

MAER-Net Registered Review Protocol

Main title	What is the impact of labour market regulation on employment in LICs? How does this vary by gender?
Section	PROCOTOL
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1. Background

1.1 Aims and rationale for review

Controversy over the design of labour market policy often centers on achieving the delicate balance between preventing worker exploitation, by guaranteeing basic rights, and avoiding loss of productivity or employment through 'too much' regulation. Collectively, the empirical literature documenting the impact of labour market regulations on employment is extensive and long-standing. However, much of this evidence focuses on developed or middle-income countries, resulting in a comparative dearth of literature that analyzes the impact of such policies in low-income countries (LICs). In addition, despite a large literature that seeks to understand the differences between the labour supply decisions of men and women, there is little evidence on whether the effects of labour regulations on employment outcomes differ by gender.

This systematic review aims to synthesize the literature on these two issues. Given the large number of studies that use a wide range of analytical methods to explore various types of labour market regulations, the review incorporates rigorous criteria for the inclusion of papers, which are described in detail in Section 4. The aim is to systematically review available research on the impact of labour market regulation on employment in LICs, in order to develop findings that are robust and useful to policy-makers and others interested in this topic.

1.2 Definitional and conceptual issues

Governments intervene in labour markets to address inefficiencies that allow employers to extract rents from employees. Because labour reforms encompass a wide spectrum of policies, from governing the individual employee contract to collective action to social security, that affect a variety of outcomes, such as employment, workforce composition, and the tension between the informal and formal sectors, the research on this topic is diverse. While a common goal within the literature is to evaluate the effects of such reforms on employment outcomes, there is no unified theoretical or econometric approach for doing so.

For example, Djankov and Ramalho (2009) conduct an empirical exercise using three different sources that provide data on a wide spectrum of countries (including those in Sub-Saharan Africa, Eastern Europe and Central Asia, and the OECD), to demonstrate differences in the types and levels of labour regulations across nations. Labour regulations are measured using a single index that gauges the rigidities of hiring, firing, and hours, based on Botero et al. (2004) and the World Bank's Doing Business dataset. The results show the cross-country correlations between labour regulation, employment, and size of the informal sector (rather than the causal effects). The authors conclude that labour laws are significantly more rigid in countries with incomes in the bottom quartile than in countries with incomes in the top quartile. In addition, more stringent labour regulation, as measured by a single index, is associated with larger informal sectors and higher unemployment rates, especially for women and youth.

In contrast, Caballero et al. (2004) base their cross-country analysis within a traditional microeconomic flexibility framework. They develop a hazard adjustment model, exploiting the idea that more rigid labour regulation increases adjustment costs for firms, which affects the speed of employment adjustment to shocks. Their goal is to estimate the employment gap: the difference between the observed and frictionless (desired) levels of employment, where the desired level of employment is estimated by solving the usual firm optimization problem. They measure job security using a subset of the measures that were developed by Botero et al. (2004), as well as another index from Heckman and Páges

(2000). These measures are indices of dismissal protection and procedures, severance payments, and constitutional protection of employment. To measure effective job security, they interact labour regulations with a country's institutional context, which is captured by rule of law and government efficiency measures. Their main result indicates that effective job security has a significant negative effect on the speed of adjustment of employment to shocks.

A third example is work by Mondino and Montoya (2004), who evaluate the impact of labour regulations on firms' labour demand within an empirical framework, in an attempt to reconcile rigid labour laws, increasing mean real wages, and increasing output per worker in Argentina. The outcomes of interest are earnings and labour demand. To estimate the impact on earnings, they employ a Mincerian regression, and measure regulation using an indicator for whether a job is protected by any labour regulation. Drawing on micro-data from an employee survey, they find that men and women must sacrifice earnings in order to have access to a job that is protected by labour regulations. To estimate the impact of regulations on labour demand, they use a simultaneous equation framework. In this context, labour regulation is measured by non-wage labour costs to the firm, such as payroll tax pensions and family allowances. Using a firm panel dataset, they find that as the burden of regulation increases, there is a negative effect on total worker-hours as firms substitute away from labour. There is evidence that firms decrease employment at the extensive margin, and use remaining workers more intensively.

These three examples illustrate the diversity of models, regulations, and outcomes within the literature on labour regulation and employment. To appropriately and systematically review this highly diverse literature, we will clearly identify the types of regulations and outcomes in our inclusion/exclusion criteria. As discussed in more detail in Section 4, this study will focus on the following regulations: minimum wages, mandatory employment benefits, severance pay (separation compensation), unemployment insurance, employment taxes, hour restrictions, hiring rigidities, firing rigidities, and collective bargaining. Our synthesis will consider the impact of each of these policies on a variety of employment outcomes, including employment level, job creation, and the unemployment rate. In addition, we will include studies that examine the impacts of labour regulations on distributional changes in workforce age or skill level, since such changes may shed light on the causal links between labour regulations and employment. Moreover, we will document employment results that pertain to the informal as well as the formal sectors; comparing the effects in the two sectors can also provide insight into the manner in which labour regulations may affect employment. The review will focus on employment outcomes in LICs.

1.3 Research background

The existing articles studying the impact of labour market regulations on employment generally take one of two forms. In this section, we provide a brief, non-systematic review of this literature, focusing on developing countries in general.

First, there are many studies that explore the cross-country relationship between some measure of the rigidity of labour regulations and employment. These studies generally conclude that tougher labour regulations are associated with lower employment, as well as slower adjustment to shocks (e.g., Botero et al. 2004, Caballero et al. 2004, Djankov and Ramalho 2009, Heckman and Pagés 2000, Lustig and McLeod 1997).

A second strand of the literature uses the variation within a country to elicit the impact of labour regulations on employment. Fallon and Lucas (1991, 1993) analyze regulations in India and Zimbabwe that increased firing rigidities, and find that these regulations reduced employment significantly (by an average of 17.5% in 35 Indian industries, and by an average of 25.2% in 29 Zimbabwean industries). However, the Zimbabwean law was

enacted at the same time at which the country became independent, so isolating the effect of the change would have been a challenge. Jones (1998) finds that the minimum wage policies enacted in Ghana in the 1970s and 1980s reduced the number of formal jobs (and increased the number of informal jobs).

In India, a seminal study by Besley and Burgess (2004) uses the variation in regulations governing firing rigidities and dispute resolution mechanisms across Indian states and over time to document that states with stricter regulations have lower formal sector employment. Although their measure of labour regulations has been criticized (Bhattacharjea 2006), further work has generally concluded that India's labour regulations decrease employment (Ahsan and Pages 2009, Amin 2009, Gupta et al. 2008). In Latin America, evidence suggests that stricter labour regulations are associated with lower formal sector employment (Kaplan 2009, Kugler 1999, Kugler 2004, Mondino and Montoya 2004, Saavedra and Torero 2004).

A number of studies have focused specifically on minimum wages. Bell (1997) finds that manufacturing employment is reduced when minimum wages increase in Colombia. Maloney and Nuñez (2001) corroborate this result for the whole economy using panel employment data: they show that increases in the minimum wage are associated with increases in the probability that a formal sector employee becomes unemployed. Rama (2001) studies an extreme increase (doubling in real terms) of the minimum wage that occurred in Indonesia in the early 1990s and concludes that it resulted in a modest reduction in employment.

It is important to note that most of these studies document the relationship between labour regulations and employment in the formal sector, where these regulations are relevant. However, there are large informal sectors in the labour markets of most developing countries, in which labour regulations do not bind. Among studies that focus on unemployment (or overall employment), some might find no overall effect because of a compensating increase in employment in the informal sector. In accordance with this, the cross-country evidence indicates that the size of the informal economy is larger in countries with stricter labour regulations (Botero et al. 2004).

While much of the evidence suggests that stricter labour regulations are associated with lower formal employment, there are some results that challenge this view. de Barros and Corseuil (2004) find that increased separation costs in Brazil did not significantly affect the demand for labour. Downes (2004) finds that severance payments in Jamaica, Barbados, and Trinidad and Tobago are not associated with significant employment impacts. Moreover, the effects of labour regulations are heterogeneous across different types of workers: for example, two papers by Montenegro and Pagés document that job security increases the age profile of employment, yielding higher employment rates for older and skilled workers, but lower employment rates for younger and unskilled workers (Montenegro and Pagés 2004, Pagés and Montenegro 2007). Similarly, although Bell (1997) documents that minimum wages decreased employment in Colombia, she does not find any effect when looking at Mexican manufacturing. She notes, however, that one would not expect a significant effect of modest increases in the minimum wage if it were not initially binding, as was the case in Mexico.

There is a smaller evidence base on how the effects of labour market regulations vary by gender, and the evidence is somewhat mixed. Montenegro and Pagés (2004) find that stricter job security provisions tend to decrease the probability that women are employed, relative to men, but that higher minimum wages are associated with higher levels of female employment. Mondino and Montoya (2004) find that tougher labour regulations result in larger declines in male earnings than female earnings. In the cross-country context, Botero et al. (2004) find that stricter employment and collective bargaining laws are associated with larger increases in female unemployment than male unemployment, while Feldmann (2009) finds that more decentralized collective bargaining processes are

associated with lower female unemployment. Meanwhile, Heckman and Pagés (2000) find insignificant effects of job security regulations on female employment in Latin America.

There are a number of reviews that examine the impacts of labour regulations on employment in a variety of developing countries. For example, Boeri et al. (2008) conduct a non-systematic review of the effects of minimum wages, mandated benefits, dismissal costs, and unemployment insurance on employment and other outcomes in developing countries. They find that the evidence is generally inconclusive, though they do note that minimum wages appear to be associated with poorer employment prospects for women, youth, and unskilled workers. They also conclude that dismissal costs are associated with increased informality and reduced job turnover and job reallocation. Djankov and Ramalho (2009) also conduct a review of employment regulation in developing countries, focusing on studies published since 2004. Their criteria are (1) publication in a refereed journal/volume and (2) robust analysis. They conclude that countries with stricter labour regulations tend to have higher unemployment rates and larger informal sectors. To our knowledge, however, there are no systematic reviews of the impacts of labour market regulations on employment outcomes in developing countries as a whole, or in LICs in particular.

2. Objectives

We will review empirical research on the following questions:

- *What is the impact of labour market regulation on employment in low-income countries (LICs)?*
- *How does this vary by gender?*

As described in more detail in Section 4 of this protocol, the review will examine the impacts of a number of labour market regulations, including minimum wages, separation compensation, and employment taxes, on employment. The review will be focused on evidence from LICs, as defined by the World Bank.¹ The list of LICs is provided in Appendix 3.1. We will also consider cross-country studies to the extent that the results for LICs can be isolated from the overall results.

3. Review team

Krishna Kumar (PhD, Economics) is a Senior Economist at RAND. He directs Research and Policy in International Development (RAPID) and leads the Rosenfeld Program on Asian Development at the Pardee RAND Graduate School. His research and teaching interests are economic growth and development, human capital accumulation, and technological change. He has studied the role of public policy on Indian entrepreneurship and conducted a comparative analysis of the Indian and Chinese education systems. He has researched the role of economic openness on education and growth, higher education policies in the United States, the effect of tax reform on economic growth, international capital flows, reasons for U.S.-Europe productivity differences, the effect of the Green Revolution on recipient and donor countries, cross-country determinants of firm size, policies to revive the stagnant sub-Saharan African economies, and the role of social capital in economic development. His research has been published in leading journals in economic growth and development and macroeconomics. He teaches development economics at the Pardee RAND Graduate School and global economics at the Fuqua School of Business at Duke University and the Indian School of Business in Hyderabad.

¹ <http://data.worldbank.org/about/country-classifications/country-and-lending-groups>

Shanthi Nataraj (PhD, Agricultural and Resource Economics) is an Associate Economist at RAND. She has written several papers on various topics in economic development and environmental economics. In economic development, her research focuses on the determinants of firm growth in developing countries. She has explored the impacts of India's trade liberalization, industrial licensing, and foreign direct investment (FDI) reforms on the productivity of small manufacturing firms, and estimated the impacts of Indian labour regulations on employment among both small and large firms. As a consultant to the World Bank, she analyzed policies associated with the "missing middle" - the lack of mid-sized firms among developing countries - using a variety of econometric techniques. In the area of environmental and resource economics, she has conducted extensive research on how water pricing, mandatory restrictions, and other water demand management measures affect residential demand in urban areas.

Francisco Perez-Arce (Ph.D., Economics) is a labour economist specializing in developing countries. He has written a series of research articles in development and labour economics, and he recently published an article (co-authored with David S. Kaplan) on the impact of minimum wages on labour income. He has done research on labour and education issues, conducting econometric analyses of existing data sets as well as designing and collecting survey data. Dr. Perez-Arce previously worked as a consultant in the Mexican Ministry of Finance and as an analyst at the Center for Economic Analysis and Research.

Sinduja Srinivasan (MSc, Economics) is a Doctoral Fellow at the Pardee RAND Graduate School. Her background is in development economics, conducting research in the areas of health, education, the impact of climate change on rural citizens, and the economic impact of the Business Process Outsourcing industry. She has experience in statistical programming, having collected primary data and worked with survey data and large datasets. She has analyzed firm-level survey data from India, China and the Philippines to assess the economic impact of the Business Process Outsourcing industry. Ms. Srinivasan has also conducted literature searches and reviews for a number of development papers and projects, including the impact of anti-retroviral drugs on the socioeconomic status of HIV patients during disease progression; the impact of institutional development on education outcomes; and the impact of climate change on agricultural agents.

Roberta Shanman is a research librarian at the RAND Library. The RAND Library acquires, organizes, and provides access to information resources to enable RAND to achieve its research, educational and business goals; provides information retrieval and consulting services to the RAND research community; and contributes to the preservation and dissemination of RAND's intellectual legacy. Through the Library, the RAND research community has access to a wide range of digital and print resources, including 125 online research databases, 30,000 journal titles (almost all available online), 70,000 e-books, and 80,000 print items. Ms. Shanman provides customized research support to RAND researchers by developing search strategies, conducting literature searches, and performing citation management. She has extensive experience in assisting researchers with systematic reviews.

3.1 Project Management Plan

The review team will be led by Dr. Shanthi Nataraj and Dr. Francisco Perez-Arce, the Project Leaders. The Project Leaders are responsible for:

- Ensuring that the review is completed in accordance with the procedures outlined in the protocol,
- Working with DFID and MAER-Net to respond to comments on the protocol and draft review,
- Coordinating and reviewing work conducted by other team members,

- Bringing any issues that may affect the ability to complete the project on time and within budget to the notice of DFID, and
- Providing DFID with progress reports.

The Project Leaders are also responsible for ensuring that the project is completed on schedule and within budget. The projected schedule is presented in Section 5. Completing the review in accordance with this schedule will be contingent on receiving feedback from DFID and MAER-Net within the specified time. The Project Leaders will track the progress of the project using RAND's internal budget controls to ensure that the project is completed within budget.

All team members have sufficient time available to meet the deadlines outlined in the schedule. Should there be any necessity for personnel changes during this project, the Project Leaders will select appropriate replacements and will inform DFID as soon as possible.

4. Methods

4.1 User involvement

RAND researchers have established networks with donors and policy-makers in donor and developing countries (including USAID, World Bank, the European Commission, and governments of Mexico, Honduras, Belize, Ecuador, Uganda, Kenya, Indonesia, India and others). RAND will work with partners in this network, as well as DFID, to disseminate the systematic review findings.

The full systematic review will be published as a RAND working paper and will be freely available to all audiences through RAND's website. We will also create a policy brief and a short summary, which will highlight key findings, conclusions, and recommendations to policy-makers and practitioners. These documents will be circulated through RAND's extensive professional outreach network.

4.2 Identifying and describing studies

4.2.1 Defining relevant studies: inclusion and exclusion criteria

1. Study topic: The impact of labour regulations on employment.

All studies included will consider the effect of at least one type of labour regulation on an employment outcome. We will consider the effects of the following labour regulations:

- Minimum Wages
- Mandatory employee benefits
- Severance pay (separation compensation)
- Unemployment insurance
- Employment taxes
- Hour restrictions
- Hiring rigidities
- Firing rigidities
- Collective bargaining

We will only consider studies that look at effects on employment outcomes (namely: job creation, unemployment, hours worked, etc.)

2. Location: We will select studies that include at least one LIC.

We will look for two types of studies:

- Studies using micro-data from LICs. Studies that analyze/focus on a single country that is not a LIC will be excluded from the review. We use the World Bank's definition of LIC, (see Appendix 3.1).
- Cross-Country studies that include at least one LIC. Since the results from these studies will apply not only to LICs but to a wider group of countries, we will review and analyze these studies separately from the micro-data studies.

3. Study design: (identification strategy)

We will include all studies that make an attempt to establish a causal effect using one of the following methods:

- *Experimental:* We will include studies that use experimental methods to elicit the causal effects of labour regulation on employment outcomes; however, given the topic, we do not expect to find studies that use randomized control trials.
- *Quasi-Experimental:* We will include studies that focus on the effects of passing, repealing, or changing a certain labour law/regulation. We expect that such studies will compare affected versus non-affected groups of workers, firms, industries, geographical areas, etc.
- *Regression-Based:* We will include studies that take advantage of within-country variation in labour regulations to study their effects on employment in a quantitative manner.
- *Cross-Country, Panel-Data Analysis:* For cross-country studies, we will only include those that include fixed-effects for countries in the sample.

4. Language of publication: English.

5. Date of publication: After January 1, 1990.

4.2.2 Identification of potential studies: Search strategy

Electronic databases

Our search terms will mimic the inclusion criteria. We have selected the terms to ensure that that we are over-inclusive, so as to minimize the risk of missing relevant articles.

We propose to run two parallel searches, where the first part of the search will look for studies based in individual countries, and the second part of the search will look for cross-country studies. We divide the search terms in three tiers. Tiers 1 and 2 are identical for both searches. Tier 3 includes one set of terms for Part 1 where we are searching for studies of individual LICs, and a second set of terms for Part 2 where we are searching for cross-country studies that include at least one LIC.

The following terms will be used in the searches:

1. All fields containing: "minimum wage" OR "minimum wages" OR "mandatory employee benefits" OR "separation compensation" OR "severance pay" OR "separation payment" OR "unemployment insurance" OR "unemployment benefit" OR "unemployment benefits" OR "employment tax" OR "labour tax" OR "labor tax" OR "payroll tax" OR "payroll taxes" OR "hour restrictions" OR "hiring rigidity" OR "hiring rigidities" OR "firing rigidity" OR "firing rigidities" OR "termination benefit" OR "termination benefits" OR "job insecurity" OR "employment security" OR "labour rigidity" OR "labor rigidity" OR "labor rigidities" OR "labour rigidities" OR "collective bargaining" OR "labour market regulation" OR "labor market regulation" OR "labour regulation" OR "labor regulation" OR "employment law" OR "employment laws" OR "labour reform" OR "labor reform" OR "labour reforms" OR "labor reforms" OR "job security" OR "employment accident benefit" OR "employment injuries benefit" OR "occupational

accident compensation" OR "occupational disease compensation" OR "occupational injuries compensation" OR "rehabilitation benefit" OR "rehabilitation training allowance" OR "maintenance payment" OR "work injuries compensation" OR "work related accident compensation" OR "worker compensation" OR "workers compensation" OR "labor standards" OR "labour standards" OR "labor code" OR "labour code" OR "labor legislation" OR "labour legislation" OR "employer liability" OR "employer responsibility" OR "payroll tax" OR "payroll taxes" OR "payroll taxation" OR ("separation compensation" AND mandatory, regulatory, regulated, law, legislation, minimum) OR ("indemnity" AND mandatory, regulatory, regulated, law, legislation, minimum) OR ("dismissal compensation" AND mandatory, regulatory, regulated, law, legislation, minimum) OR ("redundancy benefit" AND mandatory, regulatory, regulated, law, legislation, minimum) OR ("redundancy payment" AND mandatory, regulatory, regulated, law, legislation, minimum) OR "maternity protection" in Books or Journals or Working Papers or Book Chapters Published Between 1990 and 2011

AND

2. All fields containing: "employment" OR "unemployment" OR "job creation" OR "job destruction" OR "job growth" OR "hours worked" OR "number of jobs" OR "vacancies" OR "labour turnover" OR "labor turnover" OR "layoffs" or "new hires" in Books or Journals or Working Papers or Book Chapters Published Between 1990 and 2011

3. AND

(as described above, there will be two searches, the first aimed at individual country studies and the second aimed at cross-country studies. Both will be identical in the search terms in Tiers 1 and 2, but will have different search terms in Tier 3)

for Part I

All fields containing: Africa OR "Sub-Sahara" OR "Sub-Saharan" OR "Sahara" OR "Central Asia" OR Caribbean OR Afghanistan OR Bangladesh OR Benin OR Burkina Faso OR "Upper Volta" OR Burundi OR Cambodia OR "Central African Republic" OR Chad OR Comoros OR Congo OR Zaire OR Eritrea OR Ethiopia OR Gambia OR Ghana OR Guinea OR "Guinea-Bissau" OR Haiti OR Kenya OR "North Korea" OR "Democratic People's Republic of Korea" OR "DPRK" OR Kyrgyz OR Lao OR Liberia OR Madagascar OR Malawi OR Mali OR Mauritania OR Mozambique OR Myanmar OR Nepal OR Niger OR Rwanda OR "Sierra Leone" OR "Solomon Islands" OR Somalia OR Somali OR Tajikistan OR Tanzania OR Togo OR Uganda OR Zambia OR Zimbabwe in Books or Journals or Working Papers or Book Chapters Published Between 1990 and 2011

For Part II

All fields containing: "multi country" OR "cross country" OR "panel data" OR "low income country" OR "low income countries" OR "low income nation" OR "low income nations" OR "poor country" OR "poor countries"

The search will be conducted in the following databases:

- Academic Search Elite
- Article First

- EconLit
- JSTOR
- WorldCat
- PAIS International
- Sociological Abstracts
- Social Science Citation Indexes

The following databases will also be searched. However, they do not allow full complex searches such as the one proposed above. In these cases we will conduct more general searches by not requiring the results to meet the three parts of the searches above.

- African Journals Online (AJOL)
- africabib.org databases
- Scielo
- British Library of Development Studies (BLDS)

The following search engines will be used for unpublished articles:

- IDEAS
- JOLIS

The following websites will be searched:

- African Development Bank
- Asian Development Bank
- DFID
- ELDIS
- Global development network database (GdNet Knowledgebase)
- Institute of Development Studies
- International Initiative for Impact Evaluation
- International Labour Organisation
- Policypointers
- USAID
- World Bank

All searches above will be restricted for publication date: after January 1st, 1990.

The following journals to be hand searched (table of contents will be scanned from January 1st, 2000 onwards):

- Journal of Development Economics
- Journal of Labor Economics
- Journal of Economic Literature
- Journal of Human Resources
- Industrial and Labor Relations Review
- Journal of Comparative Economics (for cross-country studies)

Snowballing

We will identify one or two recent papers that seem the most appropriate for this review. From them, we will start a “snowballing” process. This consists of: (1) selecting the relevant articles from the above-mentioned journals, (2) looking at the reference lists of those articles for additional titles that might be relevant (3) searching where the included studies have been cited by other authors using Google Scholar and ISI Web of Science’s cited reference search, and (4) repeating the process with those articles.

Contacting Experts

We will email our list of articles with the potential for inclusion to 2-3 experts in the field. We will ask them whether they know of additional studies that might be included.

4.2.3 Screening studies: applying inclusion and exclusion criteria

We will apply the inclusion and exclusion criteria in the following sequence:

1) Titles. Titles generated by the search strategy that appear to fulfill our inclusion criteria and those that do not provide enough information to ascertain suitability for inclusion will be selected for abstract review.

2) Abstracts. The abstracts of the selected titles from Step 1 will then be read, and the inclusion/exclusion criteria will be applied to abstracts. Abstracts that appear to fulfill our inclusion criteria and those that do not provide enough information to ascertain suitability for inclusion will be selected for retrieval of full texts.

3) Full texts. The full texts selected in Step 2 will be read. Those that fit the inclusion criteria will be included in the review; those that do not will be excluded.

Each study will be screened by one researcher. However, as described in Section 4.2.5, we will conduct a pilot study of the screening procedure, in which two reviewers independently screen a small sample of studies, so that we can confirm that the screening criteria are being consistently applied. We will use EPPI-Reviewer software to track all full texts reviewed for inclusion.

Examples of studies that would be included are:

Fallon, Paul, Lucas, Robert (1991). The impact of changes in job security regulations in India and Zimbabwe. *World Bank Economic Review* 5 (3), 395-413.

Fallon, Paul, Lucas, Robert (1993). Job security regulations and the dynamic demand for industrial labor in India and Zimbabwe. *Journal of Development Economics* 40, 214-275.

Jones, Patricia (1998). The impact of minimum wage legislation in developing countries where coverage is incomplete. *The Centre for the Study of African Economies Working Paper Series 66*.

Examples of studies that would be excluded (because they do not include at least one LIC) are:

Bell, Linda A. The Impact of Minimum Wages in Mexico and Colombia, *Journal of Labor Economics*, 1997, Vol. 15, No. 3, pp 103-135.

Besley, Timothy, Burgess, Robin (2004). Can labor regulation hinder economic performance? Evidence from India. *Quarterly Journal of Economics* 119 (1), 91-134.

Rama, Martin (2001). The Consequences of Doubling the Minimum Wage: The Case of Indonesia. *Industrial and Labor Relations Review*, Vol. 54, No. 4, 864-881.

4.2.4 Characterising included studies

Two researchers will independently code each included study using the coding tool, a draft of which is provided in Appendix 2.4. We will then compare the results and arrive at a consensus; disagreements will be resolved by a third researcher if necessary.

Data to be extracted will include:

- Full bibliographical reference
- Publication type (e.g., peer review journal article, institution working paper)
- Study type (individual country/countries or cross-country study)
- Country or countries studied
- Data (e.g., primary/secondary, unit of observation)
- Study design and data analysis methods

- Type of labour market regulation examined (minimum wage, collective bargaining law, etc.)
- Employment outcomes
- Variation in employment outcomes by gender (if applicable).

The section of the draft coding tool that addresses study design draws heavily on the code book for methodological rigor developed in the “Maryland report” (Sherman et al. 1996). The draft coding tool will be modified based on findings in the pilot phase described in Section 4.2.5 below.

4.2.5 Identifying and describing studies: quality assurance process

Pilot testing of search and screening strategies and the coding tool

We developed a draft search strategy and pilot tested it by conducting a search using EconLit. We modified the search parameters slightly based on the results, and have confirmed that the search terms presented in Section 4.2.1 do appear to identify the appropriate types of studies, and to produce a manageable number of hits.

We will also conduct a pilot phase of the study screening process described in Section 4.2.3. During this pilot, two researchers will independently apply the inclusion and exclusion criteria to the titles, abstracts, and full article texts for a small sample of studies identified in the search process. Any disagreement or uncertainties over inclusion and exclusion will be discussed.

Once the researchers have agreed upon pilot studies for inclusion, two researchers will independently apply the coding tool to the included pilot studies. The researchers will compare and reach a consensus on their coding, and we will also modify the coding tool as needed. Conducting this pilot phase will allow us to develop a consistent screening and coding method, which will be applied to the remainder of the studies.

External Quality Assurance

For this review we will take part in peer review organized by DFID. This includes review of the protocol and draft report by DFID staff as well as by an external review team organized through MAER-Net.

4.3 Methods for synthesis

4.3.1 Assessing quality of studies

We will make a judgment about the quality of the study based on the “weight of evidence” framework of Gough (2007). The framework judges the study in three areas:

- Weight of Evidence A: Is the study well-executed? We will consider factors such as whether the identification strategy’s assumptions are likely to be met; whether there is an assessment of the quality of the data; whether there is a discussion of the possible biases and their directions; and whether sensitivity analyses are performed.
- Weight of Evidence B: Is the method used in the study relevant for the review question?
- Weight of Evidence C: Is the topic focus or context of the study relevant to the review question?

The study will be evaluated with respect to each of these areas using data extracted with the coding tool, particularly the elements that relate to study design.

We will aim to focus on studies that fulfill all three criteria. However, if there are too few studies in the appropriate context of LICs, then we may consider a second set of studies that fulfill Weight of Evidence A and Weight of Evidence B, but are conducted in developing countries as a whole (rather than LICs in particular).

4.3.2 Overall approach to, and process of, synthesis

The synthesis will draw on the included studies to review the evidence on the impact of labour regulations on employment outcomes in LICs, and to distinguish between impacts on men and women. Given the wide variety of labour regulations, we anticipate conducting the analysis separately for each type of regulation, as well as for individual versus cross-country studies. Depending on the available evidence, we will also attempt to document the potential causal chain(s) between labour regulations and employment outcomes.

4.3.2.1 Selection of studies for synthesis

We will sort studies by (1) individual country versus cross-country studies, and (2) the type of labour regulations they consider. We currently anticipate sorting studies into the following matrix:

	Individual country study	Cross-country study
Minimum wages		
Mandatory employee benefits		
Separation compensation		
Unemployment insurance		
Employment taxes		
Hour restrictions		
Hiring rigidities		
Firing rigidities		
Collective bargaining		

The labour regulation categories will be modified as needed after all included studies have been identified. Moreover, depending on the types of studies we find, we may distinguish between those that study formal versus informal labour markets. We anticipate that most studies will focus on formal labour markets, as data are more likely to be available. However, it is possible that the effects of a labour market regulation may have different impacts in the two types of labour markets (see, for example, Besley and Burgess, 2004). Therefore, to the extent that we find studies covering both types of labour markets, we will distinguish between them; if we only find studies covering the formal labour market, the report will clearly note that the results only pertain to formal labour markets.

4.3.2.2 Process used to combine/ synthesise data

We will summarize our findings using a framework synthesis. The synthesis will be conducted separately for each of the broad labour regulation categories identified. For each category of regulation, we will attempt to identify the direction of the effect (i.e., does the regulation increase or decrease employment or have no effect) and whether the effect differs by gender.

Within each category, the measure of labour market regulations often differs among studies, and is often constructed using a measure unique to an individual study or set of studies (see the discussion in Section 1.2 for several examples). Moreover, the measure of employment varies between studies. However, should we identify a number of studies that have comparable, quantitative measures of labour market regulations as well as

employment outcomes, we will explore the use of statistical meta-analysis methods to synthesize the results of these studies.

We currently anticipate that the most likely labour regulation that will allow a meta-analysis is minimum wage. Following Doucouliagos and Stanley (2009), we anticipate including studies that provide estimates that are, or can be converted to, elasticities of employment with respect to minimum wage, and that provide the relevant t-statistics or standard errors. We will take one estimate from each study (either the estimate preferred by the authors or the baseline estimate, if no preferred estimate is provided), and will address potential correlation between studies that share one or more authors through cluster-robust analysis.

To ensure that we have adequate information to conduct a meta-analysis if possible, we will document relevant moderator variables for each included minimum wage study:

- Relevant t-statistics or standard errors
- Nature of data (panel, cross-section, time-series)
- Nature of identification strategy (quasi-experimental, regression-based, etc.)
- Characteristics of population included in study (gender, age)
- Type of labour market (formal, informal, both)
- Type of employment outcome (hours, days, dummy variable for employment)
- Specification (log-log, log-linear, etc.)
- Context (country/region, industry)
- Lagged or current regulation
- Inclusion of fixed effects or time trends (year, country/region, industry)
- Inclusion of key control variables (e.g. education)
- Publication status

See Appendix 2.4 for a complete list of data that will be collected. We will refine the list of moderator variables as needed after conducting the pilot search.

We anticipate using the following baseline meta-regression analysis, following Jarrell and Stanley (1990):

$$\hat{\beta}_i = \alpha_0 + \sum_k \alpha_i Z_{ik} + \varepsilon_i$$

where the dependent variable is the outcome of interest (estimated elasticity of employment with respect to minimum wage), and the Z_{ik} are moderator variables.

Should we find a sufficient number of both published and unpublished studies, we will also use an alternative specification to test for publication bias, and for effects in the presence of publication bias, following Stanley (2008) and Doucouliagos and Stanley (2009):

$$t_i = \alpha_0 + \alpha_1(1/se_i) + \sum_k \alpha_i Z_{ik} / se_i + \sum_k \gamma_i K_{ik} + v_i$$

where the dependent variable is the t-statistic associated with the outcome of interest, se_i is the standard error, the Z_{ik} are moderator variables, and the K_{ik} are other factors associated with publication selection. The hypothesis $\alpha_0=0$ allows a test for publication selection, while α_1 provides an estimate of the regulation's impact while controlling for publication bias.

4.4 Deriving conclusions and implications

We will derive implications and conclusions from the synthesis of findings based on review team discussions, as well as ongoing, informal interactions with DFID's Research and Evidence Division staff members. We will draw on the expertise of Dr. Krishna Kumar, a Senior Economist at RAND and team member, who has extensive experience in international development and employment issues.

We will present our preliminary conclusions in the Draft Review and will incorporate comments from DFID and MAER-Net into the Final Review as well as the Policy Brief and Short Summary.

5. Timeline

The following table provides the anticipated timeline for this project. Adhering to the timeline will be contingent on receiving feedback from DFID and MAER-Net reviewers in the timeframe indicated.

Task	Anticipated Completion Date
Protocol submitted	1 May 2011
Comments on protocol received	1 July 2011
Draft Review submitted	1 December 2011
Comments on Draft Review received	1 March 2012
Final Review, Policy Brief, and Short Summary submitted	1 May 2012

6. Plans for updating

The review may be updated once a significant amount of new, relevant studies are available, conditional on acquiring additional funds to perform the update. We will provide DFID with a full reference list of the full-text studies reviewed for inclusion in Step 3 of the screening process (see Section 4.2.3). The same reference list will be made available to any other research groups wishing to update the review.

7. Sources of funding

This systematic review is funded by DFID.

8. Statement of conflict of interest

The authors are not aware of any conflicts of interest in conducting this systematic review.

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Appendices

Appendix 1.1: Authorship of this report

Main title	What is the impact of labour market regulation on employment in LICs? How does this vary by gender?
Section	PROCOTOL
Authors IN ORDER OF CREDIT (Please include first and surnames, institutions. Include titles - Dr, Prof - if you want them to be used.)	Dr. Shanthi Nataraj, RAND Corporation Dr. Francisco Perez-Arce, RAND Corporation Sinduja Srinivasan, RAND Corporation Dr. Krishna Kumar, RAND Corporation
This report should be cited as...	Nataraj, S., Perez-Arce, F., Srinivasan, S., and Kumar, K. (2011) <i>The impact of labour market regulation on employment in Low-Income Countries: a systematic review</i> , RAND Corporation.
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Month/year of publication	[To be completed]
Review group (with institutions)	This group is made up of staff from the RAND Corporation.
Advisory group (with institutions)	MAER-Net
Conflicts of interest (if any)	No conflict of interest
Acknowledgements	We thank the UK Department for International Development, MAER-Net, and the researchers on whose work we base this review.

Appendix 2.1: Inclusion and exclusion criteria

The following are the inclusion/exclusion criteria:

1. Study topic: The impact of labour regulations on employment.

All studies included will consider the effect of at least one type of labour regulation on an employment outcome. We will consider the effects of the following labour regulations:

- Minimum Wages
- Mandatory employee benefits
- Severance pay (separation compensation)
- Unemployment insurance
- Employment taxes
- Hour restrictions
- Hiring rigidities
- Firing rigidities
- Collective bargaining

We will only consider studies that look at effects on employment outcomes (namely: job creation, unemployment, hours worked, etc.)

2. Location: We will select studies that include at least one LIC.

We will look for two types of studies:

- Studies using micro-data from LICs. Studies that analyze/focus on a single country that is not a LIC will be excluded from the review. We use the World Bank's definition of LIC, (see Appendix 3.1).
- Cross-Country studies that include at least one LIC. Since the results from these studies will apply not only to LICs but to a wider group of countries, we will review and analyze these studies separately from the micro-data studies.

3. Study design: (identification strategy)

We will include all studies that make an attempt to establish a causal effect using one of the following methods:

- *Experimental:* We will include studies that use experimental methods to elicit the causal effects of labour regulation on employment outcomes; however, given the topic, we do not expect to find studies that use randomized control trials.
- *Quasi-Experimental:* We will include studies that focus on the effects of passing, repealing, or changing a certain labour law/regulation. We expect that such studies will compare affected versus non-affected groups of workers, firms, industries, geographical areas, etc.
- *Regression-Based:* We will include studies that take advantage of within-country variation in labour regulations to study their effects on employment in a quantitative manner.
- *Cross-Country, Panel-Data Analysis:* For cross-country studies, we will only include those that include fixed-effects for countries in the sample.

4. Language of publication: English.

5. Date of publication: After January 1, 1990.

Appendix 2.2: Search strategy for electronic databases

Our search terms will mimic the inclusion criteria. We have selected the terms to ensure that that we are over-inclusive, so as to minimize the risk of missing relevant articles.

We propose to run two parallel searches, where the first part of the search will look for studies based in individual countries, and the second part of the search will look for cross-country studies. We divide the search terms in three tiers. Tiers 1 and 2 are identical for both searches. Tier 3 includes one set of terms for Part 1 where we are searching for studies of individual LICs, and a second set of terms for Part 2 where we are searching for cross-country studies that include at least one LIC.

The following terms will be used in the searches:

4. All fields containing: "minimum wage" OR "minimum wages" OR "mandatory employee benefits" OR "separation compensation" OR "severance pay" OR "separation payment" OR "unemployment insurance" OR "unemployment benefit" OR "unemployment benefits" OR "employment tax" OR "labour tax" OR "labor tax" OR "payroll tax" OR "payroll taxes" OR "hour restrictions" OR "hiring rigidity" OR "hiring rigidities" OR "firing rigidity" OR "firing rigidities" OR "termination benefit" OR "termination benefits" OR "job insecurity" OR "employment security" OR "labour rigidity" OR "labor rigidity" OR "labor rigidities" OR "labour rigidities" OR "collective bargaining" OR "labour market regulation" OR "labor market regulation" OR "labour regulation" OR "labor regulation" OR "employment law" OR "employment laws" OR "labour reform" OR "labor reform" OR "labour reforms" OR "labor reforms" OR "job security" OR "employment accident benefit" OR "employment injuries benefit" OR "occupational accident compensation" OR "occupational disease compensation" OR "occupational injuries compensation" OR "rehabilitation benefit" OR "rehabilitation training allowance" OR "maintenance payment" OR "work injuries compensation" OR "work related accident compensation" OR "worker compensation" OR "workers compensation" OR "labor standards" OR "labour standards" OR "labor code" OR "labour code" OR "labor legislation" OR "labour legislation" OR "employer liability" OR "employer responsibility" OR "payroll tax" OR "payroll taxes" OR "payroll taxation" OR ("separation compensation" AND mandatory, regulatory, regulated, law, legislation, minimum) OR ("indemnity" AND mandatory, regulatory, regulated, law, legislation, minimum) OR ("dismissal compensation" AND mandatory, regulatory, regulated, law, legislation, minimum) OR ("redundancy benefit" AND mandatory, regulatory, regulated, law, legislation, minimum) OR ("redundancy payment" AND mandatory, regulatory, regulated, law, legislation, minimum) OR "maternity protection" in Books or Journals or Working Papers or Book Chapters Published Between 1990 and 2011

AND

5. All fields containing: "employment" OR "unemployment" OR "job creation" OR "job destruction" OR "job growth" OR "hours worked" OR "number of jobs" OR "vacancies" OR "labour turnover" OR "labor turnover" OR "layoffs" or "new hires" in Books or Journals or Working Papers or Book Chapters Published Between 1990 and 2011
6. AND
(as described above, there will be two searches, the first aimed at individual country studies and the second aimed at cross-country studies. Both will be identical in the search terms in Tiers 1 and 2, but will have different search terms in Tier 3)

for Part I

All fields containing: Africa OR "Sub-Sahara" OR "Sub-Saharan" OR "Sahara" OR "Central Asia" OR Caribbean OR Afghanistan OR Bangladesh OR Benin OR Burkina Faso OR "Upper Volta" OR Burundi OR Cambodia OR "Central African Republic" OR Chad OR Comoros OR Congo OR Zaire OR Eritrea OR Ethiopia OR Gambia OR Ghana OR Guinea OR "Guinea-Bissau" OR Haiti OR Kenya OR "North Korea" OR "Democratic People's Republic of Korea" OR "DPRK" OR Kyrgyz OR Lao OR Liberia OR Madagascar OR Malawi OR Mali OR Mauritania OR Mozambique OR Myanmar OR Nepal OR Niger OR Rwanda OR "Sierra Leone" OR "Solomon Islands" OR Somalia OR Somali OR Tajikistan OR Tanzania OR Togo OR Uganda OR Zambia OR Zimbabwe in Books or Journals or Working Papers or Book Chapters Published Between 1990 and 2011

For Part II

All fields containing: "multi country" OR "cross country" OR "panel data" OR "low income country" OR "low income countries" OR "low income nation" OR "low income nations" OR "poor country" OR "poor countries"

The search will be conducted in the following databases:

- Academic Search Elite
- Article First
- EconLit
- JSTOR
- WorldCat
- PAIS International
- Sociological Abstracts
- Social Science Citation Indexes

The following databases will also be searched. However, they do not allow full complex searches such as the one proposed above. In these cases we will conduct more general searches by not requiring the results to meet the three parts of the searches above.

- African Journals Online (AJOL)
- africabib.org databases
- Scielo
- British Library of Development Studies (BLDS)

The following search engines will be used for unpublished articles:

- IDEAS
- JOLIS

The following websites will be searched:

- African Development Bank
- Asian Development Bank
- DFID
- ELDIS
- Global development network database (GdNet Knowledgebase)
- Institute of Development Studies
- International Initiative for Impact Evaluation
- International Labour Organisation

- Policypointers
- USAID
- World Bank

All searches above will be restricted for publication date: after January 1st, 1990.

We conducted a test search of our methodology in Econlit, and modified the search parameters slightly based on the results.² We have confirmed that the search terms presented above do appear to identify the appropriate types of studies, and to produce a manageable number of hits. The final search strategy yielded: for Part 1, 259 results in EconLit, and for Part 2, 324 results in EconLit. We have also added terms to make the search strategy more general. We used the ILO thesaurus (<http://www.ilo.org/public/english/support/lib/tools/aboutthes.htm>) to find additional relevant terms.

Appendix 2.3: Journals to be hand searched

The following journals to be hand searched (table of contents will be scanned from January 1st, 2000 onwards):

- Journal of Development Economics
- Journal of Labor Economics
- Journal of Economic Literature
- Journal of Human Resources
- Industrial and Labor Relations Review
- Journal of Comparative Economics (for cross-country studies)

² The process to arrive at the search terms was as follows: We started with a list of articles on the topic of labour regulation pertaining to developing countries. We conducted a search in EconLit with a starting set of terms and identified the articles that were not found. We looked at the keywords listed for these articles, and added relevant keywords to our list of search terms. We increased the scope of search terms in this manner until our search identified all of the articles in that list. We then modified the search terms to attempt to include only studies that include at least one LIC.

Appendix 2.4: Draft coding tool

A. Basic information

A.1 Bibliography

1. Title
2. Authors
3. Date of publication
4. Place of publication
5. Language

A.2 Publication Type

1. Peer reviewed journal
2. Book or book chapter
3. Institutional publication
4. Institutional working paper
5. Conference paper
6. Other (specify)

A.3 Funding Source

Specify if provided: _____

A.4 Type of study

1. Cross-country
2. Individual country/countries

A.5 Countries: Individual studies

1. Includes at least one LIC (if not, EXCLUDE and stop here)

List LIC countries.

A.6 Countries: Cross-country studies

1. Includes at least one LIC (if not, EXCLUDE and stop here)
2. Is it possible to separate impacts in LICs? (if not, EXCLUDE and stop here)

List LICs included.

A.7 Type of labour market regulation

1. Minimum wage

2. Mandatory employee benefits
3. Severance pay (separation compensation)
4. Unemployment insurance
5. Employment tax
6. Hour restrictions
7. Hiring rigidities
8. Firing rigidities
9. Collective bargaining
10. Other (describe)

Specify name of labour market law or regulation if applicable: _____

Describe labour market regulation (e.g., minimum wage; variable constructed to measure total mandatory employment taxes; number of months of severance pay required):

B. Data

B.1 Unit of observation

1. Country
2. State, province, or similar entity within a country
3. Firm
4. Household
5. Individual
6. Other (specify)

Specify number of units (e.g., 73 countries, 3000 firms): _____

Specify population if applicable (e.g., males aged 18-55): _____

B.2 Data Source

1. Secondary
2. Primary

Specify data source: _____

B.3 Nature of Data

1. One cross-section
2. Multiple cross-sections
3. Panel
4. Time series observations

Specify time period covered: _____

B.4 If primary data are used, record the following:

1. Population from which sample is drawn
2. Sample selection methods
3. Sample size
4. Evidence that consent was sought
5. Type of data collected
6. Data collection methods

B.5 Type of labour market

1. Formal sector only
2. Informal sector only
3. Formal and informal sectors
4. Not specified

C. Study Design

C.1 Identification Strategy

1. Cannot determine identification strategy (EXCLUDE and stop here)
2. Experimental
3. Quasi-Experimental
4. Regression-Based
5. Cross-Country, Panel Analysis
6. Cross-Country, Non-Panel Analysis (EXCLUDE and stop here)
7. Other (specify)

C.2 Data Analysis Methods

1. Cross-sectional regressions
2. Panel regressions
3. Time series regressions
4. Instrumental variables methods
5. Natural experiments (e.g., regression discontinuity design)
6. Statistical matching techniques (e.g., propensity score approach)
7. Structural models
8. Comparison of means (treatment and control groups)
9. Qualitative comparison
10. Other (specify)

C.3 Confounding factors

1. Confounding factors not discussed
2. Confounding factors discussed but not significant
3. Significant confounding factors present; not addressed convincingly
4. Significant confounding factors present; addressed convincingly by use of identification strategy, control variables, etc.

C.4 Variable measurement

1. No systematic reproducible approach to variable measurement is employed
2. No indication of how variables were constructed or obtained
3. Some attention to constructing or obtaining high quality measures
4. Variables developed or selected with some consideration of use in prior studies and reliability of measurement
5. Careful selection of relevant variables considering their prior use and reliability for all or most of the measures

C.5 Control for missing data or attrition

1. Missing data and/or attrition not discussed
2. Missing data and/or attrition not a significant issue
3. Missing data and/or attrition may be a significant issue, not adequately addressed
4. Missing data and/or attrition may be a significant issue, adequately addressed

C.6 Use of statistical significance tests

1. No statistical tests or effect sizes
2. Statistical tests used or effect sizes computed
3. Statistical tests or effect sizes not relevant

STUDY QUALITY: Based on the information extracted, focusing particularly on the elements of the study design, evaluate the execution of the study:

1. No reliance or confidence should be placed on the results of this evaluation because of the number and type of serious shortcomings(s) in the methodology employed (EXCLUDE and stop here)
2. Methodology rigorous in some respects, weak in others
3. Methodology rigorous in almost all respects

Also evaluate the study according to the following two areas:

Is the method used in the study relevant for the review question?

Yes

No (EXCLUDE and stop here)

Is the topic focus or context of the study relevant to the review question?

Yes

No (EXCLUDE and stop here)

D. Outcomes

[This section will be refined after conducting the pilot search, screening and coding, to fit the types of outcomes available in the included studies.]

D.1 Relevant Outcomes Assessed

1. Employment level
2. Employment growth
3. Unemployment rate
4. Hours worked
5. Days worked
6. Dummy variable for employment
7. Earnings
8. Layoffs
9. Size of formal workforce
10. Size of informal workforce
11. Other (specify)

D.2 Are the employment outcomes differentiated by gender?

Yes

No

E. Additional Moderator Variables (for minimum wage studies)

[This section will be refined after conducting the pilot search, screening and coding, to fit the types of outcomes available in the included studies.]

E.1 Standard error (if applicable)_____

E.2 t-statistic (if applicable)_____

E.3. Age of population included

1. Adults only
2. Minors only
3. Adults and Minors

E.4 Gender of population included

1. Male only
2. Female only
3. Male and Female

E.5 Specification

1. Log-log
2. Log-linear
3. Other (specify)

E.6 Lagged versus current regulation

1. Lagged regulation
2. Current regulation

E.6 Industries included: _____

E.7 Are the following controls included?

Control	Yes	No
Time trend		
Year dummy variables		
Industry dummy variables		
Country dummy variables		
Region dummy variables		
Unemployment		
Education variable		

Specify employment outcomes, including differences by gender if available: _____

Appendix 3.1: List of Low-Income Countries

Afghanistan	Guinea	Nepal
Bangladesh	Guinea-Bissau	Niger
Benin	Haiti	Rwanda
Burkina Faso	Kenya	Sierra Leone
Burundi	Korea, Dem. Rep.	Solomon Islands

Cambodia	Kyrgyz Republic	Somalia
Central African Republic	Lao PDR	Tajikistan
Chad	Liberia	Tanzania
Comoros	Madagascar	Togo
Congo, Dem. Rep.	Malawi	Uganda
Eritrea	Mali	Zambia
Ethiopia	Mauritania	Zimbabwe
Gambia, The	Mozambique	
Ghana	Myanmar	

Appendix 3.2: List of Studies of Labour Regulation used to Select the Search Terms

Ahsan, Ahmad, Pagés, Carmen (2009). Are all labor regulations equal? Evidence from Indian manufacturing. *Journal of Comparative Economics* 37 (1), 62-75.

Amin, Mohammad (2009). Labor regulation and employment in India's retail stores. *Journal of Comparative Economics* 37 (1), 47-61.

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