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Measuring and Assessing Job Quality: The OECD Job Quality Framework

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OECD SOCIAL, EMPLOYMENT AND MIGRATION WORKING PAPERS NO. 174

Measuring and Assessing Job Quality: the OECD Job Quality Framework

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This paper has been produced with the financial and substantive assistance of the European Union, as part of the OECD project "Defining, Measuring and Assessing Job quality and its Links to Labour Market Performance and Well Being" [VS/2013/0108 (SI2.666737)]. The contents of this paper are the sole responsibility of the OECD and can in no way be taken to reflect the views of the European Union. This project is a joint undertaking between the OECD Directorate for Employment, Labour and Social Affairs and the OECD Statistics Directorate.

The paper draws on Chapter 3 of *OECD Employment Outlook 2014* and Chapter 5 of *OECD Employment Outlook 2015* and extends the analysis to a broader range of countries; it also describes the link of the OECD Job Quality Framework to the broader well-being agenda pursued by the OECD and discusses measurement choices and indicators selected. The authors are grateful to Martine Durand, Stefano Scarpetta, Mark Keese and Marco Mira d' Ercole for their guidance and useful suggestions. They also thank Paolo Falco, Andrea Garnero, Hande Inanc, Christine Le Thi, Pascal Marianna, Sébastien Martin and Balint Menyhert, for their generous contributions and comments.

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SUMMARY

This paper presents the OECD Framework for Measuring and Assessing Job Quality developed jointly by the Employment, Labour and Social Affairs Directorate and the Statistics Directorate of the OECD as part of a broader EU-supported project[1] and describes its links to the broader well-being agenda pursued by the OECD. The approach to job quality taken is explicitly multi-dimensional and defined in terms of earnings quality, labour market security and quality of working environment. The paper then discusses measurement choices and indicators selected for each of the three dimensions of job quality, highlighting the main limitations on the data front. Finally, the paper documents job quality across OECD and non OECD countries as well as across socio-economic groups for which data are available.

RESUMÉ

Ce document présente le nouveau cadre de mesure et d'évaluation de la qualité de l'emploi, développé conjointement par la Direction de l'Emploi, du Travail et des Affaires Sociales et la Direction des Statistiques de l'OCDE. Ce travail s'inscrit dans un projet plus large sur la qualité de l'emploi, financé par l'Union Européenne. La qualité de l'emploi y est décrite en relation avec l'agenda plus global de l'OCDE sur le bien-être. L'approche choisie pour définir la qualité de l'emploi est explicitement multidimensionnelle et retient la qualité des revenus du travail, la sécurité sur le marché du travail et la qualité de l'environnement professionnel comme les trois dimensions fondamentales. Le papier discute ensuite les choix méthodologiques et les indicateurs proposés dans le cadre de mesure, en en soulignant les possibles limites. Enfin, le papier présente un portrait statistique de la qualité de l'emploi, entre pays (OCDE et non OCDE) mais aussi par groupes sociodémographiques.

1. This OECD project on "Defining, Measuring and Assessing Job Quality and its Links to Labour Market Performance and Well-being" was launched in October 2013 (VS/2013/0108 5SI2.666737).

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INTRODUCTION

1. Having a job is an important determinant of people's well-being while, conversely, unemployment is widely recognised as a source of distress, as is holding a precarious job. At a time where the world economy is yet to fully recover from the financial crisis, job creation remains a primary concern for policy makers in many countries. However, focusing exclusively on *how many* jobs an economy generates provides only a partial perspective on the challenge confronting policy makers, since people's well-being depends crucially on *how good* their jobs are. Job quality is not only a key determinant of the well-being of individuals and of the households in which they live (an *end* in its own right), but can also be an important driver of increased labour force participation, productivity and aggregate economic performance (a *means* towards better economic performance). Hence, when assessing how policy and institutions can promote job-rich economic growth, it is important to look at both the quantity and quality of the jobs created.

2. Indeed, the notion of "job quality" figures prominently in the international policy debate, as witnessed by the G20 Labour Ministers Declaration at their meeting in Ankara on 3-4 September 2015, where they declared that *"Quality jobs are important as a key driver of greater well-being for individuals and society*" and endorsed the Job Quality framework developed by the OECD. Furthermore, the G20 Labour Minister's commitment to "*improving job quality along three dimensions, namely promoting the quality of earnings, reducing labour market insecurity and promoting good working conditions and a healthy society*" has been brought to the G20 Leaders Summit in Antalya on 15-16 November 2015. Job quality also relates closely to the SDG agenda endorsed recently by the UN system, notably in terms of its contribution to foster inclusive growth and decent work.[2] The notion of "job quality" is also part of the broader well-being agenda pursued by the OECD through its *Better Life Initiative*, as a critical dimension shaping people's well-being in the work place (OECD, 2013), and highly relevant to the Inclusive Growth agenda (OECD, 2015)

3. In recent years, substantial progress has been made with respect to the definition and measurement of both job quality, fostered by a strong political commitment to better account for broad well-being outcomes when assessing economic progress. Job quality has attracted increasing interest in academic, statistical and policy circles, and various measurement frameworks have been developed over the last decade by international organisations, such as the ILO "Manual on Concepts and Definitions of Decent Work Indicators" (ILO, 2012); the UNECE "Framework for Measuring Quality of Employment" (UNECE, 2015); and the Eurofound "Job Quality Framework" (based on the latest wave of the European Working Conditions Survey, Eurofound, 2012a).

4. Despite this growing interest and recognition, job quality is still hardly given prominence in policy practice. The *OECD Re-assessed Jobs Strategy* (OECD, 2006) and the *Europe 2020 Employment Strategy* for instance have largely focused their policy recommendations and indicators of progress on the *quantity* of jobs, *i.e.* job creation and access to jobs, with less action on job *quality* per se. While these strategies underline the role of earnings and job security for labour market performance, their emphasis is on the role of policies and institutions to promote job creation, the stability of jobs and participation in the labour market, with less attention paid to their impact on workers' well-being. In other words, the assessment of labour market policies and institutions remains mostly focused on their impact on the quantity of jobs, although many of these institutions were introduced with the aim of improving the quality of jobs.

2. Notably, Goal 8 proposed by the Open Working Group is to "Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all".

5. One major obstacle to foster concrete policy actions on job quality has been the challenge of defining and measuring job quality in ways that are amenable to comparisons over time and across countries and socio-demographic groups. Another obstacle is that job quality is inherently a multi-dimensional concept that can be measured in many different ways, and which does not have the same meaning for different individuals in different countries. Both issues may, to some extent, be addressed by integrating the measurement agenda on well-being with that on job quality. Placing the emphasis on the well-being of workers helps to identify which aspects of employment are most important for workers and can be used to derive principles for the consistent measurement of job quality across countries, socio-economic groups and over time.

6. Building on the existing work from the academic community, international organisations and the OECD work on multi-dimensional well-being, this paper puts forward a consistent framework for measuring and assessing job quality, focusing on those aspects of a job that have been shown to be particularly important for workers' well-being.[3] It also illustrates how this framework is operationalised through the development of indicators that can be used to compare job quality across countries, socio-economic groups and over time. In considering the quality of the jobs that people hold as one of the most powerful determinants of their well-being, but also as a potential driver of labour force participation, productivity and aggregate economic performance, the OECD Job Quality Framework has a double objective: assessing labour market performance, both in quantitative and qualitative terms, and better capturing well-being at the workplace.

7. The remainder of this paper is structured as follows. Section 1 reviews the main international initiatives and frameworks on measuring job quality and identifies some gaps and limitations of existing work. Section 2 introduces the new OECD Framework for Measuring and Assessing Job Quality, developed jointly by the Employment, Labour and Social Affairs Directorate and the Statistics Directorate of the OECD as part of a broader EU-supported project[4], and describes its links to the broader well-being agenda pursued by the OECD. The approach taken is explicitly multi-dimensional and is defined in terms of earnings quality, labour market security and quality of the working environment. Section 3 describes measurement choices and an indicator selected for each of these three dimensions, and flags the main limitations on the data front. Section 4 documents job quality across both OECD and non OECD countries and socio-economic groups. Finally, section 5 concludes and discusses future OECD work in this field.

3. This framework was first presented and applied to OECD countries in the 2014 edition of the OECD *Employment Outlook*, and then adjusted to the labour market realities of emerging economies in the 2015 edition of the OECD *Employment Outlook.*

4. This OECD project on "Defining, Measuring and Assessing Job Quality and its Links to Labour Market Performance and Well-being" was launched in October 2013 (VS/2013/0108 5SI2.666737).

1. OVERVIEW OF THE MAIN INTERNATIONAL INITIATIVES ON MEASURING JOB QUALITY

1.1. Major international frameworks[5]

8. The importance of the quality of employment has been increasingly acknowledged over the last two decades, leading to several initiatives by the policy, research and statistical communities that define and measure job quality. Various frameworks, more or less comprehensive, have been developed some focusing on the specific attributes of the jobs (Eurofound, 2012a), others extending to the provision of public services or the role of industrial relations, and others get bringing into the picture even broader contextual information[6] (ILO, 2012; UNECE, 2015) (Tables 1. and 2.).

9. These efforts have been important in the European Union, where raising awareness about the need to consider the quality of jobs in addition to their quantity led to the setting of policy targets on job quality as part of the successive *European Employment Strategies*. The first significant attempt to provide job quality indicators, both objective and subjective[7], was made in Laeken in 2001, where the quality of employment was defined along ten dimensions relating to the characteristics of the job and the worker, as well as the wider socio-economic and labour market contexts[8]. While this EU initiative represented an important step, the Laeken indicators were criticized for being too general and missing critical aspects of the quality of jobs, such as wages, work intensity or access to training. Other important initiatives at the European level include:

- The 'job quality index' developed by the European Trade Union Institute, and which takes the perspective of workers and concentrates on six dimensions of job quality, drawing from individual level data such as the EU Labour Force Survey (EU LFS), the Statistics on Income and Living Conditions (EU SILC) and the European Working Conditions Survey (EWCS); only country level data are reported, based on averages (ETUI, 2008);

5. While this section reviews only international frameworks, important initiatives have also taken place at national levels: for example *L'enquête Conditions de travail* of the French Ministry of Labour, The *British Skills and Employment Surveys* co-funded by the UK Commission for Employment and Skills, the Spanish National Working Conditions survey (ENCT), the National Working Condition Survey (NEA) in the Netherlands, the Finnish National work and health survey (FNWHS) and the Quality of Work Life Surveys (QWLS), the Norwegian Survey of living conditions - Working environment (LKU), the Danish Work Environment Cohort Study (DWECS), the German Labour Force Survey (BIBB/BAuA) and the Chilean National Survey of Employment, Work and Health and Quality of Life of Workers (ENETS).

6. Strictly speaking, three different concepts can be distinguished within the job quality discussion: *i) job quality*, which refers to the attributes of the job itself (e.g. independently of workers characteristics*); ii) employment quality* relating to broader concepts linked to the features of the employment relationship; and *iii) work quality*, which refers to the ways and conditions under which the activity of work can affect the well-being of workers. In this paper, job quality is used as a generic term.

7. Objective indicators relate of job quality relate to job attributes that can be observed by a third party; however several important aspects of job quality, such as workplace relationships, can only be measured through individuals' self-assessment of their own situation. While self-reported indicators necessarily some subjective elements, they differ from purely subjective measures, such as "job satisfaction" that may be subject to individual preferences and relate to values, feelings and emotions.

8. This broader context includes skills, working conditions, work-life balance, health and safety at work, job satisfaction, employment rates and economic growth (EC, 2001).

- The EU's Employment Committee framework, which builds on a four-dimensional concept of job quality, subdivided into ten further sub-dimensions and provides a range of both objective and subjective indicators based also on micro-data (EMCO, 2013);

- The UNICE framework proposed by European employers which differs from the previous initiatives in providing overall macro information, with direct reference to a series of items such as the number of fatal and serious accidents at work, rates of occupational diseases or the total number of days lost due to sickness (UNICE, 2001).

10. The ILO and the UNECE took further important steps to extend the country coverage by proposing a more comprehensive set of indicators that could fit various national conditions, histories and challenges. The ILO produced a "Manual on Concepts and Definitions of Decent Work" that could be used for monitoring progress in implementing the ILO Decent Work Agenda in the area of labour standards, employment, social protection and social dialogue, including economic and social contextual information such as labour market performance, equal treatment or forms of work that should be abolished (ILO, 2012). Likewise, the work by the UNECE Expert Group on Measuring Quality of Employment[9] provides a measurement framework with seven dimensions[10] and more than 50 indicators (UNECE, 2015). The ILO and the UNECE frameworks are not based on normative choices about what should be considered as "good" or "bad" jobs nor prioritise among indicators, but rather provide guidance on how those indicators might be used.

11. The European Foundation for the Improvement of Living and Working Conditions (Eurofound) developed a framework in 2012 for measuring job quality in 33 European countries, based on the fifth wave of the European Survey on Working Condition (5th EWCS, Eurofound, 2012a). This framework relies on four building blocks, two of them relating to extrinsic job features – "earnings" and "prospects"−, alongside a larger set of intrinsic characteristics of the job itself − "intrinsic job quality" (work and its environment) and "working time quality"[11]. Contrary to the ILO and UNECE frameworks, Eurofound made explicit choices as regards to the main aspects to prioritize and the set of indicators (mostly objective) to consider for each dimensions, based on their impact on workers' well-being.

9. This Expert Group was established within the framework of the Conference of European Statisticians, with the main objective to improve the conceptual structure and the set of indicators of the quality of employment. It includes a set of indicators to be used as a statistical toolbox by National Statistical Offices (NSOs) to compute internationally comparable indicators on the quality of employment. The UNECE expert group is composed of representatives from NSOs from 14 countries as well as the OECD, ILO, Eurostat, Eurofound and WIEGO (Women in Informal Employment: Globalising and Organising).

10. The seven dimensions are: 1) safety and ethics of employment; 2) income and benefits from employment; 3) working-time and work-life balance; 4) security of employment and social protection; 5) social dialogue; 6) skills development and training; and 7) Employment-related relationships and work motivation.

11. Another index based on the 5th EWCS has been also developed by Eurofound (the Non-Pecuniary Job Quality Index) mainly in order to assess the level of job polarization throughout the recession. This second index is also based on individuals' self-reports and considers intrinsic quality of work, employment risks, workplace risks, working time and work-life balance.

Table 1. **Selected international frameworks for measuring job quality: dimensions and geographical scope**

	Dimensions		Geographical coverage
EU Laeken (2001)	(1) Intrinsic job quality (2) Lifelong learning and career development (3) Gender equality (4) Health and safety at work (5) Flexibility and security	(6) Inclusion and access to the labour market (7) Work organisation and work-life balance (8) Social dialogue and workers' involvement (9) Diversity and non-discrimination (10) Overall economic performance and productivity	European Union
UNICE-Business Europe (2001)	(1) Number of fatal and serious accidents (2) Rates of occupational diseases (3) Number of days lost due to sickness (4) Labour productivity (5) Proportion of working population with low, medium and high levels of education	(6) Proportion of population with basic, medium and high levels of ICT literacy (7) Average time taken to find first or new job (8) Employment rate and unemployment rate (9) Proportion of working age population creating their own enterprise	European Union
ETUI (2008)	(1) Wages (2) Non- standard forms of employment (3) Working time and work–life balance	(4) Working conditions and job security (5) Skills and career development (6) Collective interest representation	European Union
EMCO (2010)	(1) Socio-economic security: adequate earnings, job and career security (2) Education and training: skills development, employability	(3) Working conditions: health and safety at work, work intensity, autonomy, collective interest representation (4) Work-life and gender balance: Work-life balance, gender balance	European Union
ILO (2012)	(1) Employment opportunities (2) Unacceptable work (3) Adequate earnings and productive work (4) Decent hours (5) Stability and security of work (6) Combining work and family life	(7) Fair treatment in employment (8) Safe work environment (9) Social protection (10) Social dialogue and workplace relations (11) Economic and social context of decent work	Global
Eurofound (2012a, 2013)	***Job Quality Index*** *(2012a)* (1) Earnings (2) Prospects (3) Intrinsic work quality (4) Working time quality	***Non-pecuniary Job Quality Index*** (2013) (1) Intrinsic quality of work (2) Employment risks (3) Workplace risks (4) Working-time (5) Work-life balance	EU28, Norway, Former Yugoslav republic of Macedonia, Turkey, Albania, Kosovo and Montenegro
UNECE (2015)	(1) Safety and ethics (2) Income and benefits (3) Working hours (4) Balancing work and non-work life	(5) Employment security and social protection (6) Skills development and training (7) Workplace conditions and motivation	Global

Source: Authors compilation based on **European Commission (2001), UNICE (2001), Leschke, J. and Watt, A. (2008), EMCO (2010**), **ILO (2012), Eurofound (2012a and 2013) and UNECE (2015).**

Table 2. **Selected international frameworks for measuring job quality: features and purpose**

	Level of observation	Nature of the indicators	Composite index	Progress monitoring	Provision of methodological guidance
EU Laeken (2001)	Micro and macro	Objective and subjective	No	Yes	No
UNICE-Business Europe (2001)	Mostly macro	Objective	No	No	No
ETUI (2008)	Micro (besides training and union representation)	Mostly objective	Yes	Yes	No
EMCO (2010)	Mostly micro	Objective and subjective	No	Yes	No
ILO (2012)	Macro	Objective	No	Yes	Yes
Eurofound (2012a, 2013)	Micro	Objective and self-reported	Yes	Yes	Yes
UNECE (2015)	Micro and Macro	Objective and subjective	No	No	Yes

Source: Authors compilation based on **European Commission (2001), UNICE (2001), Leschke, J. and Watt, A. (2008), EMCO (2010), ILO (2012), Eurofound (2012a and 2013) and UNECE (2015).**

1.2. Differences and limitations of existing international frameworks

12. The brief overview of the main international initiatives for measuring job quality at international levels shows that important efforts have been made to develop conceptual and measurement frameworks and collect indicators that, in principle, could allow cross-country comparisons. However further efforts are still needed to design an *operational* framework to assess and monitor job quality, which is flexible enough to be applied in various contexts while maintaining its fundamental principles and key dimensions and allow disaggregation to take account of distributional issues: as indicated in Table 2., many of these international frameworks only provide aggregate measures (e.g. ILO, UNICE, etc.).

13. Furthermore, most of these frameworks tend to cover multiple dimensions and rely on numerous indicators of different nature. This raises the question of the comparability of these indicators across countries, socio-demographic groups and time as well as their adequacy and actionability for policy purposes. This the case for instance of the ILO or UNECE frameworks which have a very wide scope and combine measures of both *outcomes* of job quality (such as earnings) and *drivers* of job quality (such as the characteristics of industrial relations systems). At the same time, important attributes of employment quality −such as the provision of unemployment benefits in case of job loss (Eurofound, 2012) or specific aspects of the working environment, such as the lack of autonomy at work (ILO Decent Work Framework, 2012) − are not fully considered, most often due to data scarcity or lack of comparative information. More recently, efforts have been made to capture the quality of the working environment in a more comprehensive way (e.g. UNECE, 2010; Eurofound, 2012a), but interactions, such as compensation mechanisms between these various components are inadequately addressed; this is an important limit, as the literature on occupational health finds evidence of buffering effects between stress factors and resources to cope with those (Bakker and Demerouti, 2007).

14. Important challenges also remain on the data front, due to low data availability and comparability, and the limited possibility to extend the geographical coverage of existing frameworks such as the Eurofound one. The low and irregular frequency of data collection is another challenge, notably for capturing the quality of work dimension. The two main international sources that are currently available − EWCS and International Social Survey Programme (ISSP Work Orientations Module, 2005) − are collected, respectively, every five and ten years. Another constraint relates to the fragmentation of existing information among various sources (and *ad hoc* modules), and the impossibility of bringing together the information at the level of each *individual* worker in a consistent manner. On this background, the OECD approach in its work on job quality has been to use the best statistics that already exist, while identifying the gaps and promoting a process to improve the availability of comparative information on job quality.

2. THE OECD JOB QUALITY FRAMEWORK

2.1. Conceptual underpinning: the Well-being agenda

15. Given the amount of time people spend at work, the inclusion of job quality in the OECD well-being framework, both as a key element of individual well-being and as a means to better economic performance, is critical. The impact of work and employment on people's well-being has been investigated in the social sciences literature from many different perspectives and using different approaches (for a comprehensive review, see Muños de Bustillo *et al.*, 2011). Psychologists, sociologists and economists have developed theories and searched for empirical evidence linking workers' well-being to specific aspects of their job, so as to identify those job attributes that are of greatest importance to workers. However job quality should not been seen as a separate component of people's well-being but as a way of looking at how their work experiences affect the various aspects of their well-being. Following the influential work of the Stiglitz, Sen and Fitoussi Commission (SSF, Stiglitz et al., 2009), which called for more efforts to measure and monitor progress for the current and future generations and follow a *multi-dimensional* approach[12] and in line with the *OECD Better life initiative*, the *OECD Job Quality Framework* draws on the existing research in economics, sociology and occupational health to identify the main aspects of jobs found to contribute to workers' well-being. New empirical evidence is also conducted, providing further rationale for selecting the key building blocks of the framework. Three key complementary dimensions of job quality are identified: **earnings, labour market security** and the **working environment.** These dimensions are closely connected to 'material living standards", "insecurity of an economic as well as physical nature" and "personal activities including work" in the well-being framework proposed by SSF (Figure1).

16. The OECD Job Quality Framework[13] follows the guiding principles of the broader well-being agenda as recommended in the Stiglitz Report, notably to devote greater attention to individual outcomes and go beyond country averages. Hence the approach taken here:

- Concentrates on *job quality outcomes*, as experienced by workers (e.g. low pay and work related hazards), as opposed to drivers of job quality (e.g. regulation and compliance). Outcomes are what ultimately matters to workers and policy makers, and drivers are not always perfectly correlated with outcomes. Thus focusing on outcomes allows to better evaluate the role of policies and institutions in enhancing job quality.

- Focuses on *individual workers*, in the sense that all indicators are defined at the level of individuals, using micro-data to go beyond country averages. This means that the distribution of job quality outcomes can be examined across the workforce. This is especially important as it allows determining whether a group with a disadvantage in one aspect of job quality also experiences poor outcomes in another.

12. From a conceptual perspective, the Stiglitz report builds on the so-called "capabilities approach" proposed by Sen (1985) which conceives a person's life as a combination of activities and situations spontaneously recognized by people as important. Its basic premise is that what really matters to people is their opportunity set and their freedom to choose from this set the life they value most. Therefore to define well-being a multidimensional approach has to be used.

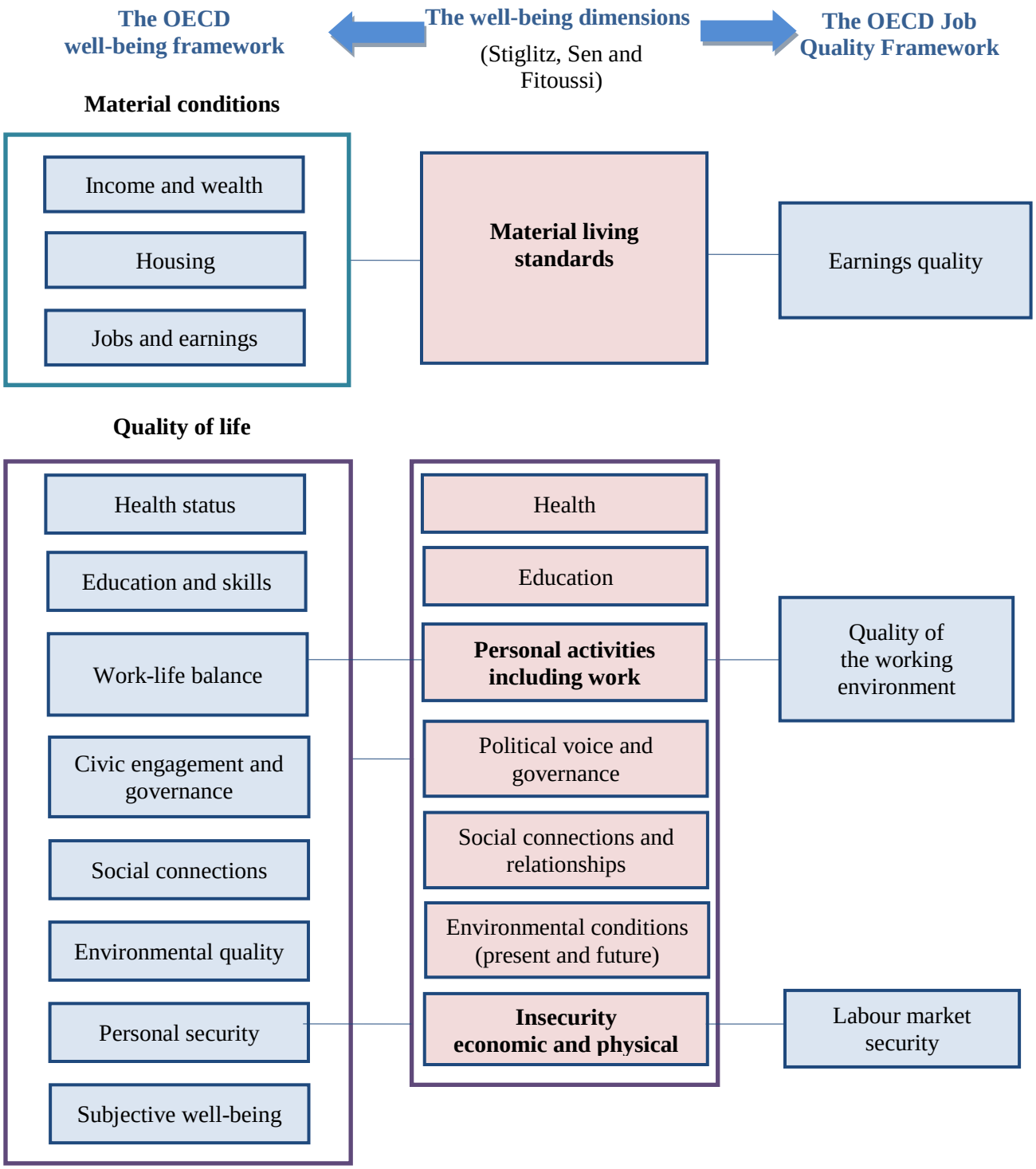
13. The framework was first presented and applied to OECD countries in the 2014 *OECD Employment Outlook.*

- Favours *objective features* of job quality (e.g. job attributes that can be observed by a third party) in order to ensure better comparability across countries and over time. However, some important aspects of job quality, such as workplace relationships, can only be measured through individuals' self-assessment of their own situation; including such indicators necessarily entail some subjective aspects. The OECD framework does not however include purely subjective judgements of "job satisfaction", as these may be subject to individual preferences, attitudes and values and are not easily amenable to policy.

17. Finally, the OECD Job Quality Framework favours indicators that are easily measurable and comparable across socio-demographic groups and countries, to maximise policy relevance. The building blocks of the OECD framework are tailored to specific features of certain countries (including data availability), while retaining the same conceptual foundations[14].

14. Overall, the *OECD Job Quality Framework* and the *OECD Better Life Initiative* share the same conceptual underpinning and the guiding measurement principles of the SSF report.

Figure 1. **SSF and OECD Well-being and Job Quality frameworks**



2.2. What makes a good job?

18. As described in the previous section, the Stiglitz report identifies the main well-being aspects linked to people's employment situation, while research in economics, sociology and occupational health provides further theoretical and empirical arguments for selecting the three key dimensions of the *OECD Job Quality Framework*. New OECD empirical evidence was also conducted to validate the dimensions selected.

Earnings quality

19. The first dimension of job quality relates to earnings as they contribute directly to workers' material well-being. Both earnings average levels and their distribution are considered due to their importance for individual and overall well-being. A large literature has indeed shown that: i) life satisfaction increases with the level of earnings, and this holds both across countries as well as between persons within countries ii) for a given level of average earnings, life satisfaction tends to be higher the more equal is its distribution. This reflects the existence of a saturation effect (life satisfaction rising at a decreasing rate as earnings rise) and the fact that people tend to display an intrinsic dislike of too high inequality in society.

20. Following the seminal work of Easterlin (1974) questioning the contribution of economic growth to life satisfaction in the long-run, at least beyond a minimum threshold (known as the Easterlin Paradox), a number of important recent contributions have explored the link between income and subjective well-being, providing evidence of a positive and approximately log-linear relationship between income and life satisfaction (Deaton and Kahneman, 2010; Sacks et al., 2012; Stevenson and Wolfers, 2008 and 2013). This evidence suggests that there are declining marginal returns to income in terms of subjective well-being as measured by life satisfaction. Individual-level data from Gallup World Poll for the period 2005-10 for a large number of OECD and key emerging economies show the relationship between log household income and life satisfaction across countries (Figure 2, Panel A) as well as across individuals within countries (Figure 2, Panel B). Panel B suggests that this relationship is approximately log-linear.[15] [16]

21. A second argument for accounting of the distribution when assessing earnings quality is that individual well-being depends not only on one's own earnings but also on that of other persons (Clark et al., 2008) or the distribution of earnings in society more generally (Senik, 2009; Ferrer-i-Carbonell and Ramos, 2010; Clark and D'Ambrosio, 2014). A growing body of research suggests that the relationship between life satisfaction and income inequality is negative, even after controlling for individual income. This suggests that people's preferences display a certain degree of aversion to inequality, i.e. an intrinsic dislike of too high levels of inequality in society. Inequality aversion may derive from different sources. First, it may be the result from self-centred interests related to the role of upward earnings comparisons for life satisfaction. For example Card et al. (2012) provide evidence based on a random experiment in California that upward earnings comparisons have a negative impact on job satisfaction, whereas downward comparisons have no impact. This most likely reflects an envy effect. Second, inequality aversion may reflect altruistic motivations. While it is not straightforward to differentiate between these different explanations, the evidence on inequality aversion does provide a second argument for taking account earnings inequality when measuring earnings quality.

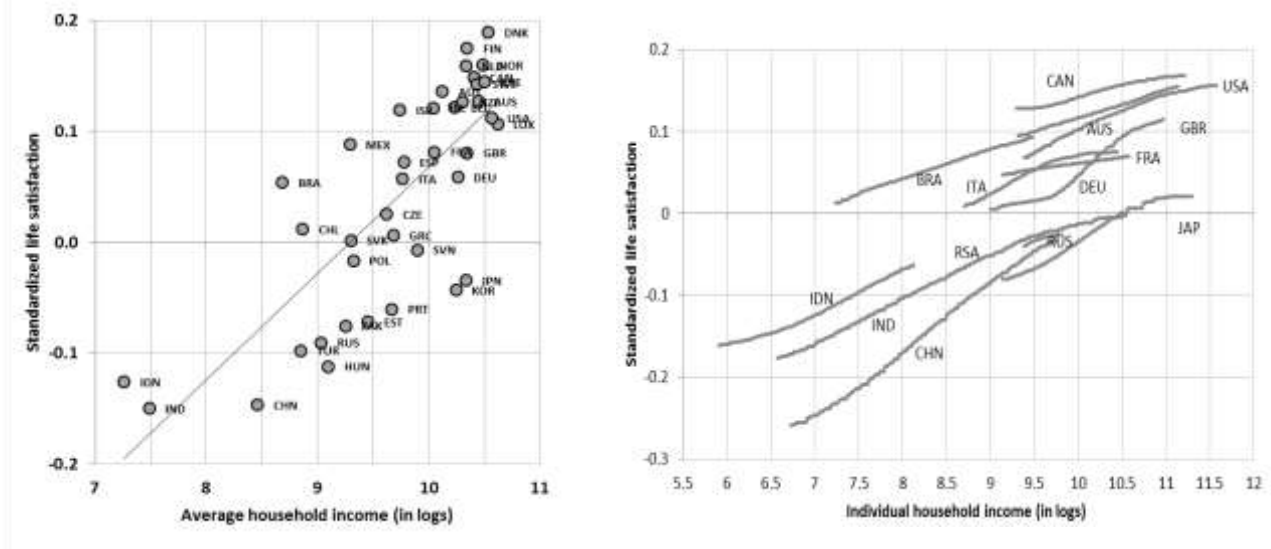
15. Panel B of Figure 2 also suggests that the linear relationship between life satisfaction and log income is weaker in high-income countries. Indeed, across countries, the gradient of income –obtained from a linear model of log income on life satisfaction−displays a significant negative relationship with GDP per capita. This suggests that the relationship between income and life satisfaction is not exactly log-linear.

16. While the cross-sectional evidence is compelling, it does not directly assess Easterlin's thesis that "money does not buy happiness" since this focuses on the inter-temporal relationship between income and life satisfaction in the long-term. It is not obvious, however, why the long-term relationship should differ from that in the cross-section).

Figure 2. **The relationship between household income and life satisfaction**

2005-10

Panel A. **Across countries** Panel B. **Across individuals within countries**



Note: Panel B contains predictions from local linear regressions of life satisfaction on log household income for selected countries (G7 and Key Partner countries).

Source: OECD Employment Outlook, 2014; calculations based on the Gallup World Poll.

22. By separately assessing the role of average earnings and their distribution for well-being, it is implicitly assumed that the two are independent. This assumption is questionable, as highlighted by the long-standing debate on the interconnectedness between the distribution of earnings and economic growth. The main insight from this literature is that the relationship can go in either direction and that its nature depends on both the determinants of economic growth and on the way inequality is measured (Cingano, 2014; OECD, 2012b). The main implication of this research in the present context is that average earnings and their distribution are likely to be interdependent, and that policies seeking to act on one aspect can have implications for the other one as well.

Labour market security

23. The importance of labour market security for well-being has been investigated in several studies (Clark and Oswald, 1994; Postel-Vinay and Saint-Martin, 2005; Salvatori, 2010). Job security, notably, appears to be a major determinant of individual well-being. When workers are asked to state their preferences with respect to different aspects of work, as done in the European Social Survey (ESS) or the International Social Survey Programme (ISSP), they rank job security consistently as the most important item in almost all countries for which data are available (Green, 2009; OECD, 2011a). The detrimental effect of labour market insecurity for individual well-being has also been demonstrated in several studies that relate perceptions of job security to well-being outcomes such as life satisfaction and health status (e.g. Green, 2011). Moreover, the effects of labour market insecurity may go well beyond the well-being of workers. Job insecurity may affect firms' profits by reducing worker retention rates, investment in firm-specific skills and productivity, as well as society at large by shaping people's political views, increasing social unrest, sapping consumer confidence and saving behaviour.

24. There is considerable evidence that unemployment risk and insurance alleviating the costs and concerns about not being able to find a job once unemployed have important consequences for subjective

well-being (as captured by life satisfaction) among the employed. For example, using data for Canada, Helliwell and Huang (2011) find that the effect on workers' life satisfaction of a 1 percentage point increase in the unemployment rate[17] is equivalent to that of a 3% reduction in household income. They further show that, due to the much larger number of individuals concerned, the overall effect on life satisfaction of a higher risk of unemployment among the employed even exceeds the direct effect of being unemployed. Boarini et al. (2014) and OECD (2014b) find similar results using data for 32 OECD countries from the Gallup World Poll. Most studies on the role of insurance have concentrated on the relative importance of insurance for the well-being between the employed and the unemployed (Di Tella et al., 2003; Sjöberg, 2010; Helliwell and Huang, 2011). These studies not only suggest that insurance is important for well-being, but also that its importance does not differ systematically between the employed and the unemployed.[18] Recent OECD work (2014) on the role of unemployment risk and insurance for well-being shows that unemployment risk has a negative and statistically significant effect on workers' well-being. This reflects both the risk of becoming unemployed and the expected duration of unemployment. Unemployment insurance contributes to mitigating the adverse effects of unemployment risk on well-being.

25. The second dimension of job quality, labour market security, captures the main risks that workers face in the labour market and their economic consequences, after accounting for income support schemes and social protection programmes. In most countries, the main source of insecurity is *unemployment*, which is not entirely captured by the risk of job loss, but also by the frequency and duration of consecutive unemployment spells, and by their consequences in terms of earnings losses (Stiglitz et al. 2009b). In this light, labour market security is constructed as a function of the probability of becoming unemployed, the expected duration of unemployment and the degree of public unemployment protection. However, in countries where income support schemes do not exist or are underdeveloped, unemployment may become a poor proxy of labour market insecurity, since most workers cannot afford to be unemployed and resort to low-paid subsistence activities as an alternative to open unemployment. In such cases, labour market insecurity should take account of both the risk of open unemployment and that of hidden unemployment in the form of *extreme low pay*.

Quality of the working environment

26. The third dimension of job quality, the quality of the working environment (QWE) captures non-economic aspects of employment. Having a quality job does not just mean receiving good salaries or having good career prospects, but also providing workers with a chance to fulfil their ambitions, to feel useful in society and build self-esteem, as work often represents their main recognised contribution to the community where they live. The quality of the working environment thus considers factors which make the working environment conducive to personal accomplishment; it includes the nature and content of the work performed, working-time arrangements, workplace relationships as well as opportunities for training. The quality of the working environment is an important driver of individual well-being and depends crucially on whether workers have autonomy in their job, are given learning opportunities and well-defined work objectives, and also receive constructive feedback. Good relationships with colleagues are also

17. Most studies approximate the risk of unemployment using the actual rate of unemployment, without differentiating between its constituent determinants, i.e. the probability of becoming unemployed and the expected duration of unemployment.

18. Exploiting information on individual transitions between employment and unemployment for the United States, Young (2012) finds that insurance eligibility only has a minor effect on mitigating the adverse effect of unemployment on well-being. He suggests that the small effect reflects the fact that insurance cannot absorb the non-pecuniary cost of unemployment. However, it may also reflect the possibility that unemployment insurance has a similar impact on the employed and the unemployed as suggested by other studies discussed in the main text.

important. When jobs and workplaces combine these factors, people are more apt to manage work pressure and difficult tasks; they also tend to be healthier, more satisfied with their job and more productive. But working conditions may also impinge negatively upon an individual's personal life.

27. There is wide evidence showing that the various components of the quality of the working environment have important implications for the well-being of workers. Numerous studies on occupational health, management and sociology have investigated the mechanisms by which work organisation and workplace relationships can have an impact on employee well-being (physical and mental health, job satisfaction, etc. [19]). Several models have also been developed to identify the various components of QWE, i.e. the various attributes of a job that affect workers' physical and mental health. These models postulate that in their daily work people face a variety of "job demands", which require sustained physical, cognitive and emotional effort. Examples of such demands include dealing with heavy workload and time pressure, coping with conflicting demands, or performing physically demanding tasks. At the same time, workers also have a number of resources at their disposal, whether physical, organisational or social (e.g. work autonomy, opportunities to learn, and support from colleagues and managers). These "job resources" help workers to cope with difficult demands, to achieve work goals, and stimulate learning and personal development. The basic premise of occupational health models is that job demands are not necessarily negative, but they can turn into job stressors when the employee does not have enough job resources to meet these demands. Excessive demands combined with insufficient resources, hence, create "job strain", which is a crucial risk factor for workers' physical and mental well-being. According to these models, it would be misleading to focus on job demands or resources in isolation: a measure of job strain needs to be constructed by taking both factors into account (Bakker and Demerouti, 2007).

28. There is a longstanding tradition of psychometric scales and indices that have been constructed in order to measure job strain, going back to the late 1960s (for a review, see Landsbergis et al. 2000). Detailed analyses of their measurement properties have been conducted in order to assess their reliability, content validity, diagnostic power and the extent to which they can be applied to workers in various occupations, sectors and countries. In medical research, these measurement tools were mostly used to investigate work risk factors of cardiovascular diseases, whereas in health care services they were used to analyse the determinants of sickness absence and burnout. As a result of this research, there is now abundant evidence that workers' physical and mental health status is a major outcome of job strain (for an overview of the empirical evidence, see OECD 2014).

29. OECD's research has also found evidence, for 23 European OECD countries, that the accumulation of job demands has a strong negative impact on workers' health, while the level of job resources can play a significant role in mitigating the health impact of job demands. There is also evidence of a strong link between job strain and job satisfaction, which can be seen as a broad measure of subjective well-being in the workplace (OECD 2014).

Bringing the three dimensions of Job Quality together

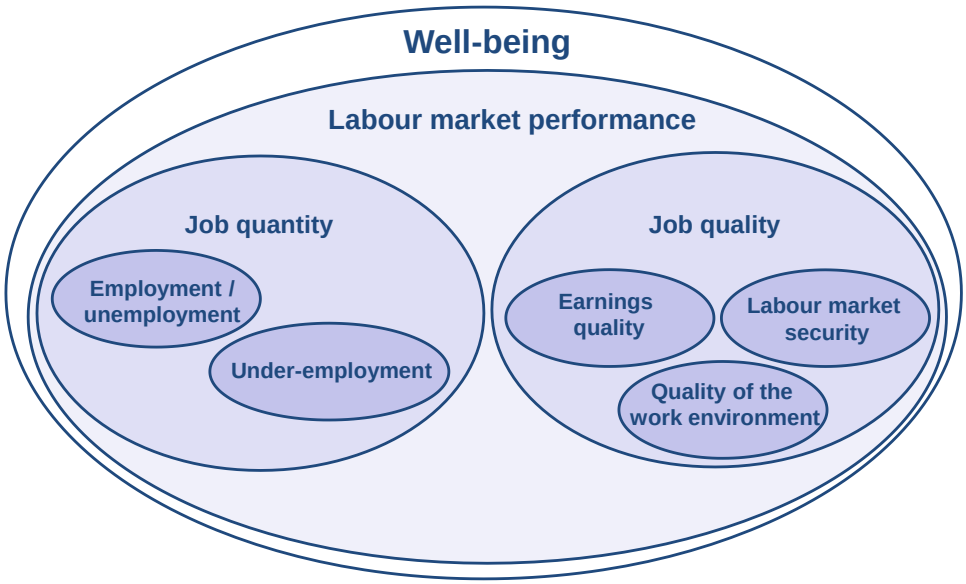
30. Earnings quality, labour market security and quality of the working environment are three complementary dimensions of job quality. They should be considered simultaneously, together with the number of jobs that exist (i.e. job quantity), when assessing labour market performance, well-being and the

19. From a well-being perspective, focusing on workers' health is somewhat restrictive, as a better working environment is likely to improve workers' life satisfaction even if it has no direct effects on their health. On the other hand, this approach provides some insights into the economic consequences that a poor working environment may have for employers, in terms of sickness absence and reduced productivity, and for the society as a whole, through a waste of human capital and an additional burden on public health and disability systems.

role of policies and institutions. These dimensions are broad enough to encompass the most significant aspects of job quality that shape workers' well-being. No attempt is made at this stage to aggregate them into a single indicator of job quality Linking them together is not conceptually straightforward. In particular, the relative importance of the various dimensions is difficult to determine in an international context, as individual preferences may vary across countries because of cultural factors. For instance, the extent to which people are willing to accept lower earnings in exchange of a better working environment is likely to vary across workers according to their individual characteristics and socio-cultural environment.

31. Furthermore, by defining job quality in terms of its contribution to workers' well-being, the present framework explicitly puts the emphasis on workers as opposed to employers or investors. Therefore, it does not aim to take account of all aspects of employment. Productivity enters the picture indirectly, through its links with several aspects of job quality. Productivity is, for instance, a key determinant of wages, and as such, an important driver of job quality. Productivity can also be seen as an outcome of job quality. For example, to the extent that workers in safer, healthier and engaging and rewarding jobs feel more motivated, they will be more productive. This may in turn translate into higher wages, thereby creating a positive relationship between the quality of the working environment and the levels of earnings. Figure 3 provides a schematic representation of the Job Quality Framework and its relation to job quantity outcomes and overall well-being.

Figure 3. **Job quantity, job quality and well-being**



Source: OECD (2015).

3. OPERATIONALISING THE JOB QUALITY FRAMEWORK

3.1. Selecting a set of job quality indicators

32. The operationalisation of the framework presented in the previous section requires converting the main dimensions of job quality into a limited set of indicators that are readily interpretable, complement each other, and can be compared over time, across countries and socio-economic groups. These indicators should also be relevant for policy making. To that end, the OECD job quality statistical framework includes *headline* indicators, i.e. indicators that are deemed to be of sufficiently quality (Box 1) and can be used for monitoring job quality over time and across countries, and *supplementary* indicator(s) that provide complementary evidence (e.g. indicators covering slightly different aspects of the dimension at hand either due to data availability or on conceptual ground, see Table 3 below).

Box 1. **The Choice of Job Quality indicators**

Critical criteria for the selection of the job quality indicators have been that they follow the measurement principles set out in the conceptual underpinnings of the OECD Well-being and Job Quality Frameworks (i.e. measure outcomes[20], capture well-being at the individual or household level; allow disaggregation, so as to assess the well-being of different population groups; and favour objective indicators). The indicators have also be chosen so as to fulfil standard statistical requirements, such as being collected through a recurrent well-established instruments, based on comparable concepts and definitions following internationally agreed standards and harmonised questionnaires. More specifically, the selected job quality indicators:

- *Have face validity, i.e.* the capacity to capture what is intended to be measured. Face validity is defined with respect to the target concept that one seeks to measure, *i.e.* substantive interpretations of the dimensions of well-being that matter to people's lives, according to a large body of evidence and practices.
- *Focus on summary outcomes, i.e.* on relatively broad achievements (such as "labour market security") that can be easily understood (*e.g.* displaying no ambiguity in interpretation, showing either good/bad performance or progress/regress when looking at changes over time).
- *Are amenable to change and sensitive to policy interventions*, which is important from the perspective of improving the design of policies that bear on job quality and well-being and, ultimately, on people's lives.
- *Are commonly used and accepted* as job quality indicators within the statistical and academic communities. This is more often the case for indicators relying on statistical instruments developed within the official statistical systems but it can also be the case for indicators based on surveys conducted by other entities.
- *Ensure comparability across countries*. Comparability is ensured when concepts and definitions follow internationally agreed standards and the surveys/instruments from which data are collected are based on a harmonised questionnaire and similar implementation design. However, comparability can also be achieved by putting together broadly comparable instruments *ex post*; this latter approach is used by the OECD in a number of fields (*e.g. Income distribution Database, Health at a Glance*).
- *Ensure maximum country coverage*: strictly speaking, this is not a data quality criterion but a working constraint given the aim of producing comparable evidence for OECD and some of other major economies.
- *Are collected through a recurrent instrument*, which is important for monitoring changes in job quality over time.

20. At first glance, this condition would exclude all policy indicators, as such indicators typically refer to drivers rather than outcomes. However, the distinction between drivers and outcomes is not always clear-cut. This is notably the case for replacement incomes that are provided to the unemployed through unemployment insurance and assistance schemes. These constitute important source of income for many active households in the current context of high unemployment.

3.2. Measuring Earnings Quality

33. In order to measure the first dimension of job quality, **earnings quality**, a choice needs to be made on how to measure individual earnings and how to combine information on the level and distribution of earnings to obtain the aggregate measure of earnings quality. At *individual* level, earnings can be measured in either gross or net terms (i.e. before or after deductions of employee taxes and social security contributions) and on an hourly, monthly or even annual basis. The OECD framework makes use of gross hourly wages. While net earnings determine labour supply decisions and the contribution of work to living standards −and would, therefore, be the most relevant measure from a worker perspective−, they are less widely available in practice. Hourly wages rather than monthly or annual earnings are chosen to abstract from differences in working time between workers that relate more job quantity than job quality[21].

34. The way of *aggregating* information on the level and distribution of earnings is more complicated. This can be carried out using a combination of indicators such as average or median earnings, the degree of earnings inequality and the incidence of low-pay. In order to take into account both the level and distribution of earnings at the aggregate level, earnings quality is measured by making use of the generalised means framework, originally proposed by Atkinson (1970) and recently popularised by Foster et al. (2013). Generalised means in this context represent a weighted average of individual earnings, which allow focusing on specific parts of the distribution depending on the value of a single (exponent) parameter. This latter is often referred to as the coefficient of 'inequality aversion'; a lower value corresponds to higher inequality aversion, which in turn translates into lower earnings quality for a given distribution. Earnings quality can therefore be decomposed into two components: the arithmetic (simple) mean of earnings across all workers (the "level" component), and the relative wedge between the generalised and the arithmetic means (the "distribution" component), under different choices of the inequality aversion parameter.

35. Choosing how to weight different segments of the earnings distribution, or equivalently, allowing for different degrees of inequality aversion, provides flexibility in the aggregation method. For example, a "moderate inequality aversion" (i.e. choosing a coefficient of -1) as used in Table A1 in the Annex implies putting most of the weight to the bottom tercile of the distribution (two-third), a smaller but still significant weight to the second tercile (one quarter) and a small weight to the top tercile (10%). In the case of a "high inequality aversion" (i.e. coefficient of -3), a weight of 85% is given to the bottom tercile, 13% to the middle tercile and 2% to the top tercile. Hence, different levels of inequality aversion can be considered for assessing and monitoring earnings quality.

3.3. Measuring Labour Market Security

36. As described above, the most significant risk workers face in the majority of OECD countries is associated to unemployment. However, the absence or weakness of social insurance schemes, as well as the high level of the risk of very low pay in some emerging economies, means that overall labour market insecurity would be underestimated if only the risk of unemployment was considered. In order to get a more relevant and complete measure of **labour market security,** two distinct indicators are considered: one measuring *security against the risk of unemployment* and one capturing *security against the risk of extreme low-pay* while employed.

21. Calculations are based on national household and labour force surveys, i.e. the Structure of Earnings Survey for European countries, the national EU-SILC national files (Turkey), the European Social Survey (Russia) and the *OECD Earnings Distribution* database (http://dx.doi.org/10.1787/lfs-ear-data-en) for New Zealand and Japan. The calculations are carried out on PPP-adjusted gross hourly wages of individuals.

37. The first component, the *labour market security against the risk of unemployment* is defined in terms of the expected earnings loss associated with unemployment. This loss depends on the risk of unemployment (i.e. the risk of becoming and staying unemployed) and the degree of mitigation against these losses provided by government transfers –unemployment benefits and social assistance− in the event of unemployment. This component is hence measured by the product of unemployment risk and (one minus) unemployment insurance, where each of these two terms is defined as follows:

- The risk of unemployment is computed by looking at the distribution of the length of ongoing unemployment spells at a given point in time. Conditional on the assumption that all transitions take place between employment and unemployment, data on unemployment duration are used to measure the monthly probability of becoming unemployed as well as the average expected duration of completed unemployment spells in months (which is the inverse of the probability of finding a job once unemployed)[22]. The product of the two elements provides a measure of the overall unemployment risk, i.e. the proportion of time that a worker[23] can expect to spend on average in unemployment.

- Unemployment insurance captures the degree of loss absorption through government transfers on workers' exposure to unemployment risk. For OECD countries, it is possible to compute a measure of effective unemployment insurance capturing the accessibility of benefits and the generosity of unemployment compensation, while also taking into account the progressivity of the tax system[24]. The effective unemployment insurance is thus defined as the product of the coverage of the unemployment insurance/assistance, and replacement rates of public transfers received by the unemployed[25]. For non OECD countries, this measure is calculated from survey data as the ratio of the average benefit level (among the unemployed) to the median net earnings (among the employed). As such, this measure captures the combined effect of benefit recipiency and generosity, and is generally consistent with the effective (net) replacement rate concept used for OECD countries[26].

38. The second component, *labour market insecurity due to extreme low-pay*, is set as an absolute value of net hourly earnings of one US dollar, after purchasing power parity adjustments. Extreme low-pay status defined in this way translates to a disposable per capita income of USD 2 (PPP-adjusted) per day in a typical household with a single earner who works full-time (Bongaarts, 2001) and suggests absolute

22. For most OECD countries, this information is available on a *quarterly* basis in the *OECD Unemployment Duration Database* (http://dx.doi.org/10.1787/data-00322-en); when no information is available on unemployment flows, the overall risk of unemployment is approximated by the actual unemployment rate. In a steady-state economy with a relatively low-level of unemployment, the two approaches yield very similar results.

23. Both employees and self-employed.

24. Based on the *OECD Benefit Recipients Database* and the *OECD Labour Market Programmes Database* (http://dx.doi.org/10.1787/data-00312-en) for the share of unemployed people receiving benefits, and the *OECD Taxes and Benefits Database* (http://dx.doi.org/10.187/data-00201-en) for the replacement rates. These measures can only be computed at the country level. In order to measure unemployment insurance for different socio-demographic groups, micro-based measures are used as well. The web annex, as well as Box 3.4 of chapter 4 of the Employment Outlook 2014 (OECD, 2014) discusses this in more details.

25. Those transfers include unemployment insurance and/or assistance, as well as social assistance benefits unemployed are entitled to, depending on the national institutional settings.

26. For more details, see chapter 5 of the Employment Outlook 2015 (OECD, 2015).

material deprivation for those concerned[27]. While this measure departs from the relative-deprivation approach commonly adopted in OECD studies, it appears to be more appropriate in this context; a measure of relative deprivation (e.g. earnings below two-thirds or one-third of the median) would fail to account for the large differences in living standards that exist across emerging economies and, more significantly, between emerging economies and advanced ones. This would be unsatisfactory, since workers at the bottom of the distribution in rich countries with a functioning welfare state are generally in a far better position than workers in the same relative position in emerging countries where welfare systems are much less developed. Focusing on an *absolute* threshold provides a common benchmark for all countries, and has the advantage of clearly distinguishing the labour market security dimension of job quality from the earnings quality dimension (which directly incorporates inequality and places the emphasis on workers' relative standing in the economy).

39. The risk of falling below an extreme low-pay threshold is computed by estimating the persistence of individual earnings based on the behaviour of cohort averages over time. This makes it possible to calculate the joint probability, for each worker type, of being in (or out) of low-pay status in either of the two periods surveyed. With this information, one can produce an estimate of the probabilities of falling into, and climbing out of, low-paid employment from one period to the next – the combination of which determines the overall risk of extreme low-pay. The average incidence of low-pay in a given population can be interpreted as the average share of time a person in that population can reasonably expect to spend in low-paying jobs[28].

3.4. Measuring quality of the working environment

40. The third dimension of job quality, **quality of the working environment (QWE),** is measured by the *incidence of job strain* among employees, where job strain is defined as jobs where workers face more job demands than the number of resources they have at their disposal (more details on the methodology is available in both *How's Life 2013* and 2014 *OECD Employment Outlook).* Taking into account of data availability, two types of job demands are identified: i) time pressure which encompasses long working hours, high work intensity and working time inflexibility; and ii) physical health risk factors, such as dangerous work (i.e. being exposed to noise, vibrations, high and low temperature) and hard work (i.e. carrying and moving heavy loads, painful and tiring positions). Similarly, two types of job resources are considered, namely: i) work autonomy and learning opportunities which include workers' freedom to choose and change their work tasks and methods, as well as formal (i.e. training) and informal learning opportunities at work; and ii) workplace relationships which measure the extent to which good relations prevail among colleagues (Table 2). The composite job-strain index accounts for the buffering effect of job resources on the relationship between job demands and well-being at work; it refers to those jobs where the workers face one demand but have no resources, or face two demands but have one or no resource.

41. As no single source is available for all countries, the Job Strain indicator is obtained by combining two international surveys: the 4th European Working Conditions Survey and the 3rd Work

27. While the PPP adjustment is the most consistent way to carry out cross-country comparisons, but presents some potential limitations. For instance, living standards may differ substantially across countries (despite the PPP correction) depending on the availability of free public services that are not in the PPP basket. Similarly, access to non-market production, which is likely to be more extensive in certain countries and in rural areas, may drive cross-country differences that the PPP adjustment is unable to correct for.

28. The methodology requires balanced panel datasets where the earnings of the same individuals can be observed over multiple time periods; when such data are not available, transition probabilities are estimated based on repeated representative cross-sections following the new methodology proposed by Dang and Lanjouw (2013) (for details see Chapter 5 of the 2015 *OECD Employment Outlook*).

Orientations module of the *International Social Survey Program*. Both surveys were conducted in 2005[29] and contain the questions on the job demands and job resources discussed above. These questions differ however in terms of question wording, answer scales and questions order (see the annex of chapter 3 of the OECD Employment Outlook 2014 for details), which may result in differences in individuals' responses across countries. To overcome these problems, analysis was conducted to assess the degree of comparability between the two surveys for the 16 countries that are covered by both surveys; this analysis shows that, by choosing the most similar questions and applying certain thresholds yields job strain indices from the two surveys that are highly correlated (with correlation coefficient of 0.89 between the two).

Table 3. **Job demands, job resources and job strain**

Job strain, as the result of …			
… too many job demands		**… and too few job resources**	
Time pressure	- Work usually more than 50 hours per week - Difficult to take an hour or two off during working hours for personal or family matters - Work at very high speed and to tight deadlines	**Work autonomy and learning opportunities**	- Can choose or change the order of tasks - Can choose or change methods of work - Job involves learning new things - Employer 3provided training or on-the-job training
Physical health risk factors	- Tiring and painful positions - Carrying or moving heavy loads - Exposed to vibrations from hand tools, machinery - Exposure to high noise - Exposure to high or low temperature	**Good workplace relationships**	- Feel "at home" at work and have very good friends at work

Source: OECD Employment Outlook 2014.

42. In addition to the composite job strain indicator, the *incidence of working more than 60 hours* a week is also used as a supplementary indicator, notably for emerging economies where information on working conditions is often scarce and limited in scope. Numerous studies on occupational health have investigated the impact of working long hours on workers' well-being. While the evidence is mixed regarding the relationship between long working hours and life satisfaction (Hewlett and Luce, 2006; Gray et al., 2004), results suggest that working very long hours impairs workers' physical and mental health, particularly when employees have little control on the number of hours they work and/or on their work schedule (Bassanini and Caroli, 2015; Frijters et al., 2009; Dembe et al., 2005, Burke et al., 2009; Caruso et al., 2004). Using very long hours as a proxy for working conditions allows for broader coverage of countries and workforce, e.g. self-employed, formal and informal employment[30]. The available data indicate a strong positive correlation between job strain and very long hours across a broad group of countries where both measures could be constructed[31].

43. Table 4 summarizes the main indicators and sub-indicators of the OECD Job Quality Framework that will be included in the new OECD database on job quality. This database is part of the overall international effort to collect data on this topic (Box 2). It reports all existing data and metadata covering the three dimensions; indicators will be periodically updated and integrated with better data as they become available. This database will become accessible in January 2016 on the OECD dissemination platform *OECD.Stat*.

29. 2005 is the last wave available for ISSP data but new data will be released in 2015.

30. This proxy is not meant to capture the *quantity* of work, which is part of the overall labour market performances, but the *quality* of the working environment.

31. These include all OECD countries, plus South Africa and the Russian Federation. The estimated correlation is 0.51.

Table 4. **OECD Job Quality indicators**

Dimensions	Indicators
Earnings	**Headline indicator: Earnings Quality**
	- Average Earnings
	- Earnings Inequality
Labour Market Security	**Headline indicator: Labour Market security against unemployment**
	- Unemployment risk
	- Unemployment insurance
	Headline indicator: Labour Market security against extreme low-pay *(a)*
	- Probability of falling into extreme low-pay
	- Probability of getting out of extreme low-pay
Quality of the Working Environment	**Headline indicator: Job strain**
	Job Demands
	- Time pressure at work
	- Physical health risk factors
	Job Resources
	- Work autonomy and learning opportunities
	- Workplace relationships
	Supplementary indicator: Working very long hours

Note: (a) For emerging economies only;

Box 2. The OECD database on job quality

The OECD database is part of the overall effort by international bodies (e.g. UNECE, Eurofound, and ILO) to improve the measurement of job quality. The OECD has actively contributed to these broader initiatives. For example, the OECD is a member of the UNECE Expert Group on 'Measuring Quality of Employment', which is composed of representatives from National Statistics Offices from 14 countries as well as the ILO, Eurostat, Eurofound and WIEGO (Women in Informal Employment: Globalising and Organising). In this context, the OECD has taken the lead in producing indicator sheets for the 'work motivation' sub-dimension. This close collaboration and consultation among international organisations helps avoiding duplication of effort and outputs. The UNECE Expert Group uses a similar approach to the OECD's, where 'Quality of Employment' is understood as a multi-dimensional phenomenon that affects workers' well-being. There are also similarities between the dimensions of the two frameworks (see Figure A.1 for a detailed comparison). A major difference is that the UNECE's framework does not have support any particular policy agenda, and as such does not have any policy focus, and the indicators are selected and presented as a toolbox for National Statistics Offices. By contrast, the OECD's Framework is meant to be more operational and policy-based and builds on the UNECE toolbox. Therefore the two approaches can be considered as mutually supportive.

3.5. Limitations and the way forward

44. As underlined previously, good indicators of job quality should ideally combine several properties, such as: i) be defined at the level of the individual, and be capable of aggregation to larger socio-economic groups and countries; ii) have face validity with respect to the phenomenon at hand; iii) be

policy relevant; iv) be comparable over time and across-countries; and v) be easily communicable in public debate. Furthermore, they should also fulfil standard statistical requirements, e.g. come from official or other well-established sources, be defined in a comparable way, have data collected regularly and be timely. Generally, the headline indicators used in the OECD framework largely meet most of these criteria. For instance, they focus on *outcomes* in the different dimensions of job quality that can be easily understood and interpreted and have full face-validity. Most indicators can be influenced by policy interventions and vary over time, although to different degrees. Overall, the main challenges rest with *data availability* and *data comparability* across available sources.

45. The measure of labour market security against unemployment, for instance, makes use of a mix of sources which are either not perfectly compatible with one another or the joint use of which requires various auxiliary assumptions. One such discrepancy concerns the use of thematic and highly-detailed aggregate-level official labour market statistics for cross-country comparisons within the OECD on the one hand, and the reliance on more comprehensive but less circumstantial micro-level surveys for group-level comparisons across the workforce (e.g. as in the case of the coverage rate of unemployment insurance). A further disparity arises between OECD and non-OECD countries, partly because the aforementioned aggregate-level statistics are not available for most emerging economies (which renders micro-data the only source of available information), but also due to the slightly different focus of national labour force surveys in the two country groups (e.g. only net earnings are available for emerging economies). Altogether, while these inconsistencies are significant, they do not jeopardize the accurate and robust measurement of labour market insecurity either across countries or groups as long as they are accounted for in an unbiased and methodologically sound manner.[32]

46. Using the incidence of working very long hours as a secondary indicator for capturing the quality for the working environment also raises some issues. One important caveat here is the potentially limited validity of long hours as an indicator of low-quality working conditions for self-employed workers. This group typically has some discretion in choosing their work schedule and working long hours may thus at least in part reflect an individual choice, rather than a burden. This observation is particularly important in emerging economies, where the self-employed constitute a large share of the labour force. The concern is more general, however, because the applicability of the job demands-resources model to self-employment has been questioned. While the relevance of job strain models for *employees* has been validated both theoretically and empirically,[33] its applicability to the self-employed is still debated. Indeed, some drivers of job strain according to this theory, such as decision latitude or working intensity, appear *a priori* to be inappropriate for the self-employed[34]. More generally, the reliability of job strain models for informal workers has not been explored in depth. However, a few studies have put forth convincing arguments in support of this approach (and of the survey instruments it relies upon, such as job content questionnaires) as a valid tool to measure the QWE of informal jobs (e.g. see de Araujo and Karasek (2008) for Brazil).

47. Overall, the quality of working environment is the area where *comparative* information is scarce and limited in scope. In order to assess statistical gaps and gauge the comparability of information across

32. This point, as well as conceptual and methodological aspects linked to the development of labour market insecurity indicators, is discussed in details in Hijzen A. and B. Menyhert, OECD Working Paper, (forthcoming).

33. See *OECD Employment Outlook 2014*, notably Annex 3.A1.

34. The need to tailor these models to the self-employed is recognised in the research literature and some progress has been made. For example, rather than autonomy, negotiation power is suggested to be a better indicator of job resources for this group. Overall two challenges remain: data comparability and the difficulty to distinguish between "genuine" and "dependent" self-employed in survey data.

countries[35], a stocktaking exercise has been developed to compile the most relevant questions from a number of existing international surveys[36]. While this inventory confirms that an important amount of information is already available at national level, a number of problems remain, notably as regards the *comparability* of data, as existing surveys have different geographical coverage, content and frequency. Among the main issues identified, one can note the heterogeneity of data producers (resulting in differences in focus and quality of the surveys, country coverage, sample size), the frequency and timeliness of data − (Eurofound's EWCS being the only international survey conducted regularly every five years only) − and the thematic coverage (aspects such as opportunities for self-realisation or quality of management practices not well captured for instance). In addition, information on several aspects of the working environment that are necessary to compile the job strain indicator (such as physical demands, task discretion and autonomy, training and learning opportunities at work, intrinsic rewards of one's job, work-life balance, unsociable work hours and flexibility of working hours) is only available for European and a few other OECD countries.

48. In this context, the approach followed in the development of the OECD Job Quality framework is a dual work-track: (1) using the best information already available and (2) promoting a process to improve the availability of comparative information on job quality, notably in the area of the quality of the working environment.

4. A STATISTICAL PORTRAIT OF JOB QUALITY

4.1. How do countries compare?

49. Table 5 provides a first indication of job quality across countries, both OECD and non-OECD, for which data are available and makes a first attempt documenting the relationship between the quality and quantity of job opportunities. The main patterns emerging from the analysis are described below; most indicators refer to 2010 and may thus be sensitive to the aftermath of the financial crisis, notably those measuring security against unemployment.

50. Focusing uniquely on indicators of job quantity delivers an incomplete picture of labour market performance. Some countries that score rather well in terms of overall employment/unemployment rates may show weaknesses on some dimensions of the quality of jobs (e.g. Argentina, Brazil and urban China). Conversely, countries that have relatively weak job-quantity outcomes may have relatively high job quality (e.g. France). Despite these cases, however, data generally shows that there is no trade-off between quality and quantity among advanced countries, and that good performance in terms of both quantity and quality can be achieved simultaneously (e.g. Finland, Netherlands, Norway and Switzerland).

35. Note that the number of sub-dimensions included in the inventory are larger than those referred to in the *OECD Employment Outlook Chapters* and the *Job Quality Database*.

36 See the inventory of Survey Questions on the Quality of Working Environment, available online on the OECD Statistics Database (http://stats.oecd.org/Index.aspx?DataSetCode=JOBQ_I). At this stage, this inventory covers the main international surveys conducted since the early 1990s based on individuals' self-reported assessment of their current job. Questions from each survey are grouped into sub-dimensions of the quality of the working environment. See Annex Table A1 for a summary of surveys and sub dimensions covered.

Table 5. **Relationship between job quality and job quantity in OECD and non OECD countries, 2010***
Country groupings based on performance along each dimension by tercile

	Job quality				Job quantity
	Earnings quality	Labour market security (against the risk of unemployment)	Labour market security (against the risk of extreme low-pay)	Quality of the working environment (as the incidence of job strain)	
Argentina	Lower	Lower	Middle	N/A	Middle
Australia	Middle	Upper	N/A	Upper	Upper
Austria	Middle	Upper	N/A	Middle	Upper
Belgium	Upper	Middle	N/A	Middle	Middle
Brazil	Lower	Lower	Middle	N/A	Middle
Canada	Upper	Middle	N/A	Upper	Upper
Chile	Lower	Lower	Upper	N/A	Lower
Urban China	Lower	Middle	Upper	N/A	Upper
Colombia	Lower	Lower	Lower	N/A	Lower
Costa Rica	Lower	Lower	Upper	N/A	Lower
Czech Republic	Middle	Upper	N/A	Middle	Middle
Denmark	Upper	Middle	N/A	Upper	Upper
Estonia	Lower	Lower	N/A	Middle	Middle
Finland	Upper	Upper	N/A	Upper	Upper
France	Upper	Upper	N/A	Middle	Middle
Germany	Upper	Upper	N/A	Middle	Upper
Greece	Middle	Lower	N/A	Lower	Lower
Hungary	Middle	Lower	N/A	Lower	Lower
India	Lower	Upper	Lower	N/A	Lower
Indonesia	Lower	Lower	Lower	N/A	Lower
Ireland	Upper	Middle	N/A	Upper	Lower
Israel	Lower	Middle	N/A	Middle	Middle
Italy	Upper	Middle	N/A	Middle	Lower
Japan	Middle	Upper	N/A	Middle	Upper
Korea	Middle	Upper	N/A	Lower	Middle
Luxembourg	Upper	Upper	N/A	Middle	Middle
Mexico	Lower	Middle	Lower	Middle	Middle
Netherlands	Upper	Upper	N/A	Upper	Upper
New Zealand	Middle	Upper	N/A	Upper	Upper
Norway	Upper	Upper	N/A	Upper	Upper
Poland	Middle	Lower	N/A	Lower	Lower
Portugal	Middle	Middle	N/A	Lower	Middle
Russia	Lower	Middle	Upper	Lower	Middle
Slovak Republic	Middle	Lower	N/A	Lower	Lower
Slovenia	Middle	Middle	N/A	Lower	Middle
South Africa	Lower	Lower	Middle	Lower	Lower
Spain	Middle	Lower	N/A	Lower	Lower
Sweden	Upper	Middle	N/A	Upper	Upper
Switzerland	Upper	Upper	N/A	Upper	Upper
Turkey	Lower	Lower	Middle	Lower	Lower
United Kingdom	Upper	Middle	N/A	Upper	Upper
United States	Middle	Middle	N/A	Middle	Middle

Note: Upper, Middle and Lower indicate the top, middle and bottom third of the country ranking in each dimension. Job quantity is measured by the employment-to-population ratio in the population aged 15 or more in each country. The ranking for the risk of low-pay considers emerging economies only.

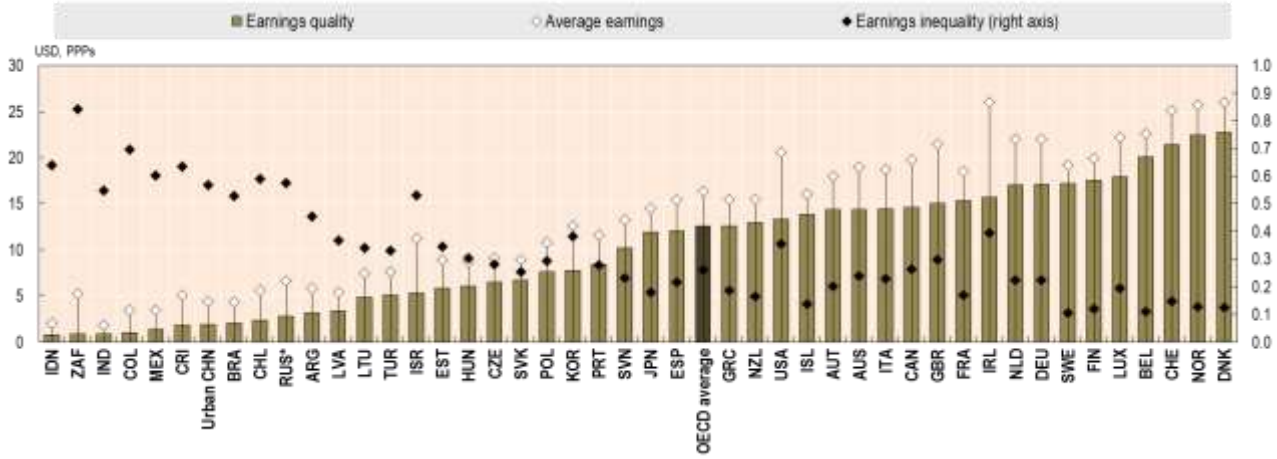
*2005 for the quality of working environment as measured by the job strain indicator.

Sources: OECD calculations based on same data and sources used for figures 4, 5, 6 and 7 A below).

51. Figure 4 plots earnings quality across forty-five countries, both OECD and non OECD, showing the generalised mean and its two sub-components (average earnings and earnings inequality) for high levels of inequality aversion (alpha= -3). Differences in earnings quality are primarily driven by gaps in average earnings. Earnings quality is highest in Denmark, Norway, Switzerland and Belgium, while it is lowest in Indonesia, South Africa and India. This cross-country ranking in terms of overall earnings quality (here displayed for the highest level of inequality aversion) is not very sensitive to the degree of inequality aversion chosen. While not shown here, the rankings for mild and moderate inequality aversion suggest that, as aversion increases, higher levels of inequality more strongly reduce the generalised mean and tend to lower earnings quality. This is the case of South Africa, Ireland, or the United States. Conversely, more equal countries move up in the cross-country ranking when assuming higher levels of inequality aversion (for example, when moving from mild to high inequality aversion, Finland and Sweden display higher earning quality) [37].

Figure 4. **Earnings quality, hourly earnings in USD, OECD and non OECD countries, 2010**

High inequality aversion (alpha=-3)



Note: Calculations are based on gross hourly earnings among employees for OECD countries as well as Latvia and Lithuania. For non-OECD countries, data on net hourly earnings among all employed workers were used. The reference period for calculations is 2010, except for Brazil (2009), Chile (2009), China (2009), India (2011) and Korea (2009).

* The figures for Russia are based on imputed data on households' disposable income from information on income brackets, and therefore include the effect of net transfers. Individual hourly income for two-earner households was calculated using available information on partners' employment status and working hours.

Source: OECD calculations based on the Structure of Earnings Survey (SES) for most European countries (except for Austria, Iceland, Ireland, Slovenia and Switzerland); the European Union Survey on Income and Living Conditions (EU-SILC) for Austria, Iceland, Ireland, Slovenia; the OECD Earnings Distribution database, http://dx.doi.org/10.1787/lfs-ear-data-en for Japan and New Zealand; the European Social Survey for Russia; national labour force and household surveys for the remaining countries (EPH: Argentina, PNAD: Brazil, Canadian LFS, CASEN: Chile, GEIH: Colombia, ENAHO: Costa Rica, UHS: urban China, NSS: India, SAKERNAS: Indonesia, KLIPS: Korea, ENIGH: Mexico, NIDS: South Africa, SAKE: Switzerland, CPS: United States).

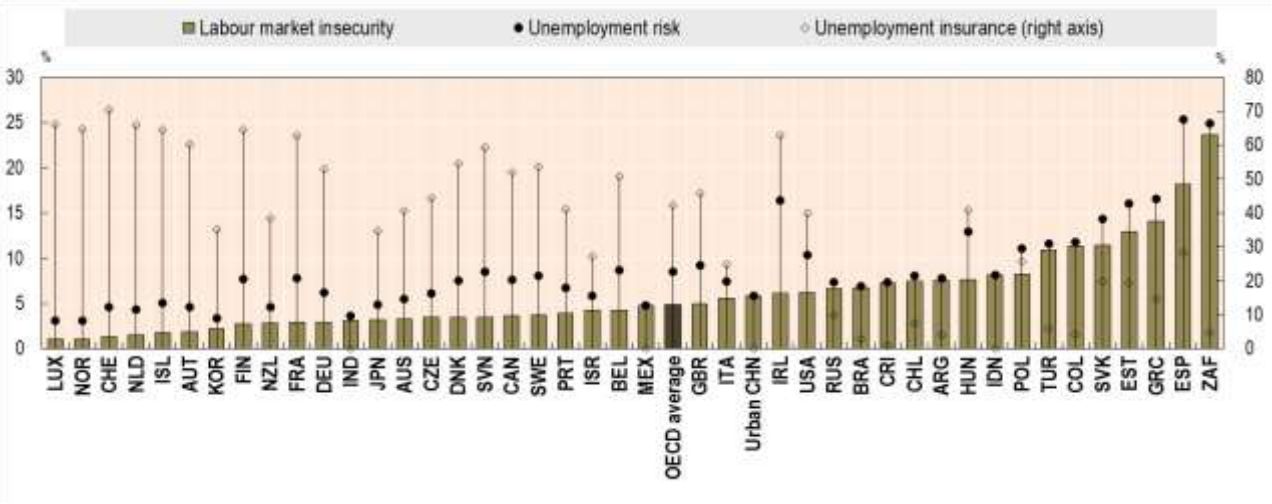
52. With respect to labour market risk due to unemployment, Figure 5 presents the composite measure of labour market insecurity and its main components across OECD and non OECD countries in 2010[38]. It should be stressed that this measure is partly influenced by the specific labour market conditions resulting from the global financial crisis. Bearing this in mind, figure 5 shows that the best performing countries are those where the risk of unemployment is contained (e.g. Luxembourg, Norway, Switzerland, The Netherlands) or where social protection is effective in cushioning it (e.g. France and Germany). In

37. A detailed analysis of cross-country ranking of earnings quality is available for both OECD and emerging economies in chapters 3 and 5 of the OECD Employment Outlook 2014 and 2015.

38. For cross-country comparison of unemployment risks and unemployment insurance, see OECD (2014), OECD Employment Outlook 2014 and OECD (2015), OECD Employment Outlook 2015.

emerging economies, the combination of low unemployment risk and very limited unemployment insurance makes labour market insecurity from unemployment similar to that prevailing in a typical OECD country. However, given the low levels of social protection, the low unemployment risk in emerging economies reflects the sheer unaffordability of unemployment, as many workers have no better option than very low quality jobs. The most striking example is India where low labour market insecurity is actually explained by a large proportion of working poor. The highest levels of labour market insecurity are observed in Greece, Spain and South Africa, countries that face the twin challenge of reducing unemployment risk and strengthening social protection to increase labour market security.

Figure 5. **Labour market insecurity due to unemployment, OECD and non OECD countries, 2010**



Note: **Unemployment risk** denotes the (scaled transform of the) probability of becoming unemployed times the expected duration of unemployment which may be interpreted as the average expected earnings loss associated with unemployment as a share of previous earnings. **Unemployment insurance** captures the effective net individual replacement rate of unemployment and social assistance benefits in terms of previous earnings**. Labour market insecurity** is calculated as unemployment risk times one minus unemployment insurance and may be interpreted as the average expected earnings loss associated with unemployment as a share of previous earnings. (For further details, see the OECD Employment Outlook 2014.)

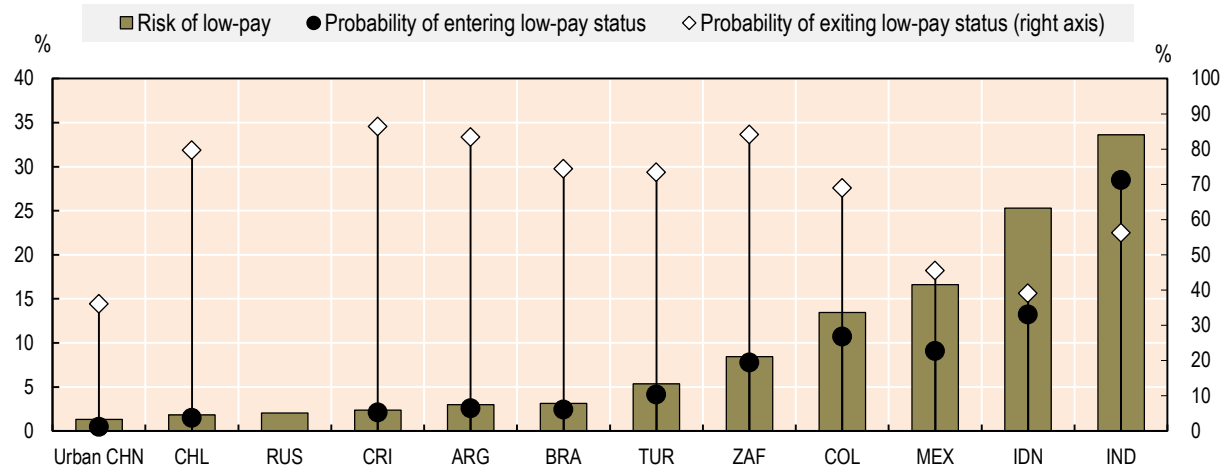
Source: For OECD countries, calculations based on OECD (2013), "Labour Market Statistics: Unemployment by duration: incidence", OECD Employment and Labour Market Statistics (database),.http://dx.doi.org/10.1787/data-00322-en; OECD Benefit Recipients Database; OECD (2013), "Labour market programmes: expenditure and participants", OECD Employment and Labour Market Statistics (database), http://dx.doi.org/10.1787/data-00322-en and OECD (2012), "Taxes and benefits", OECD Social Expenditure Statistics (database), http://dx.doi.org/10.1787/data-00201-en, for OECD countries.

For non-OECD countries, calculations are based on direct estimates from national household and labour force surveys (EPH: Argentina, PNAD: Brazil, GEIH: Colombia, ENAHO: Costa Rica, UHS: urban China, NSS: India, SAKERNAS: Indonesia, NIDS: South Africa). For these countries, the pseudo-panel methodology proposed by Dang et al. (2013) was used to estimate the risk of unemployment, while unemployment insurance was calculated as the ratio of the average net transfer income of the unemployed and the median net earnings among the employed in a country.

53. The risk of falling into extremely low-paying jobs is negligible in advanced economies and, as such it is not reported in Figure 6. In emerging economies, on the other hand, it often constitutes the most important source of labour market insecurity, since the risk of unemployment per se is typically moderate. The risk of extreme low pay is particularly high in India, Indonesia and Mexico, while it is less pronounced in urban China, Chile and the Russian Federation (Figure 6).[39]

39. These figures account for the role of public transfers.

Figure 6. **Labour market insecurity due to extreme low-pay, emerging economies, 2010**



Note: The low-pay threshold (of 1 PPP-adjusted USD per hour) corresponds to a disposable income per capita of $2 (PPP) per day in a typical household of five members with a single earner working full-time. The choice of the household size follows Bongaarts (2001) and is based on data from Demographic and Health Surveys. Country rankings are generally robust to changing the low-pay threshold.

The probability of entering and exiting low-pay status are calculated by the pseudo-panel methodology proposed by Dang et al. (2013) and represent annual concepts. The risk of low pay is calculated by (the scaled transform) of the probability of entering low-pay status times the expected duration of remaining there. Calculations are based on net hourly earnings adjusted for social transfers.

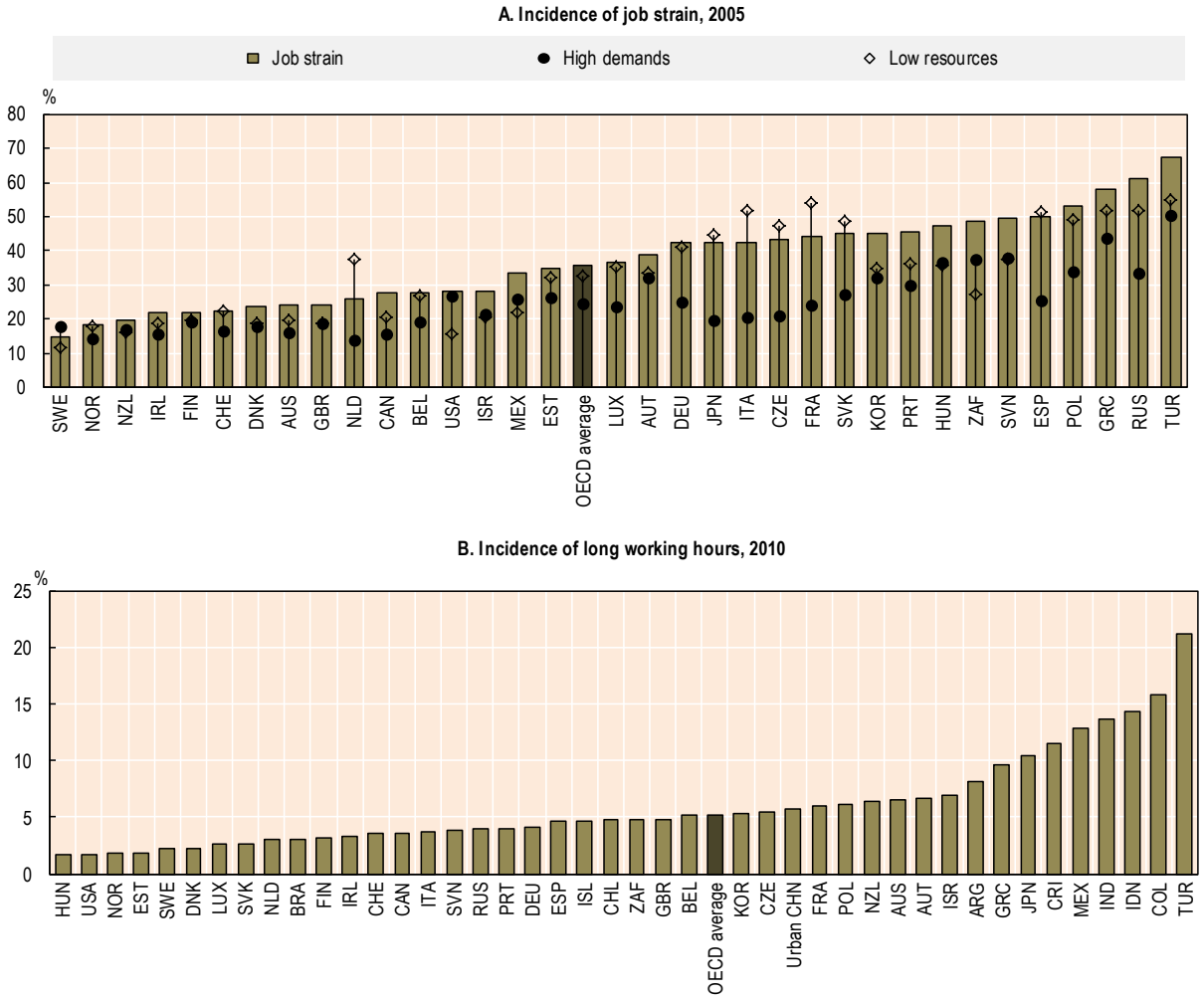
Source: Calculations are based on 2009-2010 data household and labour force surveys (EPH - Argentina, PNAD - Brazil, CASEN - Chile, UHS - China, GEIH - Colombia, ENHAO - Costa Rica, NSS - India, SAKERNAS - Indonesia, ENIGH - Mexico, NIDS - South Africa), the EU-SILC national files (Turkey) and the European Social Survey (Russia).

54. Finally, looking at the quality of the working environment (job strain) for both OECD and non OECD countries for which information is available suggests the best performing countries (those with the lowest share of strained jobs) are those that combine high resources available to workers with a low share of excessively demanding jobs: the Nordic countries, New Zealand or Ireland are among the top performers (Figure 7, Panel A). Interestingly, the performance of some countries like Italy, France and Spain is dragged down by low resources despite the incidence of demanding jobs is not extraordinarily high[40]. Turkey and the Russian Federation display high shares of employees in strained jobs. While not presented here, the decomposition of job demands suggests that strong time pressure is an important work stressor. Hence, using very long hours as a proxy is a reasonable option for measuring the quality of working environment in emerging economies, where information on working conditions is often scarce and limited in scope[41]. Turkey, Colombia, Indonesia and India perform rather poorly when the quality of working environment is proxied by the incidence of working more than 60 hours a week (Figure 7, Panel B).

40. A detailed analysis is available for 2010, for 23 European countries for which data are available in the 5th wave of the European Working Conditions Survey (Eurofound, 2012): it shows that working under time pressure is the most common job stressor, with 45% of employees reporting that they had to cope with this type of constraint at work. Physically demanding jobs are also relatively widespread, with more than one third of employees reporting that they are exposed to ergonomic or ambient risks at work. Turning to workplace resources, work autonomy and skill development appear to be the main area of concern. More than two thirds of employees report that they have limited autonomy in their job or are given few opportunities to learn new things and improve their skills. By contrast, the majority of workers report good management practices and workplace relationships at their workplace (66% and 60%, respectively).

41. More details on the adjustment made for assessing the quality of the working environment are available in chapter 3 of the OECD 2015 Employment Outlook (OECD, 2015).

Figure 7. **Low quality working environments, OECD and non-OECD countries**



Note: Job strain is defined as having one job demand with no job resources, or two demands with only one job resource or none. *High level of job demands* is defined as having two job demands. *Low level of job resources* is defined as having one job resource at most. The ISSP-based job strain index was rescaled in accordance with the EWCS-based index for continuity of the series. The rescaling factor applied to the ISSP-based index corresponds to the cross-country average of EWCS-based indices, divided by the cross-country average of ISSP-based indices, where these two averages have been calculated over the 16 countries covered by both EWCS and ISSP data. *Working very long hours* is defined as working more than 60 hours in an average week. Figures represent 2010 values except for Brazil (2011), urban China (2009) and India (2011) in Panel B.

Source: Panel A: OECD calculations based on Eurofound (2007), Fourth European Working Conditions Survey, Publications Office of the European Union, Luxembourg; and International Social Survey Programme Work Orientations Module (2005). Panel B: For OECD countries (except for Iceland, Korea, Switzerland and the United States), figures are based on the OECD Employment Database. International surveys are used to obtain results for Iceland and Turkey (EU-SILC), India (Gallup World Poll) and Russia (European Social Survey). For the remaining countries, calculations are based on national household and labour force surveys (EPH: Argentina, PNAD: Brazil, GEIH: Colombia, ENAHO: Costa Rica, UHS: urban China, SAKERNAS: Indonesia, KLIPS: Korea, NIDS: South Africa, SAKE: Switzerland, CPS: United States)

4.2. How do workers compare? Job quality across socio-demographic groups

55. It is also important to look within countries at how different socio-demographic groups have access to different types of jobs. This can provide new insights into labour market inequalities by shedding light on the nature and depth of the disadvantages faced by some segments of society. A break-down of job quality by gender, age and level of education can be calculated for most countries and is depicted in Figure 8 for both OECD and non OECD countries for which data are available. Results are shown for all countries together as the split between these panels for OECD and non OECD does not reveal significant differences. They show that some socio-demographic groups cumulate many disadvantages, while other groups show good performance in all dimensions.

- The population groups who are worst off in terms of job quality are youth and low-skilled workers. They cumulate poor performance in terms of employment rates (Panel E) with poor outcomes along the different dimensions of job quality (Panels A-D).

- By contrast, high-skilled workers not only have easier access to jobs, but are also overly represented among high quality jobs along all of the dimensions analysed.

- The picture is mixed for women. They face some disadvantages in the labour market. A gender gap exists in terms of earnings quality and employment rates (reflecting lower participation rates). Women also face a higher risk of extreme low pay. On the other hand, they tend to work in higher-quality work environments and have lower insecurity due to unemployment.

- Finally, a significant gap in job quality exists between formal and informal workers[42] Informal workers have lower earnings quality, face a higher risk of extremely low-paying jobs and a higher probability of working very long hours (Figure A.2. in Annex).

42. Given the large heterogeneity within informal employment, it would be unreasonable to assume that all informal jobs are of low quality by definition (at least not along all dimensions). Hence, the approach to job quality and informality does not consider informality as a dimension of quality per se, but rather tries to quantify the quality gap between formal and informal jobs.

Figure 8. **Job quality and quantity outcomes by socio-demographic group**

Cross-country averages, both OECD and non OECD (2010)

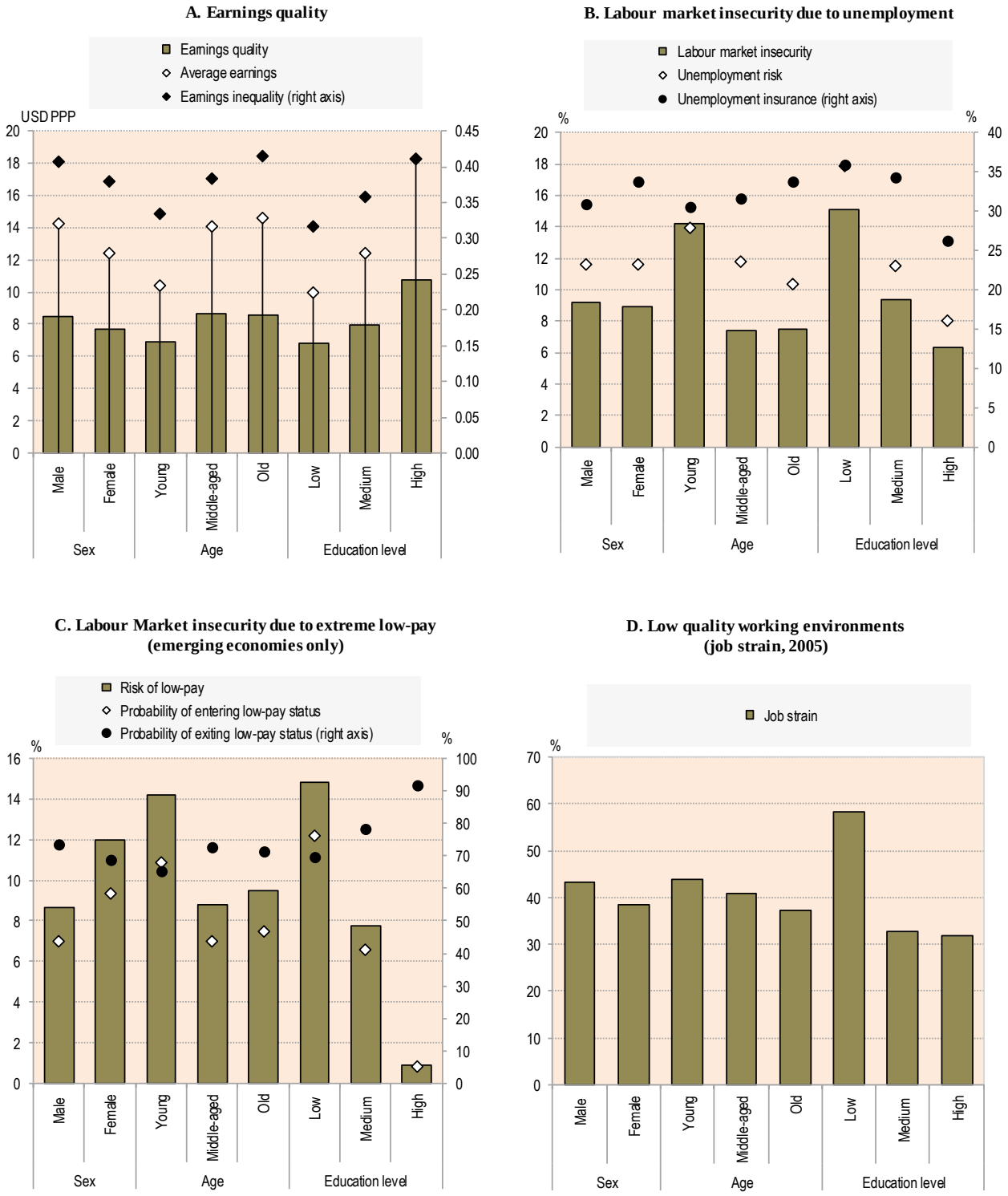
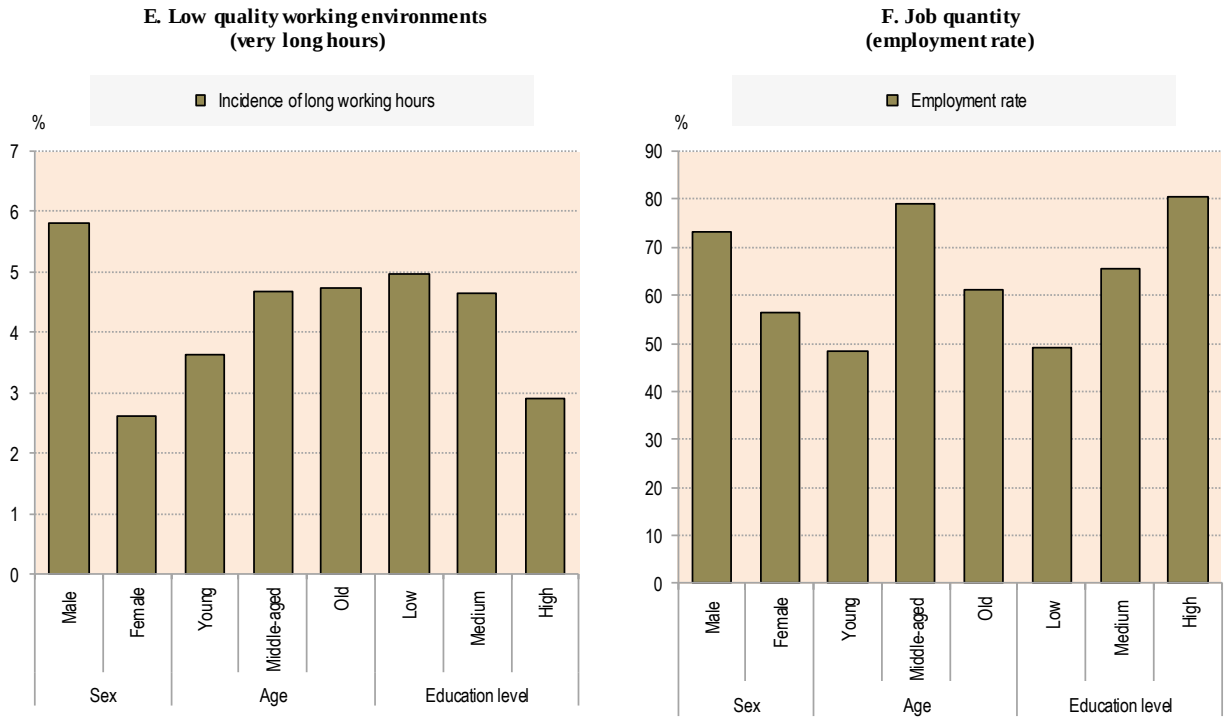


Figure 8. **Job quality and quantity outcomes by socio-demographic group** *(cont.)*

Cross-country averages, both OECD and non OECD (2010)



Notes:

Panel A: Calculations are based on 2010 data except for Brazil (2011), Chile (2011), India (2011) and Turkey (2011). Figures represent simple cross country averages across all relevant countries except China, Ireland, Israel and New Zealand.

Panel B: Calculations are based on 2010 data except for Brazil (2011), Chile (2011), Switzerland (2011) and Turkey (2011). Figures represent simple cross country averages across all relevant countries except Australia, Canada, China, Great Britain, India, Indonesia, Ireland, Israel, Japan, Mexico, Norway and New Zealand where data from one or more socio-economic groups are missing.

Panel C: Figures represent simple cross-country averages across 11 emerging economies (ARG, BRA, CHL, CHN, COL, CRI, IND, IDN, MEX, TUR, ZAF). Calculations are based on 2009-2010 data, except for Brazil (2009-2011), Chile (2009-2011), China (2008-2009), Costa Rica (2010-2012), India (2011-2012), Mexico (2010-2012), South Africa (2010-2012) and Turkey (2011-2012). Calculations are based on net hourly earnings.

Panel D: Figures represent simple cross-country averages across all OECD countries (except Chile and Iceland) as well as Russia and South Africa.

Panel E: Figures represent simple cross-country averages across all sampled countries except for China, Israel and New Zealand.

Panel F: Figures represent simple cross-country averages across all sampled countries except for Iceland, Israel and New Zealand.

Sources:

Panel A: OECD calculations based on the Structure of Earnings Survey (SES) for most European countries (except for Austria, Iceland, Slovenia and Switzerland); the EU Survey on Income and Living Conditions (for Austria, Iceland and Slovenia); the European Social Survey for Russia, and national labour force and household surveys for the remaining countries (EPH: Argentina, PNAD: Brazil, CASEN: Chile, GEIH: Colombia, ENAHO: Costa Rica, NSS: India, SAKERNAS: Indonesia, KLIPS: Korea, ENIGH: Mexico, NIDS: South Africa, SAKE: Switzerland, CPS: United States).

Panel B: OECD calculations based on national and international labour force surveys (EU-LFS and EU-SILC for member states of the European Union, EPH for Argentina, PNAD for Brazil, CASEN for Chile, GEIH for Colombia, ENAHO for Costa Rica, GSOEP for Germany, KLIPS for Korea, SAKE for Switzerland, Turkish LFS and the EU-SILC national file for Turkey, CPS for the United States). For the calculation of unemployment insurance in OECD countries, the OECD Social Benefit Recipients database, the OECD Employment and Labour Market Statistics database and the OECD Tax-Benefit database were also used.

Panel C: OECD calculations based on national labour force and household surveys (EPH: Argentina, PNAD: Brazil, CASEN: Chile, UHS: China, GEIH: Colombia, ENAHO: Costa Rica, NSS: India, SAKERNAS: Indonesia, ENIGH: Mexico, NIDS: South Africa, EU-SILC national file: Turkey).

Panel D: OECD calculations based on Eurofound (2007), Fourth European Working Conditions Survey, Publications Office of the European Union, Luxembourg; and International Social Survey Programme Work Orientations Module (2005).

Panel E: OECD calculations based on the EU-SILC for members of the European Union (except Germany), the Gallup World Poll (India), the European Social Survey for Russia, as well as national labour force and household surveys (EPH: Argentina, HILDA: Australia, PNAD: Brazil, Canadian LFS, CASEN: Chile, GEIH: Colombia, ENAHO: Costa Rica, SOEP: Germany: NSS: India, SAKERNAS: Indonesia, KLIPS: Korea, ENIGH: Mexico, NIDS: South Africa, SAKE: Switzerland, CPS: United States).

Panel F: OECD calculations based on the EU-SILC for members of the European Union (except Germany), the Gallup World Poll (India), the European Social Survey (Russia), as well as national labour force and household surveys (EPH: Argentina, HILDA: Australia, PNAD: Brazil, Canadian LFS, CASEN: Chile, UHS: China, GEIH: Colombia, ENAHO: Costa Rica, SOEP: Germany: NSS: India, SAKERNAS: Indonesia, KLIPS: Korea, ENIGH: Mexico, NIDS: South Africa, SAKE: Switzerland, CPS: United States).

5. CONCLUSIONS

56. This paper has presented the OECD Framework for Measuring and Assessing Job Quality, developed jointly by the OECD Employment, Labour and Social Affairs Directorate and the Statistics Directorate as part of a broader EU-supported project[43], describing its links to the broader well-being agenda pursued by the OECD. The approach to job quality taken is explicitly multi-dimensional and defined in terms of earnings quality, labour market security and quality of working environment. The paper has described measurement choices and indicators for each of the dimensions of job quality and highlighted the main limitations on the data front. Finally, the paper has documented job quality across both OECD and non OECD countries, as well as socio-economic groups for which data are available.

57. Going forward, further work will be necessary to extend and strengthen the comprehensive analysis of job quality in both OECD and emerging economies. On the data front, the OECD job quality agenda will pursue a dual track approach. The best existing information will continue to be used to monitor job quality across countries and socio-demographic groups, while OECD statistical efforts will particularly concentrate on the development of shared international guidelines on measuring the quality of the working environment, in particular to foster statistics in emerging economies where data are scarce. A key objective is to develop and enhance the job quality database to support the broader use of job-quality measures in analytical work and policy debates.

58. Recent OECD empirical work is also enriching the static analysis conducted so far with a dynamic perspective that places more emphasis on the long-term prospects that jobs provide (e.g. in terms of career advancement)[44]. More generally, further analytical work remains to be done at *country level*, to better understand how job quality interact with job quantity and contribute to overall labour market performance. In particular, assessing the impact of job quality on labour productivity based on firm-level data, as well as exploring the role of institutions, labour market policies, firm type and management practices in generating a virtuous cycle of higher quality jobs, better health and higher productivity would provide further critical evidence for giving job quality the place it deserves in the policy recommendations on labour market performances.

43. This OECD project on "Defining, Measuring and Assessing Job Quality and its Links to Labour Market Performance and Well-being" was launched in October 2013 (VS/2013/0108 5SI2.666737).

44. See Garnero A. and A. Hijzen, S. Martin (forthcoming).

ANNEX

Table A.1. **Overview of international surveys providing information on the Quality of the Working Environment**

Name of survey, special modules and source	Countries covered	Years covered, frequency	Target population	QWE themes covered
European Working Conditions Survey (EWCS) Eurofound: http://eurofound.europa.eu/surveys/ewcs/index	EU 28, Norway, Turkey, FYROM, Albania, Kosovo and Montenegro	1991, 1996, 2000/2001, 2005, 2010, 2015* (planned every 5 years) *in progress	All persons aged 15 and over (16 and over in Spain, the UK and Norway, complying with Labour Force Survey universe definition) whose usual place of residence is in the territory of the countries included in the survey and who were in employment during the reference period.	- Physical risk factors - Physical demands - Work intensity - Intimidation and discrimination at workplace - Emotional demands and work stress - Subjective job insecurity - Task discretion and autonomy - Training and learning opportunities - Opportunity for career advancement - Opportunity for self-realisation - Organisational participation and workplace voice - Intrinsic rewards - Good managerial practices - Task clarity and performance feedback - Social support and good relationships at work - Work-life balance - Unsocial work schedule - Flexibility of working hours
European Social Survey (ESS) Family, Work and Well-being modules http://www.europeansocialsurvey.org/	EU28, Norway, Switzerland, Turkey, Israel, Russian Federation, Ukraine	2004, 2010	All persons aged 15 and over (no upper age limit) resident within private households in each country, regardless of their nationality, citizenship or language.	- Physical risk factors - Work intensity - Emotional demands and work stress - Subjective job insecurity - Task discretion and autonomy - Training and learning opportunities - Opportunity for career advancement - Organisational participation and workplace voice - Intrinsic rewards - Social support and good

				relationships at work - Work-life balance - Unsocial work schedule - Flexibility of working hours
International Social Survey Programme (ISSP) Work Orientations module http://www.gesis.org/issp/home/	Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Hungary, Ireland, Israel, Italy, Japan, Korea, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovenia, Spain, Sweden, Switzerland, United Kingdom, United States, Latvia, Russian Federation, South Africa, Bulgaria, Cyprus**, Bangladesh, Dominican Republic, Philippines, Taiwan	1989, 1997, 2005, 2015/6* *in progress	Nationally representative random sample of the adult population.	- Physical risk factors - Physical demands - Work intensity - Emotional demands and work stress - Subjective job insecurity - Task discretion and autonomy - Training and learning opportunities - Opportunity for career advancement - Intrinsic rewards - Task clarity and performance feedback - Social support and good relationships at work - Work-life balance - Flexibility of working hours
Eurobarometer Flash Euromodule 398 European Commission: http://ec.europa.eu/public_opinion/flash/fl_398_en.pdf	EU28	2014	Population of the respective nationalities of the European Union Member States, resident in each of the 28 Member States and aged 15 years and over.	- Physical risk factors - Physical demands - Work intensity - Intimidation and discrimination at workplace - Emotional demands and work stress - Task discretion and autonomy - Organisational participation and workplace voice - Intrinsic rewards - Good managerial practices - Social support and good relationships at work - Work-life balance - Unsocial work schedule - Flexibility of working hours
Gallup World Poll Gallup Inc.: http://www.gallup.com/services/1709	Over 150 countries worldwide	2005/6, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014 (yearly)	Entire civilian, non-institutionalized, aged 15 and older population.	- Physical risk factors - Work intensity - Emotional demands and work stress - Subjective job insecurity

45/world-poll.aspx				- Opportunity for career advancement - Opportunity for self-realisation - Organisational participation and workplace voice - Good managerial practices - Task clarity and performance feedback - Social support and good relationships at work
European Quality of Life Survey (EQLS) Eurofound: http://www.eurofound.europa.eu/european-quality-of-life-surveys-eqls.	EU28, Norway, Turkey, FRYOM, Serbia, Kosovo, Montenegro	2003, 2007, 2013	All people aged 18 and over whose usual place of residence is in the territory of the countries included in the survey.	- Physical risk factors - Work intensity - Emotional demands and work stress - Subjective job insecurity - Task discretion and autonomy - Training and learning opportunities - Opportunity for career advancement - Opportunity for self-realisation - Intrinsic rewards - Work-life balance - Flexibility of working hours
EU-LFS AHMs Eurostat: http://ec.europa.eu/eurostat/statistics-explained/index.php/EU_labour_force_survey_-_ad_hoc_modules	EU28, Norway, Switzerland, FYROM	2003, 2004, 2005, 2007, 2010, 2013	Household sample of persons aged 15 and over.	- Physical risk factors - Physical demands - Work intensity - Intimidation and discrimination at workplace - Training and learning opportunities - Work-life balance - Unsocial work schedule - Flexibility of working hours

Sources: Information extracted from the OECD Inventory for the Quality of the Working Environment, as available at http://stats.oecd.org/Index.aspx?DataSetCode=JOBQ_I.The Inventory consists of OECD's classifications based on questionnaire sheets obtained from survey websites

**1. 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".

2. 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.

Figure A.1. **A comparison of the OECD and UNECE job quality frameworks**

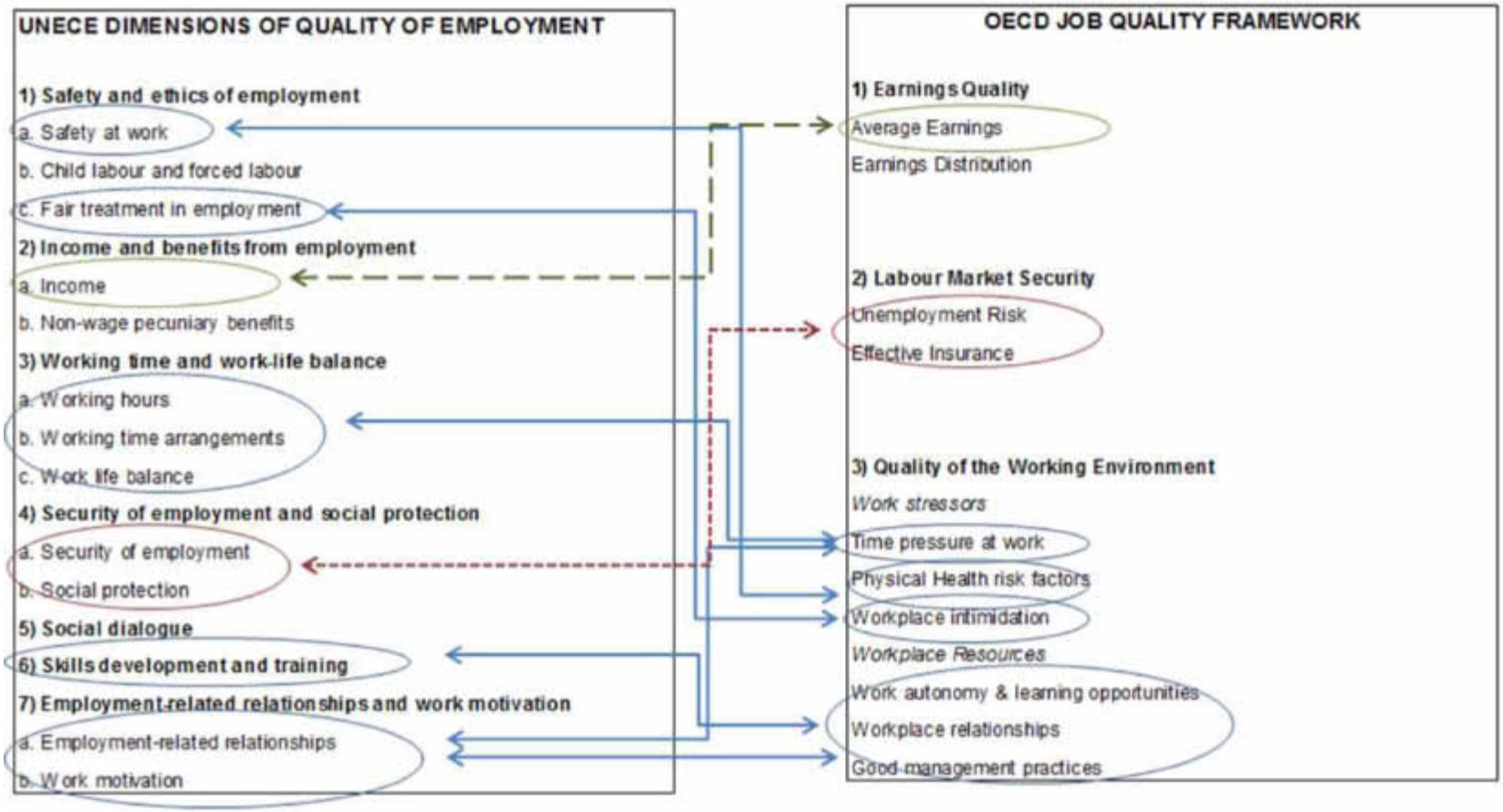
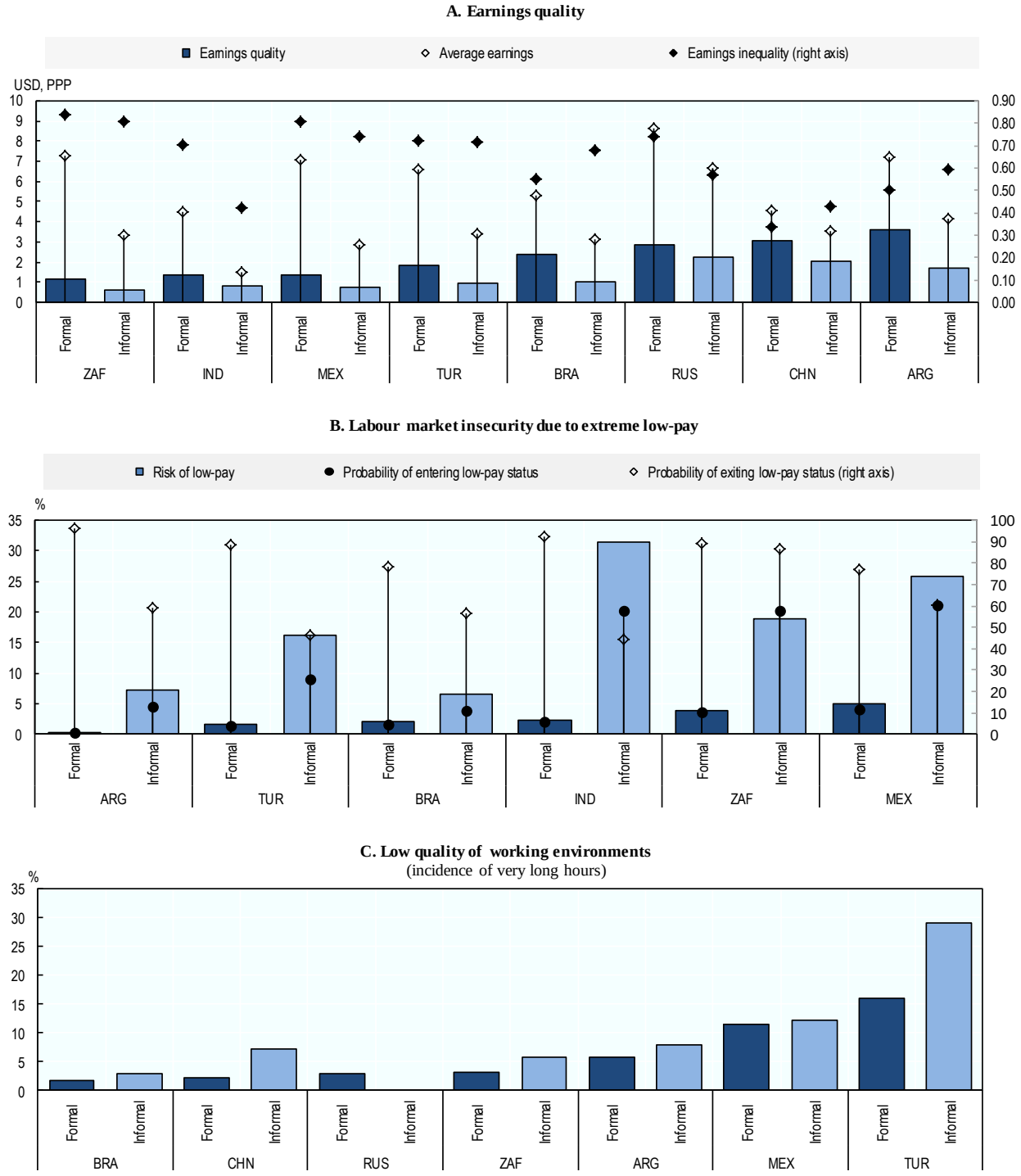


Figure A.2. **The quality gap between formal and informal jobs, emerging economies, 2010**



Note: Classification between formal and informal status is based on social security payments (employees) and business registration (self-employed). For more information about the construction of the job quality indicators used, please see the notes to Figures 2 to 5. Indonesia missing due to lack of information on formality status; urban China missing due to limited sample size; the analysis on India is confined to all workers for whom data on social security contributions is available (this effectively excludes self-employed workers and family workers).

Source: Panel A: OECD calculations based on national household and labour force surveys (EPH: Argentina, PNAD: Brazil, UHS: urban China, NSS: India, ENIGH: Mexico, NIDS: South Africa), the EU-SILC national files (Turkey), the European Social Survey (Russian Federation). Panel B: OECD calculations based on national household and labour force surveys and the EU-SILC national files (Turkey).

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