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Measuring Labour Market Institutions: Conceptual and Methodological Questions on 'Working Hours Rigidity'

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3.1 Introduction

Research on the effects of labour market institutions on employment performance has recently been extended from industrialized to developing countries, using institutional indicators far more extensive in their coverage than those at the core of the OECD debates. These indicators extend to the regulation of working conditions, including working time, and are being used as the basis for the contention that 'rigid' regulation of employment conditions is to a large extent responsible for poor labour market performance such as low productivity and high unemployment and informal employment.

Among the efforts that have been made towards quantifying, comparing and assessing the impact of these kinds of laws, the most prominent are those carried out by Botero *et al*.[2] and the World Bank.[3] Their assessment of the existing regulations in developing countries has been overwhelmingly negative. As the World Bank has argued:

Beyond adopting and enforcing [the ILO's fundamental principles], governments struggle to strike the right balance between labor market flexibility and job stability. *Most developing countries err on the side of excessive rigidity*, to the detriment of businesses and workers alike.[4]

Such views have been the subject of severe criticism from trade unions. The ICFTU and Global Unions, for example, have suggested that the World Bank index is "based on the simplistic premise that any kind of labour regulation, other than those strictly limited to the core labour standards, is inherently bad for development and should be removed."[5] Despite the significance of this debate, however, few research attempts have been made to evaluate these indexes. One notable exception is that by Bertola *et al*., which used the World Bank's Employment Rigidity Index but questioned its premises.[6] This research does not, however, examine the quality of the Index, except to indicate its potential problems, based on the experiences of Latin American labour markets.

There is, then, an urgent need to broaden the research towards investigating the existing indicators and the claims being made for their policy implications, and evaluating the role of labour regulations from a perspective that takes into account the policy rationales that underlie them. Since the adoption of the ILO Declaration of Fundamental Principles and Rights at Work in 1998,[7] this kind of research has in the main been devoted to laws related to these fundamental principles (freedom of association; freedom from forced labour and child labour; and non-discrimination in employment).[8] The risk of confining the research to the core standards, however, is that, as Alston and Heenan have argued, the kinds of measures mandated by these instruments could come to be viewed as the central features of acceptable labour market regulation, rather than an absolute minimum of protection.[9] Excluded are the much more extensive range of protections that constitute the international labour code, including those on working conditions such as health and safety, wages and working time.

This chapter represents a modest and preliminary attempt to investigate the quality of the existing institutional indicators that relate to the ILO's 'technical' or working conditions standards. It focuses exclusively on working time laws, considering the extent to which working time indicators are conceptually and methodologically sound and questioning their relevancy to understanding actual working time patterns. While this study considers only working time, however, we believe that the conceptual and methodological questions raised have broader application to the measurement of labour market regulation.

The rest of the chapter is constructed as follows. After reviewing the existing indicators on working time regulation in section 2, the conceptual and methodological questions underlying these indicators are examined in section 3, where it is argued that they lack a proper consideration of the rationales for working time regulation, so that these indicators risk regarding any form of regulation as 'rigid'. It will also be suggested that a sound understanding of how different elements of working time regulation are articulated in the context of country-specific conditions is needed. Section 4 investigates another critical issue, the distinction between *de jure* and *de facto* regulation, which is frequently alluded to without any proper analysis or empirical evidence of the influence of working time laws on actual working time arrangements. Based on the notion of 'observance' of labour legislation and the related indicator the 'observance rate', an effective regulation index (ERI) is constructed, which shows that the relationship between working time regulation, income, and the observance of legal measures is not clear-cut, and, especially in low-income countries, often very complex. As a result, it is suggested that the allegedly negative employment effects of working time 'rigidity' are questionable. The chapter concludes in section 5 by identifying avenues for future research.

3.2 A review of the indicators

The utility of indicators in evaluating the effect of labour market institutions is apparent. When the required information is not readily available or too costly, an indicator can be developed as an alternative. By definition, then, an indicator should be directly associated with the required variable such that differences in the values of the variable (called the 'latent' variable) mirror differences in the values of the indicator. In other words, the indicator needs to be valid in the sense that it actually measures what it is supposed to measure. Validity, then, is one of the key properties that an indicator should meet to be used in empirical analysis.[10]

With respect to working time indicators, although the underlying motivation is sometimes unclear, they appear to be intended to measure the constraints imposed on firms in adjusting the duration and timing of their working hours and the impact of working time laws. While it is obvious that effective adjustment of working time is an essential element of enterprise adaptation to changing market circumstances, it is difficult to know what constraints are actually in place at the workplace, and working time regulations can be seen as indicative of these constraints.

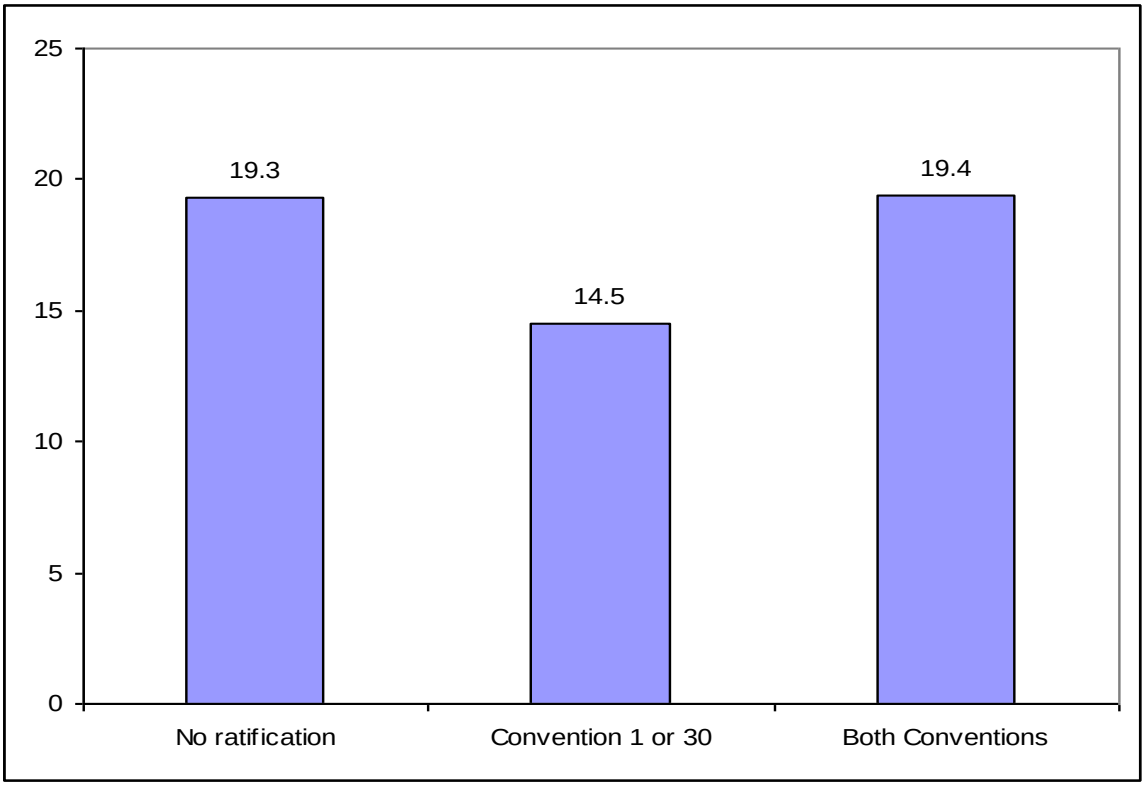
To this end, two approaches are being used in the current indicators, which are based on either the ratification of the international standards or on the texts of domestic working time laws.

Ratification of the international standards

The first method for international comparison of working time is to use as a proxy the ratification of working-time related international standards. This method is widely used for ILO's core labour standards. However, at least with respect to working time laws, its

usefulness is rather limited. One illustration is the ratification record of the Hours of Work Conventions (Nos. 1 and 30), which include a 48-hour limit on weekly hours for industry, commerce and offices.[11] Ratification of these Conventions appears to have had limited impact on actual working hours. As Figure 3.1 demonstrates, the proportion of paid employees who are working more than 48 hours (19.4 per cent) is equally high in countries that have ratified both Conventions as in those that have ratified neither.[12] Moreover, countries that have ratified only one of the Conventions (for example, Canada, France, and Norway) have a lower incidence of 'excessive hours' than those that have ratified both. It is difficult, then, at least with respect to weekly hours limits, to argue that ratification accurately reflects the actual constraints placed on workers and employers in different countries in organizing working time.

Figure 3.1 Proportion of workers working more than 48 hours per week (by ratification record, % of paid employees: unweighted mean of national averages)



Source: ILO Working Time Database and ILOLEX.

Reliance on ratification rates also excludes from consideration working hours regulations in countries that have not ratified the Conventions, even when they are broadly in line with the international standards. A recent review of the working time laws of more than 100 countries, for example, found that most have enacted a normal weekly hours limit that matches or exceeds that required by the Forty-Hour Week Convention, 1935 (No. 47), despite this instrument having been ratified by only 14 member States.[13] And only two countries were found to have weekly limits that exceed the 48-hour normal limit of Conventions Nos. 1 and 30, despite these standards being ratified by a total of only 55 member States.

Ratification of international Conventions, then, can be a poor indicator of the influence of the standards they contain.[14] It should be noted that ratification can depend on a wide range of factors. For example, Conventions Nos. 1 and 30 contain a number of detailed requirements that may curtail their ratification. Most obviously, they require that working hours in principle be arranged in an even 8-hour per day pattern (Convention No. 1, Article 2(b)). And their 48-hour limits can be averaged over a period of longer than a week only in 'exceptional cases'. The degree of flexibility inherent in the working time laws of many countries, then, would prevent them from ratifying these standards, even though their weekly limits are in line with the Conventions.

Moreover, even with respect to more recent standards, such as Convention No. 47, which tend not to have such detailed provisions, ratification may depend on factors as diverse as the current ratification strategy of the International Labour Office, the ILO's standing in the country concerned or the government's attitude towards international standards, rather than being solely a question of whether the national legal regime is in line with the international standards. As a result, although a useful proxy when no more detailed national-level information is available, ratification rates of international standards can be a poor measurement of labour regulation.

National working time laws

National legislation is a more advanced basis for international comparisons of working time regulation and textual analysis of these laws tends to be relied on in the recent work towards developing indicators on working time regulation. It permits a recognition of the specific regulatory techniques being used to implement the Conventions. Also, account can be taken of countries that have not ratified the international standards.

However, difficulties can be encountered in comparing working time regulations due to both their complexity and to the considerable cross-country variations in regulatory techniques.[15] For example, the relationship between limits on normal hours of work and other elements of working time laws, such as provisions on overtime hours, rest periods and night and weekend work, presents a challenge for establishing a single composite index of working time for statistical analysis.

This has often led researchers to rely on their 'overall' judgments about the 'rigidity' of working time legislation. Such an impressionistic indicator has been used in several studies, including by the OECD[16] and Nickell,[17] both of which concluded that the 'rigidity' of labour standards, including those on working time, has little impact on labour supply and demand across OECD. [18]

A more systematic and extensive investigation of national working time standards has been carried out by Rodrik, who compiled data on "the statutory hours of work in a normal working week in manufacturing or construction," "days of annual leave with pay in manufacturing," and the ratification of ILO standards.[19] A regression analysis demonstrated that low standards were associated with comparative advantages in labour intensive goods such as textile and clothing, but that this correlation was not strong. The only exceptions were the statutory normal hours (the limits beyond which overtime premia are required), which were found to have statistically significant impacts on labour cost advantages. However, the extent to which the statutory provisions were associated with *actual* constraints on enterprises was not investigated.

The most extensive work carried out so far in measuring working time regulation has been that conducted by Botero *et al*. and the World Bank.[20] These cover a range of key aspects of working time regulation and have global geographical coverage. While

both seem to share the same data sources and include a working time index as a subset of an "employment law index"[21] and an "Employment Rigidity Index,"[22] the methods by which they measure 'rigidity' differs. Botero *et al.* measure the cost of increasing working hours, while the World Bank indicators measure five areas in which firms' flexibility in adjusting working time is restrained (night work, weekend work, daily hours, the length of the workweek and paid annual leave). Despite these differences, both studies conclude, based on a rather simple bivariate correlation analysis, that 'rigidity' of employment is associated with large informal employment and high unemployment, especially among vulnerable groups such as women and young and older workers. Moreover, it is being suggested that this is particularly true of developing countries, which are adopting labour laws better suited to countries at higher levels of development and thereby damaging their development. In the words of a recent World Bank report,

> Many developing countries have adopted far-reaching regulations on [working time] – in some cases going beyond what is on the books in most developed countries … Even among countries at similar stages of development, the differences in regulations can be large, with significant effects on labor costs and on the ability of firms to accommodate fluctuations in demand.[23]

While these conjectures and comparisons may appear rather simplistic and even naïve to many development economists, sociologists and labour lawyers, their implications are not trivial. If these observations are correct, 'rigid' working time regulation in particular, and employment regulation in general, are to a large extent responsible for the sluggish labour market performance of many developing economies, and deregulation should be at the top of their priority lists for reform. For this reason, these two sets of indicators will be the focus of the discussion in the rest of this chapter.

3.3 Methodological and conceptual questions on measuring working time 'rigidity'

Working time laws: content and policy objectives

A preliminary point that can be made about the current indicators on working time regulation is that the understandings of the legislative measures being drawn on are flawed in some regards. For a number of countries, the indicators are being miscalculated due to misunderstandings about the structure of working time legislation. Most significantly, there appears to be a degree of confusion as to whether hours limits represent normal limits (on hours worked before overtime payments are due) or maximum limits (on all working hours, including overtime). The World Bank, for example, cites Ireland and the United Kingdom as permitting 48-hour workweeks.[24] However, these limits are *maximums*, imposing a ceiling on both normal working hours and overtime (and therefore mirroring the EU-level 48-hour maximum).[25] Ireland and the United Kingdom cannot, therefore, be grouped with countries that mandate a 48-hour *normal* hours limit, which can be exceeded by overtime hours. Their 48-hour maximums represent a more stringent legal standard. Similar confusion is also reflected in Botero *et al*.[26]

These kinds of methodological issues are minor and can be easily remedied. More significant are the questions that can be raised about the conceptual foundations on which indicators of 'rigid regulation' are grounded. When labour market institutions such as employment conditions laws are measured so as to investigate their effects, a careful consideration should be given to the rationales for their existence. However, as Pissarides has pointed out with respect to employment protection regulations, the analysis of these measures "has been mostly conducted within a framework that does not justify its

existence."[27] In the literature on indicators, it has often been the case that the benefits of labour market institutions are not clearly recognized while a labour market 'without friction', which is to say without regulation, is assumed as ideal, or as having no rigidity.[28] In this work, then, the line between rigidity and protection is rendered very thin.

This point can be made about the indicators on working time. It is our contention that the understanding of the role and purpose of working hours regulation that underlies these indicators does not reflect a proper grasp of the policy goals of working time regulation. The dominant concerns underlying working time laws in many jurisdictions have been the negative externality of long working hours, notably their negative affects on health and hourly productivity.

Individual employers often fail to take into account these costs in determining working hours, with the result that the market fails, and working hours are set at a socially inefficient level.[29] Similarly, individuals who are working very long hours are often oblivious to the potentially (in many cases long-term) negative consequences for their health and family life.[30] In some cases, this may be attributed to these workers' having insufficient information. However, there is evidence that workers often 'choose' to believe that long hours do not pose any risk in their individual cases, especially when they have no other option but to work long hours.[31] In this situation, where so-called cognitive dissonance exists, legislation is aimed at achieving Pareto improvements in the economic sense.[32]

In the legal arena, these concerns about the protection of workers' health have resulted in reasonable limits on working hours being conceptualized as fundamental social rights and therefore an essential element of labour law regimes, irrespective of their

economic implications. This approach is explicit in the European-level measure, the EU Working Time Directive, in its caution that "[t]he improvement of workers' safety, hygiene and health at work is an objective which should not be subordinated to purely economic considerations."[33] This status accorded to working time protections, however, is not reflected in their treatment in the indicators, as is discussed below with respect to the World Bank's Rigidity of Hours Index.

Of course, some 'benevolent' employers may take initiatives to internalize these costs, but if competition is intensified within a narrow margin of labour cost advantages, this initiative may not be sustainable. This situation is similar, then, to the 'prisoners' dilemma' game, which requires coordination between players to achieve mutually beneficial outcomes. In the field of working time, this coordination has been ensured by statutory regulation (or collective agreements if the coverage is close to universal, as is the case in Denmark).

Certainly, it must be recognized from the outset that this market failure argument simply provides a rationale for working time regulation but does not justify all existing measures. For instance, the health aspects of working time regulation cannot play a significant role in explaining the 35-hour legislation in France, a measure aimed primarily at boosting employment. The same goal was embodied in the collectively agreed reductions in the working week in Germany in the 1990s, and has been an element of the policy debate more recently in Chile.[34] Moreover, other policy objectives, grounded primarily in social goals, are often absent from the debates in the economic literature. Ensuring workers have adequate time outside of paid labour, which was initially conceived of as permitting them to engage in leisure pursuits and more recently to discharge caring and domestic obligations, has also been part of the debate at the international level and in many countries.[35] And laws mandating a weekly rest period,

although they partially embody a health and safety goal, also have the aim of permitting workers to share a communal rest period on the traditional or customary day of rest in their country.

It is also plausible that the costs of certain kinds of working time regulations could exceed their benefits, but that they are nonetheless sustained due to the power of vested interests.[36] Some regulations can be 'good' and others 'bad', in terms of whether they advance the policy goal for which they were introduced. However, the existence of inefficient or ineffective regulation does not justify the extreme but increasingly common view that the regulation of employment conditions is no more than the result of 'rent-seeking' by 'insiders', typically organized and relatively well paid. And further analysis of the relationship between regulatory measures and their impact is needed to assess the balance between their costs and benefits.

The extent to which the rationales of market failure and rent-seeking are applicable to the existing regulations on employment conditions is not always easy to determine, mainly because it is difficult to operationalize them for empirical testing. Botero *et al*., for example, hypothesized these two as the 'efficiency' and 'political power' theories, respectively.[37] The efficiency theory corresponds to the market failure argument mentioned above, although they argue that its implication would be that rich countries should regulate less because they have fewer market failures. This prediction can easily be rebutted even without much data, as it is obvious that rich countries tend to have developed more sophisticated protection systems. It should be noted that the market failure argument as such does not imply this prediction, as there is little reason to believe that economic growth can reduce the extent of market failures. Agell for example observed that among OECD countries, trade openness is correlated with strong labour

market institutions and predicted that globalization, which could mean increased risks for workers, would increase demand for labour market 'rigidity'.[38]

The World Bank Rigidity of Hours Index: Measuring 'rigidity' or 'decency'?

The relevance of empirically testing the 'net benefits' of employment conditions regulation is by and large dependent on how these regulations are measured. The existing studies are particularly problematic in this regard. The most vivid example is probably the World Bank's 'rigidity of hours index' (henceforth, RHI). The RHI, which ranges from 0 to 100, is a simple average of five binominal indicators that question, with respect to national working time legislation,

Whether night work is unrestricted[39]

Whether weekend work is allowed[40]

Whether the workweek can consist of 5.5 days[41]

Whether the workday can extend to 12 hours or more (including overtime)[42]

Whether the annual paid vacation days are 21 or fewer[43]

From these indicators, then, it is possible to develop a picture of the kind of working time regulation that would score most highly under the RHI. The optimum model would appear to be a legal regime that permits unlimited daily hours and weekly working time of 66 hours or more; no more than 1.5 days of weekly rest; night work of unlimited duration and which is not required to be paid at a premium rate;[44] and annual leave of no more than 21 days. At present, it is difficult to determine precisely how countries are being ranked, since only their overall scores can be consulted: data on the legislation used and the scores under each of the five indicators is unavailable. However,

it is notable that a number of the least regulated, and therefore exceptional, working time regimes score maximum points. The index was calculated for more than 150 countries, and the results demonstrated that 13 countries, including Canada, New Zealand, Singapore and US, enjoy 'complete working time flexibility' (average score 0).[45]

The vast majority of working time regimes, however, including the international standards, does not reflect the model reflected in the RHI. Table 3.1 illustrates this point by comparing the index with international and national legislation:

Table 3.1 Rigidity of hours index, ILO standards and national laws

Form of protection	RHI	International standards	National laws
Daily hours limits	12 hour or higher maximum limit (including overtime)	Earlier standards: overtime hours beyond an 8 hour daily limit are permitted, to a reasonable level. (Hours of Work Convention (Industry), 1919 (No. 1), and Hours of Work Convention (Commerce and Offices), 1930 (No. 30); ILO 2005) Later standards: no daily limit (subject to a 40-hour weekly limit). (Forty-Hour Week Convention, 1935 (No. 47) and Reduction of Hours of Work Recommendation, 1962 (No. 116)).	Most impose a maximum limit (including overtime), often of 12 hours.
Maximum weekly hours	66 hour or higher limit	Earlier standards: 48-hour limit (with overtime expected to be	Most specify a limit between 48

limits	*	exceptional). (Hours of Work Convention (Industry), 1919 (No. 1), and Hours of Work Convention (Commerce and Offices), 1930 (No. 30); ILO 2005) Later standards: 40-hour limit on normal hours. (Convention No. 47; Recommendation No. 116)	and 60 hours.
Minimum weekly rest period	Permitted, but not on a specified day, as a total prohibition, or subject to an hours limit or premium pay entitlement.	1 day, to be taken on the traditional or customary rest day. (Weekly Rest (Industry) Convention, 1921 (No. 14); Weekly Rest (Commerce and Offices) Convention, 1957 (No. 106))	Mandated in almost all countries. The vast majority require 1 day of rest, to be taken, in principle, on a Sunday.
Protections for night workers	Unrestricted (no hours limit or premiums)	Specific compensation (in the form of rest or pay). (Night Work Convention, 1990 (No. 171)) 8-hour daily limit; normal hours not to exceed those of equivalent day workers; overtime should be avoided as far as possible. (Night Work Recommendation, 1990 (No. 178))	Most countries have some form of restriction on night work. Can include wage premiums or prohibitions e.g. for certain sectors, jobs or workers (e.g. pregnant

			workers, parents).
Minimum period of paid annual leave	21 days	3 working weeks (Holidays with Pay Convention (Revised), 1970 (No. 132)	Almost all countries mandate a right to paid annual leave. 20-23 days in more than one-third of countries.

* Daily working time of at least 12 hours worked over a maximum of 5.5 days.
Source: ILO Working Time Database (www.ilo.org/travdatabase); ILO (2005); Lee, McCann and Messenger (2005).

Interrelationships in working time protections

Table 3.1 highlights a number of the problematic elements of the World Bank's method of measuring working time regulation. A preliminary point is that the RHI appears to be internally inconsistent, in that it inadequately captures the relationship between the different elements of working time regulation. As mentioned above, by allowing an unlimited day without requiring a weekly limit, it in effect envisages weekly working time of at least 66 hours (subject only to the requirement that they be performed within a 5.5 day period). In national laws, daily hours are often subject to a maximum limit, the 12-hour ceiling permitted by the RHI as a minimum limit being common. Finland, for example, has a 13-hour upper limit on daily hours and would therefore be expected to score reasonably highly on the daily hours indicator. Moreover, its working time law also specifies 35 hours of weekly rest, and is therefore in line with the workweek indicator, by permitting a 5.5 day workweek.

However, Finnish law, like that in the vast majority of countries, also specifies a weekly limit on working hours, in this case of 40 hours. As a result, while it complies

with each of the individual indicators of the RHI it embodies a much stricter weekly limit than even the minimum permitted by the RHI (a 66 hour workweek).[46] The lack of recognition of a weekly limit in the RHI has the result that no meaningful distinction can be drawn between legal regimes that permit, for example, 66 hours of work *every* week, or permit them as a *maximum* on a limited number of weeks. This illustrates the risk of failing to consider working time regulatory regimes as an integrated whole. In particular, in national working time laws, weekly hours limits generally function as constraints under which the kinds of indicators embodied in the RHI are articulated and operate in conjunction with each other. The RHI lacks a recognition of this interrelation between different working time provisions.

The RHI and the rationales for working time regulation

More significantly for present purposes, Table 3.1 illustrates the dissonance between the vision of working hours regulation that emerges from the RHI and that found in the international standards and national laws. From this comparison, it is clear that most of the indicators of 'hours rigidity' in the RHI are in conflict with these measures. The World Bank itself has signaled acceptance that labour regulation can justifiably be limited by 'social goals' beyond those reflected in the core labour standards, specifically referring to workplace safety.[47] This recognition is not, however, integrated into its assessment of working time regulation in the RHI, which is constructed to value most highly those legal regimes that are without meaningful limits on working hours.

In relation to the market failure rationale mentioned above, then, the criteria related to daily and weekly working hours and night work are in conflict with the policy objectives of most working time regulations, in that working according to the optimum model reflected in the RHI would have negative consequences on workers' health and

safety as well as their family life. And with respect to weekend work, the refusal to countenance a specified day on which weekly rest should be taken fails to recognize one of the traditional rationales behind weekly rest measures, which have been intended not only to allow workers to rest but to ensure a period of time that the entire community can spend together.

Table 3.2 International standards on working time and the World Bank rigidity of hours index

Number of ratifications (Conventions Nos. 1, 14, 30, 106, 132, 171)	No. of countries	GNI		WB rigidity of hours index (0-100)	
		Simple average	Standard deviation	Average	Standard deviation
0	45	6 352	10 850	38.6	25.7
1	37	5 321	9 706	59.5	22.8
2	25	9 917	15 516	53.6	25.6
3	26	8 540	12 574	55.4	22.8
4	18	6 777	9 085	53.3	22.8
5	4	10 420	8 978	70.0	10.0
Total	155	7 202	11 505	51.6	25.2

Note: The Hours of Work (Industry) Convention, 1919 (No. 1); the Weekly Rest (Industry) Convention, 1921 (No. 14); the Hours of Work (Commerce and Offices) Convention, 1930 (No. 30); the Weekly Rest (Commerce and Offices) Convention, 1957 (No. 106); the Holidays with Pay Conventions (Revised), 1970 (No. 132); the Night Work Convention, 1990 (No. 171).
Sources: ILOLEX and World Bank database.

As a result, countries whose laws best reflect the internationally-agreed standards and the national consensus on appropriate hours regulation are classified as 'most rigid.' For example, as Table 3.2 shows, the laws classified as 'rigid' under this index are more likely to be found in countries that have ratified the international working time standards. Therefore it is not surprising that the rigidity of hours index is correlated with the ratification index, although the relationship is weak (coefficient = .24, significant at 0.01 level).

Flexibility through regulation

The other main problem with the RHI is that it equates most forms of working time regulation with 'rigidity'. It has already been suggested that the very concept of rigidity is highly problematic. In fact, the experience in industrialized countries reveals the relationship between flexibility in working time and its regulation to be much more complex than indicated by the RHI. For instance, the most prominent technique through which modern working time regulation incorporates a degree of flexibility is by permitting weekly hours limits to be averaged over a period of longer than a week, through the inclusion of a reference period in the national legislation (hours averaging). The EU Working Time Directive, for example, permits its 48-hour maximum limit to be averaged over a reference period of four months (Article 16(b)). However, this, the most prominent technique for ensuring a degree of flexibility in working time regulation, is entirely absent from the RHI.

Moreover, the RHI is not structured to capture a further, less direct, method in which working time regulation can contribute towards promoting flexibility, through what can be termed its 'incentive' function. By limiting recourse to long hours, working time regulation can play the role of encouraging employers to rethink how work is being

organized in their firms in order to bring about productivity improvements. Indeed, in Europe, the 40-hour week has, in many jurisdictions, been the starting point from within which work organization changes have taken place.[48]

The uncomplicated depiction of flexibility in the RHI, however, is entirely focused on numerical flexibility rather than the role of law in promoting functional flexibility, and thus ignores the more complicated relationship between different forms of flexibility and the role of regulation in advancing them. In this regard, and with respect to the employment creation goal used on occasion to justify collective hours reductions, it is interesting to note that the RHI disregards the contribution that working hours laws can make to its stated objectives, to "influence the opportunities and incentives for firms to invest productively, create jobs, and expand."[49] Indeed, the contention that "regulations can reduce incentives to make new investments, adjust the organization of work to take advantage of new technologies or opportunities, or hire more workers" advances arguments often used in *support* of the regulation of working hours.[50]

It is clear, then, that all of these factors have an impact on the adequacy of the resulting indicators, with the result that the Index is unable to identify the basic components of meaningful working-time regulations found in the vast majority of regulatory regimes, does not reflect how their different components interact and does not meaningfully value them. As a result, it does not measure the *strength* of the regulation but only its *existence*.

3.4. Legal texts and actual hours: de jure and de facto regulation

So far, we have concentrated on the inadequacies of the existing indicators in reflecting the 'statutory reality' in different countries. Even if the conceptual and methodological questions raised in the previous section were to be effectively addressed, however, the

resulting indicators would still be subject to limitations. For although drawing on domestic legislative texts provides a more accurate picture of working time regulation than reliance on ratification of the ILO standards, the relationship of the statutory provisions to actual working hours cannot be assumed. The legislated standards may be entirely irrelevant to actual working hours or exercise a strong influence on them, depending on the degree to which the legislation is influential in the jurisdiction in question. This issue relates to the point made earlier on validity as the key property of a good indicator. Without a proper understanding of this relationship, any conclusions as to the impact of standards can only be speculative. As Bertola *et al.* have argued with respect to employment protection laws, the role of working time legislation in influencing labour market outcomes is primarily an empirical question.[51]

Botero *et al*: Working hour adjustment costs - real or imaginary?

The RHI does not purport to examine the influence of legislation on actual working time arrangements. Instead, it assumes that the standard is comprehensively applied, and then further assumes the kinds of impacts the legislation will have on actual practice. However, it is questionable whether the relationship between working time laws and actual working hours is so straightforward. The significance of this relationship is recognized to some degree by Botero *et al*.[52] Their index on "the cost of increasing hours worked" is intended to reflect "actual economic costs and not just statutory languages."[53] However, they appear to assume that countries with different legal standard hours (annual working hours) are competing in the product market with fluctuating demands. The question is then how different adjustment costs would be incurred in increasing working hours to the level of the highest legal standard hours in the world. By estimating these costs, they argue that "the distinction between what is written down and what it actually costs to do something is minimized."[54] In their calculation, the lowest standard is 1,758

hours in Denmark and the highest 2,418 hours in Kenya, and the cost of increasing to the Kenyan level is calculated as the ratio of the final wage bill to the initial one.

The main problem with this approach is that the situation assumed is too hypothetical and does not reflect reality. First, competition via changing working hours, if it occurred, would normally be carried out within a narrow margin. It is therefore misleading to assume that Denmark would increase actual working hours to 2,418 hours. If such a magnitude of change is not envisioned in the law, and has never been contemplated in policy debates in Denmark, it is not useful to calculate it and compare the costs with other countries.

Secondly, these estimated working hours do not correspond to actual working hours. Where the relevant data are available (OECD countries), Botero *et al*'s annual hours are often much higher than actual working hours and, in many cases, the gap is considerable (see Annex 3.1). In the case of Germany, for example, Botero *et al* estimated 2,296 hours while actual working hours stand at 1,446 hours (a difference of 851 hours). What is more important from the perspective of cross-country comparison is that there is no significant correlation between the estimates and the OECD's actual annual working hours (correlation coefficient = 0.089, not significant). Therefore, it is hard to argue that Botero *et al'*s estimates of annual working hours represent the level of the constraints actually placed on enterprises.

Observance of working time legislation

It appears, then, that the most accurate way of comparing and assessing the impact of labour laws is through a methodology that incorporates not only the provisions in statutory texts but also accurately captures the actual working hours in the country in question. The remainder of this chapter is our preliminary attempt to develop this kind of

approach. To do this, we draw on a notion of 'observance' of statutory working time regulation. We intend this concept to be broader than more conventional notions of 'enforcement' of national laws, in that it captures the variety of ways in which legal norms can influence actual practice. It is also more expansive than what is usually meant by 'compliance' with legislation, in that it does not require adherence to the technicalities of national laws (for example, procedural requirements, record-keeping and so on.) and also recognizes that legal standards may be influential in firms to which the law does not formally apply (for example in sectors or firms excluded from the coverage of the legislation) or where it is not enforced (particularly in informal sector firms).[55] The notion of observance, then, is intended to capture the enforcement of the standards through the state labour inspectorate or through court decisions in individual cases, but also to comprehend the other ways in which laws can have an effect on practice, in particular through becoming 'seeded' as a cultural norm, influential even in the absence of enforcement.[56]

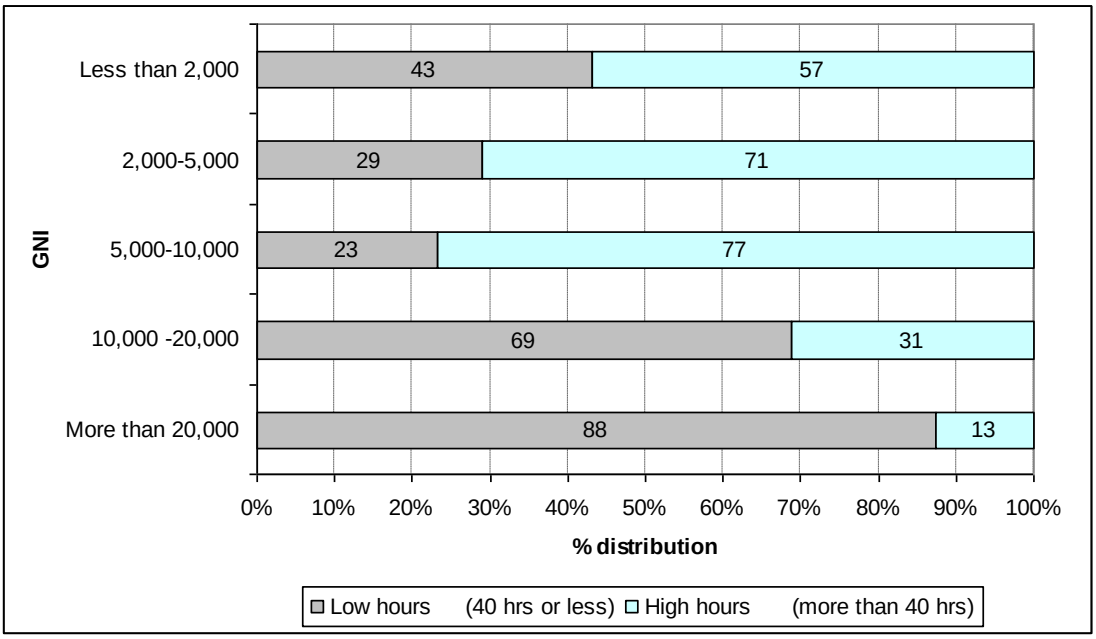
In the remainder of this chapter, then, we attempt to measure the effective regulation of working time, by measuring the extent to which they are observed. As mentioned earlier, the comparison of working time regulation can be hampered, particularly by the differences across countries in the regulatory techniques adopted. However, when the focus is confined to statutory measures, and to their primary standards[57] (daily and weekly hours, weekly rest periods, annual leave and so on), there is a substantial degree of homogeneity among the national legislative regimes and comparisons are possible.[58] In this chapter, we are concerned with only one element of the regulation of working hours – weekly normal hours limits (the number of hours legally permitted before overtime payments are required).

Recent research conducted for the ILO Working Time Database has allowed us to identify statutory normal hours limits.[59] We have also been able to identify the actual normal hours in those countries for which data are available. One useful way of gauging the actual impact of statutory working time regulation is to measure how many employees are working more than the statutory normal hours of work. This excludes self-employed workers, who are typically not covered by such regulations. To the best of our knowledge, no measurement work of this kind has been done due to data limitation until the recent data collection from the national statistical offices of more than 50 countries on "the number of employed by number of hours" in 2005.[60] These data collection exercises permitted us to compare statutory standard and actual weekly hours.

Statutory normal weekly hours limits

To determine statutory normal weekly hours limits, we relied on the ILO Working Time Database and additional research, allowing a total of 138 countries to be considered for comparison and classified according to their income levels.[61] The results are presented in Figure 3.2. As this figure indicates, while overall the incidence of shorter hours limits are lower in high-income countries, it is interesting to note that about 43 per cent of countries with a gross national income (GNI) of less than US$ 2,000 also have a legal standard of 40 hours or less. In line with the World Bank's analysis of labour laws discussed earlier, this finding might be interpreted as evidence that many poor countries have 'rigid' working time standards, which do not reflect 'local reality'. Before evaluating this claim, however, it is necessary to determine whether these standards are also the actual 'standard' at the workplace.

Figure 3.2 Statutory normal hours by national income (total 138 countries)



Note: EU countries that only have a maximum limit including overtime hours (such as the UK) are classified as 'low hours', as some of them have no legal standard of normal hours of work.
Source: ILO Working Time Database.

Observance of the statutory standard

To address this question, Table 3.3(a) provides estimates for the proportion of paid *employees* who are working at or below the statutory standard hours in each country, which we term the 'observance rate'. Note that only employees are considered, as self-employed and family workers are often not covered by working time regulation and labour law in general. A total of 48 countries are considered, excluding those that do not have statutory normal hours (for example, Germany and the United Kingdom, which impose a limit only on maximum hours (including overtime)). In response to the concern that regulations should reflect 'local realities' (see World Bank 2004a), the gross national income per capita is also considered, and statutory standards were categorized into three

groups ('40 hours or less,' '41 to 47 hours' and '48 hours'). Some descriptive statistics are also provided in Table 3.3(b) and scatter diagrams are shown in Figure 3.3.

Table 3.3(a) Statutory hours, observance and working-hour regulation index

		Raw values		Normalized value		Effective working-hour regulation index (0 to 10)
	GNI 2003	Legal normal hours	Observance rate (employees working no more than legal normal hours)	Statutory-hour strictness (0-10)	Observance degree (0-10)	
Albania	4710	40	78.4	6.2	7.8	7.0
Armenia	3790	40	50.9	6.2	5.1	5.6
Azerbaijan	3390	40	74.6	6.2	7.5	6.8
Bolivia	2500	48	62.1	0.0	6.2	3.1
Bulgaria	7260	40	87.8	6.2	8.8	7.5
Canada	29440	40	88.5	6.2	8.9	7.5
Croatia	11180	40	67.1	6.2	6.7	6.4
Cyprus	21250	40	80.5	6.2	8.0	7.1
Czech Republic	17290	40	84.8	6.2	8.5	7.3
Estonia	12100	40	85.9	6.2	8.6	7.4
Ethiopia	710	48	57.0	0.0	5.7	2.8
Finland	27940	40	90.3	6.2	9.0	7.6
France	28190	35	50.7	10.0	5.1	7.5
Georgia	2620	41	66.9	5.4	6.7	6.0
Guatemala	4050	48	69.8	0.0	7.0	3.5
Honduras	2600	44	64.0	3.1	6.4	4.7
Hungary	14630	40	90.7	6.2	9.1	7.6
Indonesia	3270	40	47.6	6.2	4.8	5.5
Israel	22450	43	59.5	3.8	5.9	4.9
Japan	28700	40	54.2	6.2	5.4	5.8
Korea, Rep.	19190	40	24.5	6.2	2.4	4.3
Lithuania	11530	40	90.3	6.2	9.0	7.6
Luxembourg	57650	40	98.0	6.2	9.8	8.0
Macedonia, FYR	6230	40	68.0	6.2	6.8	6.5
Madagascar	800	40	70.9	6.2	7.1	6.6
Mauritius	11270	45	73.8	2.3	7.4	4.8
Mexico	9140	48	75.8	0.0	7.6	3.8
Moldova	1760	40	82.1	6.2	8.2	7.2
Netherlands	30220	40	97.2	6.2	9.7	7.9
New Zealand	21040	40	68.5	6.2	6.8	6.5
Norway	36870	40	92.4	6.2	9.2	7.7
Pakistan	2040	48	60.4	0.0	6.0	3.0
Panama	6430	48	85.4	0.0	8.5	4.3
Peru	5080	48	50.8	0.0	5.1	2.5
Poland	11750	40	85.9	6.2	8.6	7.4
Portugal	18660	40	87.1	6.2	8.7	7.4
Romania	7450	40	82.6	6.2	8.3	7.2
Russian Federation	8760	40	92.5	6.2	9.3	7.7
Slovak Republic	13350	40	90.0	6.2	9.0	7.6
Slovenia	19420	40	84.7	6.2	8.5	7.3
Spain	23930	40	88.2	6.2	8.8	7.5
Sri Lanka	3740	45	62.2	2.3	6.2	4.3
Switzerland	34220	45	81.6	2.3	8.2	5.2
Tanzania	620	45	33.1	2.3	3.3	2.8
Thailand	7450	48	65.3	0.0	6.5	3.3
Uruguay	7960	48	79.5	0.0	7.9	4.0
United States	37610	40	69.1	6.2	6.9	6.5
Zimbabwe	2180	48	59.4	0.0	5.9	3.0
Total						
Mean	13842.1	42.1	73.1	4.5	7.3	5.9
Standard deviation	12455.4	3.5	16.6	2.7	1.7	1.7

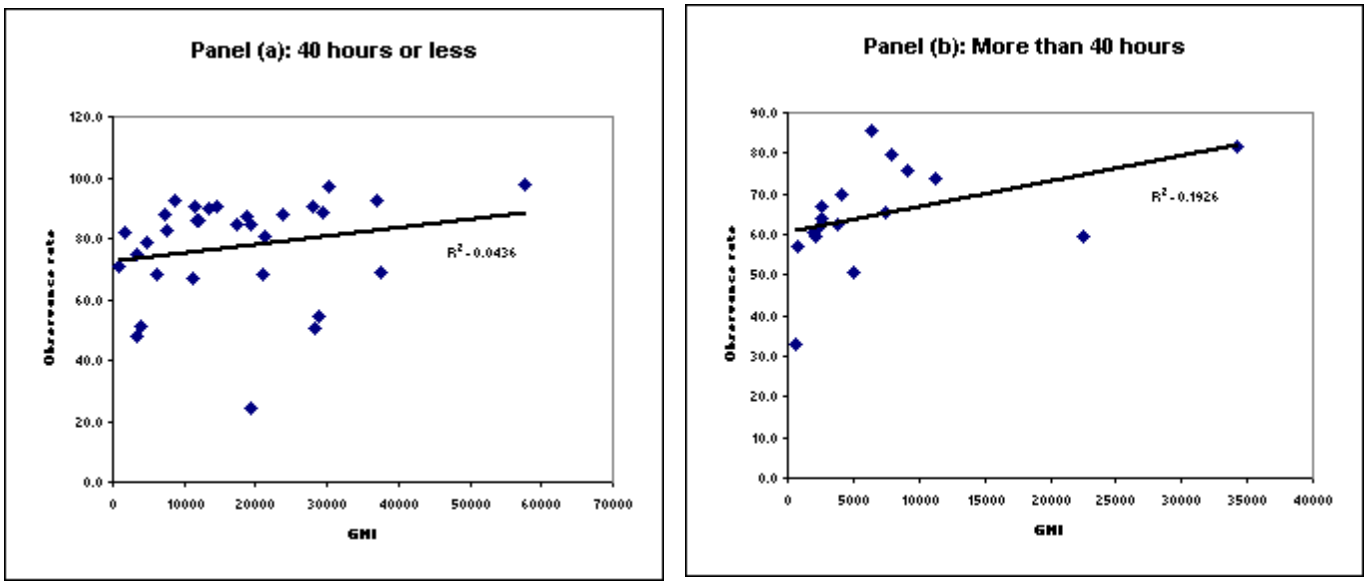
Source: ILO Working Time Database; World Bank database.

Table 3.3(b) Statutory hours, observance and working-hour regulation index

Statutory hours		GNI per capita		Observance rate		Correlations between GNI and observance	
	No of countries	Mean	Standard error	Mean	Standard error	Coefficients	Significance
[40 hours or less]	31	17398.7	2312.3	77.5	17.1	0.209	0.260
41 to 47 hours	7	11074.3	4809.6	63.0	15.2	0.577	0.175
48 hours	10	4754.0*	916.6	66.5	10.9	0.657*	0.039
Total	48	13482.1	1797.8	73.1	16.6	0.362*	0.012

*Note: [ ] refers to the reference group. * significant at 0.05 level.*

Figure 3.3 Observance rate and income by statutory working-hour standards



This reveals first, that higher statutory hours limits are largely associated with lower national income per capita. While the mean GNI per capita is much lower in countries with higher limits, it is statistically significant only for the '48 hours' group (see Table 3.3(b)). Overall, then, it would be overstated to suggest that working time regulation in developing countries is unnecessarily 'rigid', in the sense of containing overly strict weekly hours limits. Secondly, it is apparent from Figure 3.3 that, overall, a significant proportion of employees are working more than statutory normal hours limits and that in some countries the proportion exceeds 40 per cent of the workforce (see Figure 3.3). This could be taken to imply that the standard hours are not 'standard' in practice. Thirdly, however, it is interesting to note that observance rates are relatively low in those countries

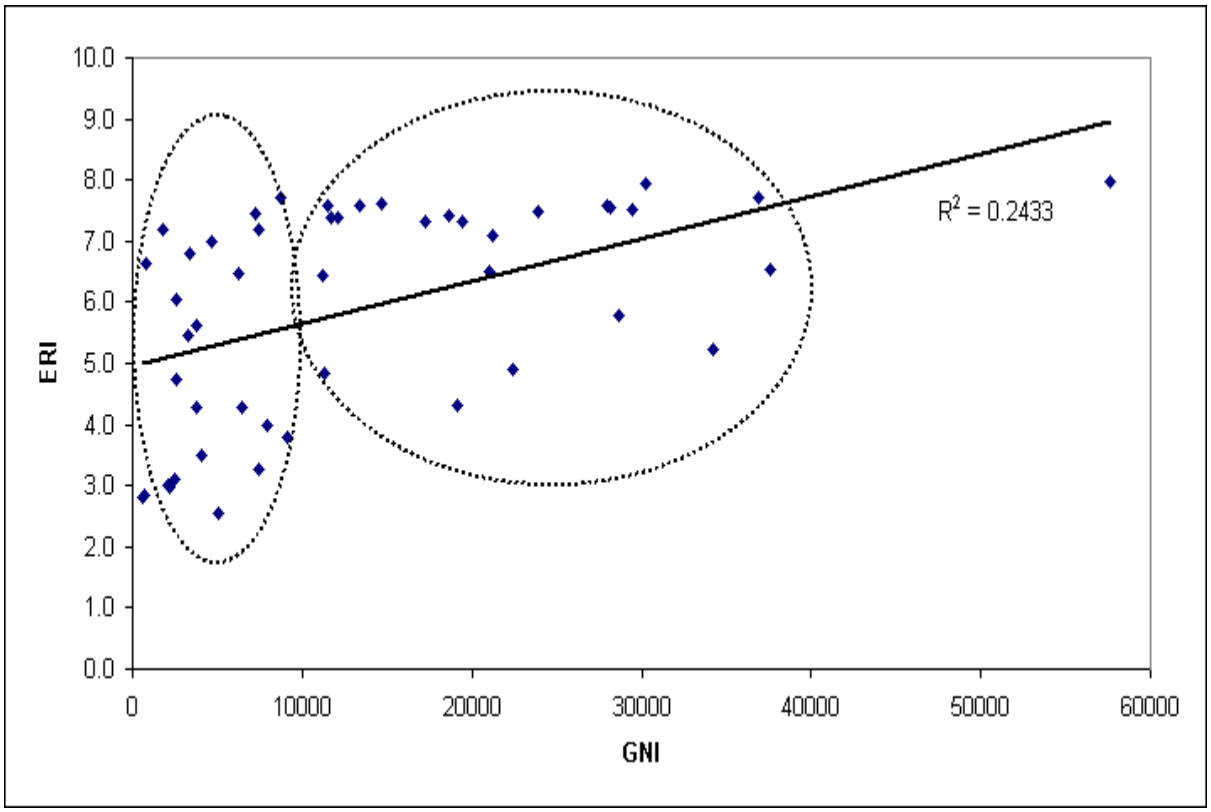
that have higher statutory limits, and it can thus be said that low-income countries have lower observance rates *despite* higher statutory hours limits. Therefore, if our finding on statutory weekly hours limits holds true for other elements of labour regulation, any widespread assumption about low-compliance with labour standards in developing countries due to their 'strictness' in developing countries would need to be reassessed.[62] Finally, when it comes to low-income countries, the relationship between statutory hours, national income and observance rates is much weaker and so remains very unclear.[63]

The Effective Regulation Index

In light of the need to examine both *de jure* and *de facto* regulation in establishing indicators, we have made a preliminary attempt to establish such an indicator for working hours. This 'effective regulation' index for working hours (ERI) was established by *averaging* the normalized values of statutory hours and observance rates, which range between 0 and 10.[64] The results are provided in the final column of Table 3.3(a). The ERI developed in this table can have a minimum value of 1 (weakest regulation) and a maximum value of 10 (strongest regulation). It should be noted from the outset, that such an aggregate index, even when other methods such as non-linear combination are used, has implicit assumptions which could create bias in the analysis. In our simple method, it is assumed that the length of statutory hours and the observance rate are *equally* important in determining the effectiveness of regulation in a particular country. What this means in practice is revealed by comparing Korea and Panama, which have the same level of regulation (ERI = 4.3): yet Korea has a much lower statutory hours limit (40 hours) and lower observance rate (24 per cent), while Panama's higher statutory limit (48 hours) attracts a higher observance rate (85 per cent). While it is conceivable to introduce other more sophisticated methods (for example, a well-grounded weighting scheme), reliable

guidance on this is not currently available, mainly due to the paucity of data and analysis on the regulation of working time in developing countries.[65]

Figure 3.4 Working-hour regulation index and national income



With this caveat, let us turn to the index. Among the countries considered in Table 3.3(a), Peru, the United Republic of Tanzania and Ethiopia have the weakest regulation while the Netherlands and Luxembourg lead the group of countries with strong regulation. Geographical division is clearly present: Europe (including transition economies) tends to have strong regulation, while Africa, Asia and Latin America are, overall, characterized by weak regulation. How then, is economic development associated with the ERI? Is effective regulation associated with economic growth, at least with respect to weekly hours? A positive correlation is conceivable if the benefits of economic growth can be

translated into either shorter statutory hours or higher observance rate (for example, through strengthening labour inspection), or both. As Figure 3.4 shows, there is a positive correlation between the index and GNI per capita (significant at the 0.01 level). Yet, again, when the sample is separated into two groups of countries by income level (exactly half of the sample have GNI of less than US$ 10,000), there is no correlation within each group (see dotted circles in Figure 2.4), indicating that weekly hours limits, even when widely observed, are not impacting on economic growth. For instance, Albania and Peru have similar GNI levels of around US$ 5,000, but contrasting ERI levels (7.0 and 2.5 respectively). Finally, and probably not surprisingly, it is noteworthy that ERI does not have any significant correlation with RHI.

This finding should not be seen as surprising, given the evidence of variations between countries in the way different components of working time regulation are articulated with related labour market institutions. Among high-income countries, it is relatively well established that the impact of statutory working time regulation differs depending on the working time regimes within which they are articulated.[66] If collective negotiations are well-organized and the coverage of collective agreements extensive, working time law tends to represent minimum standards, with the result that collectively agreed normal hours tend to be lower than the statutory standard. In this case, the latter represents the upper limit on actual working hours. In some other countries, however, where legal interventions are minimized, the incidence of working hours is relatively high and therefore the statutory standard is often a lower limit on actual working hours.

The challenge now is to examine in more detail why working time, and other laws, appear to be more influential in some jurisdictions than others, even among countries at similar income levels. As we have noted, it is naïve to assert that low compliance in developing countries is due to a strict regulation of working time that does

not reflect the local reality. In developing countries, the main problem of working time regulation might be expected to be not its 'rigidity,' but its weakness, assuming a strong propensity to bypass the law. In this case, even if a 'rigid' regulation was in place at the national level, the limited resources available for monitoring working hours at the workplace level and enforcing the relevant provisions may create a 'regulation-free' environment. However, further comparative research is needed on the processes of observance of labour law across developing countries; one that does not take into account only enforcement by government agencies, but also the deviations from the principal statutory norms that are permitted by the regulations; the role of unions and collective bargaining; the degree of awareness of labour laws; the indirect influence of labour regulation; and all the other factors that play a part in ensuring that labour laws are observed.

It is impossible to tell from our research, whether deviance from weekly hours norms in fact represents a failure to comply with the law. Many legal regimes permit their general hours limits to be exceeded through providing for exceptions, for example for certain sectors or occupations or through collective agreements. As a result, working time standards are sometimes not as strict as they first appear. In Mozambique, for example, the general 48 hour limit can be exceeded by a collective agreement provided it does not result in financial disadvantage or less favourable working conditions for the workers concerned (*Lei do Trabalho*, article 29). And the Slovenian legislation demonstrates flexibility in working time through 'negotiated flexibility': collective agreements are permitted to stipulate a working week shorter than the general 40 hour limit, provided it is not below 30 hours (Labour Relations Act, article 142(2)).[67]

Moreover, a primary factor in the observance of normal hours limits can be expected to be the extent to which overtime hours are worked. It is not possible from the

current data to determine the extent to which the deviation from the statutory norm can be attributed to overtime. In this regard, further research is needed to take into account the relationship between wage regulation and overtime work, including to determine the extent to which overtime must be worked in order to secure a reasonable standard of living.

Finally, this kind of work, which is based entirely on statutory regulation, inevitably fails to take into account the role of collective bargaining in regulating working time arrangements.[68] It may be that a high degree of observance in certain countries is an outcome of a strong role for collective bargaining. Alternatively, even when workers are organized, their trade union may actively seek to increase the opportunity for overtime work and premium payments, so as to increase wage earnings for union members.

Working time laws and informal employment

In addition to the above concerns, it is worth singling out a specific argument being made in the research on indicators, that 'rigid' employment regulation in developing countries, including of working hours, is channeling workers into the informal sector. One might argue, for example, that the lack of any significant relationship between income, working time regulation and observance of the law, especially in low-income countries, is simply due to the fact that 'rigidity' of the working time regulation is encouraging informal employment as a way of increasing working hours. This is possible, but difficult to test empirically. One way of doing so would be to determine whether or not informal employment is associated with longer working hours, assuming that employers will take advantage of the 'regulation-free' environment of the informal economy, where labour laws are unlikely to be enforced, to increase working hours beyond those in the formal sector. Due to the paucity of working time data in developing countries, it is not easy to

offer a convincing answer to this question. Nonetheless, the data provided in Table 2.4 provide some useful insights. This table presents average working hours in formal and informal employment in Latin American countries, compared with the total averages and demonstrates that in all of the countries under consideration, working hours in formal employment are significantly *higher* than those in informal employment. This means, then, that the above prediction is not grounded for Latin America and may not be grounded for other regions. Indeed, Table 2.2 suggests that the formal sector, which can be expected to be more likely to be influenced by working time regulation, tends to have *longer* working hours.

Table 3.4 Working hours by formal and informal employment

(base: total average hours = 100.0)

	Argentina	Bolivia	Brazil	Chile	Equador	Guatemala	Mexico	Nicargua	Peru
(year)	2001	2002	2001	2000	1998	2000	2000	2001	2000
Formal employment	104.9	104	103.4	102.1	112.2	105.4	104.3	107.9	109.1
Informal employment	93.3	98.4	96.5	97.9	92.3	96.5	95.2	94.6	95.2

Source: Table 10 in Gasparini (2004), "América Latina: Estudio de la protección social y el empleo sobre la base de encuestas de hogares" in F. Bertranou, (ed.) Protección Social y Mercado Laboral *(Santiago: OIT).*

While it is hard to know the precise reasons underlying this difference, there could be two possible explanations. First, data on average working hours in informal employment requires great caution, mainly because of the high proportion of time-related underemployment. The typical distributional patterns of working hours in informal employment in developing countries is a dramatic diversification of working hours towards two extremes of very short hours (for example, lack of sufficient work) and very long hours (for example, more than 60 hours per week).[69] Thus, relying on average working hours for the informal sector could be potentially misleading.

Secondly, there could be economic rationales for the relatively long working hours in formal employment, which are related to the 'incentive' effects of working time regulation. 'Doing business' in the formal sector is likely to entail significant investments by employers, which involves relatively high fixed costs. Such investments may encourage employers to increase working hours, even if that involves additional payments for overtime work. This incentive will be stronger and the cost disadvantage weaker if the 'regulated' environment motivates workers and improves labour productivity.

3.5 Concluding remarks

This chapter has investigated the existing institutional indicators for the regulation of working time, with a focus on the World Bank's 'rigidity of hours index' and Botero *et al*.[70] Two conceptual and methodological questions were examined. First, do these indicators take into account the reasons that different regulations on working time have been enacted and sustained? In other words, are the potential benefits of these regulations recognized appropriately by these indicators? The second question is one which has rendered many researchers pessimistic about the relevance of institutional indicators concerning the regulation of employment conditions: is the question of *de jure* and *de facto* regulation effectively addressed?

Our overall evaluations provided in this paper are negative in both areas. The indicators considered appear to lack a sound understanding of working time regulation, so that one might say that the rigidity indicators are based on a 'rigid' concept of regulation. Our preliminary attempt to capture both *de jure* and *de facto* regulation through ERI indeed shows that cross-county variations are substantial, even when income levels are taken into account, thereby making it difficult to establish a meaningful pattern. It has also been indicated that the policy conclusions and implications drawn from the currently

available indicators, which do not consider actual practice, do not have solid grounds, and in some cases are misleading.

Our research has indicated that the relationship between regulation, employment and economic growth is far more complex than is assumed in the existing indicators. For the development of a more meaningful and valid indicator for working time regulation, further research is required to examine the role and impact of working time laws in developing countries, although we hope that the ERI will offer useful insights for such research efforts. In particular, we need to better understand the conditions under which reasonable hours regulations can be maintained. Rather than assuming that a laxer standard is needed at earlier stages of economic growth[71], the goal is to identify which factors permit certain economies at the same level of economic growth to maintain more advanced working time standards.

Annex 3.1 Botero *et al.*'s estimates and actual working hours

	OECD (2003 data)	Botero *et al.*'s estimates	Difference
Australia	1814	1909	-94
Austria	1550	1780	-230
Belgium	1542	1880	-338
Canada	1718	1960	-242
Czech Republic	1972	1983	-12
Denmark	1475	1758	-283
Finland	1713	1807	-93
France	1431	1859	-428
Germany	1446	2296	-851
Greece	1938	1907	31
Ireland	1613	2331	-718
Italy	1591	1873	-282
Japan	1801	1947	-146

Mexico	1857	2280	-423
Netherlands	1354	1900	-546
New Zealand	1813	1872	-59
Norway	1337	1880	-543
Poland	1956	1932	24
Portugal	1676	1840	-164
Slovak Republic	1814	2028	-214
Spain	1800	1808	-8
Sweden	1564	1880	-316
Switzerland	1556	2123	-566
United Kingdom	1673	2080	-407
United States	1792	2080	-288

Source: Botero et al. (2004); OECD database.

[1] The views expressed in this paper are authors and do not necessarily reflect those of the International Labour Office. We are grateful for comments on an earlier draft of this chapter by P. Auer, J. Berg, I. Campbell, F. Eyraud, C. Fagan, N. Ghosheh, D. Kucera, S. Lehndorff, J. Messenger, J. Murray, A. Nesporova, P. Peek and the participants at the *ILO Technical Staff Seminar on Labour Market Institutions and Employment in Developing Countries*, Geneva, 24-25 November 2005.

[2] J. Botero *et al*. (2004) "The regulation of labour", *Quarterly Journal of Economics*, 119(4).

[3] Rigidity of Employment Index, available in World Bank (2004a) *Doing Business 2005* (Washington DC: World Bank), and World Bank (2005) *Doing Business 2006* (Washington DC: World Bank).

[4] World Bank (2005), p. 26, emphasis added.

[5] ICFTU (2005) "Comments by ICFTU/Global Unions on the World Bank's *Doing*

Business in 2005: 'Hiring and firing of workers'".

[6] G. Bertola (2005) "Distribution, efficiency, and labor market regulation: in theory, in OECD countries, and in Latin America", in J. Restrepo and A. Tokman (eds), *Labor Markets and Institutions* (Santiago: Central Bank of Chile).

[7] International Labour Conference, 86th Session (1998).

[8] See, for example, D. Kucera (2002) "Core Labour Standards and Foreign Direct Investment", *International Labour* Review, 114(1-2).

[9] P. Alston and J. Heenan (2004) "Shrinking the International Labor Code: An Unintended Consequence of the 1998 ILO Declaration on Fundamental Principles and Rights at Work?", *New York University School of Law Journal of International Law and Politics*, 36.

[10] K.A. Bollen (2001) "Indicator: Methodology", in N. Smeler and P. Baltes (eds), *International Encyclopedia of the Social & Behavioral Sciences*, Vol. 11. (Amsterdam: Elsevier), pp. 7282–7.

[11] Hours of Work (Industry) Convention, 1919 (No. 1); Hours of Work (Commerce and Offices) Convention, 1930 (No. 30).

[12] These figures are estimated for paid employees only, since they are more likely to be affected by the ratification of these Conventions. The self-employed are excluded.

[13] S. Lee, D. McCann and J. Messenger (forthcoming) *Working Time Around the World* (London: Routledge and ILO).

[14] The lack of correlation between international standards and the actual situation is also reported by P. Belser, (2001) *Four Essays on Trade and Labour Standards*, unpublished Ph.D. dissertation, University of Sussex, M. Busse (2001) "Do Labour Standards Affect Comparative Advantage? Evidence for Labour-intensive goods'", Centre for International Economic Studies Discussion Paper No. 0142 (Adelaide).and R. Flanagan (2003) "Labor

standards and international competitive advantage", in R. Flanagan (ed.), *International Labor Standards: Globalization, Trade and Public Policy* (Stanford, CA: Stanford University Press).

[15] S. Lee (2004) "Working-hour gaps: trends and issues" and D. McCann (2004) "Regulating working time needs and preferences", in J. Messenger (ed.), *Working Time and Workers' Preferences in Industrialized Countries: Finding the balance*. (London: Routledge).

[16] OECD (1994a) "Labour Standards and Economic Integration", *OECD Employment Outlook* (Paris, OECD), pp. 137–166.

[17] S.J. Nickell (1997) "Unemployment and Labor Market Rigidities: Europe versus North America", *Journal of Economic Perspectives*, 11(3).

[18] See, for example, L. Nunziata (2003) Labour market institutions and the cyclical dynamics of employment", *Labour Economics*, 10(1). In addition the need for such an indicator appears to be related to the OECD jobs strategy, which calls for "increased flexibility of working time (both short-term and lifetime) voluntarily sought by workers and employers", although the ambiguity underlying this strategy makes it difficult to develop a valid indicator. The policy intentions are apparent in OECD policy recommendations, which can be characterized by the need for working time determination at decentralized level and the relaxing of relevant legislation, for example "by allowing longer averaging periods such as annualized hours, by reducing constraints on night work and weekend work" (OECD, 1994b, p.100). As will be discussed in Section 3.3, these policy intentions are made explicit in the World Bank's Rigidity of Hours Index.

[19] D. Rodrik (1996) "Labor standards in international trade: do they matter and what do we do about them?", in R. Lawrence, D. Rodrik, and J. Whalley (eds), *Emerging Agenda*

for Global Trade: High Stakes for Developing Countries (Washington, DC: Overseas Development Council), pp. 35-79.

[20] Botero *et. al.*, op. cit.; World Bank (2004a) *The World Development Report: A Better Investment Climate for Everyone* (Washington, DC: World Bank); and idem. (2005) *Doing Business 2006*.

[21] Botero *et. al.* (2004)..

[22] World Bank (2004a).

[23] The most vivid example quoted in the report is concerned with paid annual leave: "Some developing countries have mandated relatively generous annual leave – 30 days in Burkina Faso, 33 in Ethiopia, and 39 in Sierra Leone – but in most other countries paid annual leave is less than 30 days. The United States leaves the decision on annual leave to individual or collective agreements" (ibid., p. 145).

[24] World Bank (2004b), *The World Development Report: A Better Investment Climate for Everyone* (Washington, DC: World Bank), p. 145.

[25] Directive 2003/88/EC of the European Parliament and of the Council of 4 November 2003 concerning certain aspects of the organization of working time, article 6.

[26] Botero *et. al.*, op. cit. See "max_hour_w_a" in the data file available at: http://iicg.som.yale.edu/

[27] C. Pissarides (2001) "Employment Protection", *Labour Economics*, 8(2).

[28] As Bertola (2005), op. cit., p. 7, notes, "[t]he literature mostly treats labor market institutions as exogenous determinants of labor market outcomes. Less attention has been directed at explaining and interpreting the motivation behind institutional arrangements in the labor market. Efforts in the latter direction are all the more necessary when researchers study labor market institutions in a heterogeneous group of countries." See also R. Freeman (2005) "Labour Market Institutions Without Blinders: The Debate Over

Flexibility and Labour Market Performance", NBER Working Paper 11286 (Cambridge, MA: National Bureau of Economic Research).

[29] See J. Owen (1989) *Reduced Working Hours: Cure for unemployment or economic burden?* (Baltimore: Johns Hopkins University Press), chapter 4 for details.

[30] See A.E. Dembe, J.B. Erickson, R.G. Delbos and S.M. Banks (2005) "The impact of overtime and long work hours on occupational injuries and illnesses: New evidence from the United States", *Occupational and Environmental Medicine*, 62(9); and A. Spurgeon (2003) *Working Time: Its Impact on Safety and Health* (Geneva: ILO).

[31] On the notion of individual choice in working time regulation, see S. Lee and D. McCann (2006) "Working time capabilities: towards realizing individual choice", in J.Y Boulin, M. Lallement, J.C. Messenger and F. Michon (eds), *Decent Working Time: New trends, new issues* (Geneva: ILO).

[32] See G. Akerlof and W. Dickens (1984) "The economic consequences of cognitive dissonance", in *An Economic Theorist's Book of Tales* (Cambridge: Cambridge University Press), for a discussion of health and safety legislation.

[33] Directive 2003/88/EC of the European Parliament and of the Council of 4 November 2003 concerning certain aspects of the organization of working time, Preamble.

[34] Lee, McCann and Messenger (forthcoming).

[35] J. Murray (2001) *Transnational Labour Regulation: the ILO and EC compared* (Hague: Kluwer Law International), and Lee, McCann and Messenger (forthcoming).

[36] World Bank (2004b)..

[37] Botero *et. al.*, op. cit.

[38] Agell (1999) "On the Benefits from Rigid Labour Markets: Norms, Market Failures, and Social Insurance", *Economic Journal*, 109(453).

[39] "The answer is: Yes if by law or mandatory collective agreement: (i) there are

restrictions on the maximum number of hours of work that can be performed at night; and/or (ii) if there are specific premiums for night-time work."

[40] "The answer is Yes if by law or mandatory collective agreement there are restrictions on work during the weekly holidays (usually Sunday, Saturday or Friday, depending on the country). Restrictions include: (i) complete prohibition; (ii) express designation of certain day of the week as weekly holiday, which the employer cannot change unless with the worker's consent; (iii) specific maximum hours of work on such day; and (iv) special premiums for work on such a day."

[41] The method used is unknown.

[42] The method used is unknown.

[43] The annual paid vacation day refers to "the number of days of annual paid leave in manufacturing awarded to a worker after twenty years of employment. If there is no minimum by law or mandatory collective agreement, the answer is No."

[44] It appears that the other forms of protections for night workers often found in national laws are permitted under the RHI e.g. rights to regular health assessments, protections for pregnant workers and so on.

[45] World Bank (2005).

[46] 12 hour days worked over a 5.5 day period.

[47] World Bank (2004b), p. 141.

[48] D. Barnard and Hobbs, (2003) "Opting out of the 48-hour week: employer necessity or individual choice?", *Industrial Law Journal,* 32: 223-252 and G. Bosch and S. Lehndorff, (2001) "Working-time reduction and employment: experiences in Europe and economic policy recommendations", 25, *Cambridge Journal of Economics,* 25(2): 209.

[49] World Bank (2004b), loc. cit.

[50] ibid.

[51] G. Bertola *et al.* (2000). "Employment protection in industrialized countries: the case for new indicators", *International Labour Review,* 139(1).

[52] Botero *et al* (2004)..

[53] ibid., p. 1347.

[54] ibid.

[55] On the application of labour laws to the informal sector, see Chapter 10 – "Legal determinants of labour informality" by José Luis Daza Pérez, in this volume.

[56] J. Browne, S. Deakin, and F. Wilkinson (2002) "Capabilities, Social Rights and European Market Integration", *ESRC Centre for Business Research Working Paper 253,* University of Cambridge.

[57] These can be defined as the basic entitlements, irrespective of any derogations in the form of exceptions, for example, or permissions to derogate via collective bargaining/individual agreement.

[58] Lee, McCann and Messenger (forthcoming).

[59] The Working Time Database is an online database of the primary statutory standards on working time in over 100 countries. It is available at www.ilo.org/travdatabase.

[60] This data collection exercise was a collaboration between the ILO's Conditions of Work and Employment Programme and Bureau of Statistics.

[61] EU countries that do not specify normal hours but only a maximum limit (including overtime) are considered to have a normal hours limit of "40 hours or less."

[62] World Bank (2004a), pp. 145–6.

[63] See Lee, McCann and Messenger (forthcoming).

[64] The formula used for normalization is [(10/13 * (48-SH_i)] and [(1/10 *OR_i)] where SH_i is country *i*'s statutory hours and OR_i refers to country *i*'s observance rate.

[65] For this, it is essential to better understand the relationship between statutory limits and their observance. Without such analysis, any index on working time regulation, including

the one presented in this paper, will remain preliminary.

[66] See Lee (2004).

[67] On negotiated flexibility in Slovenia see M. Stanojevic (2005) "Slovenia: rigidity or 'negotiated' flexibility", in Vaughan-Whitehead (ed.), *Working and Employment Conditions in New EU Member States: Convergence or diversity?* (Geneva: ILO).

[68] See ICFTU (2005) "Comments by ICFTU/Global Unions on the World Bank's *Doing Business in 2005:* "Hiring and firing of workers'", mimeo.

[69] See Lee, McCann and Messenger (forthcoming).

[70] Botero *et al*., op. cit.

[71] World Bank (2004a).