



Inventory of linked employer-employee surveys on working conditions and health and safety issues

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Working paper

INVENTORY OF LINKED EMPLOYER-EMPLOYEE SURVEYS ON WORKING CONDITIONS AND OCCUPATIONAL HEALTH AND SAFETY ISSUES

Milestone 21.9 of WP 21

Nathlie GREENAN & Majda SEGHIR



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This report constitutes Milestone 21.9 'Inventory of WC & OSH surveys', for Work Package 21 'Innovative tools and protocols for working conditions and vulnerability research' of the InGRID project.

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InGRID

Integrating expertise in inclusive growth

European policy-oriented research can and must deliver useful contributions to tackle the Europe 2020 challenges of Inclusive Growth. Key tools in this social sciences research are all types of data earning statistics, administrative social data, labour market data, surveys on quality of life or working conditions, policy indicators. The project aims to integrate and optimize these existing European data infrastructures and accompanying expertise.

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List of abbreviations

BMAS	Federal Ministry of Labour and Social Affairs
CBR	Canada Business Register
Céreq	The French Center of studies and research on qualifications
DADS	The annual declaration of social data
DARES	The research, studies and statistics coordination directorate of the Ministry for Employment.
DfEE	Department for Education and Employment
DGAFP	General Directorate of Administration and the Public Sector
DGLFLF	General Delegation for the French language and the languages of France
DREES	Directorate for Research, Studies, Evaluation and Statistics
IAB	Institute for Employment Research
IDBR	Inter-Departmental Business Register
INSEE	The French Institute of Statistics and Economic Studies
INED	The French National Institute for Demographic Studies
SIRENE	The French business register
SPOKE	Skills, Knowledge and Organisational Performance Research center
NIESR	The British National Institute of Economic and Social Research
Tekes	The Finnish Funding Agency for Innovation
ZEW	Center for European Economic Research

1. Introduction

As part of the European 2020 growth strategy, the InGrid project (Inclusive growth Research Infrastructure Diffusion)¹ aims to integrate and to innovate existing European Social sciences research infrastructures on “Poverty and Living Condition” and on “Working conditions and Vulnerability”. The project runs from February 2013 to January 2017 and involves 17 European research institutes. The objective is *(i)* to provide transnational data access, *(ii)* to organize mutual knowledge as well as *(iii)* to improve methods and tools for comparative research. As part of the Work Package 21 “Innovative tools and protocols for working conditions and vulnerability”, this paper is put forth to provide an overview of existing linked survey on working condition and on occupational safety and health across European countries. This paper is part of a series of survey inventories tied to working conditions: the first inventory focuses on individual (employee or employer) surveys while the second is devoted to policy data bases. This work focus is hence on linked surveys that connect the employer interview with the interview of his or her employees. Such surveys are considered as the richest framework to assess working conditions and more precisely to figure out how these conditions evolve with organisational changes.

The starting point of this inventory is the Meadow² (Measuring the Dynamics of Organisations and Work) project guidelines. This project was a European initiative to collect and harmonise data at the European level on organisational change and its economic and social impacts. The Meadow guidelines offer thus an overview of linked surveys as well as of the inherent methodological issues related to such surveys. The most valuable outcome of this project was to provide norms for the construction of linked surveys on organisational changes and work restructuring that may allow comparability at the European level. Relying on the linked surveys already identified in the Meadow guidelines; this inventory extends the search to more recent linked surveys and updates the work of the Meadow project;

1.1 Why a linked survey?

In the nineties we have witnessed the emergence of a consensus among policy makers regarding the importance of knowledge for wealth creation and the importance of innovation as an economic growth engine. The move is towards a knowledge-base economy where intense competition is the key for growth stimulus. In such an environment, firms should be adaptive and this may be possible by embracing new-technologies, re-organising their workforces, or resorting to downsizing, outsourcing or other elements of flexibility. These changes in the overall organisation must be accompanied by changes in management practices and also by adequate policy responses regarding education and training. From the employee side, this pressure may have negative effects on several aspects related to the quality of work or to the quality of working life. In fact, changes in the areas of technology adoption, organisational change, training patterns, business strategies and

¹ www.inclusivegrowth.be

² <http://meadow-project.eu/>

the overall pressure induced by a competitive environment have direct impacts on the organisation and quality of work. Indeed, typical outcomes at the employee' level are changes in job creation and security, in wage and wage inequality and in training to meet the new technological standards. More importantly, changes in the working environment may induce changes in the scope of occupational safety and health and consequently in workers' well-being and productivity.

In such a context, a unified work that takes into account the multidimensional aspects of work is necessary to address the connection between economic changes, how these changes translate into business strategies and into the labour market structure. From this perspective, linked surveys provide relevant information that can encompass the effects of organisational changes at the employer level as well as at the employee level. Hence, the first advantage of linked surveys is to supply data on the two levels. For example, employer-level information provides useful contextualisation to the description of work provided by employees, while employee-level information is relevant on topics that cannot be easily observed by an employer such as the nature of intrinsic reward or work-related stress. The second advantage is to allow a general understanding of labour market changes. Linked surveys develop a better setting to disentangle questions such as "How do companies implement new information technologies?", "What are the kinds of training associated with these changes?" or "What are the resulting types of organisational changes?" Such questions can hardly be addressed with surveys implemented at the individual level since a labour market change is an interconnection between the economic and institutional context, the employer and the employee. The final advantage is the policy relevance of the information gathered from such surveys. Indeed, a linked survey may be used to evaluate the policies and management practices of private and public employers. To sum up, linked surveys are an efficient and an adequate tool that allow a multidimensional analysis of the working conditions and occupational safety and health.

1.2 Aim and structure of the paper

The aim of this paper is to provide an overview of the existing linked surveys on working conditions and occupational health and safety. Using the examples of a number of linked surveys with different topics covered and different designs, the objective is to discuss the conceptual, methodological and analytical difficulties and options inherent to this kind of surveys.

The text begins with general background information on linked surveys. This section includes the definition of a linked framework, methodological issues in administrating linked surveys as well as an advantages/drawbacks analysis of each type of linked survey. This is followed by a review of existing surveys linking employers and employees with the constraint that the selected surveys should satisfy two conditions: (i) one or several components related to working conditions and occupational health and safety should be covered, (ii) sufficient information on the survey should be available. As a result of this review, a summary of linked surveys is presented and analysed throughout of the rest of the paper.

The next section comprises a detailed methodological analysis of each survey which covers the sampling methods, the sample design, the survey administration as well as the final size of each survey. Following this section is a presentation of the main purposes assigned to each survey and the different topics covered. The final section draws conclusions regarding the value of linked surveys in the assessment of working conditions.

2. Concept and definition of linked surveys

There are two possible methods for administrating linked surveys. The employer can be sampled first, while the employee is sampled later in a second stage (linked employer-employee survey). Conversely, in the linked employee-employer survey, the employee is sampled and interviewed first and the interviewed sample of employers is derived from this employee sample. These two different ways of linking are not equivalent in terms of advantages and drawbacks.

3.1. Linked employer-employee survey

2.1.1 Advantages

First, taking the employer as the primary sampling unit makes it easier to survey the various employees who are linked to it. A clustered sample is obtained, which is both easier and cheaper to administer than a simple random sample as fewer contacts are needed overall.

Second, in the absence of linked employer/employee registers, the unit which is sampled first will be easier to follow-up in the case of a longitudinal survey. Consequently, if employees are the primary sampling unit (PSU) it will be more difficult to obtain a panel of employer units.

Third, the representativeness of the sample of employers should be easier to guarantee in a setting where the employer is the PSU. As a matter of fact, in linked employer-employee surveys, the dispersion of sampling rates is always higher within the sample of the second-stage. There are also two sources of non-response bias in the second-stage sample. Both effects result in estimates with a higher variance (Ernst *et al.*, 1989). Moreover, at the employee-level there are already a number of longstanding employee surveys which are harmonised at the European level. Two well-known examples are the Community Labour Force Surveys (LFS) and the EWCS. Background statistics from such surveys would allow one to check the validity of estimates at the employee-level. At the employer-level, the knowledge base around harmonised surveys is not as solid as it is more recently, making the control of the sampling frame more critical.

Fourth, it seems obvious to explore the employer-level first in a survey focusing on organisational change, as it can be assumed that changes are more often initiated at the employer level than the employee level. Further, it is reasonable to begin by interviewing persons both in a position to have an understanding of the organisation as a whole and to impart this information. A more pragmatic argument is that in the field of work and organisation, most existing linked surveys at national level begin by surveying the employer.

2.1.2 Drawbacks

Taking the employer level as the focus of the first stage of sampling may lead to several practical difficulties. Currently the main difficulty is the absence of a European harmonised employer register. At the European level, no exhaustive and up-to-date database is available which includes: addresses of employer units (headquarters, subsidiaries, etc.); a classification of industries such as the NACE; and more generally the information that is required to stratify and optimise sampling rates. At the national level, business registers are used most of the time, but they do not always cover all sectors (the public sector for example). Moreover, the question of access rights to national employer databases (e.g. Official Statistical Registers and Chamber of Commerce) requires further examination.

Choosing the employer as the first interviewee can also result in a bias in the employee sample towards employees who are more satisfied with their employer or their work (social climate bias), if they are selected from a list given by the employer. Thus, even if employees are randomly selected from this list, it will be practically much more difficult to obtain a random sample of employees because the employers provide the sampling frame for the employee survey within their units. Three national level surveys, COI, LIAB and REPOSE obtain their second-stage samples of employees from linked employer/employee registers rather than from lists of employees given by participating employers. This is one solution to the potential problem of social climate bias, but it will not be easily applied at the European level or to other European countries due to the lack of this type of register in many countries as well as to privacy rules to consult the existing data.

3.2. Linked employee-employer survey

2.2.1 Advantages

First, in contrast to the situation in respect of employer databases, good quality household databases can be obtained in most European countries through the National Statistical Offices or other national institutions.

Second, there are fewer problems in guaranteeing the anonymity of surveyed employees with respect to their employer. Thus, two potential sources of sample non-randomness at the employer and at the employee level are removed.

Third, an employee-first approach allows to cover a very large field of employers (all kind of establishments, in all sectors, as well as the self-employed) in a way that does not depend upon the availability of a business register and the extent to which it is up-to-date.

Fourth, the sample of employers derived from a random sample of employees will be automatically proportionate to the size of employer units. The sample will reflect the employer unit's share in total employment and can be easily weighted to make it representative of the population of organisations (Leombruni, 2003). The US National Organizations Survey (NOS) carried out in 1991, which is to our knowledge the first nationwide linked survey of organisations, used a linked employee/employer method grounded in the General Social Survey (Smith et al., 2004). More recently the French DIFES and EFE surveys also used a linked employee/employer approach.

Fifth, when countries hold a business register, interviewed employees in the labour force survey are often asked the name and address of their employer. This information is then translated into a firm or business identifier which is used to enrich the survey with accurate indicators of the industry and size of the firm/establishment/workplace. Thus, in these countries, the basic infrastructure for a linked employee/employer survey is already in place. General access to these data is likely to be restricted. Therefore, it is important to investigate the conditions under which wider access could be obtained. To conduct such a survey would clearly require more extensive field testing to make certain that this type of linkage could feasibly provide nationally and cross-nationally representative samples of employers and of employees.

2.2.2 Drawbacks

Nevertheless, the employee-first option may lead to some specific difficulties. It is not necessary to review those difficulties which are simply the counterpart of the advantages of an employer-first approach, namely: the representativeness of the employer sample; difficulties in following up employers over time; and budget optimisation. Instead, we highlight the risk of attrition and bias because of the refusal or inability of some employees to provide good contact information about their employer. There is also the fact that the distribution of businesses in terms of size is skewed and thus it is difficult to reach very large employer units for which a census is generally conducted in employer level surveys. One possibility is to have a split frame, with a number of employer units reached through employees and other employer units targeted directly in order to capture important policy areas, such as multinationals or firms in the high tech or biotech sectors. A final disadvantage of the employee-first approach is that there will be only one worker interviewed in most of the employer units.

3. Comparison and overview of the surveys

4.1. Identification of surveys

Building on the linked surveys covered by the Meadow project, a search was performed to include other recent and planned linked surveys conducted in European countries. A total of 16 national surveys from 8 countries are included in this inventory along with one European survey (ESES) and one international survey (TALIS). The ESES is the first and unique initiative to conduct a European linked survey. The TALIS is an international survey that is concerned with a specific workplace, namely schools. Even if the country coverage of this inventory was initially planned to be the European countries, we allow for two exceptions: the Canadian Workplace and Employee Survey (WES) and the American National Organization study (NOS). It is important to keep in mind that this list of surveys is far from being exhaustive. Indeed, this inventory coverage is limited to linked surveys for which some French or English documentation is available.

Overall, we can notice that linked survey is not a widespread survey concept and few countries at both the European and the international level have carried out such surveys. This scarcity is probably due to the costs associated with the complexity of data collection that linked surveys entail. Table 1 lists the set of linked employer-employee surveys whereas Table 2 presents the set of linked employee-employer surveys. There are 18 linked surveys reported with one half being linked employer-employee surveys and the other half being linked employee-employer surveys. For each survey, the original name and the English translation are given as well as the acronym which will be used throughout this paper.

Table 1: employer-employee surveys

N°	Survey	Original name	Abbreviation	Country
1	The Organisational Change and ICT use survey	Changements Organisationnels et Informatisation	COI	France (FR)
2	The European Union Structure Of Earnings Survey	The European Union Structure Of Earnings Survey	ESES	European (EU)
3	Linked Employer-Employee Data from the IAB	Die Linked-Employer-Employee-Daten des IAB	LIAB	Germany (DE)
4	Survey on Professional relationships and business negotiations	Enquête Relations Professionnelles et Négociations d'Entreprise	REPONSE	France (FR)
5	Workplace Employee Relations survey	Workplace Employee Relations Survey	WERS	Great Britain (GB)

6	Teaching and learning international survey	Teaching and learning international survey	TALIS	International ³ (INT)
7	The Finnish MEADOW survey	The Finnish MEADOW survey	FMS	Finland (FI)
8	The Danish MEADOW survey	The Danish MEADOW survey	DMS	Denmark (DK)
9	Workplace and Employee Survey	Workplace and Employee Survey	WES	Canada (CA)
10	Linked personnel panel	Linked personnel panel	LPP	Germany (DE)
11	Technology use at Work and Innovative work practices	Technology use at Work and Innovative work practices	TWAIN	Luxembourg (LU)
12	Training and employee's trajectory survey	Dispositif d'enquêtes sur les formations et les itinéraires des salariés	DEFIS	France (FR)

Table 2: employee-employer surveys

N°	Survey	Original name	Abbreviation	Country
1	Linked employer/employee Survey device on continuing vocational training	Dispositif d'information sur la formation employeur-salarié	DIFES	France (FR)
2	British Skills Survey/Employer Perspectives Survey	British Skills Survey/Employer Perspectives Survey	BSS/EPS	United Kingdom (UK)
3	Family Employers Survey	Enquête famille employeurs	EFE	France (FR)
4	National Organization Study	National Organization Study	NOS	United States (US)
5	Working conditions survey	L'enquête conditions de travail	CT	France (FR)
6	Psychosocial Risk Survey	Enquête Risques psycho-sociaux	RPS	France(FR)

³ TALIS 2013, which is the last edition considered throughout this paper covers 34 countries of which 24 are OECD members.

The TALIS 2013 countries included: Abu Dhabi (United Arab Emirates), Alberta (Canada), Australia, Belgium (Flanders), Brazil, Bulgaria, Chile, Croatia, Cyprus, Czech Republic, Denmark, England (United Kingdom), Estonia, Finland, France, Iceland, Israel, Italy, Japan, Republic of Korea, Latvia, Malaysia, Mexico, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Singapore, Slovak Republic, Spain, Sweden and the United States.

4.2. Organisation and funding

Regarding the cost associated with linked survey realisation, each survey is funded by different sources but mainly by governmental institutions. The details about the organisation and the funding of each survey are provided in Table 3. For instance, most of the French linked surveys have benefited from grants of governmental institutions (such as DARES, DGAFP...). The British survey WERS have benefited from the support of a panel of sponsors which includes both government and independent institutions. The funding of the remaining surveys is a mix of grants from the national Statistical office in the case of the WES and ESES surveys or of subventions from private foundation in the case of the American NOS survey.

The cost related to linked surveys implementation could be seriously diminished in countries where linked employer-employee registers exist. In fact such registers allow for a better optimization of the existing surveys. For instance, the DIFES survey is the outcome of the coordination of two compulsory European surveys: the Adult Education Survey and the Continuing Vocational Training Survey. These two surveys are independent but were both used to create a linked survey. The funding institutions may also be involved in the implementation of the surveys as illustrated by the COI and the WES surveys. However, the surveys are usually carried out with the support of the national statistical office as illustrated by the DMS, the FMS and almost all the French surveys. The independent research organisations as well as the research institute are also involved in the surveys execution. For instance the LIAB survey was carried out by two independent research institutes namely the TNS Infratest Munich and the German Institute for Socio-economic Structural Analysis while the BSS/EPS survey was implemented by the British research institute of Skills, Knowledge and Organisational Performance (SKOPE) centre which is a research institute.

Table 3: Surveys organisation and funding

Country	Survey	Organised by/carried out by	Type ⁴
FR	COI	-CEE -DARES -INSEE -DRESS -DGAFP	Rg G S G G
EU	ESES	National statistical offices in European countries	S
DE	LIAB	-TNS Infratest Munich -SÖSTRA Institute Berlin (Institute for Socio-economic Structural Analysis) -IAB	Ra Ra Gf
FR	REPONSE	DARES	G

⁴ G=Governmental

Gf=Governmental funded institute/organisation

S=Statistical Office

R=Research institute

Rg=Governmental funded research institute/organisation

Ra=Academic/Independent research institute/organisation

UK	WERS	-Department for Business, Innovation and Skills -Economic and Social Research Council -UK Commission for Employment and Skills -Advisory, Conciliation and Arbitration Service - NIESR	G Rg Rg Rg Ra
INT	TALIS	-Organisation for Economic Cooperation and Development -The participants' government authorities, typically education ministries	Rg
FI	FMS	-Work research center -University of Tampere -Statistics Finland -Tekes	R Ra S Rg
DK	DMS	-Denmark's Statistics	S
CA	WES	-Statistics Canada	S
DE	LPP	-IAB -The university of Cologne -ZEW -BMAS	Gf Ra Ra G
LU	TWAIN	-Luxembourg Institute of Socio-Economic Research -Ministry of Social Security of Luxembourg	R G
FR	DEFIS	-Céreq	Gf
FR	DIFES	-INSEE -DARES -Céreq	S G Gf
UK	BSS/EPS	-SKOPE -DfEE	R G
FR	EFE	-INED -INSEE -DARES	S G
USA	NOS	-Henne Group -National Science Foundation -Alfred P. Sloan Foundation	Ra Ra Ra
FR	CT	-DARES -DRESS -DGAFP -INSEE	G G G S
FR	RPS	-DARES -DRESS -DGAFP -INSEE	G G G S

4.3. Time frequency

The various survey editions as well as their frequency are given in Table 4. The American NOS survey is the first linked survey and dates back to the early of 1990's. The NOS has been collecting data on organisational changes and their impact on working conditions, however the topics covered in each edition vary according to the specific objective assigned to each one. The WES has been collecting data on working life inside Canadian workplaces on a regular basis, and there are some other European countries with long-running and well established surveys such as France and Germany. The British survey WERS is another example of regular survey with 3 editions from its first inception in 1998. It is also the first survey with dual voice⁵. Considering the linked employee-employer surveys, the American NOS is the first initiative to collect data at the employee level and to link it to the corresponding employer. The survey has been organised already 4 times since the first edition of 1991. Contrary to the NOS survey, the others linked employee-employer surveys were conducted only once.

Table 4: survey editions

Country	Survey	1 st edition	Editions	Latest edition	Frequency
FR	COI	1997	1997 2006	2006	
EU	ESES	1995	1995 2002 2006 2010	2010	Every 4 years
DE	LIAB	2008	2008 2010	2010	
FR	REPOSE	1992-1993	1992-1993 1998-1999 2004-2005 2010-2011	2011	Every 6 years
UK	WERS	1998	1998 2004 2011	2011	
INT	TALIS	2008	2008 2013	2013	
FI	FMS	2012-2014	2012-2014	2012-2014	
DK	DMS	2012	2012	2012	
CA	WES	1999	1999 2000	2006	Annual

⁵ Dual voice refers to the fact that an employee representative is interviewed along with the employee and the employer.

			2001 2002 2003 2004 2005 2006		
DE	LPP	2012/2013	2012/2013	2012/2013	
LU	TWAIN	2013	2013	2013	
FR	DIFES	2006	2006	2006	Next edition 2012
UK	BSS/EPS	2002		2002	
FR	EFE	2007	2007	2007	
USA	NOS	1991	1991 1996 2002 2010	2010	
FR	CT	2013	2013	2013	
FR	RPS	2015-2016	2015-2016	2015-2016	
FR	DEFIS	2015			

4.4. Population coverage

As already mentioned in the second section of this paper, the primary sampling unit in the linked employer-employee surveys, is the employer while it is the employee in the linked employee-employer survey. Table 5 and Table 6 provide a detailed presentation of the population coverage in each survey.

A typical linked employer-employee survey collects data on a national sample of representative employers of the whole economy (including the public sector) whilst the employees are reached through the surveyed employers. The sampling unit could be the workplace, the establishment or the firm depending on the legal definition attributed to each sampling unit. In fact, at the exception of the workplace definition which is uniform across countries, the definition of the establishment or the firm vary according to the legal environment and the corporate governance system. The coverage of employer units is often restricted to workplaces with at least 10 employees. However some surveys, such as the LIAB, extend the coverage to all establishments with at least one employee covered by social security. Considering the employee coverage, we can notice some differences between the surveys. For example, the WERS and RESPONSE comprise an interview with the employee representatives in addition to the employee interview. The Finish MEADOW survey excludes employees who have worked less than 1.5 years in the employer unit in question. Therefore, a vast majority of temporary employees would not be interviewed. Conversely, the ESES covers all the employees that receive remuneration regardless of the duration of the contract and of the number of worked hours.

Table 5: survey coverage (employer-employee surveys)

Country	Survey	Territorial Scope	Economic activities	Sampled unit	Population COVERAGE	
					Employer	Employee
FR	COI	National	Private sector	Enterprises	Enterprises with at least 10 employees	Employees with at least one year of tenure
			Public sector	Establishments	Establishments with at least 9 employees	All employees
			Hospital sector	Establishments		All employees
EU	ESES	European	All defined in NACE Rev. 2 sections B to S. NACE Section O (Public administration and defence; compulsory social security) is optional, however covered by most countries.	Enterprises	Enterprises with at least 10 employees	All persons who have a direct employment contract with the enterprise or local unit and receive remuneration, irrespective of the type of work performed, the number of hours worked (full or part-time) and the duration of the contract (fixed or indefinite)
DE	LIAB	National	Private and public sectors	Establishments	Establishments with at least one employee covered by social security	-Employees covered by social security
FR	REPONSE	National	Private (excluding administrations and the agricultural sector)	Workplace	-Workplace with at least 11 employees -Dual voice	All employees
GB	WERS	National	All (excluding workplaces in agriculture, forestry, fishing, and mining and quarrying)	Workplaces	-Workplaces with 5 or more employees -Dual voice	-All employees
Int	TALIS	International	Education	School	Lower secondary schools	Teachers

FI	FMS	National	Public and Private sector	Employer units	Employer units with at least 10 employee	The sample excludes employees who have worked less than 1.5 years in the unit in question
DK	DMS	National	Private and public sectors	Workplace	Workplaces with more than 25 employees	Employees with at least 3 years of tenure
CA	WES	National	Public and Private sector	Workplaces	Workplaces with more than 1 employee	Employees working or on paid leave in March in the selected workplaces who receive a Canada Customs and Revenue Agency T-4 Supplementary form.
DE	LPP	National		Establishments	Establishments with more than 50 employees subject to social insurance contributions ⁶	Employees subject to social insurance contributions
LU	TWAIN	National	Private sector	Enterprises	Enterprises with at least 15 employees	Employees with at least 6 months of tenure (excluding temporary employees)
FR	DEFIS	National	Private sector	Enterprises		All employees

Now turning to the population coverage in employee-employer surveys, Table 6 provides details about the employee and the employer features. The basic sampling unit at the employee-level could be the household. For example: (i) in the EFE survey, which is concerned with work-life balance and has employees with young children as the target population, all employees aged 20 to 49 are interviewed; (ii) in the DIFES survey, only one employee aged between 18 and 64 per household is interviewed.

⁶ Exempted were establishments from the business sectors of agriculture, forestry and fishery, as well as civil service and charity organisations.

Table 6: survey coverage (employee-employer surveys)

Country	Survey	Territorial Scope	Economic activities	Sampling unit	Population coverage	
					Employee	Employer
FR	DIFES	National	Private sector	Household	Employees from the households interviewed for the LFS ⁷ survey in 2006	Firms with 10 employees and more
UK	BSS/EPS	National		Household		Establishments where the working individuals were employed
FR	EFE	National	Private and public sectors	Household	Employees aged between 20 to 49 in households from the population census	Establishments with at least 20 employees of the employees surveyed in the first degree
US	NOS	National	For-profit, non-profit, and public sector organizations	Organisations		Workplaces of full-time employed respondents to the 2008 General Social Survey (GSS)
FR	CT	National	Private and public sectors	Household		Establishments with at least 10 employees of the employees surveyed in the first degree
FR	RPS	National	Private and public sectors	Household		Establishment with at least 20 employees of the employees surveyed in the first degree

⁷ Labor Force Survey (LFS)

4. Survey Sample

The sampling strategy is a step by step procedure which begins by the identification of the target population and the sampling frame specification. After identification, the next step is the choice of adequate sampling method. The sample design is the final step.

4.1. Sampling frames

A prerequisite for any survey is a sampling frame that is defined as the list from which the potential respondents are drawn. The sampling frame must be representative of the target population to avoid potential error into survey statistics. Regarding the specific case of linked survey, a reliable sampling frame should contain sufficient information to identify each unit (employer or employee).

Linked employer-employee sampling frame

In the most straightforward case, the sampling frame is a linked employer-employee register. Some countries, such as France or some Scandinavian countries, have national registers that allow coordinating the employer and employee sampling. For instance, the French register, DADS (Déclaration annuelles de Données Sociales), contains the annual employer reports with the names and the earnings of all their employees. This register may be linked to the French business register, SIRENE (Système Informatique pour le Répertoire des Entreprises et des Etablissements), which facilitates a linked framework as experienced by the COI and REPONSE surveys. The LIAB and LPP surveys in Germany are also illustrative of the use of linked employer-employee register. Relying on such sampling frames allows the initiation of linked surveys in which the respondents from the primary sampling unit (*e.g.* the employer) are independent from the secondary sampling unit (in this case their employee). If such a register does not exist, an alternative approach is to rely on the national business register for the employer sampling and to ask for the employees list which will be used as a basis for employees sampling. This method is used by the WERS and WES surveys.

Linked employee-employer sampling frame

If the primary sampling unit is the employee, the sampling frame varies according to the employee register availability, or to the existence of a national register (census). The French DIFES ⁸survey uses the Labor Force Survey as sampling frame for the employees' selection while the BSS/EPS rely on a postcode address file to draw the sampled households. The employer section of the linked employee-employer surveys is mainly obtained by asking the interviewed employees the exact

⁸ The sampling frame of the DIFES survey is particular. In fact this survey is the result of the coordination of two surveys, namely the AES (Adult Education Survey) which represents the employee section of the DIFES survey and the CVTS (Continuing Vocational Training Survey) that is the employer section. The sampling frame of the employee section is the employees' household extracted from the Labour Force Survey. The sampling frame of the CVTS survey is also the Labour Force Survey in addition to the SIRENE register

information about their employer. In another vein, although similar to the sampling frame of linked employer-employees surveys, the American NOS survey relies on a social security register which provides information both on the employees and on their employers. The value of linked employer-employee national registers is thus as important when the employee is first sampled as when the employer is first sampled. In both cases, such registers facilitate the linkage.

4.2. Sampling method and sample design

Once the sampling frame has been chosen, the following step is to select the sampling method. Two approaches are usually used: (i) probability-based versus (ii) non-probability-based selections. In the probability-based samplings, all elements in the population have some opportunity to be included in the sample. Conversely, in the non-probability-based sampling, population elements are selected on the basis of their availability. The probability-based method is the most widely used sampling method in linked surveys. As a matter of fact, all the surveys reviewed in this paper rely on such a method.

The probability sample can be drawn from a population in several ways. The methods that are the most commonly used in linked surveys are simple random sampling or stratified random sampling. The simple random sampling results in an equal probability of selection for all elements in the population whereas the stratified random sample can be obtained by dividing the population into subpopulations, or strata and then drawing simple random samples from each stratum. Overall, the sample design depends on the PSU: if the employer is the PSU, the common sampling design is a stratified random sample; if the employee is the PSU, a simple random sample is the obvious design. Each case will be discussed separately.

Employer first approach:

The technique of stratification is useful when the employer is first sampled as it avoids having some underrepresented groups in the population. Variables used to stratify, usually describe:

- Economic activity: the COI, LIAB and WES use and industry stratification while REPONSE use a sectoral activity stratification
- Size: almost all the employer first sampled surveys use a size stratification to avoid the underrepresentation of large employer units.

The employees that constitute the second-stage sample in an employer first approach are usually selected in a random fashion from the list of employees provided by the employer (see Table 7).

Employee first approach:

The sample design is somewhat more straightforward under the employee-first approach and is often represented by a simple random sample. A multi-stage sampling is another possibility as demonstrated by the sampling strategy in the BSS and EFE. This technique is essentially the process of taking random samples of preceding random samples. The BSS provides an illustration of this method: in the first stage, a random sample of residential address is chosen throughout Britain. In each selected household one randomly-determined eligible individual was interviewed in the second stage.

Obtaining a linked sample under the employee-first approach is feasible in two ways. First, the interviewed employees can be asked at the end of the interview to provide contact information for their place of employment including business name, and telephone number as occurred in the BSS,

EFE or NOS. Then, the corresponding employers are interviewed in a second stage. Second, the employer section is obtained by matching the employee survey with an employer survey as illustrated by the DIFES survey. In this case, the sample design of the employer design may be a random sample or a multi-stage sample.

Table 7: sample design (employer-employee surveys)

Country	Survey		Sampling Frame	Sampling method
FR	COI	Employer	Official business register (SIRENE)	Stratified sample by size and industry from a business register
		Employee	Official Employee Register (DADS)	Random sample
EU	ESES	Employer		Random sample of enterprises
		Employee		Random sample within the selected enterprise
DE	LIAB	Employer	Social security register	Random sample, stratified according to establishment size, industry and federal state
		Employee	Social security register	All observations on employment and benefit receipt on the reference date June 30 th
FR	REPONSE	Employer	Official business register (SIRENE)	Random sample, stratified according to establishment size and sectoral activity
		Employee	Official employee Register (DADS)	Random sample of employees within the interviewed firms
GB	WERS	Employer	Inter-Departmental Business Register (IDBR)	Stratified sample
		Employee	Workplace employees list	Random sample
INT	TALIS	Employer		Random sample of schools
		Employee		Random sample from the selected schools
FI	FMS	Employer		Stratified sample
		Employee		Random sample from the selected units
DK	DMS	Employer		Stratified random sample
		Employee		Random sample
CA	WES	Employer	Official business register (CBR)	Stratified sample by industry, region and size from a business register

		Employee	Workplace employees list	Random sample from a list given by the employer
DE	LPP	Employer	IAB establishment panel	Stratified according to establishment size, industry and region.
		Employee	Employee history of the IAB (BeH ⁹)	Stratified according to establishment size
LU	TWIN	Employer		
		Employee		
FR	DEFIS	Employer	Official business register (SIRENE)	Random sample, stratified according to the enterprise size and the sectoral activity
		Employee	Official employee register DADS	Random sample, stratified according to the social group, the enterprise size and the sectoral activity

Table 8: sample design (employee-employer surveys)

Country	Survey		Sampling Frame	Sampling method
FR	DIFES	Employer	Labor Force Survey + Official business register (SIRENE)	Stratified random sample
		Employee	Households from the Labor Force survey	Random sample
UK	BSS/EPS	Employer	Employer identified by individuals	
		Employee	UK Postcode Address File	Multi-stage stratified random sample
FR	EFE	Employer	Establishments where the interviewed employees work	All the establishment with at least 20 employees of the employees surveyed in the first degree
		Employee	la population des ménages dits « ordinaires », c'est-à-dire non collectifs (dans l'échantillon maître de l'INSEE).	Random sample
USA	NOS	Employer	General Social Survey	
		Employee	General Social Survey	
FR	CT	Employer	Establishments where the interviewed employees work + DADS ¹⁰	
		Employee	Households from the population census	Random sample
FR	RPS	Employer	Establishments where the interviewed	

⁹ The BeH is part of the IEB (Integrated Employment Biographies)

¹⁰ The DADS register was used to identify the employers of the employees surveyed in the first stage and who did not provide sufficient information to identify their employer.

			employees work	
		Employee	Households from the population census	Random sample

4.3. Data collection

As the data collection methods are common to all surveys, this section surveys briefly these methods and Table 9 and Table 10 present the method adopted respectively in linked employer-employee surveys and in linked employee-employer surveys.

The data collection method in almost all of the surveys presented in the table use the face-to-face interviewing which is considered as the gold standard of survey interviewing even if it is the most expensive method. A cheaper alternative to this method is the telephone data collection under the time constraint that the questionnaire cannot last more than half an hour. Mail surveys or postal questionnaires which are filled in by respondents and then sent back to the investigator organism are a relatively cheap method of surveying a large sample with a wide dispersion. The response rate with such method is often low and this is a major disadvantage. Another alternative of data collection methods is web surveys or e-mail data collection. With a growing population having access to the Internet, this method has the advantage to be cheap and fast. However, there are still two major problems with this method. First, for broad population coverage, the sampling email addresses may be difficult to achieve and second, the response rate may be also low with this method. Additionally to these standard methods of data collection, combining different methods is an alternative option as illustrated by the employer-level data collection in the WERS survey. Table 9 and Table 10 present the method of data collection for each survey with a distinction between the data collection for the employer and data collection for the employee. The Tables also provide the average duration of each questionnaire as well as the number of questions when the information is available.

Table 9: Data collection (employer-employee surveys)

Country	Survey		Mode of data collection	Average duration	Number of questions
FR	COI	Employer	Mail questionnaire at the enterprise		44 questions for the companies 40 questions for the public sector 37 question for the hospital sector
		employee	Face to face interview at the enterprise or telephone	40 min for the main questionnaire ¹¹ and 15 min for secondary questionnaire	98 questions for main questionnaire and 37 for the secondary questionnaire
EU	ESES	Employer	Tailored questionnaires,		
		Employee	existing surveys, administrative		

¹¹ There are two employee questionnaires: (i) the main questionnaire involves employees still present in the company for which they were selected at the time of data collection; (ii) the secondary questionnaire is for employees who have left the company when they are interviewed.

			sources or a combination of such sources, which provide the equivalent information.		
DE	LIAB	Employer	Face to face		90 questions
		Employee			
FR	REPOSE	Employer	Face to face interview at the establishment	90 min	
		Employee	-Employee representative: face to face interview at the establishment -Employee: Mail questionnaires to the employee home address	1h for the employee representatives	
GB	WERS	Employer	Face to face at the establishment	90 min	
		Employee	-Employee representative: by telephone or face to face interview at the workplace -Employee: self-completion questionnaire that was distributed to the employees by a nominated person at the establishment	30min	
INT	TALIS	Employer	Self-administered paper and pencil or on-line completion	45-60 min	39 questions
		Employee	Self-administered paper and pencil or on-line completion	45-60 min	49 questions
FI	FMS	Employer	Telephone interviews		
		Employee			
DK	DMS	Employer	Mail questionnaire		
		Employee	Email questionnaire or telephone interview		
CA	WES	Employer	Face to face interview		
		Employee	Face to face interview at work or telephone		
DE	LPP	Employer	Face to face		82 questions
		Employee	Telephone interviews		
LU	TWIN	Employer	Mail questionnaires at the enterprise		
		Employee	On-line completion		

FR	DEFIS	Employer	Telephone interviews	25 min	
		Employee	Telephone interviews	30 min	

Table 10: Data collection (employee-employer surveys)

Country	Survey		Mode of data collection	Average duration	Number of questions
FR	DIFES	Employer	Telephone interviews or self-completion questionnaire	30 min	
		Employee	Face to face at the employee house		
UK	BSS/EPS	Employer	Mail questionnaire before telephone interview	27 min	
		Employee	Face-to-face interview	50 min	
FR	EFE	Employer	Mail questionnaire at the enterprise or on-line completion	8 pages	
		Employee	Face to face interview at the employee house	40 min	
USA	NOS	Employer	Telephone interview or mail questionnaire		
		Employee			
FR	CT	Employer	Mail questionnaire		60 questions
		Employee	Face to face interview at the employee house	45-60 min	
FR	RPS	Employer	Mail questionnaire		60 questions
		Employee	Face to face interview at the employee house	45-60 min	

4.4. Response rate and sample size

The response rate for a linked survey is the proportion of eligible employer and employees with whom interviews are completed. This rate is a function of how the respondents are contacted and to what extent the interviewer succeeded in gaining their cooperation. The response rate may also depend on the institutional setting. Table 11 gives the range of response rates corresponding to each survey as well as the net sample, at least when the information is available. The net sample and the response rate are not available for international surveys such as the ESES and the TALIS since these details are country specific. The response rate reported for the TALIS survey is the target rate for the sampled schools (75%) and the sampled teachers (75%). The response rate ranges from an upper level reached in the COI and WES surveys to a lower level obtained in the WERS survey. Regarding, the final net sample obtained, the wider coverage is achieved with the LIAB survey which succeeds at interviewing around 49844 employers and more than 10 million employees. Conversely, the smallest sample corresponds to the Danish MEADOW Survey (DMS) with a net sample of 617 employers and 3362 employees.

Table 11: net sample size (employer-employee surveys)

Country	Survey		Net sample size	Response rate
FR	COI	Employer	7,700	85%
		Employee	15,000	72%
EU	ESES	Employer		
		Employee		
DE	LIAB	Employer	49,844	
		Employee	10,314,524	
FR	REPOSE	Employer	4,023	61.7%
		Employee	-Employee representatives: 2,433	-Employee representatives: 76.6%
			-Employees: 11,350	-Employees: 33.9%
GB	WERS	Employer	2,680	46.5%
		Employee	-Employee representatives: 1,002	-Employee representatives: 63.9%
			-Employees: 21,981	-Employees: 54.3%
INT	TALIS	Employer	200 schools per country	75%
		Employee	2,250 teachers per country	75%
FI	FMS	Employer	1,531	76%
		Employee	1,711	
DK	DMS	Employer	617	31%
		Employee	3,362	37.2%
CA	WES	Employer	6,693	78%
		Employee	24,197	81%
DE	LPP	Employer	1,219	55%
		Employee	17,508	34.1%
LU	TWIN	Employer	2,800	
		Employee	60,000	
FR	DEFIS	Employer	6,600 ¹²	
		Employee	37,000 ¹³	

12 Targeted sample of enterprises

13 Targeted sample of employees

Table 12: net sample size (employee-employer surveys)

Country	Survey		Net sample size	Response rate
FR	DIFES	Employer	18,000	
		Employee	18,000	
UK	BSS/ EPS	Employer	1,114	
		Employee	4,470	
FR	EFE	Employer	2,673	75%
		Employee	3,050	67%
USA	NOS	Employer		
		Employee		
FR	CT	Employer	10,600	59.3%
		Employee	13,800	
FR	RPS	Employer	2,800	
		Employee	60,000	

5. Purpose of linked survey

5.1. Purpose of linked surveys

The overall aim of linked surveys is to explore all the issues concerning interactions between employer and employees. The main questions tackled in these surveys are: how much does organisation matter for working condition? How has technological change shaped the work organisation and the working conditions? How are important human resource development activities and strategies, or are they largely ignored by establishment? Finally, how the work organisation and job quality impact the employee's wellbeing? Most of these questions deal with the relationship between organisational conditions and changes on the one hand and with working conditions on the other hand. The surveys analysed throughout this paper deal with one or more of these questions as illustrated in Table 13.

For example, REPOSE and WERS surveys are designed to assess the employment relationship in France and United Kingdom respectively. However, both surveys comprise components related to organisational changes and to working conditions that may be used to reach others objectives. The COI survey focuses on the impact of organisational changes and their impact on the ICT's diffusion but the survey can also be used for an analysis of skills development as well as for management practices in firms. Therefore the objectives assigned to each survey may be somehow restrictive regarding the extended use that can be made with the data collected.

In another vein, the objective of some surveys is to allow for data comparability across countries regarding a specific topic. For example, ESES and TALIS are transnational surveys: the first one is a European survey while the second is an international one. ESES aims at collecting data on earnings and to link it to the characteristics of both the employer and the employee while TALIS offers a comparability of teachers working conditions across a broad range of countries. Next to these specific cases, the remaining surveys reported in Table 13 serve objectives such as assessing skills development and skills mismatch in the case of DIFES and BSS/EPS surveys, understanding the interaction between the family organisation and professional context in the EFE survey or exploring the psychosocial risk at the workplace in the CT survey.

Table 13: the surveys purpose

Country	Survey	Objectives
FR	COI	The survey aims at deepening the understanding of the way skills evolve when private firms and public administrations change their organisations or their equipment in Information and Communication Technologies. More precisely, the aim is to assess jointly the role of training, hiring and firing and outside contracting in the processes of skill development, taking into account interactions between employers and employees.
EU	ESES	The objective of this survey is to provide accurate and harmonised data on earnings in EU Member States, EFTA countries and Candidate Countries for policy-making and research purposes. The ESES gives detailed and comparable information on relationships between

		the level of remuneration, individual characteristics of employees (sex, age, occupation, length of service, highest educational level attained, etc.) and their employer (economic activity, size and location).
DE	LIAB	The objective is to allow for an analysis of the supply and demand sides of the German labour market. Among other things, the LIAB data have already been used in studies in gender-specific wage inequality, on individual-specific and company-specific determinants of failure to complete company vocational training, and on the effects of technological and organisational change on mobility.
FR	REPOSE	The aim of this survey is to provide photography of the French firm's social situation and working conditions. More precisely, the survey focuses on the labor management policy, the wage policies, the nature of employee representatives, bargaining, collective agreements, conflicts and the social climate perception.
GB	WERS	The objective is to map British employment relations over time; to inform policy and practice, and stimulate debate; and to provide a comprehensive and statistically robust dataset on British workplace employment relations for public use.
INT	TALIS	The objective of this survey is to shed light on the conditions of teaching and on the learning environments of schools in participating countries. More precisely, the survey aims at collecting information on teachers' professional development needs and on their pedagogical practices. Another objective is to assess the role of schools in fostering an effective teaching and learning environment as well as to explore the teachers' feeling of job satisfaction and self-efficacy.
FI	FMS	The first objective of this survey is to find out how developed the forms of organisations are, their management practices and ways of labour usage in various industries and sectors. The second objective is to evaluate how these practices are connected to the success of organization and to the well-being of employees.
DK	DMS	The objective of this survey is to unveil how employees from different positions experience their work and how work has changed in Denmark. A special focus is in the management relations, team relations, work relations well-being relation and competence relation.
CA	WES	The goal of this survey is to shed light on the relationships among competitiveness, innovation, technology use and human resource management on the employer side and technology use, training, job stability and earnings on the employee side.
DE	LPP	One of the objectives of this survey is to describe dissemination of modern human resource (HR) management instruments in Germany. The survey aims also to investigate causal relationships between the implementation of HR management approaches, the quality of work and the success of an establishment.
LU	TWAIN	The Luxembourg linked employer-employee survey is dedicated to the analysis of the relationships between the work environment offered by firms and the quality of work life perceived by employees.
FR	DEFIS	This surveys aims at collecting information on the employees' training practices and their effect on career development. More precisely, the survey objective is to link training practices both from the demand (employee) and supply (employer) sides, to work organisation and human resources. This linkage will allow an analysis of employment opportunities, external mobility or changes in the employee's professional activities at the light of the training practices in the enterprise.
FR	DIFES	The objective of this survey is to link on the characteristics of the employees and their training practices with the business strategy of the company, the organizational changes and with both the human resource and training policies. The survey aims to compare and to analyze the gap between the employees and employers statements about the 2004 law

		on continuing training. Topics in perspective concern in particular the employee's information, the organization of professional interviews and devices to collect training needs.
UK	BSS/EPS	The aim of this survey is to investigate the relationship between the characteristics of the establishments where people work and the skills needed in jobs as well as to increase understanding about the factors underlying employers' demand for skill in Britain. Other factors of interest concerned the roles of technology, of competition, and of several modern management practices, in influencing the skills requirements and skills gaps.
FR	EFE	The aim of this survey is to assess the work/life balance in France from the perspective of individuals and employers. The objective is to increase understanding about the interaction of the family organization and professional context and more precisely how the family commitment and personnel life are shaped by the workplace characteristics.
USA	NOS	This survey aimed to quantify domestic and international sourcing of United States private and public sector organizations.
FR	CT	This surveys aims at exploring two issues: (i) the link between psychosocial risks, work organisation and economic crisis, (ii) the employer evaluation of job strain
FR	RPS	

5.2. Topics covered

Although the initial focus of this paper is on surveys related to working conditions as well as on occupational health and safety, the topics covered by each survey expand these two concepts to encompass a broad range of topics related to employer-employee relationship. In fact, this is one of the advantages of linked surveys in comparison with individual surveys. Table 14 summarises the issues investigated in each survey with a distinction between themes covered at the employer level and the employee level.

Background information is systematically included in linked surveys with details about the employer and the employee. Regarding the employer level information, details concerning the establishment are also integrated – such as size or sector. Turning to the others topics covered, work organisation is an issue that can be covered at both the employer and employee levels, allowing for a comparison of work perception between employers and employees. This concept refers to how work is divided into job tasks, bundling of tasks into jobs and assignments, interaction between workers and how work is coordinated and evaluated. COI, CT and TALIS are examples of surveys where work organisation is covered from the employer side as well from the employee side.

At the employer level, the most surveyed concept is management practices which is covered in all the linked surveys. Collecting data on these practices provide information on how organisational changes are implemented and thus allow for a better understanding of changes in working conditions. Additionally to these recurrent topics in the employer's questionnaire, other themes are considered such as (i) the use of ICT in the COI, TALIS and WES surveys, (ii) training in almost all the surveys (iii) employment relations¹⁴ in the WERS and RESPONSE surveys.

At the employee level four major topics are usually included in the questionnaire: work organisation, employment security, wage and working conditions. With the exception of working conditions related topics, the remaining themes are covered unequally in the reported surveys.

¹⁴ The Employment relations topic covers the following indicators: (i) employment security approximated by the nature of the employment contract, (ii) human resources management which includes recruitment policies

Indeed, employment security is included in 4 out of 17 surveys whilst wages are considered in half of the considered surveys. Concerning the working conditions, the employee section from Table 14 presents six indicators related to this topic. The common indicators of working condition that are widely covered in linked surveys are: *(i)* working-time and work-life balance *(ii)* skills utilisation and development, and *(iii)* employee wellbeing.

5.3. Survey documentation

Table 15 summarise the survey documentation available for each survey covered in this paper. In order to acquire and to make use of the presented linked surveys, web links to the official website of each survey as well as links to the methodological report and the questionnaires are provided. Unfortunately, most of the documentation is available in the national language at the exception of the German Surveys where detailed methodological reports and questionnaire are available in English. This is also the case for the French COI survey where a short description of the survey is available and for the DMS survey where an English version of the survey questionnaire is available on the MEADOW website.

Tableau 14: Topics covered

Country	Survey	Employer section												Employee section								
		Background information	Governance	Organisational changes	Work organisation	Management practices	Use of ICTs	Training	employment relations	Others human resources	Background information	Work organisation	Employment security	Wage	Working conditions	Participation and control	Skills utilisation and development	Working-time and Work-life balance	Employment security	Employee wellbeing	Physical and psychosocial risk	
FR	COI	+		+	+	+	+	+			+	+		+	+		+	+				
EU	ESES	+				+					+		+	+	+				+			
DE	LIAB	+				+					+		+	+				+	+			
FR	REPOSE	+		+	+	+		+	+		+			+	+			+		+	+	
GB	WERS	+		+	+	+		+	+		+			+	+			+		+		
INT	TALIS	+			+	+	+				+	+		+		+	+	+		+		
FI	FMS	+		+	+	+					+									+		
DK	DMS	+		+	+	+		+			+	+	+			+	+		+	+		
CA	WES	+			+	+	+	+	+	+	+			+		+	+	+				
DE	LPP	+				+				+	+				+							
LU	TWAIN	+		+		+	+				+	+			+			+				
FR	DEFIS	+		+	+	+		+		+	+	+	+				+		+			
FR	DIFES	+		+		+		+			+						+					
UK	BSS/EPS	+			+	+		+			+	+		+			+					
FR	EFE	+		+		+				+	+	+	+	+	+	+		+	+	+	+	
USA	NOS	+	+	+	+	+					+											
FR	CT	+			+	+	+		+		+	+			+			+			+	
FR	RPS	+			+	+	+		+		+	+			+			+			+	

Table 15: Documentation of surveys

Country	Survey	Website	Publications and report	Questionnaire	Data availability
FR	COI	http://enquetecoi.net/index.php?option=com_content&view=article&id=101&Itemid=119	http://enquetecoi.net/index.php?option=com_wrapper&view=wrapper&Itemid=113	http://enquetecoi.net/index.php?option=com_content&view=article&id=74&Itemid=111	
EU	ESES	http://ec.europa.eu/eurostat/cache/metadata/en/earn_ses2010_esms.htm#stat_process1418758198784	https://circabc.europa.eu/sd/a/d3d067c9-49b5-40b7-8556-b2f23b952add/SES2010%20Implementation%20arrangements-final%2024.11.2010.pdf		Available via Eurostat website
DE	LIAB	http://fdz.iab.de/en/Integrated_Establishment_and_Individual_Data/LIAB/Outline/Cross-sectional_Model2.aspx	http://doku.iab.de/fdz/reporte/2013/DR_02-13_EN.pdf	http://fdz.iab.de/en/FDZ_Establishment_Data/IAB_Establishment_Panel/IAB_Establishment_Panel_Working_Tools.aspx	Submit an application to the Research Data Centre (FDZ).
FR	REPONSE	http://travail-emploi.gouv.fr/etudes-recherches-statistiques-de,76/statistiques,78/rerelations-professionnelles,85/les-enquetes-relations,280/	http://travail-emploi.gouv.fr/IMG/pdf/Presentation_detaillee_de_REPONSE_2010-2011.pdf	http://travail-emploi.gouv.fr/IMG/pdf/REPONSE20102011_direction.pdf http://travail-emploi.gouv.fr/IMG/pdf/REPONSE20102011_representant_personnel.pdf http://travail-emploi.gouv.fr/IMG/pdf/REPONSE20102011_salaries.pdf	
GB	WERS	http://www.wers2011.info/	http://doc.ukdataservice.ac.uk/doc/7226/mrdoc/pdf/7226_the_design_and_administration_of_the_2011_wers_5_august_2013.pdf	http://doc.ukdataservice.ac.uk/doc/7226/mrdoc/pdf/7226_wers6_employee_profile_questionnaire_december_2010.pdf	

				http://doc.ukdataservice.ac.uk/doc/7226/mrdoc/pdf/7226_wers6_management_questionnaire_2011_4_december_2012.pdf http://doc.ukdataservice.ac.uk/doc/7226/mrdoc/pdf/7226_wers6_worker_representative_questionnaire_2011.pdf	
INT	TALIS	http://www.oecd.org/edu/school/talis.htm http://www.oecd.org/edu/school/talis-publications-and-documents.htm	http://www.oecd.org/edu/school/TALIS-technical-report-2013.pdf	http://www.oecd.org/edu/school/Questionnaires%20TALIS%202013.pdf	Available via Eurostat website
FI	FMS	http://meadow-project.eu/project-follow-ups/finnish-survey.html	http://www.tekes.fi/globalassets/julkaisut/innovativeness_in_finnish_workplaces.pdf		Not available
DK	DMS	http://meadow-project.eu/project-follow-ups/danish-survey.html	http://meadow-project.eu/images/pdf-25-11-2014/organizational-dynamics-and-innovation-capabilities-in-denmark.pdf	http://meadow-project.eu/images/pdf-25-11-2014/danish-meadow-employer-survey-questionnaire-2012.pdf	Not available
CA	WES	http://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=2615	http://www23.statcan.gc.ca/imdb-bmdi/document/2615_D2_T9_V1-eng.pdf	http://www23.statcan.gc.ca/imdb-bmdi/instrument/2615_Q2_V7-eng.pdf http://www23.statcan.gc.ca/imdb-bmdi/instrument/2615_Q1_V7-eng.pdf	Available
DE	LPP	http://fdz.iab.de/en/Integrated_Establishment_and_Individual_Data/lpp/outline.aspx	http://fdz.iab.de/en/Integrated_Establishment_and_Individual_Data/lpp/Working_Tools.aspx	http://fdz.iab.de/en/Integrated_Establishment_and_Individual_Data/lpp/Working_Tools.aspx	Upon request
LU	TWAIN				Not available

FR	DEFIS	http://www.cnis.fr/cms/Accueil/enquetes/Outil_de_recherche_des_enquetes?enquete=OPE-CEREQ-DEFIS-15-W&critere=serviceProducteur&valeur=ORG-CEREQ-15-W			Not yet performed
FR	DIFES	http://www.cereq.fr/index.php/sous-themes/Enquetes-FC/Le-Dispositif-d-information-sur-la-formation-employeur-salarie-DIFES			
UK	BSS/EPS	http://discover.ukdataservice.ac.uk/catalogue?sn=4972	http://www.voced.edu.au/content/ngv22282	http://doc.ukdataservice.ac.uk/doc/7467/mrdoc/pdf/7467_skills_survey_2001_questionnaire.pdf	
FR	EFE	https://efe.web.ined.fr/	http://www.ined.fr/fichier/s_rubrique/19495/143.fr.pdf	https://efe.web.ined.fr/questionnaires.htm	
USA	NOS	http://www.icpsr.umich.edu/icpsrweb/ICPSR/studies/35011	http://www.irle.berkeley.edu/workingpapers/156-13.pdf	http://www.icpsr.umich.edu/icpsrweb/ICPSR/studies/35011	Available
FR	CT	http://travail-emploi.gouv.fr/etudes-recherches-statistiques-de,76/statistiques,78/conditions-de-travail-et-sante,80/les-enquetes-conditions-de-travail,2000/l-enquete-conditions-de-travail,2222/l-enquete-conditions-de-travail,15724.html	http://travail-emploi.gouv.fr/IMG/pdf/Presentation_detaillee_de_l_enquete_CT_2013.pdf	http://travail-emploi.gouv.fr/IMG/pdf/Questionnaire_personnes_en_emploi.pdf http://travail-emploi.gouv.fr/IMG/pdf/Questionnaire_Fonction_publique.pdf	
FR	RPS	http://www.cnis.fr/cms/Accueil/enquetes/Outil_de_recherche_des_enquetes?numeroVisa=2015X073TV			Not yet performed

6. Conclusions

This paper has set out the findings of a review of linked surveys within the frame of the InGrid Project. The general objective of this project is to integrate, harmonize and optimize existing tools and methods on 'Poverty and living conditions' and 'Working conditions and vulnerability'. The starting task in the Work Package 21 is to do, on the one hand, inventories of both individual and linked surveys and inventory of policy data bases on the other hand. This paper focus was on linked surveys that cover topics related to working conditions as well as occupational health and safety issues.

As already mentioned, this inventory is far from being exhaustive¹⁵ and a number of general points emerge that are worth highlighting. Firstly, while linked surveys are considered as the richest framework to study interaction between employer and employees, the concept is not widespread. In fact, even though some countries have a long tradition in performing such surveys, few surveys are carried out on a regular basis at the European level. Regarding the European ambition of data comparability across countries, this is possible only with one survey, namely the ESES surveys which is conducted in all the European countries. However, we should notice the MEADOW project contribution to overcome the scarcity of such surveys by setting out guidelines to collect and interpret information from linked surveys. The DMS and FMS are examples of linked surveys based on these guidelines.

Secondly, the time frequency of mostly all the performed linked survey does not allow for comparability over time. In fact, more than half of the reported surveys in this paper were performed only one time. The information gathered is thus close to photography of the relationship between employer and employee but it is far from taking account the change dynamics as well as their impact on job interaction. More importantly and considering the major topics considered in this paper; namely working conditions and occupational health and safety issues; regular surveys can be regarded as the best follow up of changes in working conditions.

Finally and with respect to the InGrid project objectives, the enhancement of data comparability across European countries as well as the optimization of existing surveys require a better visibility and access to data. The first requirement is the availability of an English version of the survey description to allow a better dissemination. In fact, and as experienced with data collection for this inventory, the survey documentation in many countries is available only in the national language. The benefit from such surveys may be thus restricted to the national level.

¹⁵ Reminder: this inventory coverage is limited to linked surveys for which some French or English documentation is available.

Appendix: Main sources by survey

1. The Organisational Change and ICT use survey (COI)

Websites http://enquetecoi.net/index.php?option=com_content&view=article&id=101&Itemid=119

2. The European Union Structure of Earnings Surveys (ESES)

Websites http://ec.europa.eu/eurostat/cache/metadata/en/earn_ses2010_esms.htm

3. Linked Employer-Employee data from the IAB (LIAB)

Heining, Scholz and Seth, (2013) Linked Employer-Employee Data from the IAB: LIAB Cross-sectional Model 2 1993-2010. FDZ report.

Websites http://fdz.iab.de/en/Integrated_Establishment_and_Individual_Data/LIAB/Outline/Cross-sectional_Model2.aspx

4. Survey on Professional Relationships and Business Negotiation (REPONSE)

Websites <http://travail-emploi.gouv.fr/etudes-recherches-statistiques-de,76/statistiques,78/rerelations-professionnelles,85/les-enquetes-relations,280/1-enquete-reponse-2010-2011,17939.html>

5. Workplace Employee Relations Survey (WERS)

Websites <http://www.wers2011.info/about-wers-2011/4587717620>

6. Teaching and Learning International Survey (TALIS)

OECD,(2013) TALIS 2013 Technical report.

Websites <http://www.oecd.org/edu/school/talis.htm>

7. The Finish MEADOW Survey (FMS)

Interviewed person Tuomo Aloisini, Chief Adviser at Tekes

Websites <http://meadow-project.eu/project-follow-ups/finnish-survey.html>

8. The Danish MEADOW Survey (DMS)

Interviewed person Peter Nielsen, Associate Professor at Aalborg University

9. Workplace and Employee Survey (WES)

Krebs H., Patak Z., Picot G. and Wannell T, (1999) The Development and Use of a Canadian Linked Employer-Employee Survey, in Haltiwanger J. C., Lane J. R., Spletzer J. R., Theeuwes J. M. and Troske K. R. (eds), The Creation and Analysis of Employer-Employee Matched Data, Elsevier Science.

Websites <http://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=2615>

10. Linked Personnel Panel (LPP)

Broszeit, S. and Wolter, S. (2015) LPP - Linked Personnel Panel – Quality of work and economic success: longitudinal study in German establishments (data documentation on the first wave), FDZ-Datenreport 01/2015

Websites http://fdz.iab.de/en/Integrated_Establishment_and_Individual_Data/lpp/outline.aspx

11. Technology use at Work and Innovative Work Practices (TWIN)

Interviewed person: Ludivine MARTIN, research fellow at CEPS/INSTEAD (Luxembourg)

Websites <http://www.fnr.lu/en/content/view/full/7555>

12. Linked employer-employee Survey Device on Continuing Training (DEFIS)

Websites http://www.cnis.fr/cms/Accueil/enquetes/Outil_de_recherche_des_enquetes?enquete=OPE-CEREQ-DEFIS-15-W&critere=serviceProducteur&valeur=ORG-CEREQ-15-W

13. Linked Employee-Employer Survey Device on Continuing Vocational Training Surveys (DIFES)

Websites <http://www.cereq.fr/index.php/sous-themes/Enquetes-FC/Le-Dispositif-d-information-sur-la-formation-employeur-salarie-DIFES>

14. British Skills Survey/Employer Perspectives Survey (BSS/EPS)

Green, F., Mayhew, K. and Molloy, E. (2003) Employer Perspectives Survey, Nottingham: Department for Education and Skills.

15. Family Employer Survey (EFE)

Websites <https://efe.web.ined.fr/>

16. National Organisation Survey (NOS)

Brown, C. and Sturgeon, T. (2010) National Organizations Survey, 2010: Examining the Relationships Between Job Quality and the Domestic and International Sourcing of Business Functions by United States Organizations, ICPSR 35011

17. Working Conditions Survey (CT)

Websites <http://travail-emploi.gouv.fr/etudes-recherches-statistiques-de,76/statistiques,78/conditions-de-travail-et-sante,80/les-enquetes-conditions-de-travail,2000/1-enquete-conditions-de-travail,2222/1-enquete-conditions-de-travail,15724.html>

18. Psychosocial Risk Survey (RPS)

Websites http://www.cnis.fr/cms/Accueil/enquetes/Outil_de_recherche_des_enquetes?numeroVisa=2015X073TV

Bibliography

Broszeit, S. and Wolter, S. (2015), *LPP - Linked Personnel Panel – Quality of work and economic success: longitudinal study in German establishments (data documentation on the first wave)*, FDZ-Datenreport 01/2015.

Brown, C. and Sturgeon, T. (2010), *National Organizations Survey, 2010: Examining the Relationships Between Job Quality and the Domestic and International Sourcing of Business Functions by United States Organizations*, ICPSR 35011

Ernst, L., (1989), *Weighting issues for longitudinal household and family estimates*, in Kasprzyk D., Duncan G., Kalton G. et Singh M.-P. (eds), *Panel Surveys*, New York : John Wiley & Sons, Inc., pp. 135-159.
Green, F., Mayhew, K. and Molloy, E. (2003), *Employer Perspectives Survey*, Nottingham: Department for Education and Skills.

Heining, J., Scholz, T. and Seth, S. (2013), *Linked-Employer-Employee data from the IAB: LLAB cross-sectional model 2 1993-2010 (LLAB QM2 9310)*, FDZ-Datenreport 02/2013F.

Krebs H., Patak Z., Picot G. and Wannell T, (1999), *The Development and Use of a Canadian Linked Employer-Employee Survey*, in Haltiwanger J. C., Lane J. R., Spletzer J. R., Theeuwes J. M. and Troske K. R. (eds), *The Creation and Analysis of Employer-Employee Matched Data*, Elsevier Science.

Leombruni R., (2003), *Firm Data Analysis in Linked Employer-Employees Datasets*, Laboratorio R. Revelli Working paper series N°27.

Smith, T. W., Kalleberg A. L., and Marsden P. V., (2004), *National Organizations Survey (NOS) 2002*, [Computer file]. ICPSR04074-v1. Chicago, IL: National Opinion Research Center (NORC) [producer], 2003. Ann Arbor, MI: Inter-university Consortium for Political and Social Research, [distributor].

InGRID

Inclusive Growth Research Infrastructure Diffusion

Referring to the EU2020-ambition of Inclusive Growth, the general objectives of InGRID – Inclusive Growth Research Infrastructure Diffusion – are to integrate and to innovate existing, but distributed European social sciences research infrastructures on ‘Poverty and Living Conditions’ and ‘Working Conditions and Vulnerability’ by providing transnational data access, organising mutual knowledge exchange activities and improving methods and tools for comparative research. This integration will provide the related European scientific community with new and better opportunities to fulfil its key role in the development of evidence-based European policies for Inclusive Growth. In this regard specific attention is paid to a better measurement of related state policies, to high-performance statistical quality management, and to dissemination/outreach activities with the broader stakeholder community-of-interest, including European politics, civil society and statistical system.

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More detailed information is available on the website: www.inclusivegrowth.be

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Inclusive Growth Research
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Contract No 312691

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