financial and managerial staff, clerical workers and white collar employees, private and public sector from trade union websites, EIRO and the European Trade Union Confederation. Active membership is estimated on the basis of Belgian data on membership among retired workers.

Survey data: All union statistics are based on results from the Labour Force Survey (LFS) provided by the STATEC for employees aged 15 and more. It should be noted that these statistics refer to the union membership of the resident employees (national concept) while union membership based on administrative data refer to union members working in Luxembourg (domestic concept). Statistics by sector (public and private) are based on data by industry (NACE Rev.2 code O for the public sector).

The historical trend in trade union density (**UD_hist**) refers to the administrative data only.

Malta

Administrative data: Total union membership (**TUM**) based on the annual reports of the Registrar of Trade Unions by the Department of Industrial Relations, on line: <https://dier.gov.mt/en/About-DIER/Archives/Reports%20by%20the%20Registrar%20of%20Trade%20Unions/Pages/Reports-by-the-Registrar-of-Trade-Unions.aspx>.

Net union membership (**NUM**) is derived by excluding retired members of the two largest organisations (GMU and UHM) reported in the annual reports of the Registrar of Trade Unions. In congress reports and in some returns to the registrar their number is mention, for instance a total of 11,043 in the two largest organisations in 2017.

Mexico

Administrative data: organisational data based on the Encuesta Nacional de Ingresos y Gastos de los Hogares (ENIGH, 1978-2006) and reported in Farris, D., and E. Levine. 2004. 'Declining union density in Mexico, 1984–2000'. Monthly Labor Review, September 2004.

Survey data: From 2005 onwards, data are based on the Encuesta Nacional De Empleo y Ocupacion from INEGI (first quarters in 2005-08 and second quarters from 2010 onwards). From 1992 to 2002, the series are estimated by the OECD by using the results from the Encuesta Nacional de Ingresos y Gastos de los Hogares (ENIGH).

The historical trend in trade union density (**UD_hist**) refers to the administrative data before 2002 and to the survey estimates afterwards.

Montenegro

Administrative data: Total union membership (**TUM**) figures are based on data from the two main union confederations (the Confederation of Trade Unions of Montenegro, SSCG and the Union of Free Trade Unions of Montenegro, USSCG) and estimates of union membership in the unaffiliated unions. No adjustments are made for the potential inactive (pensioners, students), unemployed and non-salaried employed members (self-employed) due to lack of reliable information. However, in the case of the USSCG over 20'000 unions members approximately 18'000 are paying members (See Simović-Zvicer, 2019). Hence, the net union membership (**NUM**) and the trade union density (**UD**) are probably overestimated and should be interpreted and compared having these caveats in mid.

Netherlands

Administrative data on union membership is collected from the union federations, and reported, each year by the Central Statistical Office (CBS). CBS-Statline (<https://www.cbs.nl/nl-nl/cijfers/detail/80598NED>) is twice yearly updated with data on union membership by age group, sex and main organisations, available from 1999. It allows the calculation of members at pensionable age, from 2011 increasing in steps from 65 to 67 years. An annual series from 1945 till 2004, distinguishing between members below and above 65 is available in a special CBS publication in its quarterly "Sociaal-economische Trends", 1st Quarter 2007, by the two staff members responsible for data collection, Van Cruchten. and Kuijpers. (2007). In addition, based on the Quarterly Labour Force Survey, which has since 1992 included, with some years missing, a question on union membership, it is possible to estimate the share of non-working union members before the age of 65. Their number before 1992 has been calculated based on administrative data obtained from the unions or reported by them, by the CBS for some years or large membership surveys conducted for the main union federations (see Ebbinghaus and Visser 2000 for a description of sources). The estimates of inactive and active members for the years 1992-2003 have been slightly modified and adjusted on the basis of the LFS.

Survey data: CBS has also published LFS data on union membership and union density rates, from 1992 till 2012 (with the exception of 2004 when the union membership was skipped in the survey). The LFS series was stopped in 2012. For later years, 2012-2016, but not 2017, the CBS survey "Social Cohesion and Well-Being" (Sociale Samenhang en Welzijn, S&W), which is much smaller than the LFS, does contain a "union membership" question, but given its smaller size, this data has only been published other than as an average for the years 2012-2016 (See Gielen and Floris, 2018).

The historical trend in trade union density (**UD_hist**) refers to the administrative data only.

Reference:

- Ebbinghaus, B, Visser, J (2000) Trade Unions in Western Europe Since 1945. London: Palgrave Macmillan.
- Gielen, W., and J. Floris , "Wie is er nog lid van een vakbond? Inzicht in lidmaatschap, belang en tevredenheid", Statistische Trends, June 2018, <https://www.cbs.nl/-/media/pdf/2018/25/wie-is-er-nog-lid-van-een-vakbond.pdf>.
- J. Van Cruchten & R. Kuijpers (2007), Vakbeweging en organisatiegraad van werknemers, Sociaal-economische trends, 1e kwartaal 2007, Centraal Bureau voor de Statistiek, <https://www.cbs.nl/-/media/imported/documents/2007/07/2007k1v4pubpdf.pdf?la=nl-nl>.

New Zealand

Administrative data: Since 1991 data are from the union membership survey conducted by the Centre for Labour, Employment and Work (CLEW) at the Victoria University of Wellington distributed to all registered trade unions in New Zealand in late March of each year with a target closing date of 30 April.

The annual CLEW survey is a survey of registered unions and asks those unions to account for their membership numbers as at 31 December of the previous year. The latest data are for 2018. For a full report, a time series back to 1991, data by industry and sex, and the NZCTU, see Ryall and Blumenthal, (2018). Data before 1991 are from R. Harbridge and the annual review Unions and Union Membership in New Zealand of the Industrial Relations Centre of Victoria University of Wellington, and are cited in Background Briefing 5/2000 of March 2000 for the New Zealand Parliament. The membership figures before 1970 are without (independent) unions in the public sector.

Survey data: are based on results, since 2016, from the Household Labour Force Survey published by Statistics New Zealand and available online at: <https://figure.nz/chart/nv/fvd43iJUbWFXz>. These statistics refer to union membership relating to employees' main job only.

The historical trend in trade union density (**UD_hist**) refers to the administrative data only.

Reference:

- Ryall, S., and S. Blumenthal (2018), Unions and Union Membership in New Zealand – report on 2017 Survey. CLEW report https://www.wgtn.ac.nz/_data/assets/pdf_file/0008/1814588/new-zealand-union-membership-survey-report-2017.pdf.

North Macedonia

Administrative data: Total union membership (**TUM**) figures are based on data from the three main union confederations (the Federation of Trade Unions of Macedonia, SSM, Confederation of Free Trade Unions of Macedonia, KSS and the Union of Independent and Autonomous Trade Unions of Macedonia, UNASM). No adjustments are made for potential inactive (pensioners, students), unemployed and non-salaried employed members (self-employed) due to lack of reliable information. Hence, the net union membership (**NUM**) and the trade union density (**UD**) are probably overestimated and should be interpreted and compared having these caveats in mind.

Norway

Administrative data: based on the returns of the unions to the Norwegian Statistical Office, collected and published annually. See: <https://www.ssb.no/en/statbank/table/03546/>: “Central organisations and other nation-wide associations for wage earners. Members per 31 December by national confederation, contents and year.” Earlier years, before 2000, published in the Statistical Yearbook, and analysed by Torger Aarvaag Stokke, of FAFO, in Ebbinghaus and Visser (2000), where there is also a series of excluded and net union membership. This series has been extended till 2018 by Kristin Nergaard of FAFO.

Survey data: are based on supplements (second quarter in 1995-2005, third quarter in 2008 and fourth quarter in 2013-17) of the Labour Force Survey published by Kristin Neergard of the Institute for Labour and Social Research (FAFO).

The historical trend in trade union density (**UD_hist**) refers to the administrative data only.

Reference:

- Ebbinghaus, B, Visser, J (2000) Trade Unions in Western Europe Since 1945. London: Palgrave Macmillan.
- Nergaard, K. (2020), Organisasjonsgrader, tariffavtaledekning og arbeidskonflikter 2018/2019, Oslo: Fafo-notat 2020:12, <https://www.fafo.no/zoo-publikasjoner/fafo-notater/item/organisasjonsgrader-tariffavtaledekning-og-arbeidskonflikter-2018-2019>.

Poland

Administrative data. Membership data are collected from the main union confederations: NSZZ ‘Solidarność’, the Independent Self-governing Trade Union ‘Solidarity’, OPZZ, the All-Poland Alliance of Trade Unions and FZZ, the Trade Union Forum. There are also independent unions not affiliated to any of these, but no records of their membership have been made available. Opinion research, see below, suggests that in 2018 about 18 percent of all people who declared themselves union members had joined an independent union. In the administrative data, however, only the membership of NSZZ, OPZZ and FSS is considered, based on internal files re-evaluated and reported by Juliusz Gardawski and his collaborators, Adam Mrowowicki and Jan Czarzasty. Their publication for the European Trade Union Institute also contains a concise history of Polish trade unions and the organizational changes (unions leaving and joining the confederations). Early data is from Jolanta Kulpínska and her team (1994). Recent data for NSZZ, including 2018 and 2019, is from Fulton and Sechi (2000), and for OPZZ and FZZ, until 2017, based on what is published on the websites of these organization. The data provided by the organisations is known to be overstated and may include non-paying, self-employed and retired members, but it is impossible to find hard data. Over- and underreporting, the latter due to the missing out on independent unions, may be balancing each other, at least in recent years, when compared to the estimated union density rates based on opinion research data.

Survey data: The only survey available and probably the best source on the change of trade union density over time (Mrozowicki and Czarzasty 2004) is opinion survey of the CBOS institute (<http://www.cbos.pl/reports>), which is covering the years 1984 till 2018, with some interruptions. The CBOS density rates are rendered for the entire adult population and need to be re-estimated for the employees in employment, which has been done by M Wenzel (2009), and whose method has been applied to the recent surveys.

The historical trend in trade union density (**UD_hist**) refers to the administrative data only.

Reference:

- Fulton, L., and C. Sechi ‘ETUC Annual Gender Equality Survey 2019’, Brussels: ETUI, 2020
- Gardawski, J., A. Mrozowicki, and J. Czarzasty, 2012. Trade Unions in Poland. Brussels: ETUI report 123
- Kulpínska, J., S. Borkowska, A. Buchner-Jeziorska and A. Urbaniak (1994) ‘Poland’, in H. Moerel (ed.), Labour relations in transition. Nijmegen: Institute for Applied social sciences, 110–118.
- Wenzel, M. (2009) Związki zawodowe w badaniach CBOS 1980-2008 [Trade unions in the research of CBOS 1980–2008], in J. Gardawski (ed.), Polacy pracujący a kryzys fordyzmu [Working Poles and the crisis of Fordism]. Warszawa: Scholar, 533–550.
- Jan Czarzasty, J., K. Gajewska and A. Mrozowicki. 2014. ‘Institutions and Strategies: Trends and obstacles to recruiting workers into trade unions in Poland. British Journal of Industrial Relations, 52(1): 112–135

Portugal

Administrative data. Before 1974 unions were repressed and integrated in corporatist – employer and union – organisations, the so-called grémios. This explains the very high density rate at the time (Pinto 1990; Cardiera 1990). Alliances across firms, sectors or occupations were prohibited, although an organization called Intersindical did develop in the 1960s. From this organization the first union confederation developed after 1974, renamed CGTP-Intersindical in 1977 when it claimed a monopoly on union representation. A second federation, challenging the CGTP, was founded in 1978. These two organisations dominate the trade union scene and the membership data are based on the reporting, and critical assessment of the data of the two main federations, by the Portuguese Ministry of Cardeira 1990,

1997; Cardiera and Padilha 1986-88; and Dornelas et al 2006, and in Ebbinghaus and Visser 2000 and various overviews of the European Foundation. From 1995 to 2010 the reported membership data has been corrected, with the share of retired or otherwise excluded membership rising to 4%, the more recent data from the organisations are estimated, by Naumann of the Friedrich Ebert Stiftung, without retired members.

The Direção-Geral do Emprego e das Relações de Trabalho (DGERT, General Directorate of Employment and Labour Relations) does not evaluate the membership claims of the major unions or federations, for instance in relationship to representation in national social dialogue councils or the extension of collective agreements. The annual survey of companies (the Relatório Único, which is part of the Quadros de Pessoal), has been used to evaluate union membership, but this is more problematic as managers do not necessarily know who is or is not member of a union and not all unions collect membership fees through a monthly “check off” from their wages. Moreover, these accounts refer to the private sector only and suggests that the private sector density rate has declined from 10,6 percent (average for the years 2010-2012, see Portugal and Vilares, 2013, p. 68) to 8,3 percent in 2018 (DGERT data, mentioned by Naumann). When the public sector is included, union density in Portugal can be estimated to lie between 15 and 18%, but there is no recent data after 2017.

Reference:

- Ebbinghaus, B, Visser, J (2000) Trade Unions in Western Europe Since 1945. London: Palgrave Macmillan.
- Dornelas A. (ed.), Ministro A., Ribeiro Lopes F., Cerdeira M.C., Galego P. and Sousa S.C. (2006) Livro Verde Sobre as Relações Laborais, Lisbon, Ministério do Trabalho e da Solidariedade Social
- Portugal, P. and H. Vilares (2013). “Labour Unions, union density and the union wage premium.” Banco de Portugal Economic Bulletin.

Romania

Administrative data based on returns from the five ‘representative’ union confederations, BNS, Cartel Afla, CNSLR Fratia, CSDR and Meridian. Under the 2011 Social Dialogue law, a trade union organisation is considered representative at the national level if it accounts for at least 5% of the overall number of employees in the national economy and it has territorial structures in at least half of all counties, including the capital Bucharest. The returns for 2012 and 2016, available through the Ministry for Public Consultation and Social Dialogue, confirmed the status of the five organisations. There is no information available on the existence and membership of independent, unaffiliated unions, and it is also not clear whether the reported membership contains retired, unemployed or self-employed members. For 2018, only the total, 1.390,000 union members is reported (see Eurofound, country profile, <https://www.eurofound.europa.eu/fr/country/romania>). The data for 1993, 1998, 2003 and 2008 is based on the reports of the European Foundation, in particular the two surveys conducted by M. Carley of Warwick University.

Reference:

- M. Carley (2004), Trade union membership 1993-2003, Eurofound, <https://www.eurofound.europa.eu/publications/report/2004/trade-union-membership-1993-2003>.
- M. Carley (2009), Trade union membership 2003-2008, Eurofound, <https://www.eurofound.europa.eu/publications/report/2009/trade-union-membership-2003-2008>.
- European Commission (2004), Industrial Relations in Europe 2004, Office for Official Publications of the European Communities, Luxembourg, <https://ec.europa.eu/social/BlobServlet?docId=2754&langId=en>.

- European Commission (2008), Industrial Relations in Europe 2008, Office for Official Publications of the European Communities, Luxembourg <https://op.europa.eu/en/publication-detail/-/publication/ee5602eb-4ab7-41fc-9873-0e7caf7e8de9>.
- European Commission (2014), Industrial Relations in Europe 2014, Office for Official Publications of the European Communities, Luxembourg <https://op.europa.eu/en/publication-detail/-/publication/b2d95e33-4c47-4280-a963-c9aa4c7675c2/language-en>.

Russian Federation

Administrative data: The trade union density rate (**UD**) is from the International Labour Organisation (ILO), Industrial Relations Data (IRData): https://www.ilo.org/global/docs/WCMS_408983/lang-en/index.htm

Serbia

Administrative data: Total union membership (**TUM**) figures are based on data from the three main union confederations (the Confederation of Autonomous Trade Unions of Serbia, CATUS; the United Branch Trade Unions, UBTU, and the Association of Free and Independent Trade Unions, AFITU).

The net union membership (**NUM**) is obtained by removing the share of the retired and non-paying members which is estimated at 30% of all union members.

According to Gajic (2019), trade union density is around 25%, with a public sector union density over 60% and a private sector union density below 20%. In 2016 and 2017 the share of union members in the public sector represents one third of all union members.

Reference:

- Arandarenko (2019), Living and working in Serbia, Actors and Institutions, Eurofound, <https://www.eurofound.europa.eu/country/serbia#actors-and-institutions>
- Gajic D.P. (2019), Annual Review 2018 on Labour Relations and Social Dialogue in South East Europe: Serbia, Friedrich-Ebert-Stiftung, www.fes-socialdialogue.org

Slovak Republic

Administrative data: the main union confederation, the Konfederacia odborovych zväzov Slovenskej republiky (KOZ SR, Confederation of Trade Unions of the Slovak Republic), which became the successor organization of the Czechoslovakian union confederation after the separation and establishment of Slovakia as an independent republic, represented until recently 90 percent and more of all union members in the country. Several smaller organisations, the Christian federation NKOS, a General Free Trade Union Association VSOZ, and a separate federation in culture and arts KUK, have emerged alongside but their membership is very small. In 2018 a new confederation Spolčne odbory Slovenska (SOS, or Joint Trade Unions of Slovakia) was founded by some unions that had split from KOZ SR in preceding years. Membership data are collected from various sources, including the two surveys of the European Foundation, the country reports, the occasional reports of the organisations, and on one occasion, in 2009, from the Check Statistical Office, and early data from Svoreňová (2000). An attempt has been made to report net membership data and no further correction is made or needed. Existing survey data, which registers the existence of unions in the company or workplace (see: FES Annual report 2018) confirms the steep decline in unionization that has taken place.

Reference:

- M. Svoreňová (2000), The development of trade unions in Slovakia during the last decade, South-East Europe Review, issue: 02: 131-142.

Slovenia

Administrative data: the main source for the administrative data, separate for each of the many confederations, is based on the research of the internal reports by Ž. Broder (2016) contains carefully elaborated time series on all the main organisations, including independent unions based on internal documents from trade union confederations. Union membership claims by trade union confederations contain non-paying and retired union members and appears to significantly overstate the real number of union members.

Reference:

- Ž. Broder (2016), Sindikalno gibanje v Sloveniji od osamosvojitve do danes : magistrsko delo (Trade union movement in Slovenia from independence until today: master's thesis), Univerza v Ljubljani, Fakulteta za družbene vede, http://dk.fdv.uni-lj.si/magistrska/pdfs/mag_broder-ziva.pdf.

South Africa

Administrative data: Trade union membership (before 2010) are from the Department of Labor (DoL) based on registered unions' returns.

Survey data: The net union membership (**NUM_s**) and the trade union density (**US_s**) are based on annual average estimates from the Quarterly Labour Force Survey (QLFS) for employees aged 15 or more who are member of a trade union.

The historical trend in trade union density (**UD_hist**) refers to the administrative data before 2010 and to the survey estimates afterwards.

Spain

Administrative data: Union membership figures are directly collected from the three main federations, CC.OO, UGT and, for the Basque region ELA-STV. These are the three organisations recognized within Spain and at the European level, for instance as member of the European Trade Union Confederations. There are other minority unions and federations, making up about 20 percent of total membership in recent years, with a presence especially in the public sector and in some regions. Of these independent organisations, the Unión Sindical Obrera (USO) and the Central Sindical Independiente y de Funcionarios (CSI-F) are probably the most relevant (Ebbinghaus and Visser 2000). There are some smaller, anarchist, regional and independent unions. Their membership is combined under 'independent unions' and estimated based on scarce reports of some of these organisations.

The share of non-active members is estimated based on congress reports of the CCOO and the UGT, and for some years the USO and CSI-F, from 1981 to 2017, this share rose from below 5% to 16% on average. Especially after the 2008-09 recession the non-active share (retired and unemployed, to a lesser extent: self-employed) has risen sharply.

Survey data: 1991-1996, Centro Investigaciones Sociológicas, 1996: Madrid, Juan March Foundation. Publication no. 2066: "Synicatos", based on a representative sample of the adult population. 1999-2009. Based on the Encuesta de Calidad de Vida en el Trabajo (ECVT), conducted on behalf of the Ministry of Labour, with a sample of 6000 employees in employment, re-evaluated in Kohler and Calleja Jiménez (2008). The estimates in Beneyto (2008, 2011), based on a different and more restrictive definition of employment, are about 2 percentage points higher (for 2006 19.5% compared with 17.5% in Kohler and Calleja Jiménez). The latter has been followed, also for 2009.

The historical trend in trade union density (**UD_hist**) refers to the administrative data only.

Reference:

- Beneyto, P.J., 2008. 'El sindicalismo español en perspectiva comparada: de la anomalía a la convergencia'. Cuadernos de Relaciones Laborales. Vol. 26, núm. 1, 2008.
- Beneyto, P.J. 'Reivindicación del sindicalismo. Una perspectiva Europea', Madrid: Fundación 1º de Mayo.
- Ebbinghaus, B, Visser, J (2000) Trade Unions in Western Europe Since 1945. London: Palgrave Macmillan.
- Fulton, L., and C. Sechi 'ETUC Annual Gender Equality Survey 2019', Brussels: ETUI, 2020.
- Kohler, H.-D. and J.P. Calleja Jiménez, 2008, Los sindicatos en España frente a los retos de la globalización y del cambio tecnológico, Madrid: Fundación Alternativas, Documento de trabajo 142/2008.

Sweden

Administrative data: Total union membership (TUM) is based on a survey of union organisations, until 2014 published annually in SCB, Statistisk årsbok för Sverige 1914–2014 <https://www.scb.se/hitta-statistik/aldre-statistik/innehall/statistisk-arsbok-1914-2014/>. Continued by Anders Kjellberg, of Lund University, 'Kollektivavtalens täckningsgrad samt organisationsgraden hos arbetsgivarförbund och fackförbund'. Dept. of Sociology, research paper 2019, recently updated for 2019. This publication also contains estimates of pensioned and self-employed members, and recent annual data on 'active members' (including the unemployed), continuing the annual data series the same author provided in the chapter on Sweden in Ebbinghaus and Visser (2000), Table SW14.

In order to estimate the net union membership (**NUM**), the unemployed members estimated under the assumption that members stay with the union when becoming unemployed for reasons of insurance and that therefore unemployed and employees reach the same union density rate in all years (increasing from 60% in the 1960s to above 80% in the 1980s and 1990, and decreasing to 60% in recent years. Changes in the union-based unemployment insurance system and the creation of cheaper and non-union related unemployment insurance funds, and lower tax rebates have made union membership for (younger) unemployed workers less attractive (Kjellberg and Ibsen 2016).

Survey data: Data provided by Statistics Sweden upon request based on labour force survey estimates for persons aged 16-64 from 1987 to 2000 and for persons aged 15-74 afterwards. Statistics by type of employment, main union organisation and sex since 2005 are available online at: https://www.statistikdatabasen.scb.se/pxweb/en/ssd/START_AM_AM0401_AM0401J/NAKUFAcklOrgM/table/tableViewLayout1/

The historical trend in trade union density (**UD_hist**) refers to the administrative data before 2005 and to the survey estimates afterwards.

Reference:

- Kjellberg A., and C.L. Ibsen. 2016. 'Attacks on Union Organizing: Reversible and irreversible changes to the Ghent-system in Sweden and Denmark', in T.P. Larsen and A. Ilsøe, eds. Den danske model set udefra – comparative perspektiver på dansk arbejdsmarkedregulering. Copenhagen: DJØF, pp. 279-302.

Switzerland

Administrative data: collected by the Federal Statistical Office from the union federations and independent unions. Published annually (the latest figure, of 2018, is only available as an aggregate, without entries for the separate federations like USS, Union-Suisse, and independent unions (mostly in banking, transport and public administration). <https://www.bfs.admin.ch/bfs/de/home/statistiken/arbeits-erwerb/gesamarbeitsvertraege-sozialpartnerschaft/gewerkschaften.html> Based on research on union files

for the 1980s and 1990s (Ebbinghaus and Visser 2000), the share of non-active, mostly retired union members is estimated at a constant 6% for the years after 2000.

Turkey

Administrative data: Total union membership (**TUM**) statistics (July each year) are from the Ministry of Labour and Social Security of Turkey (MoLSS) published in the annual Work Life Statistics (<https://www.ailevecalisma.gov.tr/tr-tr/istatistikler/calisma-hayati-istatistikleri/resmi-istatistik-programi/calisma-hayati-istatistikleri-kitabi/>).

Union membership exceeds collective bargaining coverage in 2013-2018 by about 25% on average, which may be about right if we recall that these membership and coverage data refer to the private sector only and that the high double threshold for bargaining (1% membership of the branch sector and 40-50% membership in the enterprise) excludes quite a few unions, and their membership, from bargaining. On this basis, net union membership (**NUM**) is estimated for the years 1984-2012 as 1.25 times the bargaining coverage rate (calculated as a two years moving average, as proposed by Çelik and Lordoğlu, 2006, given the two-year renewal cycle of most agreement). Estimations for the years 1986 to 1990 are close to net membership as reported by the Ministry, but that from 1990 union membership data are increasingly overstated, from 15% in the early 1990s to 70% in 2008-09.

One major problem for this series is that it, unlike the data before 1980, excludes those employed in public administration, whether as public official or as contracted workers - the latter category has increased massively at the expense of career civil servants during the 2000s. Some employees in public administration, but not career officials or contract workers, did gain the right to join a union, but could not bargain or strike, in 2001. Their number is not included, neither in the bargaining coverage nor in the union membership data. In recent years many subcontracted workers in public administration has been given civil servant's status and swelled the ranks of government-sponsored union, though access to collective bargaining was suspended for many of them in 2016.

Reference

- Çelik, Aziz and Kuvvet Lordoğlu (2006), "Türkiye'de Resmi Sendikalaşma İstatistiklerinin Sorunları", *Çalışma ve Toplum Dergisi*, 9:11-30.

United Kingdom

Administrative data: 1974-2018 membership reported by unions listed by the Certification Officer, until 1974 Department of Employment, Statistics Division, from 1974: Certification Office, at the UK government's official website. <https://www.gov.uk/government/news/certification-annual-report-2018-2019>. The 2018-19 annual report contains the membership of these unions as of 31 December 2017. The membership data for 2018 and 2019 are based on the reports for the largest unions and from the Trade Union Congress (reports at annual congress, <https://www.tuc.org.uk/research-analysis/reports/>, the main union confederation, representing 80% and more of all union members. The membership of independent unions in 2018 and 2019 is extrapolated. The administrative data include some membership outside the United Kingdom, mainly in the Republic of Ireland (up to 7-8% of the membership in TUC affiliated unions). On the other hand, about 250,000 employees in Northern Ireland are members of unions affiliated with the Irish Confederation of Trade Unions. Total union membership (**TUM**) data are corrected for this and for self-employed members and members not in employment. See: Ebbinghaus and Visser 2000.

Survey data: derived from the LFS and available since 1995 in an annual publication of the Department for Business, Energy & Industrial Strategy, <https://www.gov.uk/government/collections/trade-union-statistics>.

The historical trend in trade union density (**UD_hist**) refers to the administrative data before 2000 and to the survey estimates afterwards.

United States

Administrative data: 1960-1980 based on union returns established by the BLS, without membership in international unions in Canada.

Survey data: 1973-1981: May Current Population Survey (CPS); Beginning in January 1983, the CPS began asking the union membership and coverage questions each month to a quarter sample (the outgoing rotation groups).

For international comparison purpose, trade union density includes the incorporated self-employed in the denominator. As a consequence trade union density is lower than official rates published by the Bureau of Labor Statistics (BLS).

The historical trend in trade union density (**UD_hist**) refers to the administrative data before 1983 and to the survey estimates afterwards.

G. Collective bargaining coverage

Section G of the OECD/AIAS ICTWSS database provides data on collective bargaining coverage, i.e. the number of workers covered by a collective agreement.

Whereas union density purports to measure potential union bargaining pressure, collective bargaining coverage (**Cov**), or the proportion of employees covered by a collective agreement, is closer to measuring the degree to which unions are capable of providing common standards of wages, working hours and working conditions in labour markets. As the combined result from the organisation and action of trade unions, employer organisation and state support, the bargaining coverage rate indicates the degree to which employment relations are organised.

Bargaining coverage also depends on the use and scope of administrative extensions. Extension became a widespread policy response during the 1930s Depression (Visser, 2016^[43]; Hamburger, 1939^[85]). ILO Recommendation No. 91, adopted in 1951, advocated extension as a general policy together with safeguards against its abuse (such as, representation thresholds, appeal and dispensation rights to prevent suppression of minority interests, and public policy tests to counter possible market distorting effects). The intended effect of administrative extension is to prevent competition on working conditions between employers in the same sector, when some employers voluntarily assume certain obligations and others escape from them. Employers are thought to be more willing to enter into, or join, multi-employer agreements negotiated by representative organisations when they know that the result will bind all of them, including those who are not member (Hayter and Visser, 2018^[19]; Hayter and Visser, forthcoming^[20]).

Definitions and measurement

Due to the many differences in the organisation of collective bargaining across countries, existing administrative data on the number and size of collective agreements, or resulting from surveys, is rarely comparable. To achieve as high a level of comparability as possible, it is essential to proceed from a common operational definition of what we understand to be a collective agreement, what it means to be covered and the calculation of the bargaining coverage rate.

ILO Convention No. 154 (1981) defines collective bargaining as “all negotiations which take place between an employer, a group of employers or one or more employers” organisations, on the one hand, and one or more workers” organisations, on the other, for: (a) determining working conditions and terms of employment; and/or (b) regulating relations between employers and workers; and/or (c) regulating relations between employers or their organisations and a workers” organisation or workers” organisations. The collective agreement is the result of these negotiations. The Resolution adopted by the Third International Conference of Labour Statisticians in 1926, represents the only international standard on how collective

bargaining statistics should be compiled. The Resolution recommended that, for the “purpose of statistics”, the collective agreement be understood as a “written agreement”. At regular intervals, the number of newly concluded agreements and the number expired should be recorded, preferably with the size of each, i.e. the number of establishments and employees covered, the latter as a share of the total industry in a particular enterprise, occupation or sector). From the ILO definition and the 1926 Resolution it transpires that it is not a defining characteristic of collective agreements that they set a norm on wages, its level or rate of change.

Someone is covered when, in the reference period, a collective agreement applies to that person’s job and regulates his or her employment relation. In most labour laws that means that clauses in the individual employment contract which violate the stipulations the collective agreement are null and void. One particular measurement problem may arise from multi-annual collective agreements and the treatment of “after effects” of agreements that have expired and not (yet) been renewed. Some statistics record only the (first) year in which the agreement is concluded.

The target of the bargaining coverage statistic is to record all valid collective agreements during the reference period under consideration and all persons (or jobs) to whom such agreements apply. This includes multi-year agreements which originate from an earlier year but are still valid. Agreements that have expired will also count when the “after effect” of the prior agreement is recognised in law and/or by the social partners as the time needed for reaching a new agreement. Multi-level bargaining may create another comparability issue. Groups of employees may be covered by several collective agreements (at national, industry, company, or plant level) at the same time. Such “multi-coverage” may lead to “multi-counting” of the same employee or job, especially when the statistics are based on data provided by the bargaining parties. To avoid double counting, bargaining coverage is defined, not as the number of employees per agreement, but as the number of employees covered by any kind of collective agreement. Finally, bargaining coverage refers to agreements and does not include workers affected by the results of collective bargaining as a result of spill overs or non-organised firms that “orient” their pay policies on the norms defined in collective agreements. By right of definition, employees covered as the result of administrative extension of the agreement to non-organised firms are included.

Note: Collective bargaining coverage represents the share of workers covered by valid collective agreements in force. What counts as a valid collective agreement in force is defined by international and national legislations and, in some case, tribunals. The OECD/AIAS ICTWSS database follows the rules and definitions of the ILO (ILO, 2018^[86]). In particular, only agreements negotiated by independent representation, i.e. bona fide trade unions, are considered. However, at this stage, given the limited sources available, it is not possible to fully rule that, in few instances, the data might also include some agreements negotiated by non-union bodies. But the problem, if confirmed, would be small and not such to put in question the comparability of the estimates.

There are two ways of measuring the bargaining coverage rate, depending on whether or not one adjusts for employees who are legally excluded from the right to bargain (Traxler, 1994^[11]):

- **UnadjCov**, the unadjusted coverage rate, is defined as the number of employees covered by a collective agreement as a proportion of the total number of employees (regardless of whether certain groups are excluded from bargaining), technically: **WCB** (wage and salary earners covered by agreement) divided by **WSEE** (wage and salary earners in employment), times hundred.
- **AdjCov**, the adjusted coverage rate, is defined as the number of employees covered by a collective agreement as a proportion of the number of eligible employees equipped (i.e., the total number of employees minus the number of employees legally excluded from the right to bargain), technically: **WCB** (wage and salary earners covered by agreement) divided by **WSEE** (total number of employees) minus **Wstat** (employees excluded from bargaining and with wages set by government mandate), times hundred.

Taking out only those employees whose employment terms are regulated by government decision (**Wstat**) is somewhat narrow and ignores that, in some legislations (for example, in the United States), managers and executives in the private sector are legally excluded from collective bargaining through union representation. However, the by far largest groups excluded from collective bargaining are civil servants and public sector employees or particular groups (the police, armed forces, teachers in some countries), whose employment terms are then regulated unilaterally by the state (usually after non-binding consultations). In little more than half of the countries for which both unadjusted and adjusted coverage data are available, the two rates do not or no longer differ. This indicates that in these countries (nearly) all employees enjoy the right to bargain. In the other half differences vary from rather small (indicating that only a small group, usually the police, security staff and armed forces, are excluded) to very large (when, like in Austria, virtually all public sector employees lack the right to bargain). For a small group of countries, there is not enough data to make the adjustment. It is crucial that in comparison across countries and over time the bargaining coverage rate is defined consistently as adjusted or unadjusted.

In some accounts, bargaining coverage is measured as the proportion of employees working in firms in which bargaining is mandatory. This is wrong, since a mandate to bargain is not the same as a mandate to reach agreement, as is well known from countries where such mandates exist, for instance in France or the United States. By the same reasoning, employees who work in firms excluded from a mandatory obligation to bargain are not excluded from collective bargaining.

Data and sources

Data on bargaining coverage usually comes from the bargaining parties, collected through registration at the Labour or Employment Ministry, by national union or employers' confederations or Mediation Boards, by statistical offices based on surveys, or research centres. In most countries there is a register of valid collective agreements based on the requirement to lodge the agreement with Labour Ministry or some other public authority, like the National Labour Relations Board in the USA. Such registration exists in Australia, Austria, Belgium, Canada, Chile, Croatia, Czech Republic, Cyprus, Estonia, Finland, France, Germany, Lithuania, Luxembourg, the Netherlands, Poland, Portugal, Slovak Republic, Slovenia, Spain, and the USA. Registration and counting rules differ, however. In the Czech Republic, Lithuania (until 2017), Slovak Republic and Slovenia, for example, single-employer agreements are not registered (CCNCC, 2005^[15]; Schulten, 2005^[48]). In Bulgaria, the National Institute for Conciliation and Arbitration only registers company-level agreements. In Australia the Workplace Agreements Database, collated by the Dept. of Employment, includes only federal-level agreements, excludes expired agreements even where they still apply, but also counts "non-union agreements" (Peetz and Yu, 2017^[87]). Registration stopped in New Zealand in 1991.

With these caveats in mind, registration data can often be used for calculating bargaining coverage rates, but not in all countries registration data is available or easily transformed into a coverage statistic. Some of the main issues are double counting (two or more agreements applying to the same individual or job); agreements of different length (some registers count only the first year or the year in which the agreement was signed); different treatment of expired agreements and different practices of removing 'aged' agreements from the statistical count. Registration data, i.e. data collected based on a count of agreements, has the merit that it can be used for distinguishing agreements of different size, type (wage and non-wage, for instance), content, level, length, and union/employer combinations.

It is also possible to derive bargaining coverage data from labour force or household surveys, or enterprise surveys. Some labour force or household surveys include, next to a question about union membership, a question about "coverage by collective agreement" (Australia), "coverage by the union" (Canada and the USA) or "whether pay and conditions are directly affected by collective agreements" (United Kingdom, the data do not include Northern Ireland). Survey data has the merit that it excludes double counting, refers only to valid agreements that apply during the reference period, and the data can be used for econometric

analysis of coverage-wage effects, using individual data. Besides Australia (since 2000), Canada (since 1997), United Kingdom (since 1995) and the United States (since 1973), bargaining coverage is sometimes added as part of wage surveys or a special module in the LFS in Latvia (2009 and 2015), Hungary (2004, 2008, 2015), and Israel (2012). Statistics Norway runs in some years a separate module on bargaining coverage based on the response from the employers, alongside the LFS. Eurofound's European Company Survey (ECS, 2004, 2009, 2013) asks managers a 'multi-choice' question about the existence of a company, sector, occupational or cross-sector agreement. Germany runs since the mid-1990s a survey based on a panel of establishments (IAB panel). The EU Structure of Earnings Survey asks managers to identify the pay agreement covering at least 50% of the employees in the local unit. Only one choice is allowed (in the case of multilevel bargaining, the manager has to choose).

Besides sampling errors, the disadvantage of survey data is that respondents may not know that they are covered¹¹, especially in the case of multi-annual agreements (which were signed in previous years) and sector and cross-sector agreements. This is probably less of an issue when the respondents are managers. In household surveys the problem is aggravated by the use of "proxy respondents". In the British case this has shown to cause a lower union membership and coverage rate (Brownlie, 2012^[88]). Finally, and most importantly, survey results are very sensitive to how the question is asked. In Britain, the Annual Survey of Hours and Earnings (ASHE) also collects coverage data, this time from employers. It found that in 2011 46.9% of British employees (27.0% in the private, and 91.9% in the public sector) had their pay set "with reference to a collective agreement". In contrast, the LFS reports that, in 2011, 31.2% of British employees, 16.9% in the private and 67.8% in the public sector, "had their wages and conditions of employment affected by collective agreements" (BIS, 2013^[89]). It is quite possible that managers know better, but also that "with reference to" includes firm that "orient their pay policies" on agreements signed by others in the sector or region, a practice which we excluded from formal bargaining coverage. In Britain, for some years, there is yet another source for coverage statistics, the Workplace Employment Relations Survey (WERS), which reports that in 2011 16% of private sector and 44% of public sector employees "had their pay set by collective bargaining" (Van Wanrooy et al., 2011^[90]). The lower bargaining coverage rate for the public sector is attributed to the exclusion of the health sector, whose employees had their pay set by an independent review body, but are included under collective bargaining in earlier and later years, and in the ICTWSS data based on the LFS.

The historical data in the ICTWSS database are from Ochel (2001^[91]), who collected data at five-year intervals from 1960 to 1995 for 20 OECD countries (Portugal and Spain from 1980), based on an expert questionnaire and interview. Another source with comparative data for the 1970s and 1980s is Traxler (1994^[11]); for the 1990s the Eurofound study of Behrens and Traxler (2004^[76]), and Kohl and Platzer (2004^[92]) for countries in Central and Eastern Europe. For the years 2000-17 the European Foundation Database calculates or estimates adjusted bargaining coverage rates for some or all years in 23 EU countries and Norway. There are no estimates for Cyprus, Italy, Latvia, Lithuania, Poland, and for Greece after 2011. In most countries the EFDB estimates correspond with the data in ICTWSS and go back to the same sources. Differences transpire in Bulgaria after 2010 (where the sharp drop in coverage, measured in EFDB, seems to partly result from an artefact, of not measuring continued (multi-annual) collective agreements; in Ireland (where different sources produce quite different estimates for recent years), and Romania (where the EFDB assumes a coverage rate of 100% based on the obligation to bargain).

¹¹ Some attempts at calculating coverage statistics based on household or employee surveys failed for this reason. The "Do not know" answer was used often as "Yes, covered", for instance in Hungary

Country notes

Albania

Statistics on the number of employees covered by collective agreements in force are from (**WCB**) are based on data from the Ministry of Finance and Economy (MFE) and trade unions, collected and analysed by Doçi (2014, 2015, 2016, 2017, 2018 and 2019) in the Annual Review on Labour Relations and Social Dialogue in South East Europe, Albania of the Friedrich-Ebert-Stiftung Foundation.

The public sector coverage rate (**Covpub**) and the private sector coverage rate (**Covpriv**) are derived from the same source and estimated by using the number of employees by institutional sectors from ILOstat.

Employees of the Republican Guards and military personnel have no right to bargain (**Wstat**) but assuming that these workers represent a small part of the total number of employees, there is no need for adjustment.

References:

- Doçi N. (2014), Annual Review 2013 on Labour Relations and Social Dialogue in South East Europe: Albania, Friedrich-Ebert-Stiftung, www.fes-socialdialogue.org
- Doçi N. (2015), Annual Review 2014 on Labour Relations and Social Dialogue in South East Europe: Albania, Friedrich-Ebert-Stiftung, www.fes-socialdialogue.org
- Doçi N. (2016), Annual Review 2015 on Labour Relations and Social Dialogue in South East Europe: Albania, Friedrich-Ebert-Stiftung, www.fes-socialdialogue.org
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- Doçi N. (2019), Annual Review 2018 on Labour Relations and Social Dialogue in South East Europe: Albania, Friedrich-Ebert-Stiftung, www.fes-socialdialogue.org

Argentina

The number of employees covered by collective agreement in force (**WCB**) are based on data published by the Ministry of Labour, Employment and Social Security (*Ministerio de Trabajo, Empleo y Seguridad Social*, MTEySS): <http://www.trabajo.gob.ar/estadisticas/bel/negociacioncolectiva.asp>.

Some workers are not directly covered by collective agreements (**Wstat**) but have their employment conditions and wages determined by mechanisms such as tripartite bargaining, participation or consultation mechanisms (Hayter and Visser, 2018). This is the case of workers in the public administration (from the three levels of government), workers in the agricultural sector, teachers in the private sector, and workers in the domestic service and home work. However, in the absence of reliable employment data for these categories of workers, it was not possible to estimate the adjusted collective bargaining coverage rate (**AdjCov**).

The private sector coverage rate (**Covpriv**) is from data published by the MTEySS excluding domestic and agricultural workers.

The historical trend in the adjusted bargaining (or union) coverage rate (**AdjCov_hist**) for Argentina refers to the unadjusted collective bargaining coverage rate (**UnadjCov**).

For further information on collective bargaining in Argentina, see also reports published by the Ministry of Labour, Employment and Social Security (MTEySS): <http://www.trabajo.gob.ar/estadisticas/negociacioncolectiva/#trimestrales>

Reference:

- Hayter, S., and Visser, J. (2018). Collective agreements: extending labour protection . ILO, https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_633672.pdf.

Australia

Survey data: All indicators (**WCB_s**, **Wstat_s**, **UnadjCov_s**, **AdjCov_s**, **ExtE_s**, **Covpriv_s** and **Covpub_s**) since 2000 refer to the number and proportion of employees (including owner managers of incorporated enterprise) who have their pay set by a collective agreement or by award or pay scale in their main job based on the biennial Employee Earnings and Hours, (EEH) Survey of the Australian Bureau of Statistics (ABS), <https://www.abs.gov.au/statistics/labour/earnings-and-work-hours/employee-earnings-and-hours-australia>.

The proportion of employees covered by extensions (**ExtE_s**) refers to those who have their pay set by Modern Awards, which can be regarded as a functional equivalent of administrative extensions of collective agreements – see OECD (2019^[53]).

The unadjusted collective bargaining coverage rate (**UnadjCov_s**), for international comparison purposes, is estimated as the percentage of employees according to the International Classification of Status in Employment (ICSE-93) including working proprietors of incorporated businesses in 2000-08 and owner managers of incorporated enterprises (OMIEs) afterwards. These workers are excluded from collective bargaining (**Wstat_s**) and from the estimation of the adjusted collective bargaining coverage rate (**AdjCov_s**).

Administrative data: Estimates of the number of employees affected by awards and agreements from Mitchell and Scherer (1993) for the years 1963, 1968, 1974, 1985 and 1990; and on agreements and awards in 1990-1999 from Schwartz (2000).

The historical trend in the adjusted bargaining (or union) coverage rate (**AdjCov_hist**) refers to the administrative data before 2000 and to the estimations from Employee Earnings and Hour Survey (EEH) afterwards.

References:

- Mitchell, R. and P Scherer, “Australia: The Search for Fair Employment Contracts through Tribunals” in J Hartog and J Theeuwes (eds), Labour Market Contracts and Institutions: A Cross-National Comparison, North-Holland, Amsterdam, 1993.
- Schwartz H (2000) Internationalization and Two Liberal Welfare States: Australia and New Zealand. In: Scharpf FW, Smidt VA (eds) Work and Welfare in the Open Economy. Oxford University Press, Oxford.

Austria

Based on compulsory membership in the WKÖ, which acts as signatory of collective agreements, all employees in the private sector are covered, except a few in managerial positions and “third sector” occupations, like the Church. The adjusted coverage rate (**AdjCov**) is then estimated at 98% of employees (the 2% remaining referring to the listed occupations above) which is the same as the coverage rate in the private sector since public sector employees are excluded from collective bargaining (Traxler 1998; Glasner and Hofman 2019).

The number of employees with no right to bargain (**Wstat**) is based on the number of public sector employees published by the Federal Ministry for Arts, Culture, the Civil Service and Sport in their reports, The Austrian Federal Civil Service, Facts and figures, https://www.oeffentlicherdienst.gv.at/publikationen/PJB_Personaljahrbuch_2020.pdf?7vj67a and the

unadjusted coverage rate (**UnadjCov**) is derived from the adjusted coverage rate (**AdjCov**) and the number of employees with no right to bargain (**Wstat**).

Further information can be found in the reports from the *Bundeseinigungsamtes* (Arbitration Authority) of the Ministry of Labour (<https://www.sozialministerium.at/>), which is responsible for extension orders; and the Economics Chamber (*Wirtschaftskammer Österreichs*, <https://www.wko.at>), which annually publishes all sectoral collective agreements.

References:

- Glassner, Vera and J. Hofmann. (2019) "Austria: from gradual change to an unknown future."
- Traxler, Franz. "Austria: Still the Country of Corporatism." In Anthony Ferner and Richard Hyman, eds. *Changing Industrial Relations in Europe*. Oxford: Blackwell, 1998, pp. 239-61.

Belgium

All years: estimates based on agreements and membership in *comités paritaires* (sectoral bargaining committees, of which there are around 100), published by the Federal Public Service for Employment, Labour and Social Dialogue (<http://www.rsiz.fgov.be/nl/statistieken/onlinestatistieken/evolutie-van-de-arbeidsplaatsen-naar-paritair-comite>). This system was made enforceable, and completed for the entire private sector, under the collective bargaining act of 1968. The National Labour Council (*Conseil National du Travail/Nationale Arbeidsraad*) publishes a full list of national (cross-industry) collective agreements, reached since 1970, on its website. These agreements, including the wage agreements since 1981, cover all private sector employees, with few exclusions (e.g., church personnel and some groups in para-state sectors, 'employees sans commission'). See: <http://www.cnt-nar.be/cao-lijst>

Higher ranking civil servants (*ambtenaren, fonctionnaires*) have their own statute, as, formally, they are excluded from collective bargaining, and though in practice the difference is small.

State functionaries have their own statute and are de facto excluded from collective bargaining (**Wstat**). Their number is derived from government statistics on employment in the *comité paritaire*, <https://www.rsiz.fgov.be/nl/statistieken/onlinestatistieken/evolutie-van-de-arbeidsplaatsen-naar-paritair-comite>.

Adjusted coverage rate (**AdjCov**) and coverage in the public and private sector (**CovPub** and **CovPriv**) are reported in the literature (Beaupain et al. 1988) and by Ochel (2001) based on expert advice for the years 1960 to 1990. The rise since 1980 is based on the conclusion of national agreements covering the entire economy and completed through industry agreements. Assuming a 100% coverage rate of the public sector (excluding state functionaries), the private sector coverage rate (**Covpriv**) has been derived from the adjusted coverage rate (**AdjCov** estimated by expert at 96%) using the imputed number of employees covered by collective agreements (**WSEE-Wstat**)***AdjCov**) less the estimated numbers of public sector employees (number of employees in the public administration, education and health sectors from the OECD Labour Force Statistics database) excluding civil servants and divided by the number of employees in the private sector.

Reference:

- Beaupain T. (1989). 'La négociation collective: niveaux et contenus', pp. 231-252, in *50 jaar arbeidsverhoudingen*, Belgische Vereniging voor Arbeidsverhoudingen. Brugge: De Keure.
- Ochel, W. (2001), "Collective Bargaining Coverage in the OECD from the 1960s to the 1990s", *CESifo Forum*, Vol. 2/4, pp. 62-65

Bosnia and Herzegovina

There are no official data that could accurately indicate the actual number of employees covered by collective agreements in force (**WCB**) or the (adjusted) coverage rate (**UnadjCov** or **AdjCov**). Although the General Collective Agreement (GCA) covers all employees (and applied in case a branch-level collective agreement has not been signed), it regulates only minimum rights and obligations of both workers and employers (including minimum wage, working hours, night work etc.). Therefore, the adjusted collective bargaining coverage rate (**AdjCov**) reported in the OECD/AIAS/ICTWSS database for the year 2012 refers to experts and social partners' statements - see Eurofound (2012).

Reference:

- Eurofound (2012), Bosnia and Herzegovina: Industrial relations profile, European Foundation for the Improvement of Living and Working Conditions, 2012, https://www.eurofound.europa.eu/sites/default/files/ef_publication/field_ef_document/ef1215en6.pdf

Bulgaria

There are two estimations of adjusted collective bargaining coverage rate (**AdjCov** and **AdjCov_s**) in Bulgaria.

Administrative data: The first estimation (**AdjCov**) is derived from administrative data on single-employer collective bargaining collected and published by the National Institute for Conciliation and Arbitration (NICA) <http://www.nipa.bg/база-данни/действащи/ктд-основни-даанни/ктд-1-level/>, with additional estimates of coverage of sectoral agreements, based on Eurofound reports, for 2013 and 2016.

Survey data: The second estimation (**AdjCov_s**), from the Structure of Earnings Survey (SES) for the years 2006, 2010, 2014 and 2018, refers to the share of employees in enterprises where collective pay agreement (at firm or higher level) covers at least 50% of the employees in the local unit. This statistics refer to enterprises with one or more employees of the non-agricultural sectors excluding activities of households as employers and activities of extra-territorial organisations and bodies (Sections B to S of the Industry classification NACE Rev. 2).

The adjusted coverage rate based on the Structure of Earnings Survey (**AdjCov_s**) is used as the main series to describe the evolution of the coverage rate in Bulgaria reported in the historical trend series (**AdjCov_hist**). For further information about this survey, see the metadata available on the National Statistical Office website: <https://www.nsi.bg/en/content/11865/%D0%BC%D0%B5%D1%82%D0%B0%D0%B4%D0%B0%D0%BD%D0%B8/structure-earnings-survey>

Brazil

The adjusted collective bargaining coverage rate (**AdjCov**) is from the International Labour Organisation (ILO), Industrial Relations Data (IRData): https://www.ilo.org/global/docs/WCMS_408983/lang-en/index.htm.

Canada

Survey data: All data since 1997 are based on union coverage statistics from the Canadian Labour Force Survey (CLFS) published by StatCAN, <https://open.canada.ca/data/en/dataset?q=union+coverage&sort>.

The unadjusted collective bargaining coverage rate (**UnadjCov_s**), for international comparison purposes, is estimated as the percentage of employees according to the International Classification of Status in Employment (ICSE-93) including incorporated self-employed. These workers are excluded from collective

bargaining (**Wstat_s**) and from the estimation of the adjusted collective bargaining coverage rate (**AdjCov_s**).

Administrative data: Earlier estimates are based on data from coverage data by agreement type, length and sector, 3-year moving averages: government labour program publication “Collective Bargaining Trends in Canada 1984-2014”, https://www.canada.ca/content/dam/esdc-edsc/migration/documents/eng/resources/info/publications/collective_bargaining/Trends_in_Canada_e.p_df; and on Ochel 2001, regressed on annual unionization rates.

The historical trend in the adjusted bargaining (or union) coverage rate (**AdjCov_hist**) refers to the administrative data before 1997 and to the estimations from Labour Force Survey (LFS) afterwards.

Reference:

- Ochel, W. (2001), “Collective Bargaining Coverage in the OECD from the 1960s to the 1990s”, *CESifo Forum*, Vol. 2/4, pp. 62-65

Chile

Statistics on the number of employees covered by new collective agreements (**WCB_new**) and collective agreements in force (**WCB**) are based on statistics published by the Ministry of Labour: <https://www.dt.gob.cl/portal/1629/w3-propertyvalue-22777.html>

Public sector employees are excluded from collective bargaining and as a consequence the adjusted coverage rate (**AdjCov**) and the private sector coverage rate (**Covpriv**) are the same. These employees are estimated by using the LFS data (ENE) and reported in the dedicated variable (**Wstat**).

The collective bargaining coverage rate has been estimated for the period 1964-1991 (Atzeni et al 2011) and 1993 (for manual and non-manual workers in O’Connell 1999) but all rates are unadjusted since it is unknown how many employees were excluded from collective bargaining. Until 1991 only firm-level bargaining was allowed (O’Connell 1999), but the law still sets up high restrictions for sector bargaining (Barrera 1995).

References

- Atzeni, M.; Durán-Palma, F.; Ghigliani, P (2011). Employment relations in Chile and Argentina. EN: Barry, Michael; Wilkinson, Adrian, eds.. Research Handbook of Comparative Employment Relations. Cheltenham: Edward Elgar Press. En Memoria Académica. Available at: <http://www.memoria.fahce.unlp.edu.ar/libros/pm.666/pm.666.pdf>
- O’Connell, Lesley, Collective Bargaining Systems in Six Latin American Countries: Degrees of Autonomy and Decentralization (Argentina, Brazil, Chile, Mexico, Peru, and Uruguay) (June 1999). IDB Working Paper No. 330, Available at SSRN: <https://ssrn.com/abstract=1817196> or <http://dx.doi.org/10.2139/ssrn.1817196>

China

The unadjusted collective bargaining coverage rate (**UnadjCov**) is from the International Labour Organisation (ILO), Industrial Relations Data (IRData): https://www.ilo.org/global/docs/WCMS_408983/lang--en/index.htm.

Colombia

The adjusted collective bargaining coverage rate (**AdjCov**) is from the International Labour Organisation (ILO), Industrial Relations Data (IRData): https://www.ilo.org/global/docs/WCMS_408983/lang--en/index.htm. This statistic refers to the collective agreements called “*Convención colectiva*” for the private sector and “*Acuerdo colectivos del sector público*” for the public sector since 2013.

Until 2013, civil servants are excluded from collective bargaining (**Wstat**) and have been estimated as the number of public employees based on the *Gran Encuesta Integrada de Hogares* (GEIH).

Costa Rica

The number of employees covered by collective agreements in force (**WCB**) and the coverage rate in the public and private sectors (**Covpub** and **Covpriv**) are from the Statistical Yearbook published by the Ministry of Labour and Social Security (MTSS): <http://www.mtss.go.cr/elministerio/despacho/memorias.html>.

Croatia

The adjusted collective bargaining coverage rate (**AdjCov**) and the public and private coverage rates (**Covpub** and **Covpriv**) are from Bagić. (2014, 2016).

References:

- Bagić, D. (2014), Analysis of the impact of collective agreements on the wage system in the Republic of Croatia, Ministry of Labour and Pension System, Zagreb.
- Bagić, D. (2016), “Obilježja kolektivnog pregovaranja u Republici Hrvatskoj: usporedba javnog sektora i gospodarstva”, in Utjecaj kolektivnih ugovora na prava radnika u RH [The impact of collective agreements on workers’ right in the Republic of Croatia], (ed. Rožman, K.), Matica Sindikata, Zagreb, pp. 107–160.

Cyprus

There are no data on collective bargaining coverage. Since there are no policies or institutional features that allow to extend or apply agreements beyond union membership—an attempt in 2013 failed—bargaining coverage statistics (**WCB**, **AdjCov** and **UnadjCov**) are based on the union density rate. See Ioannou and Sonan (2019) for a justification of this approach.

When Cyprus joined the European Union, the Department of Labour Relations indicated on its website that some 70% of all employees were covered by collective bargaining. The union density rate at the time was 65%. Assuming that most or all union members have access to collective bargaining and are covered and that there are no significant inclusion effects extending the coverage rate much beyond union membership, the best estimate is to set the bargaining coverage rate equal to the union density rate. This is probably a slight underestimation of the true degree of bargaining coverage. The Structure of Earnings Survey (SES) for 2010 found a coverage rate of 49% compared to the union density rate of 48%.

Reference:

- G Ioannou, S Sonan (2019), Cyprus: a divided island—diverging collective bargaining patterns, weakened yet still standing, Collective bargaining in Europe: towards an endgame, ETUI, pp109

Czech Republic

Statistics on the number of employees covered by collective agreements (**WCB**) and also those covered by extensions (**ExtE**) are based on data on company agreements concluded by the Czech-Moravian Confederation of Trade Unions (*Českomoravská konfederace odborových svazů*, ČMKOS) and its affiliates. The bargaining coverage rate (**Adjcov**) is therefore slightly underestimated, since company agreements by other unions are not included. The Ministry of Labour and Social Affairs published data on higher-level agreements but these are mostly non-wage agreements which double with company agreements and are not included in the adjusted coverage rate (**AdjCov**).

Bargaining rights are, in comparison with the private sector, restricted in public administration and therefore the number of employees excluded from collective bargaining (**Wstat**) is defined as employees in public administration (from the OECD Annual Labour Force Statistics database).

It should be noted that since 2013 restrictions also applied to firms with three or less employees. However, the likelihood that there would have been company bargaining in such firms before 2013 is minimal and hence the effect on the adjusted collective bargaining coverage rate (**AdjCov**) based on firm-level agreements is very low.

Denmark

Since 1997, the adjusted coverage rate (**AdjCov**) and the coverage rates for the public and private sectors (**Covpub** and **Covpriv**, respectively) are based on data published by the Danish employers' confederation, (*Dansk Arbejdsgiverforening*, DA): <https://www.da.dk/politik-og-analyser/overenskomst-og-arbejdsret/2018/hoej-overenskomstdaekning-i-danmark/>. <http://www.da.dk/>

Civil servant are mostly not covered by a collective agreement as their working conditions are regulated by law and so they are excluded from the adjusted coverage rate (**AdjCov**). Their number (**Wstat**) is based on data from Statistics Denmark: <https://www.statbank.dk/statbank5a/SelectVarVal/Define.asp?Maintable=TJEN01&PLanguage=0>.

Earlier estimates (prior to 1997) are based on estimates from Due et al. (1994); Ochel (2001), Traxler and Behrens (2002) and Scheuer (1998).

References:

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Estonia

In the absence of comprehensive statistics on collective bargaining (see Eurofound, <https://www.eurofound.europa.eu/country/estonia#collective-bargaining>), the number of employees covered by collective agreements in force (**WCB**) is based on results from the Structure of Earnings Survey (SES). These figures refer to the number of employees in enterprises where collective pay agreement (at firm or higher level) covers at least 50% of the employees in the local unit. The survey data include enterprises with one or more employees of the non-agricultural sectors excluding activities of households as employers and activities of extra-territorial organisations and bodies (Sections B to S of the Industry classification NACE Rev. 2).

Until the Civil Servant's law of 2013, civil servant were excluded from collective bargaining (**Wstat**) due to reduced bargaining and strike rights; they are estimated as the number of employees in public administration (from the OECD Annual Labour Force Statistics database). Since 2013, the law limits the right to collectively bargain to a small category of higher ranking and security public civil servants and their number is set at zero.

According to some unions, three of the thirteen multi-employer agreements of the early 2000s survived and were renegotiated after the 2008 crisis, covering passenger transport (14,000 employees), freight transport (3,500 employees) and healthcare workers (25,000 employees) for a total of 42,500 employees. Two of these agreements expired after 2014 or 2015 and were not renewed which can explain the fall of the adjusted collective bargaining coverage (**AdjCov**) observed in 2018.

Finland

Statistics on coverage (**AdjCov**, **Covpriv** and **Covpub**) and extensions (**ExtE**) are based on a survey on earnings and collective agreements from the organized employers in the private sector published by the Ministry of Economic Affairs and Employment by Lasse Ahtiainen in “Coverage of collective agreements” (2008, 2014 and 2017/18): <https://julkaisut.valtioneuvosto.fi/handle/10024/161945>. These cover most of the employees in the member companies of the Confederation of Finnish Industries EK, but are representative for the entire private sector.

Earlier statistics (prior to 2004) are based on estimations from Lilja (1992, 1998); Ochel (2001), Traxler and Behrens (2002), and Kauppinen (1992).

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France

All collective agreements are registered at the Ministry of Labour, Employment and Insertion, which publishes each year a report on collective bargaining, DARES, *Bilans et Rapports de la négociation collective*: <https://travail-emploi.gouv.fr/demarches-ressources-documentaires/documentation-et-publications-officielles/rapports/article/rapports-bilans-de-la-negociation-collective>.

This report allows an estimated coverage rate based on administrative data, between 90 and 98 percent, for several years from 2000 and 2017. The high coverage rate is confirmed by three surveys, in 1997, 2004 and 2015, conducted by the statistical office INSEE for the Ministry, analysed and published by DARES, which is the statistical unit in the Ministry of Labour (Combault 2006; Boudjema 2017). The surveys refer to the private sector and the semi-public sector, but are not fully comparable. The 1997 and 2004 surveys excluded agriculture and the 2015 people working in private households, <http://dares.travail-emploi.gouv.fr/IMG/pdf/2006.11-46.2-2.pdf>, and <https://dares.travail-emploi.gouv.fr/IMG/pdf/2018-010.pdf>. 2010: interpolated. 1950-1990: Adam et al 1972, Férec and Loos 1988, Freyssinet 1993. They differ from the data in Ochel (2001).

The estimates reported in the OECD/AIAS ICTWSS database differ from the data published by the research branch of the French Ministry of Labour (DARES) as they also include estimated coverage for agricultural branches, temporary work agency branches and semi-public companies which are not included in the data published by the DARES.

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Germany

The adjusted coverage rate (**AdjCov_s**) and the coverage rates in the public and private sector (**Covpub_s** and **Covpriv_s**, respectively) are estimated on the basis of the IAB establishment panel of the *Institut für Arbeits- und Betriebsforschung*, which is a representative survey of establishments, from 1993 in West Germany and from 1996 in East Germany <http://www.iab.de/de/erhebungen/iab-betriebspanel.aspx/>.

The Ministry of Labour publishes an annual report on the number and development of collective agreements, but does not estimate or calculate coverage rates. The collective agreement archive of the German Federation of Trade Unions held by the Institute for Economic and Social, https://www.boeckler.de/index_wsi_tarifarchiv.htm, bases its coverage statistics on the IAB panel, but provides additional data.

Civil servants ("*Beamten*") are excluded from collective bargaining (**Wstat**) and refers to statistics provided by the *Statistische Bundesamt* and published by Destatis: [Statistisches Bundesamt, Fachserie 14, Reihe 6](#).

The coverage rate in the public sector (**Covpub_s**) refers to the rate prevailing in the public administration and social security (excluding civil servants) from the IAB Panel data (estimated at 99%). The coverage rate in the private sector (**Covpriv_s**) has been estimated using the estimated number of employees covered by collective agreements ((**WSEE-Wstat**)***AdjCov**) less the estimated numbers of public sector employees (estimated with the number of public sector employees published by Destatis with the same data source as for civil servants) covered by collective agreements excluding civil servants and divided by the number of employees in the private sector.

Earlier estimates are based on Bispinck 1995 (1970-1990 for West Germany); Pacqué 1993; Schroeder and Weißels 2003 (slightly lower than in Ochel, 2001).

Statistics on the percentage of employees covered by administrative extensions (**ExtE**) are derived from data of the Federal Ministry, who adjudicate extension decisions and published in Bispinck (2015).

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Greece

Under the national general labour agreement (1990-2011), all employees were covered. Hence, adjusted collective bargaining coverage rates (**AdjCov**, **CovPriv** and **CovPub**) are all set at 100%. For the years 1980-1989, estimates are based on national data sources (Katsenevas 1985; report Sciarra project ETUI). The national general labour agreement established minimum levels and increases regarding wages and hours, but was appended by industry, occupational and, in larger public sector related companies like telecom, railways and ports facilities, by company agreements. Industry and occupational agreements could be extended if they reached the 50% threshold.

Extended industry and occupational agreements covered 60-70% of the employees in the private sector according to Yannakourou (2005), rising to 85% (adjusted with the inclusion of government orders in some sectors (especially in agriculture).

There is no published data for the years 2011-19. With the end of the national general labour agreement, coverage rates fell steeply since only few industry and occupational agreements survived or were renegotiated, company agreements were few and far between (excepting the brief wave of agreements with “associations of personnel”, the status of which is doubted by the trade unions. Coverage rates after 2012 are estimates based on the size of the few industry and occupational agreement (mainly in the hotels and tourist sector) and the small share of company agreements in the (former) state sector, perhaps reaching 10 percent. Katsaroumpas and Koukiadaki (2019) argue that an even lower (combined) coverage rate in the private sector—perhaps 10 percent—is plausible.

Civil servants are excluded from collective bargaining (**Wstat**) and their numbers is based on International Labour Organization (ILO), ILOSTAT (database), Public employment by sectors and sub-sectors of national accounts.

References:

- Katsanevas, T. (1984): Trade Unions in Greece, National Centre for Social Research (EKKE), Athens.
- Katsaroumpas, Ioannis and Koukiadaki, Aristeia (2019), *Greece: ‘contesting’ collective bargaining*. In: Muller, Torsten, Vandaele, Kurt and Waddington, Jeremy (eds.) *Collective Bargaining in Europe*. ETUI, pp. 267-293. ISBN 9782874525148.
- Yannakourou M. 2005. The Case of Greece, University of Florence: project The Evolving Structure of Collective Bargaining in Europe 1990-2004, Florence.

Hungary

Administrative data: All indicators (**WCB**, **AdjCov**, **UnadjCov**, **ExtE**, **Covpriv** and **Covpub**) are based and derived from data on collective agreements registered at the Ministry of Labour and Social Affairs (<http://mkir.gov.hu/ksznylv.htm>) analysed and published since 2000 by the Institute of Economics, Centre for Economic and Regional Studies in their annual publication Hungarian Labour Market, https://www.mtaki.hu/en/publikacio/publikacio-kategoria/labour_market_yearbook/. Coverage rates derived from this data source are subjects to overestimation due to the overlap between the bargaining levels (single-employer and multi-levels).

Estimations for 1993, 1995 and 1997 refer to Eurofound; Ladó (2002); Kohl and Platzer (2004).

Survey data: The adjusted collective bargaining coverage rate (**AdjCov_s**) for the years 2006, 2010 and 2018, is based on the Structure of Earnings Survey (SES) and refers to the share of employees in enterprises where collective pay agreement (at firm or higher level) covers at least 50% of the employees in the local unit. This statistics refer to enterprises with one or more employees of the non-agricultural sectors excluding activities of households as employers and activities of extra-territorial organisations and bodies (Sections B to S of the Industry classification NACE Rev. 2).

Based on an *ad hoc* module in the 2004, 2009, 2015 and 2020 of the Hungarian Labour Force Survey, employees were asked if there is “a collective agreement in effect in his or her workplace”. The bargaining coverage rates estimated from these survey are lower than those calculated from administrative records: with the difference narrowing with time. However, due to the high share of proxy respondents and the large number of employees who “don’t know” whether there is a collective agreement in force (about one quarter of all respondents).

The historical trend in the adjusted bargaining (or union) coverage rate (**AdjCov_hist**) refers to the administrative data only, the estimations based on the Structure of Earnings Survey (SES) should be considered as support estimates.

References:

- Ladó, M. (2002) Industrial Relations in the Candidate Countries. Dublin: EIRO, available online at: <http://www.eiro.eurofound.ie/2002/07/feature/TN0207102F.html>

Iceland

The unadjusted and adjusted collective bargaining coverage rate (**UnadjCov** and **AdjCov**) are expert estimates by Jelle Visser based on the high organisation rates of employers and unions and the use of extension orders.

India

There are no official data that could accurately indicate the actual number of employees covered by collective agreements in force (**WCB**) or the collective bargaining coverage rates (**UnadjCov** or **AdjCov**) in India and consequently no statistics are reported in the OECD/AIAS/ICTWSS Database.

Indonesia

The unadjusted collective bargaining coverage rate (**UnadjCov**) is from the International Labour Organisation (ILO), Industrial Relations Data (IRData): https://www.ilo.org/global/docs/WCMS_408983/lang-en/index.htm.

Ireland

All the indicators on collective bargaining coverage (**AdjCov**, **Covpub** and **Covpriv**) are estimated. For the years 2000 and 2009, indicators are based on the National Workplace Survey (employers and employee questions) conducted on behalf of the National Centre for Partnership and Performance, by the Institute for Social and Economic Research (www.ucd.ie/issda/static/documentation/ncpp/ncpp-2009-employers.pdf). Estimates for the year 2004 are interpolated on the basis of the estimations for 2000 and 2009, and for the year 2017, estimates are based on development of union membership. The adjusted collective bargaining coverage rates (**AdjCov**) in 1960-1985 are from Ochel (2001), based on estimates of William Roche of University College Dublin.

These estimate tend to show that until the 1980s bargaining coverage rate went in line with the trade union density rate (**UD**), which is plausible given the absence of mechanisms in Irish industrial relations that allow much expansion of coverage beyond the firm and beyond union membership. With the arrival of many US firms since the late 1980s, many of which avoided trade unions and collective bargaining, this may have changed. On the other hand, bargaining coverage in the expanding public sector (**Covpub**) during the partnership years (1987-2008) was always close to 100 percent.

Only a very small number of high-ranking executive civil servants are excluded from collective bargaining (**Wstat**), and there is no need for adjustment.

Reference:

- Ochel, W. (2001), "Collective Bargaining Coverage in the OECD from the 1960s to the 1990s", *CESifo Forum*, Vol. 2/4, pp. 62-65.

Israel

The adjusted collective bargaining coverage rates (**AdjCov** and **AdjCov_s**) are estimates based on either various studies conducted by experts of the collective bargaining in Israel or specific surveys on working conditions.

The adjusted collective bargaining coverage rate (**AdjCov**) reported in 1960, 1965, 1970, 1975, 1980 and 1982 is from Haberfehl (1995); Mundlak (2007); Shirom (1983) and Shalev (1984), and on broadly covering sectoral agreements negotiated by the Histadrut, with some additional bargaining by minority unions.

The adjusted collective bargaining coverage rate (**AdjCov_s**) for the year 2000 is derived from a survey conducted in May 2000 by the Israeli Ministry of Labor and reported in Cohen 2003. The survey combined three questions: 1) Are you covered by a collective agreement? 2) Is there a deduction from your wages? 3) Is there a workers' committee? Cohen et al 2003 argue that answer to first question is likely to lead to underreporting as workers may not know when they are covered by agreement negotiated away from the workplace. A wage deduction can only take place when there is a collective agreement and is either a membership fee if the worker is a union member or a union agency fee for non-members. Workers' committee are in Israel established by collective agreement. This particular indicator may also underestimate bargaining coverage, since these committees do often not exist in small firms which are nonetheless covered by agreements. Affirmative answers are 34.8% for workers committee, 35.2% for coverage, and 39.3% for wage deductions. Combined, with a positive answer on at least one of the three questions, the coverage rate is 56.1%, which is the percentage used by Cohen et al 2003 (also Kristal and Cohen 2007), and reported in the Database. Estimate for 2012 is from the Social Survey of that year, and reported by the Central Bureau of Statistics: <https://surveys.cbs.gov.il/survey/surveyE.htm>.

References:

- Cohen, Yinon, Yitchak Haberfeld, Guy Mundlak, and Ishak Saporta. "Unpacking Union Density: Membership and Coverage in the Transformation of the Israeli Industrial Relations System." *Industrial Relations* 42 (October 2003): 692-711.

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Italy

Until the version 6.1 of the ICTWSS database, the share of workers covered by a collective agreement in Italy was considered to be 80%. This estimate was based on the following sources: Ochel (2001), based on estimates from Boeri, for 1960-1995; 1995-2017: Birindelli and Leonardi (2012), with an analysis of the available statistical data from CNEL and ISTAT for the CAWIE (Collectively agreed wages in Europe: challenges in the statistical and political field) project of the Catholic University of Louvain (Birindelli and Leonardi, 2012; Pedersini 2019). The National Council for Economic Affairs and Labour (CNEL, www.cnel.it) maintains an electronic archive of all collective agreements since 1970, divided in 96 sectors and subsectors, with data on newly signed and existing valid agreements. The national statistical office ISTAT has for 2005-2015 published data on the coverage of newly signed agreements, but only when the 'stock' of valid agreements is known, the coverage rate can be estimated from this data. The employers' federation in engineering and the Bank of Italy have estimated coverage data for additional company bargaining, and recent figures are made available in a joint project of CNEL and ISTAT. (https://www.istat.it/files/2016/03/report_cnel_istat1).

In the absence of alternative sources, with the release of the OECD/AIAS ICTWSS database, the coverage has been revised to 100% reflecting the fact that in Italy base wages fixed in collective agreements (*minimi tabellari*) are used by labour courts as a reference to determine if the firm complies with the Article 36 of the Italian Constitution which states that "*Workers have the right to a remuneration commensurate to the quantity and quality of their work and in any case such as to ensure them and their families a free and dignified existence*". Wage floors in collective agreements are therefore functional equivalent of sectoral minimum wages for all workers to which all firms have to comply. The main downside is that, in this case, workers employed in firms that simply "orientate" themselves towards the prevailing agreement are also included in the estimation. Survey data from the SES or the ECS give a similar estimate (100% for the ECS, 95% for the ECS).

The bargaining coverage rate of newly concluded agreements (**newCov**) refers to the share of employees awaiting renewal of collective agreement (one of the indicators of the so-called *Tensione contrattuale*), based on a survey from a selection of the most relevant nation-wide collective bargaining agreements on wages between trade unions and employer organisations, published by Istat: <https://www.istat.it/en/archive/contractual+wages>. The data reported in the OECD/AIAS/ICTWSS database refer to the statistics based on 78 national collective bargaining agreements (base 2005) in 2005-2009, 74 in 2010-2014 (base 2010) and 73 since 2015 (base 2015). All indicators are available on the Istat's data server, I.Stat: http://dati.istat.it/Index.aspx?DataSetCode=DCSC_RETRCONTR1T#.

References:

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- Pedersini, R. (2019), Italy: institutionalisation and resilience in a changing economic and political environment, in: Muller, Torsten, Vandaele, Kurt and Waddington, Jeremy (eds.) *Collective Bargaining in Europe*. ETUI, pp. 337-359. ISBN 9782874525148.
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Japan

The number of employees covered (**WCB**) and the coverage rates (**UnadjCov** and **AdjCov**) have been derived from union membership data based on previous estimations from Traxler 1994 and Ochel 2001, with the assistance of the Japanese Institute of Labour Policy and Training (www.jil.go.jp/). Based on the findings for 1970 and 1980, the unadjusted collective bargaining coverage rate (**UnadjCov**) is placed near or just below the unionisation rate (**UD**), estimated as 97% of the net union membership (**NUM**). Agreements are establishment-or enterprise based (with very few sector agreements, e.g., seafarers, railways). These enterprise agreements usually cover all status groups including management.

Extension is possible but rare and application "erga omnes" within the establishment is not always assured (Fujimura 2012; Mitsufuji and Hagsawa 1972).

Higher ranking civil servants and teachers are excluded from collective bargaining (**Wstat**) and their number is estimated as a share of teachers and white collars in public administration based on data from the Japanese Labour Force Survey.

References:

- Fujimura, H. (2012). Japan's Labour Unions: Past, Present and Future. *Japanese Labour Review*, 9(1), 6-24.
- Mitsufuji, T., Hagsawa, K. (1972), Recent trends in collective bargaining in Japan, *International labour review*. Geneva: International Labour Office. Vol. 105, no. 2 (1972).
- Ochel, W. (2001), "Collective Bargaining Coverage in the OECD from the 1960s to the 1990s", *CESifo Forum*, Vol. 2/4, pp. 62-65.

Korea

The number of employees covered (**WCB**) and the coverage rates (**UnadjCov** and **AdjCov**) have been derived from union membership data. Collective bargaining in Korea is almost exclusively enterprise based and although more unions organised along sectoral lines, efforts from the 2000s to convert bargaining to the industry level were largely unsuccessful due to resistance of employers and inertia of enterprise unions (Cho 2013; Jeong 2007; Lee 2019). The Korea Labour Institute (www.kli.re.kr/) published annual data on the "settlement rate", or the proportion of firms with 100 employees and more that reach agreement with trade unions on wage demands in a particular year, showing a rate of about two-thirds of all firms, but is not possible to derive coverage rates. Legal reform sanctioned multiple union representation and competition between industry and enterprise unions (OECD 2000), but at the same time designated the individual workplace or workplace as the principle bargaining unit, with single-channel representation.

The unadjusted collective bargaining coverage rate (**UnadjCov**) tracks the union density rate (110% of the net union membership for the years 1963 to 1997; and 125% of net union membership since 1998, in acknowledgement that sectoral bargaining occurs in banking, health and a few more sector).

The adjusted coverage rate (**AdjCov**) takes account of the fact that a small number of public servants are excluded from collective bargaining (**Wstat**), derived from the number of employees with right to be unionised published by the ministry of Labour (MOEL) i.e. the number of wage earners excluding public

servants (public officials of grade V or above, military personnel, police officers, etc.) and teachers (principals, vice principals, etc.) who are barred from joining a trade union.

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- Jeong JY (2007) *Industrial Relations in Korea: Diversity and Dynamism of Korean Enterprise Unions from a Comparative Perspective*. London: Routledge.
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Kosovo

There are no official data that could accurately indicate the actual number of employees covered by collective agreements in force (**WCB**) or the collective bargaining coverage rates (**UnadjCov** or **AdjCov**) in Kosovo and consequently no statistics are reported in the OECD/AIAS/ICTWSS Database.

Latvia

The Latvian Trade Union Confederation (LBAS) collects data on the bargaining coverage through an annual survey of their member organisations. Hence, these figures do not cover all trade unions and as responses are voluntary and not verified, the reliability of data is not appropriate for international comparison. The number of employees covered by collective bargaining in force (**WCB**) in the OECD/AIAS ICTWSS database refers to this data source and is only reported as an indication, the collective bargaining coverage rates (**UnadjCov** and **AdjCov**) are then not derived from these figures.

The adjusted collective bargaining coverage rate (**AdjCov_s**), is based on the Latvian Structure of Earnings Survey (SES for the years 2006, 2010, 2014 and 2018) published by the Central Statistical Bureau of Latvia: http://data1.csb.gov.lv/pxweb/en/sociala/sociala_dsamaksa_dsamaksa_strukt_dsamaksa_strukt/DSS170.px/. and refers to the share of employees having a collective pay agreement (end of October) in enterprises with ten or more employees of all sectors excluding activities of households as employers and activities of extra-territorial organisations and bodies (Sections A to S of the Industry classification NACE Rev. 2).

Lithuania

There are no national data or surveys on collective (wage) bargaining coverage in Lithuania. According to expert evaluations, the overall collective (wage) bargaining coverage in Lithuania might be less than 15–20% (Blažienė et al, 2019), although the latter figure is too optimistic. Statistics Lithuania estimated the employer organisation density in the private sector at 16% (2016) and this would surely set the upper limit to bargaining coverage just as union density probably sets the lower limit.

For all these reasons, the number of employees covered by collective agreements in force (**WCB**) is estimated as equal to the net union membership (**NUM**) even if this estimation, according to the existing literature, may still be too high, as collective bargaining is virtually non-existing in the private sector.

Civil servants, whose employment terms are subject to collective bargaining but regulated by government decision are excluded from collective bargaining (**Wstat**) and their number is estimated as the number of employees in public administration (from the OECD Annual Labour Force statistics database).

For the years before 2010 estimate of the adjusted collective bargaining coverage rate (**AdjCov**) lie in the range of 10-15% (Ladó 2002; Eurofound, several years), and collective bargaining never took root in the private sector (Kohl and Platzer 2004).

References:

- Blažienė I., Kasiliauskas N. and Guobaitė-Kiršlienė R. (2019), Lithuania: will new legislation increase the role of social dialogue and collective bargaining?, in: Muller, Torsten, Vandaele, Kurt and Waddington, Jeremy (eds.) *Collective Bargaining in Europe*. ETUI, pp. 381-401. ISBN 9782874525148
- Ladó, M. (2002) *Industrial Relations in the Candidate Countries*. Dublin: EIRO, available online at: <http://www.eiro.eurofound.ie/2002/07/feature/TN0207102F.html>

Luxembourg

Survey data: The adjusted collective bargaining coverage rate (**AdjCov_s**) and the public and private sector coverage rates (**Covpub** and **Covpriv**) for the years 2010, 2014 and 2018, are based on the Structure of Earnings Survey (SES) published by STATEC (*Institut national de la statistique et des études économiques du Grand-Duché de Luxembourg*) and refers to the share of employees in enterprises where collective pay agreement (at firm or higher level) covers at least 50% of the employees in the local unit. This statistics refer to enterprises with ten or more employees of the non-agricultural sectors excluding activities of households as employers and activities of extra-territorial organisations and bodies (Sections B to S of the Industry classification NACE Rev. 2). Private sector coverage rate (**Covpriv**) in 2006 refer to the listed industries above excluding public administration and education.

Administrative data: For all other years, estimates are based on national and Eurofound sources (see: Thomas 2012; Thomas et al 2019).

The historical trend in the adjusted bargaining (or union) coverage rate (**AdjCov_hist**) refers to the administrative data before 2010 and to the estimations based on the Structure of Earnings Survey (SES) afterwards.

References:

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- Thomas A., Vassil Kirov V. and Patrick Thill P? (2019), Luxembourg: an instance of eroding stability?, in: Muller, Torsten, Vandaele, Kurt and Waddington, Jeremy (eds.) *Collective Bargaining in Europe*. ETUI, pp. 403-421. ISBN 9782874525148

Malta

All the indicators on collective bargaining coverage (**AdjCov**, **Covpub** and **Covpriv**) are based on estimates from various experts. For the years 1995-2007, estimates are from Baldacchino and Gatt (2009), who calculate coverage rates for the private sector based on detailed union data. For the year 2016, indicators have been extrapolated on the basis of the change in trade union density (**UD**) between 2007 and 2016.

The 2002 Industrial Relations Act restricts bargaining to unionised workplaces and it is thus likely that the collective bargaining coverage rate tracks the union density rate. Bargaining in the private sector is enterprise-based and there are no provisions to extend coverage beyond union membership.

References:

- Baldacchino G. and Gatt R. (2009) Thirteen years later: trade unions in the Maltese private sector revisited, *Bank of Valletta Review*, 40, 29–45.

Mexico

The number of employees covered by (new) collective wage agreements (**WCB_new**) and by collective wage agreements in force (**WCB**) are based on statistics published by the Ministry of Labour and Social Welfare (*Secretaría del Trabajo y Previsión Social* *Trabajadores*, STPS): http://www.stps.gob.mx/gobmx/estadisticas/302_0057.htm?verinfo=4.

The number of employees excluded from collective bargaining (**Wstat**) is not clearly stated by law and as a consequence, it is not possible to estimate the adjusted collective bargaining coverage rate (**AdjCov**).

The historical trend in the adjusted bargaining (or union) coverage rate (**AdjCov_hist**) for Mexico refers to the unadjusted collective bargaining coverage rate (**UnadjCov**).

Montenegro

There are no official data that could accurately indicate the actual number of employees covered by collective agreements in force (**WCB**) or the collective bargaining coverage rates (**UnadjCov** or **AdjCov**) in Montenegro and consequently no statistics are reported in the OECD/AIAS/ICTWSS Database. However, as indicated by Simović-Zvicer (2019), probably 50% of the employees are covered by collective agreements.

Reference:

- Simović-Zvicer V. (2019), Annual Review 2018 on Labour Relations and Social Dialogue in South East Europe: Montenegro, Friedrich-Ebert-Stiftung, www.fes-socialdialogue.org.

Netherlands

All indicators on the numbers of employees covered by new collective agreements (**WCB_new**), collective agreements in force (**WCB**) and employees covered by administrative extensions (**ExtE**) are based on data from collective agreements registered at the Ministry of Social Affairs and Employment (www.caominszw.nl/docs/pdf/), published since 1990 in the biannual *Rapportage CAO afspraken* (<https://www.rijksoverheid.nl/documenten/rapporten/2020/07/01/cao-afspraken-2019>).

Earlier statistics are based on CBS, “*Statistiek van de omvang en inhoud van CAO afspraken*”. The Hague: *Centraal Bureau voor de Statistiek*, biennial before 1970; *Praktijkblad voor de Medezeggenschap*, 1987, issue 11 for the years 1970 to 1985; and *Dienst Collectieve Arbeidsvoorwaarden*, Ministry of Social Affairs and Employment for the years 1985 to 1990.

It should be noticed that there is a small difference in treatment of collective agreements before and after 1990. From 1990 expired agreements are counted as valid agreements during the legal ‘after effect’ period of one year if they are not yet renewed. Before 1990 these agreements were kept five years on the record, but the difference is small, since renewal of agreements was in most years prompt (see also Korver 1993).

Until 1992, public service employees were excluded from collective bargaining (and even employees working in state-subsidised services in the private sector, like health and care workers, social services or even arts) due to limited negotiating rights and employment terms set by the government, usually after consultations. Therefore, the number of employees excluded from collective bargaining (**Wstat**) refers before 1992 to these employees based on data from the *Centraal Bureau voor de Statistiek*: ‘*werknemers in openbare dienst*’.

As a consequence, until 1992, the coverage rate in the private sector (**Covpriv**) and the adjusted coverage rate (**AdjCov**) are identical. After 1992, the coverage rates in public and private sectors are derived from the sectoral data reported in the Ministry report, suggesting that the sector of “social, personal and community services” has a coverage rate of 80-85 percent. On this basis it would be possible to estimate a public sector coverage rate (**Covpub**) ranging around 95 percent since all major sectors of the public

sector have a sectoral agreement covering all regular employees. Hence, the private sector coverage rate (**Covpriv**) is estimated using the number of employees covered by collective agreements (**WCB**) minus the estimated numbers of public sector employees (number of employees in the public administration, education and health sectors from the OECD Annual Labour Force Statistics database) covered by collective agreements and divided by the number of employees in the private sector.

Reference:

- Korver, T. (1993), The Netherlands, 'Labour market, labour contracts and collective bargaining', in: Hartog and Theeuwes (eds), Labour market contracts and institutions, a cross-national comparison, Amsterdam, Elsevier Science Publishers B.V.

New Zealand

Administrative data: for the years 1970 to 1980, statistics refer to coverage of awards only (Williams 1993; Ochel (2001); Harbridge 1993); 1985 to 1990 coverage based on awards and agreements, following the end of compulsory arbitration in 1984 (Harbridge 1993; Schwartz 2000); 1990 to 2015: statistics published by the Centre for Labour, Employment and Work (CLEW, <https://www.wgtn.ac.nz/clew>) of the Victoria University of Wellington.

Survey data: Since 2016, the number of employees covered by collective agreements in force (**WBS_s**), and the unadjusted and adjusted collective bargaining coverage rates (**UnadjCov_s** and **AdjCov_s**) derived from this figure, refer to the annual averages (based on quarterly data) of paid employees covered by a collective employment agreement in their main job based on the Household Labour Force Survey published by Stats NZ: Paid Employees by Type of Employment Agreement by Sex by Age Group (Quarterly) December 2020, <https://figure.nz/table/Vn7PZHBY8K6a9MJZ>. Figure in 2016 is the average of the last three quarters of the year (the question was asked for the first time in Q2 2016).

The historical trend in the adjusted bargaining (or union) coverage rate (**AdjCov_hist**) refers to the administrative data before 2016 and to the survey estimate afterwards resulting in a break in series.

Reference:

- Harbridge, Raymond. 1993. 'Bargaining and the ECA: an overview', in: R. Harbridge, ed. 1993. Employment Contracts: New Zealand experiences. Wellington: Victoria University Press, pp. 31-52.
- Ochel, W. (2001), "Collective Bargaining Coverage in the OECD from the 1960s to the 1990s", *CESifo Forum*, Vol. 2/4, pp. 62-65.
- Schwartz H (2000) Internationalization and Two Liberal Welfare States: Australia and New Zealand. In: Scharpf FW, Smidt VA (eds) Work and Welfare in the Open Economy. Oxford University Press, Oxford.
- Williams, Alan. 1993. 'New Zealand: From Legal Regulation to Legal Deregulation: 1968-1992', in: J. Hartog and J. Theeuwes, eds. Labour Market Constraints and Institutions. A cross-national comparison'. Amsterdam: North-Holland, pp. 115-150.

North Macedonia

The adjusted collective bargaining coverage rate (**AdjCov**) in North Macedonia is from the International Labour Organisation (ILO), Industrial Relations Data (IRData): https://www.ilo.org/global/docs/WCMS_408983/lang-en/index.htm.

Norway

The adjusted collective bargaining coverage rate (**AdjCov_s**) and the coverage rate in the private and public sectors (**Covpriv_s** and **Covpub_s**) since 1998 are from Kristine Nergaard, Organisasjonsgrader, tariffavtaledekning og arbeidskonflikter (various years), Oslo: FAFO (https://www.fafo.no/en/publications/item/organisasjonsgrader-tariffavtaledekning-og-arbeidskonflikter-2018-2019?category_id=20), based on estimates from the Norwegian Labour Force Survey (AKU) among employees aged 15-74.

Earlier estimates (before 1998) are from Ochel (2001) on the basis of estimates from Kristine Nergaard.

Reference:

- Ochel, W. (2001), "Collective Bargaining Coverage in the OECD from the 1960s to the 1990s", *CESifo Forum*, Vol. 2/4, pp. 62-65.

Poland

The numbers of employees covered by new collective agreements (**WCB_new**) and the number of employees covered by collective agreements in force (**WCB**) refer to administrative data on single-employer collective labour agreements (*zakładowy układ zbiorowy pracy*, SECA) published in the annual reports of the National Labour Inspectorate (*Państwowa Inspekcja Pracy* or PIP): <http://www.bip.pip.gov.pl/pl/bip/sprawozdania/#>. Hence, multi-employer collective labour agreements (*ponadzakładowy układ zbiorowy pracy*, MECA), for which no reliable data exist, are not accounted for in the collective bargaining coverage rates. However, SECAS represent by far the largest share of the collective bargaining in force in Poland (Czarzasty, 2019).

Civil servants are excluded from collective bargaining (**Wstat**) and employment terms are set by the government (labour code art 239 § 3). However, collective bargaining takes place in the public sector for other professional groups especially in education system and healthcare system. Therefore, the number of civil servants has been estimated by the number of employees in the public administration sector (Section O of the NACE Rev. 2) based on data from the OECD Annual Labour Force Statistics.

Reference:

- Czarzasty J. (2019), Collective bargaining in Poland: a near-death experience, in: Muller, Torsten, Vandaele, Kurt and Waddington, Jeremy (eds.) *Collective Bargaining in Europe*. ETUI, pp. 465-481. ISBN 9782874525148.

Portugal

Statistics on the numbers of employees covered by collective agreements in force (**WCB**) are based on data published since 1991 by the Office of Strategy and Planning (GEP) of the Ministry of Labour, Solidarity and Social Security (MTSSS) in the annual report: <http://www.gep.mtsss.gov.pt/web/gep/estatisticas-antiores?categoryId=11338>. DGERT derives its data from the *Quadros de Pessoal* which is the administrative register based on a census of all companies with 10 or more employees in the market sector, where among other questions they are asked to indicate how many employees are covered by collective agreements and extension ordinances. Participation in the survey is compulsory.

Statistics on the numbers of employees covered by new collective agreements (**WCB_new**) are published by the DGERT (*Direção-Geral do Emprego e das Relações de Trabalho*), Published Collective Labor Regulation Instruments (*Instrumentos de Regulamentação Coletiva de Trabalho Publicados*): <https://www.dgert.gov.pt/instrumentos-de-regulamentacao-coletiva-publicados>.

Employees in public administration, whose wages are subject to statutory regulation (after quasi-negotiations) are excluded from collective bargaining (**Wstat**). The statistics on public employment are

from the *Direção-Geral da Administração e do Emprego Público* (DGAEP), statistical summary of public employment (SIEP): <https://www.dgaep.gov.pt/index.cfm?OBJID=ECA5D4CB-42B8-4692-A96C-8AAD63010A54>.

Earlier estimates (1980-1990) are based on estimates from Traxler 1994; 1995 and Naumann 2012.

Reference:

- Reinhard Naumann (with Raquel Rego and Ana Cristina Pontes) 2012. 'Collectively agreed wages in Portugal: context, data and comments'. Background paper European policy conference 'Collectively agreed wages in Europe: Challenges in the statistical and political field', Convener Guy Van Guys, Louvain, 29 November 2012.

Romania

Until 2010, a “unique general national agreement” defined the minimum rates and levels for all subsequent negotiations at industry and company level for all employees. After 2010, the data are based on labour inspection figures as reported by Eurofound (<https://www.eurofound.europa.eu/country/romania#collective-bargaining>).

Russian Federation

The adjusted collective bargaining coverage rate (**AdjCov**) is from the International Labour Organisation (ILO), Industrial Relations Data (IRData): https://www.ilo.org/global/docs/WCMS_408983/lang--en/index.htm.

Serbia

The adjusted collective bargaining coverage rate (**AdjCov**) in 2010 is from the International Labour Organisation (ILO), Industrial Relations Data (IRData): https://www.ilo.org/global/docs/WCMS_408983/lang--en/index.htm. The figure reported in 2017 is derived from Gajic (2019) who report a public sector coverage rate (**Covpub**) at 60% and a private sector coverage rate (**Covpriv**) at 15%. The public sector representing around one third of total employees, the adjusted collective bargaining coverage rate (**AdjCov**) is then estimated at 30%.

It should be noted that, in Serbia, there are some exclusions or limitations to collective bargaining in both the private and public sector but it is unclear whether this requires adjustment (**Wstat**), since it is also unclear whether in that case statutory regulations apply. As a consequence the adjusted collective bargaining coverage rate (**AdjCov**) is probably underestimated.

Reference:

- Gajic D.P. (2019), Annual Review 2018 on Labour Relations and Social Dialogue in South East Europe: Serbia, Friedrich-Ebert-Stiftung, www.fes-socialdialogue.org

Slovak Republic

All the indicators on collective bargaining coverage (**AdjCov**, **Exte**, **Covpub** and **Covpriv**) are based on estimates from various experts. For the years 1999-2000, estimates are from Behrens and Traxler (2004), which have been recalculated by Prof. Jelle Visser, based on division between multi- and single-employer agreements. In 2004 estimates from Cziria 2005, based on division between private and public sector agreements. And for the years 2008-2015, estimates based on Eurofound reports and data derived from the European Company Surveys 2009 and 2015 considering the changes in extension policies.

Information on sectoral collective agreements (and their extensions or non-extension) are available in the biennial report on the social situation of the population published by the Ministry of Labour, Social Affairs and Family: <https://www.employment.gov.sk/en/analyses-statistics/>.

References:

- Behrens, M. and F. Traxler (2004), *Employers' organisations in Europe*, European Foundation for Improvement of Living and Working Conditions, Dublin.
- Cziria, L. 2005. Structure and development of collective bargaining in Slovak Republic. Background paper for the European Foundation. Dublin 2005

Slovenia

During the years 1991-2006; all employees are covered by sectoral or national collective agreements by virtue of compulsory organization of employers in Economic Chambers acting as employers' association and signatory to these agreements.

Estimates of the adjusted collective bargaining coverage (**AdjCov**) since 2010 are based on assessments from Stanojević of the University of Zagreb.

South Africa

All indicators (**WCB_s**, **UnadjCov_s**, **AdjCov_s**, **Covpub** and **Covpriv**) are based on annual average estimates from the Quarterly Labour Force Survey (QLFS) for employees aged 15 or more whose pay increases (salary increments) are determined by negotiation between union and employer or bargaining council or other sector bargaining arrangement.

Spain

All indicators on the numbers of employees covered by new collective agreements (**WCB_new**) and collective agreements in force (**WCB**) are based on data from registered collective agreements collected and published by the Ministry of Labour and Social Economy (MITES) in the annual bulletin on collective bargaining: <https://www.mites.gob.es/estadisticas/cct/welcome.htm>. The basic source is the "statistics sheet" completed by the bargaining commissions once the agreement is signed and sent to the Ministry when registering the agreement.

While collective bargaining for non-statutory public employees is governed by the labour legislation, employment terms of the statutory public employees are set by the government, usually after consultations. Hence, these workers are excluded from collective bargaining (**Wstat**) and their number is based on the number of career civil servants ("*Personal funcionario de Carrera*" including "*Otro personal*") as published since 2001 by the Ministry of Territorial Policy and Public Function (*Ministerio de Política Territorial y Función Pública*, MTFP) in the annual statistical bulletin: <https://www.mptfp.gob.es/portal/funcionpublica/funcion-publica/rcp/boletin.html>. Prior to 2001, this series has been estimated as 12% of the total number of employees (**WSEE**), based on the average share of statutory public employees in total employees in 2001-19. This estimate probably underestimates the adjusted collective bargaining coverage rate (**AdjCov**) in the years before 2000.

Sweden

Indicators on collective bargaining coverage rates (**UnadjCov**, **Adjcov**, **Covpub** and **Covpriv**) are based on estimations from Anders Kjellberg, Department of Sociology, Lund University, based on reports and data from employers, unions and the mediation authority: *Kollektivavtalens täckningsgrad samt organisationsgraden hos arbetsgivarförbund och fackförbund*, <https://portal.research.lu.se/portal/en/publications/kollektivavtalens-tackningsgrad-samt->

[organisationsgraden-hos-arbetsgivarfoerbund-och-fackfoerbund\(384bb031-c144-442b-a02b-44099819d605\).html](https://www.bfs.admin.ch/bfs/en/home/statistics/work-income/surveys/egs.assetdetail.351154.html). These indicators refer to employees (excluding those working abroad) aged 16-64 in 1995-2006 and aged 15-74 since 2007.

Switzerland

The numbers of employees covered by collective agreements in force (**WCB**) and extension (**ExtE**) are from the Survey on Collective Labour Agreements in Switzerland (SCLA, <https://www.bfs.admin.ch/bfs/en/home/statistics/work-income/surveys/egs.assetdetail.351154.html>) carried out by the Federal Statistical Office (FSO) every two years since 1994, collecting information from answers by both employers and unions signatory to the CLA or by the joint commission of the CLA if both parties agree to it. The figures reported in the database relate only to collective labour agreements with normative provisions (*GAV mit normativen Bestimmungen / CCT avec dispositions normatives*) in order to avoid double counting.

Estimates before 1994 are based on various national sources as Bonoli and Mach 2000 (for the years 1960-1985); Fluder 1998; and Oesch 2007.

For the period from 1991 to 1999, civil servants were excluded from collective bargaining (**Wstat**). This indicator is estimated by the number of employees from the Employment Statistics (ETS / SPAO) of the following economic sectors: public administration, national defence, social insurance; education; the communications sector; half of employees in the social and health sector; half of employees in land transport (rail traffic).

In 2001, the status of civil servants was replaced at federal level by the Federal Personnel Act also generating a development of collective agreements in the public sector. Civil servant status was also abolished in most cantons. As a result, from 2001 onwards, only employees working in (1) public administration, national defence, social insurance and (2) half of employees in education are still excluded from collective bargaining.

The turnaround in the coverage rate in 2001 is explained by the abolition of the civil servant status. This led to a sudden increase in the number of employees liable to be covered, without at the same time an increase in the number of negotiated collective agreements.

References:

- Bonoli G, Mach A (2000) Switzerland: Adjustment politics within institutional constraints. In: Scharpf FW, Smidt VA (eds.) *Work and Welfare in the Open Economy*. Oxford University Press, Oxford, pp 131–174.
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- Oesch, D. (2007) 'Weniger Koordination, mehr Markt? Kollektive Arbeitsbeziehungen und Neokorporatismus in der Schweiz seit 1990', *Swiss Political Science Review*, 13(3): 337–68.

Turkey

The numbers of employees covered by new collective agreements (**WCB_new**) signed annually (and broke down by sector) is from data on registered collective agreements collected and published by the General Directorate of Labour of the Ministry of Family, Labour and Social Services (MoFSS) in the annual labour Statistics bulletin: <https://www.ailevecalisma.gov.tr/tr-tr/istatistikler/calisma-hayati-istatistikleri/resmi-istatistik-programi/calisma-hayati-istatistikleri-kitabi/>.

In Turkey the duration of collective agreements ranges from one to a maximum of three years, but, in practice, almost all of the collective agreements are renewed on a two-year basis. Hence, the number of employees covered by collective agreements in force (**WCB**) is estimated with the methodology suggested

by Çelik and Lordoğlu (2006) by averaging over two years the number of employees covered by new collective agreements in a particular (**WCB_new**) as published by the MoFSS. The same estimation is applied on data by sector and used to estimate the coverage rates of the public and private sectors (**Covpub** and **Covpriv**).

Civil servants are excluded from collective bargaining due to limited negotiating rights and employment terms set by the government. Therefore, the number of employees excluded from collective bargaining (**Wstat**) refers to the number of civil servants based on public employment data published by the Presidency of Strategy and Budget (SSB): <https://www.sbb.gov.tr/kamu-istihdami/>. The same data source is used to estimate the public sector coverage rate (**Covpub**).

Reference:

- Çelik, Aziz and Kuvvet Lordoğlu (2006), “Türkiye’de Resmi Sendikalaşma İstatistiklerinin Sorunları”, Çalışma ve Toplum Dergisi, 9:11-30.

United Kingdom

Survey data: All indicators (**WCB_s**, **UnadjCov_s**, **AdjCov_s**, **Covpub_s** and **Covpriv_s**) since 1995 are from estimates based on Labour Force Survey data published by the Department for Business, Energy & Industrial Strategy (BEIS) in the Trade Union Membership, UK: Statistical Bulletin, <https://www.gov.uk/government/collections/trade-union-statistics>.

This statistics refer to a question asking whether the pay and conditions of employees are directly affected by an agreement between their employer and a trade union. This is presented as the proportion of employees affected by such an agreement were asked if there is “a collective agreement in effect in his or her workplace”.

Administrative data: Earlier estimates (1960-1994) are based on estimates from Brown (1993); Milward (1995) and Workplace Employment Relations Survey, various years.

The historical trend in the adjusted bargaining (or union) coverage rate (**AdjCov_hist**) refers to the administrative data before 1995 and to the estimations from the Labour Force Survey (LFS) afterwards.

Reference:

- Brown W. 1993. The Contraction of Collective Bargaining in Britain. *British Journal of Industrial Relations* 31:189-200.
- Milner, Simon. 1995 The Coverage of Collective Pay-setting Institutions in Britain, 1895-1990. *British Journal of Industrial Relations*, 33(1): 69-91.

United States

Survey data: All data since 1983 are based on union coverage statistics from the Current Population Survey (CPS) published by the Bureau of Labour Statistics, <https://www.bls.gov/news.release/union2.toc.htm>. In 1973-1981, data are from estimates based the May Current Population Survey (CPS); Union membership and Coverage Database at www.unionstats.com.

The unadjusted collective bargaining coverage rate (**UnadjCov_s**), for international comparison purposes, is estimated as the percentage of employees according to the International Classification of Status in Employment (ICSE-93) including incorporated self-employed. These workers are excluded from collective bargaining (**Wstat_s**) and from the estimation of the adjusted collective bargaining coverage rate (**AdjCov_s**).

Administrative data: Estimation of the adjusted collective bargaining coverage rate (**AdjCov**) in 1960-1972 based on backward extrapolation of the 1973-81 results, regressed on union density (administrative data, BLS and Troy and Sheflin 1985; Flanagan 1993).

The historical trend in the adjusted bargaining (or union) coverage rate (**AdjCov_hist**) refers to the administrative data before 1973 and to the estimations from the Current Population Survey (CPS) afterwards.

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