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# Flying Under the Radar? The State and the Enforcement of Labour Laws in Brazil

SALO V. COSLOVSKY

ABSTRACT *Over the past three decades, developing countries have deregulated, privatized and liberalized their economies. Paradoxically, they have also retained or even strengthened their labour laws and regulations. This compromise has created enormous political tension, which manifests itself as recurrent calls for either a rollback or a deepening of reforms. Few of these calls have been heeded, so the burden of reconciling the conflicting policies ends up being transferred to those public agents who enforce the regulations on the ground. To understand how these agents act, the latitude they have, the limits they face and the results they accomplish, this paper examines how labour inspectors and prosecutors intervened in four beleaguered industries in Brazil. It finds that enforcement agents often do more than just impose fines or teach infringers about the law. Rather, they use their discretion and legal powers to realign incentives, reshape interests and redistribute the risks, costs and benefits of compliance across a tailor-made assemblage of public, private and non-profit enterprises in a way that makes compliance easier for all involved. On a broader canvas, regulatory enforcement agents who perform this role can be characterized as the foot soldiers of a post-neoliberal or neo-developmental state.*



## 1. Introduction

Over the past three decades, developing countries all over the world have embarked on an ambitious process of political and economic transformation with both internal and international components. Internally, developing countries abandoned *dirigiste* policies and took steps to liberalize, privatize and decentralize their economies. This neoliberal makeover was particularly visible in Latin America. Average tariffs in the continent dropped from 55% in 1985 to 10.7% in 1999 (Lora, 2001, p. 4; 2007, p. 3). More than 800 state-owned enterprises were privatized (Birdsall *et al.*, 2010, p. 12) and public companies' share of GDP fell from 10% in 1987 to 5% in 1997 (Lora, 2007, p. 31). Public-

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sector deficits almost disappeared (Birdsall *et al.*, 2010, p. 9) and the proportion of public spending conducted by subnational governments increased from 13.1% in 1985 to 19.3% in 2004 (Daughters & Harper, 2007, p. 214). Internationally, these reforms dovetailed with a sharp increase in international trade and foreign direct investment (FDI). Between 1980 and 2007, global merchandise exports increased almost sevenfold (WTO, 2012) and FDI increased 14-fold (UNCTAD, 2012). Building on both trends, multinational corporations redefined their core business and outsourced subsidiary activities to suppliers in developing nations. These reforms increased economic dynamism but they also tempted developing country governments to slash labour, environmental and other protective regulations in order to increase the ability of domestic firms to compete. To prevent a potential "race to the bottom" and the "adverse incorporation" (Phillips, 2013) of unfree labour into the global economy, scholars and activists embraced two policy instruments: social clauses and voluntary private regulation. Social clauses are legal provisions attached to trade treaties that make market access conditional upon respect for certain labour and environmental standards. Typically, social clauses are imposed by rich countries on their trading partners and are intended to create a global floor for protective standards. Voluntary private regulation is a type of corporate self-regulation in which leading firms or third-party entities monitor the labour and environmental practices of developing country suppliers. Both intervention types have been adopted widely. Since 1993, every bilateral and some multilateral trade treaties signed by the USA have included a social clause (Polaski, 2004). Likewise, by 2003 multinational firms had adopted an estimated 1000 codes of conduct (World Bank, 2003, p. 3).

The fast dissemination of a policy instrument can rarely be attributed to a single cause, but it is worth noting that both social clauses and private regulations were conceived as functioning independently of the political whims and bureaucratic capacities of developing country states. In fact, the perception that developing country governments are chronically inept and/or hopelessly corrupt has taken a powerful hold in the international development field (Krueger, 1990) and shaped its research agenda. For instance, in recent years leading scholars of international development have examined politicized recruitment (Evans & Rauch, 1999), chronic absenteeism (Banerjee & Duflo, 2006; Chaudhury *et al.*, 2006), cumbersome regulations (Frye & Shleifer, 1997; Djankov *et al.*, 2006; Mulainathan & Schnabl, 2010), pervasive corruption (Mauro, 1995; Treisman, 2000; Svensson, 2005; Olken & Pande, 2012) and waste in public procurement (Bandiera *et al.*, 2009). In harmony with this trend, many scholars interested in labour standards have ignored the fact that neoliberal reforms did not dismantle domestic labour regulations, which allows for regulatory enforcement in developing countries. To correct this theoretical oversight, this paper recounts the recent trajectory of four Brazilian industries characterized by widespread violations of labour regulations, namely the production of (a) charcoal, (b) sugarcane, (c) agricultural crops in small farms and (d) fireworks. In these industries, government officials have intervened to produce a range of positive results. None of these cases can be termed an unqualified success; in reality, progress tends to be slow and halting. Still, these cases illustrate the creativity, vigour and resourcefulness of government agents in action. The paper is based on primary and secondary sources, particularly interviews conducted in Brazil between 2006 and 2009 with labour inspectors, prosecutors, union leaders, business executives, private-sector managers, local activists, elected politicians and other public and private agents. It also relies on primary documents such as government and industry reports, internal memos and meeting minutes.

## 2. The Revival of the State

In recent years, the mainstream international development literature has been characterized by an almost single-minded emphasis on the pathologies of public-sector organizations. Within this context, a number of recent studies on labour standards have chosen to bypass the study of state institutions to examine initiatives conducted by non-governmental organizations (O'Rourke, 2003), industry associations (Nadvi, 1999; Schmitz, 2000) and global buyers (Locke *et al.*, 2009; Mayer & Gereffi, 2010). Still, a small but growing number of studies show that public bureaucracies in developing countries can advance the public interest in proactive and resourceful ways (Tendler, 1997; Joshi, 1998/1999; Tewari & Pillai, 2005; Piore & Schrank, 2008; Pires, 2008; Schrank, 2009; Iskander, 2010; Coslovsky, 2011; Amengual, 2012). This section identifies three pathways through which governments in developing countries have been reacquiring the bureaucratic capacity to enact and enforce labour regulations despite the competing forces imposed by neoliberalism and globalization.



### *2.1. The Political Economy of Trade Treaties and Labour Reforms*

During the 1990s, a number of scholars and political analysts predicted that trade liberalization and domestic deregulation would erode social protections, shrink policy space and force governments to downsize their bureaucracies. Since then, a number of empirical studies have instead demonstrated that open economies tend to have bigger governments (Rodrik, 1998) and that neoliberal reforms often beget new institutions for market governance (Vogel, 1996; Snyder, 2001). This dynamic has become evident on the labour front (Greenhill *et al.*, 2009), particularly with regard to laws regulating collective labour rights (Murillo & Schrank, 2005; Neumayer & Soysa, 2006).

Scholars have identified a number of mechanisms to explain this unexpected persistence of domestic labour regulations. In some cases, citizens in developing nations fear the disruptions caused by free markets but agree to endorse (or fail to energetically protest) neoliberal reforms if their own governments, in turn, shore up social protections (Murillo & Schrank, 2005). Naturally, these kinds of social agreement do not emerge in one piece. Rather, they often entail protracted and contentious negotiations in which labour unions play a central role (Murillo, 2000; Murillo & Schrank, 2010). In other cases, citizens of advanced economies agree to endorse a trade treaty if their less advanced partners raise their labour regulations to acceptable levels. In many of these instances, labour unions and social activists in both advanced and developing economies also play an important role as they lobby their governments for equivalent levels of worker protection across boundaries (Kay, 2005). These international commitments are often embodied in social clauses. Despite their numerous flaws, such as vague language and excessive reliance on weak domestic authorities (Bieszczat, 2008), social clauses still help explain the dissemination of labour regulations and the strengthening of labour inspectorates not only in various Latin American countries in recent years (Frundt, 1998; Pipkin, 2006; Fuentes, 2007; Schrank, 2009), but also across Europe from 1800 to 1914 (Huberman & Meissner, 2010). Finally, increased FDI has also been associated with improved labour protection in developing countries (Mosley & Uno, 2007; Ronconi, 2012).

### 2.2. Complementary Effects of Voluntary Private Regulations

Voluntary private regulations constitute another lever to improve domestic labour regulations. Initially, researchers and practitioners interested in labour standards feared that the widespread adoption of private regulations would pre-empt, hollow out or stunt the growth of domestic authorities (O'Rourke, 2003; Esbenshade, 2004). Empirical research has challenged this pessimistic view and shown that private voluntary regulations may in fact bolster public regulation. For instance, private auditors who visit formal firms in export-processing zones often free up government resources so that labour inspectors can more effectively monitor informal firms in less-visible areas of the country (Amengual, 2010). In other instances, private auditors and public inspectors work together to improve compliance with labour regulations, either as a stopgap measure to counteract transnational organizing campaigns (Rodriguez-Garavito, 2005), or by design, to ensure continued access to restrictive markets as demonstrated by International Labour Organization's (ILO) Better Factories Program (Polaski, 2006). Finally, in some instances private auditors and public inspectors target different types of problems in the same supply chain and compel firms to comply with legal provisions in ways that make compliance with labour standards integral to the business model of the targeted enterprises (Coslovsky & Locke, 2013).

### 2.3. Active Mobilization by Public Servants

A somewhat more covert pathway to stronger laws and enforcement bureaucracies involves active mobilization by public servants themselves. As has been detected in high-performance work systems (Appelbaum *et al.*, 2000), worker participation can be a key component of public-sector reform. The fact that civil servants sometimes engage in collective action to improve their professional status, enhance their legal powers and acquire resources for their organization is particularly visible in Brazil. So far, this phenomenon has been observed among public health workers (Dowbor, 2008), prosecutors (Coslovsky, 2009), labour inspectors (Pires, 2008), tax collectors (Pinhanez, 2012) and public defenders (Cardoso, 2010). It is unclear whether similar dynamics have failed to take place in other countries or have simply not yet been reported on.

In summary, a number of variables have come together to preserve labour regulations despite neoliberal reforms and to empower labour enforcement bureaucracies. Naturally, this is a relatively new phenomenon and the observed progress does not guarantee adequate levels of worker protection across the board. Complicating matters further, public bureaucracies in developing countries continue to be characterized by corruption, capture, inadequate budgets and limited representativeness. Yet, a basic framework for social protection remains in place, and in many instances developing country governments have acquired a renewed ability to enforce labour standards despite intense pressure to liberalize. As discussed below, this countermovement is particularly visible in Brazil.

## 3. Labour Laws, Labour Inspectors and Prosecutors in Brazil

Brazil has approximately 107 million people in its labour force (DIEESE, 2011) and their work lives are governed by a unified set of national labour laws, decrees and regulations

that encompass issues such as wages and hours, health and safety, collective bargaining, child labour, indentured servitude (slave labour), payroll taxes and other pertinent provisions. According to managers and employers, the Brazilian system of labour relations is one of the most cumbersome in the world. The World Bank's Enterprise Analysis Unit collects firm-level data in 135 countries to assess the quality of each country's business environment. In 2009, this unit interviewed 1802 Brazilian informants, and 57.4% of them identified labour regulations as a major constraint to business development in the country (Brazil ranked last in this category among the 137 countries surveyed).[1]

In Brazil, two distinct sets of government agents are responsible for enforcing labour laws: labour inspectors and prosecutors. The Brazilian Labour Inspectorate is composed of approximately 3000 inspectors (Ministério do Trabalho e Emprego, 2008) who are hired through a rigorous entrance exam and are assigned to field offices throughout the country. Typically, inspectors visit workplaces to verify whether employers comply with the relevant labour laws. Between 1990 and 2008, they visited approximately 350 000 businesses per year (or 115 visits per inspector per year, assuming inspectors always work alone). On average, and in the aggregate, labour inspectors check on 22 million workers per year (7326 workers per inspector per year). Visits are unannounced, and at each visit inspectors examine the premises, review pertinent documents and inspect equipment to verify that employers comply with current health and safety provisions, wage and hour regulations, and payroll tax payment requirements. They also interview workers to understand the dynamics of the jobs more fully. When inspectors identify a violation, they might require immediate correction, impose a fine or refer the case for prosecution.

Brazilian prosecutors are responsible for upholding a range of non-negotiable individual and collective rights. Or, as defined by the head of the national labour prosecutors' association, "prosecutors are the lawyers for civil society" (Ministério da Justiça, 2006a, p. 15). In 2004, Brazil had approximately 10 000 prosecutors who worked from field offices throughout the country (Ministério da Justiça, 2006b, p. 32). They have an irreproachable reputation (McAllister, 2008), but only a fraction of all prosecutors devote themselves to enforcing labour regulations.[2] In addition to indicting defendants in criminal court, these professionals can also subpoena documents, initiate the Brazilian equivalent of a class-action suit ("*Ação Civil Pública*"—ACP) and settle these lawsuits in ways that oblige defendants either to pay monetary compensation and change their behaviour, or face criminal charges ("*Termo de Ajustamento de Conduta*"—TAC). Given these considerable powers, prosecutors are key allies of labour inspectors, union leaders and human rights activists in enforcing labour laws.

What happens when such a sizeable and powerful corps of government officials enforces a sprawling yet rigid set of labour regulations? First, one sees numerous cases of forceful implementation, which help explain the vocal complaints about rigidity and cumbersomeness captured in the World Bank's surveys. Second, some firms go deeper underground to escape vigilance and engage in egregious violations of labour standards (Secretaria Especial dos Direitos Humanos, 2008; Phillips & Sakamoto, 2012). But the most interesting and revealing phenomenon concerns those cases in which government enforcement agents manage to enforce the laws in a way that protects workers' rights while not eroding the competitive position of the targeted enterprises. The following section recounts the trajectory of four of these cases.[3]

## 4. Case Studies

### *4.1. Charcoal Production in the Amazon: Public Push Behind Private Regulation*

*4.1.1. Background.* Brazil is the largest producer of merchant pig iron in the world and 40.8% of its output originates in the Eastern Amazon (Ministério de Minas e Energia, 2011, p. 67). This industrial cluster came into being during the 1980s when the Brazilian government launched "*Programa Grande Carajás*" to promote economic development in the region (Secretaria de Planejamento, 1984; Anderson, 1990). This initiative included the development of the largest high-grade iron-ore mine in the world, a deepwater seaport and a 550-mile railway linking the mine to the port. To complement these investments, the government offered tax breaks, subsidies and other incentives for local entrepreneurs to establish pig-iron plants, also known as smelters, along the railway. At present, 17 smelters operate in the region (Quaresma, 2009, pp. 13–16). They employ an estimated 3000 people (Monteiro, 2006, p. 73), produce 3.9 million tons of pig iron annually and export almost all their output (mainly to the USA) (Quaresma, 2009, p. 17).

To produce pig iron, a smelter burns iron ore in the presence of carbon. In most iron producing regions, smelters use coal as both a reduction and thermal agent; in the Amazon, they use locally produced charcoal. Brazilian law requires that smelters establish forest plantations so they can source their own charcoal. However, forest plantations take several years to produce and require a large initial investment in land, tree saplings, personnel and equipment. Moreover, planted forests need to be managed, and owners must contend with the risk that insects, fungi and animals might damage the trees, in addition to the possibilities of land invasions, expropriation for purposes of agrarian reform, fire and erosion. Not surprisingly, for many years smelters avoided establishing new plantations and acquired most of their charcoal from small, informal and mobile charcoal producers that harvest trees from the native forest and operate throughout the region. Charcoal production is straightforward. To produce charcoal, one clears a small patch of virgin forest and uses locally available clay to build igloo-like kilns, each one the size of a large camping tent. Unskilled workers venture into the forest to cut trees, clear the foliage, chop the timber and place the logs inside the kilns, which are sealed and set on fire. After approximately a week of controlled burning, workers open the kilns, retrieve the charcoal and load it into trucks, all by hand. A charcoal camp remains viable as long as there is forest nearby—usually only for about two years. Once a patch of forest has been cleared, the producer abandons the camp and builds new kilns elsewhere. According to available estimates, Brazilian charcoal producers employ 10 000–12 000 people (Monteiro, 2006, p. 73) and burn 13–16 million cubic metres of wood per year (author interview, 19 January 2007; Greenpeace, 2012, p. 8).

Given the remote conditions and constant pressure to reduce costs, it is no surprise that charcoal production is particularly rife with labour violations. Charcoal producers do not register their workers and do not provide them with any of the legal protections determined by Brazilian law. Many workers live in improvised tents without walls or paved floors, have no safety equipment and are not provided with toilets or potable water. In addition, they are often forced to buy food and supplies at inflated prices from a company store. Conditions are so dire, and debt servitude so frequent, that observers have likened these workers to modern-day slaves.

*4.1.2. Addressing the problem*. In 1994, the Brazilian Labour Inspectorate, the prosecutors' office and the federal police signed an agreement to create mobile inspection squads ("*Grupo Especial de Fiscalização Móvel*"; Ministério do Trabalho e Emprego, 2012a) devoted to punishing the worst labour violations, including those that Brazilian law classifies as "degrading conditions" and "modern-day slavery".[4] These mobile inspection squads are staffed by career officers who volunteer specifically for this assignment and constitute the elite troops of labour law enforcement. The squads establish strong working relationships with labour unions and social activists to collect intelligence. They use small airplanes, helicopters, boats and four-wheel-drive vehicles to reach deep into the forest, where they conduct unannounced inspections. Squad members bring laptops, portable printers and other equipment needed to issue fines and arrest warrants on the spot. When these officers identify gross violations of labour regulations, they calculate how much each employee is owed and use the threat of criminal prosecution to convince employers to pay workers what they are owed without delay. Despite a slow start (1995–2002), the mobile inspection squads eventually increased the pace of their activity and by 2011 they had conducted a total of 1252 raids in 3186 firms and freed 41 665 workers (Ministério do Trabalho e Emprego, 2012b).[5] Increasing the pressure on firms further, in 2003–2004 the Ministry of Labour created the *Lista Suja*, a publicly available directory of private firms that have engaged in enslavement, as determined by labour inspectors. Firms that change their practices and comply with regulations are removed from the list after two years of documented reformed behaviour. While on the list, they suffer a serious setback to their reputation and are barred by Brazilian financial authorities from accessing subsidized credit. Moreover, since 2005, a number of large private companies, including multinationals such as Cargill, Coca-Cola, McDonald's and Wal-Mart, have agreed to sever relations with any business on the list as well.[6]

Yet, these punitive measures succeeded only because labour inspectors and prosecutors found a way to bring the smelters into the equation. Charcoal producers have no fixed assets, no reputation to preserve and many are not even legally registered as a business. As a result, they may simply ignore the fines and continue production under a different name. Making matters even more difficult, those charcoal producers that upgrade their practices will find their prices undercut by those that remain underground. For these reasons, the simple detection and punishment of violations is not likely to yield lasting results. Instead of chasing elusive charcoal producers, labour inspectors and prosecutors invoked a legal precedent known as TST-331, which had been established by the Brazilian Superior Labour Court in 1993 (Artur, 2008). This legal provision and its subsequent interpretations determine that businesses can only outsource *support* activities while *core* activities must be conducted in-house. In practice, this means that under certain conditions, prosecutors and labour inspectors may ignore intervening contracts and attribute responsibility for labour standards to the smelter at the top of the supply chain. A labour inspector explains how this applies to charcoal:

> Charcoal is not a marginal activity for the smelters—it is the quality of the charcoal that determines the quality of the pig iron. We, alongside the prosecutors, defended this argument in court, and we won. So now we impose fines not on the charcoal producers but on the smelters and make them pay. To us, and for all legal purposes, the smelters don't have charcoal suppliers. They produce the charcoal themselves

> and thus must take responsibility for labour conditions in the charcoal camps. (Author interview, 24 January 2007)

Despite numerous objections by businesses, economists and management experts who conceive of outsourcing as a central feature of modern enterprises, this provision has not been overruled. Rather, smelters have been forced to pay the fines and costs associated with the labour violations of their upstream charcoal suppliers. Faced with the prospect of strict punishment and prosecution, in 1999, the smelters agreed to sign a Deferred Prosecution Agreement (TAC) and change their practices. And yet, inspectors and prosecutors continued to detect and punish countless labour violations. In 2004, after prolonged negotiations and renewed threats of legal action, representatives from the smelters' association, labour law enforcement agencies, human rights NGOs and labour unions came together to sign a good faith agreement in which the smelters agreed (once again) to improve labour standards in their supply chain.

This time, a group of smelters created the "*Instituto Carvão Cidadão*" (ICC), a private, non-profit entity that monitors labour standards in the charcoal production industry and helps smelters comply with the TAC. Similar to other private monitoring institutions, the ICC is funded by smelters, who also must provide the ICC with the names and addresses of all their charcoal suppliers. The ICC employs its own cadre of private auditors who are trained by a former leader of the mobile inspection squads. These auditors follow a checklist and focus on the same items as labour inspectors. Charcoal producers who comply with the relevant regulations can continue to supply affiliated smelters. Producers who violate labour regulations first receive a warning and subsequently may be de-authorized from selling to ICC members, which restricts their market considerably. In terms of accountability, two of ICC's six board members are appointed by the Labour Inspectorate and the Prosecutor's Office. Moreover, the ICC publishes consolidated audit reports and lists of accredited and de-authorized charcoal suppliers, and submits annual reports to the Labour Inspectorate, human rights NGOs and the Brazilian office of the ILO.

*4.1.3. Outcomes*. Overall, enforcement of labour standards in the pig-iron supply chain has produced a number of positive results. First, by enforcing the law creatively and forcefully, labour inspectors and prosecutors have triggered the creation of the ICC, a private enforcement institution that monitors charcoal producers and helps them to upgrade their labour practices. Between 2004 and 2011, ICC auditors conducted approximately 3000 field audits of 1200 producers, averaging 375 audits per year. Audit data show noticeable improvement in formal employment over time, from 74% in 2004 to 99% in 2011 (Instituto Carvão Cidadão, 2012).[7] Moreover, charcoal workers now receive uniforms, personal protection equipment and have access to toilets, clean water and other basic amenities as required by Brazilian labour laws. At the same time, the ICC de-authorized 300 producers and, in 2008, expelled a smelter because of chronic problems among its suppliers.[8]

Second, to decrease their regulatory risk, smelters stopped buying charcoal in the open market at the lowest possible price and began establishing stable relations with preferred suppliers. In a positive development, these relationships helped smelters acquire better charcoal, which reduces production costs and increases pig-iron quality. Charcoal is not a homogeneous product, and smelters prefer charcoal that has a certain granulometry, limited amounts of carbon dust or impurities, a proper ratio of fibres and volatile

compounds and a high proportion of fixed carbons. To help charcoal producers meet these specifications, smelters started sending technical advisors to charcoal camps and these advisors often coordinate their actions with ICC auditors to induce positive change.

Finally, the ICC has helped the industry deflect international criticism. A large proportion of Amazonian pig iron is exported to the US auto industry (Greenpeace, 2012). In 2006, Bloomberg News published a series of reports about slave labour in the Brazilian pig-iron industry that were so scathing that two US congressmen from steel-producing states conducted official hearings on the problem (Smith & Voreacos, 2006; Voreacos & Smith, 2006; US Congress, 2007). In response to these charges, representatives from the Brazilian industry and diplomats frequently referred to the formation of the ICC as evidence that smelters were serious about improving labour standards and used the institution to counter criticisms and prevent trade sanctions.

Still, much remains to be done. Some observers claim that formal charcoal producers often act as fronts for informal producers who continue to violate basic workers' rights. Labour inspectors and prosecutors must still conduct raids, and they often identify workers in degrading or slave-like conditions. Moreover, the ICC achieved its best results when the pig-iron industry was booming (2004–2008). At its peak, the ICC represented 12 smelters, possessed an annual budget of R$1.5 million and employed 12 full-time auditors in two offices. In 2008, this situation started to change. By then, the US economy had entered a recession and, as a result, Brazilian pig-iron exports declined dramatically. Some smelters closed down, others downsized their operations and the ICC was consequently forced to downsize as well. In 2012, it employed a total of three auditors in one office. In the end, progress has not been easy or linear.

### *4.2. Sugarcane Production in São Paulo: Reassigning Responsibility*

*4.2.1. Background.* Brazil is the largest producer of sugarcane, sugar and ethanol in the world. In 2010 this industry employed more than one million people (Compromisso Nacional, 2013) and accounted for 7% (in value) of Brazil's exports (International Trade Center, 2013). The bulk of the industry is concentrated in the state of São Paulo, where 169 mills crush 54% of the cane to provide 58% of the sugar and 51% of the ethanol produced in the country (CONAB, 2013, pp. 16–17). These enterprises own vast tracts of land and plant 57% of their own sugarcane (CONAB, 2013, p. 32). They buy the remaining 43% from approximately 18 000 independent farmers in their vicinity (Silva & Oliveira, 2013).

The harvesting of sugarcane is a critical activity in this supply chain. As stated by the director of a large mill, "sugar is produced at the farm. The mills only extract it" (author interview, 6 August 2008). In São Paulo, the sugarcane season lasts from six to nine months. To maximize sugar output, farms strive to harvest their cane exactly when the plant matures and immediately before it flowers. As will be discussed below, larger farms have been mechanizing their harvest, but many farms still rely on large groups of unskilled workers who are employed for relatively small periods of time to cut, clean and pile the cane. In 2010, sugarcane farms located in São Paulo employed approximately 200 540 rural workers, which represent 48% of the sugarcane workers in Brazil (Compromisso Nacional, 2013).

A large proportion of sugarcane workers are migrants from the Northeast of the country. According to Brazilian laws, employers must register and provide these workers with proper housing, safe transport, personal protection equipment, toilets, food, potable water,

work breaks, weekly rest and a minimum wage. In practice, farms often rely on labour contractors (locally known as "*empreiteiros*" or "*gatos*") who recruit, transport, feed, house and manage their own labour gangs. Landowners find this arrangement close to ideal: minimal inconvenience for a relatively low cost. Data are scarce, but one source estimates that in 2004 56% of migrant workers who travelled to São Paulo had been employed by "*gatos*", and 31.9% owed the "*gato*" money for the cost of the trip (Silva, 2007, p. 61).

Labour contractors in this industry are notorious for violating labour regulations. Typically, their workers are not formally registered and do not receive mandatory insurance, retirement plans and other benefits. Workers are paid exclusively on a piece rate and are not guaranteed a minimum salary as required by Brazilian law. Moreover, workers must bring their own food and water to the field, and they must even pay for their own tools, including a machete and sharpening stone. They are not provided with boots, gloves, safety goggles or other personal protection equipment. While in the field, they have no access to toilets or food other than what they can carry themselves. Migrant workers are transported in unsafe vehicles and live in crowded dormitories, without proper beds, kitchen, toilets or shower stalls. Finally, the work can be so exhausting that workers sometimes die of fatigue, a condition so frequent that workers have given it a name: "*birola*".

*4.2.2. Addressing the problem.* Policy-makers and labour advocates have found it difficult to eradicate illegal labour practices because the "*gatos*" have no assets that can be seized and little reputation to preserve. Most of them do not operate a formal business, and they may not even have a bank account. Instead of pursuing these individuals, labour inspectors and prosecutors applied the same enforcement technique their colleagues had used in the pig-iron industry: they invoked TST-331 and shifted legal responsibility over improper labour conditions downstream to the farms and mills that govern this supply chain. Farms and mills resisted fiercely. As expressed by the general manager of a large mill:

> Now, we have to provide rural workers with cold drinking water, a table, sunshade, and chairs [for their meals], plus separate toilets for men and women. If they are migrant workers, we have to provide them with room and board, including hot meals and laundry services. Compared to these requirements, someone who grew up in a middle-class family [sharing a bedroom and helping with chores] grew up in degrading conditions. (Author interview, 22 August 2008)

In response, farms and mills sought ways to avoid the relevant regulations. Some landowners signed sharecropping contracts with their workers. According to these arrangements, which were backed by Law No. 4.214 of 1964, landowners would provide the land and administrative support, workers would provide the labour and the two parties would share the proceeds. Naturally, farmers claimed that sharecroppers are not employees so landowners did not have to comply with labour regulations. Other landowners signed contracts with a freelancers' union, and claimed that their workers were not employees but independent contractors. Finally, in what turned out to be the most popular arrangement, landowners encouraged their workers to create cooperatives, and these stand-alone legal entities would be hired to harvest the cane at the farm. This

arrangement relied on Law No. 8.949 of 1994 which stipulates that members of cooperatives are not employees and therefore are not protected by labour laws. To make this arrangement even more credible, some landowners leased their land to the cooperative but required that it sell all its cane back to them. Other landowners, concerned about workers taking their self-governance too far, made sure that either the "*gato*" or one of the farm's managers chaired the cooperative.

None of these avoidance measures succeeded. Even if cooperatives are associated with empowered workers and democratic governance, labour inspectors and prosecutors argued that these arrangements were a ploy to bypass the relevant labour regulations. They called them "forged cooperatives", "copergatos", "coperfraudes" and other deprecating names. As stated by a prosecutor: "it was like a fever, everybody was creating these workers' cooperatives and naming the gato president. We did not fall for it. Instead, we came down really hard and put an end to this story" (author interview, 25 August 2008). The Brazilian courts sided with the regulators and determined that intervening contracts would not exempt the farms and mills from responsibility towards the rural workers. Mills were particularly vulnerable to these charges because they had been raising money from global investors and trying to export ethanol to the USA and Europe. Under these conditions, scandals would be extremely costly, so the mills' leadership decided to adapt to, rather than continue trying to circumvent, the regulatory requirements.

*4.2.3. Outcomes.* The enforcement of labour regulations in sugarcane production has resulted in three main outcomes. First, labour standards have improved over time. Nationwide, only 32% of rural workers are formally registered (DIEESE, 2007, p. 17), but 74% of sugarcane workers are registered (Moraes, 2008, p. 10) and thus legally entitled to the benefits and assurances defined by Brazilian law. In São Paulo, formalization rates surpass 90% (see Figure 1). Between 2007 and 2012, the Brazilian Labour Inspectorate did not detect a single case of child labour in sugarcane, sugar and ethanol production (SITI, 2013). Also important, the total number of accidents in sugarcane harvesting decreased even as aggregate production almost doubled between 2003 and 2011 (Ministério da Previdência Social, 2005, 2008, 2009, 2011; UNICA Datasets, 2011/2012; see Figure 2).[9]

Second, farms and mills located in São Paulo that for many years had resisted mechanizing their sugarcane harvest have reversed their stance and started mechanizing ahead of the schedule mandated by environmental authorities. In 2011/2012, mills harvested 81% of the sugarcane in their wholly owned farms with machines, slightly ahead of the 70% target set by the authorities (Castilho, 2012). Each automated harvester replaces 70–90 workers and precludes the burning of the fields. There are many reasons behind the recent surge in mechanization, but interviewees readily acknowledge that higher labour costs play a central role in this decision.

Naturally, it would be inaccurate to claim that the enforcement of TST-331 single-handedly caused these positive outcomes. In fact, progress has been gradual and achievements required the involvement of public, private and not-for-profit agents. For instance, to improve housing for migrant workers in the municipality of Piracicaba (SP), labour inspectors joined forces with prosecutors, a progressive city council member, a church group, the social services administration and the health surveillance agency (author interview, 19 August 2008). In other instances, positive advances required broader interventions that went beyond the sugarcane sector. For instance,

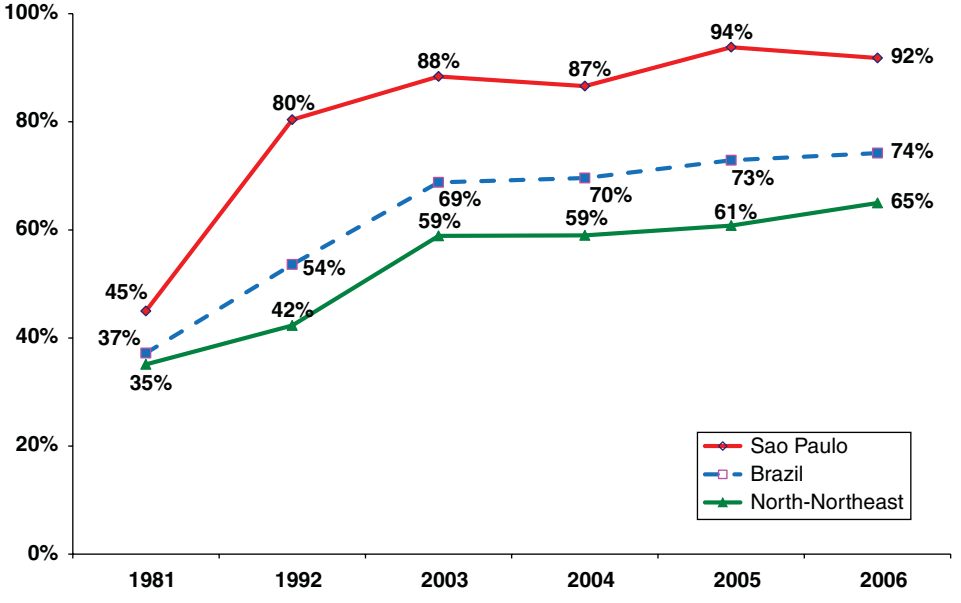


**Figure 1.** Formal employment in sugarcane production.
*Source*: Moraes (2007a, 2007b, 2008).

the reduction in child labour resulted not only from labour inspections but also from changes in legislation, larger demographic and economic trends, improvements in schooling and targeted programmes such as conditional cash transfers (Rosati, 2011).

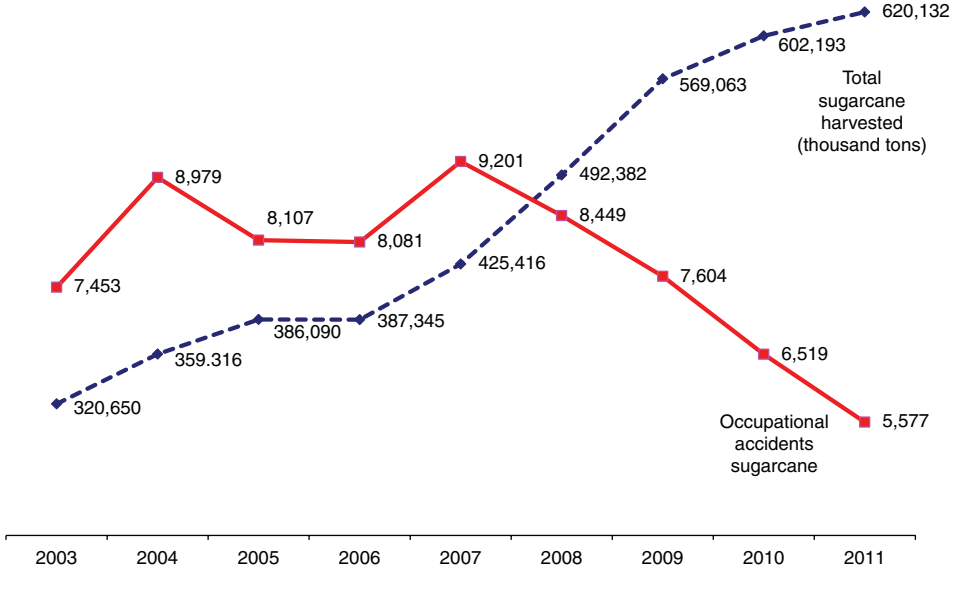


**Figure 2.** Accidents in sugarcane production.
*Source:* Ministério da Previdência Social (2005, 2008, 2009, 2011); UNICA Datasets (2011/2012).

Finally, some sugarcane producers downgraded their labour practices to retain their ability to compete. Even if São Paulo is the least problematic region, its smaller sugarcane farms remain a locus of abuse. Only 24% of their sugarcane is harvested by machines (Castilho, 2012). And, as explained by a social activist:

> the [integrated] mills are genuinely trying to improve. On their own farms, they do a fairly good job. The real problems are at the [independent] sugarcane suppliers. The suppliers are submitted to an imperialistic regime and are squeezed to the bone. (Author interview, 19 August 2008)

In brief, labour conditions in sugarcane production seem to have improved, particularly in São Paulo. However, the larger problem of poor labour standards in agricultural production has not been solved. In fact, as discussed below, small farms all over the country face enormous difficulties in complying with the relevant legislation.

### *4.3. Short-Term Employment in Agriculture: New Procedures for Compliance*

*4.3.1. Background.* Brazil is one of the world's larger producers of agricultural commodities (FAOSTAT Database, 2012). Some crops, such as soy and, to some extent, sugarcane, are produced by large farms with fairly sophisticated machinery and techniques. Others, such as cassava, beans, tobacco, tomatoes and various herbs and vegetables, are labour-intensive and often produced by independent farmers who own relatively small plots of land. Many of these farmers work the land themselves, together with family members and a small number of permanent employees. Yet, some tasks, such as tilling and harvesting, require a concentrated burst of activity, so farmers must also hire, manage and then dismiss relatively large contingents of workers within a relatively short period. According to the national rural census, in 2006, Brazilian farmers employed 2.26 million temporary workers (Instituto Brasileiro de Geografia e Estatística, 2006, pp. 254–255).

Brazilian labour law imposes a series of duties on employers. In addition to updating every single worker's labour "carnet",[10] employers must calculate and pay a variety of payroll taxes to a number of different government agencies, including unemployment and accident insurance, social security and worker training taxes. Employers must also keep track of overtime, mandatory weekly rest periods, vacation allowances and mandatory end-of-year bonuses. To dismiss a worker, employers must give 30 days' notice and pay a mandatory severance package proportional to the length of service. Finally, employers must also comply with health and safety regulations, including the provision of personal protection equipment.

Historically, many firms with seasonal demands for labour have resorted to labour contractors ("*empreiteiros*" or "*gatos*") who act as one-stop shops for labour services. In 2006, 238 000 rural establishments relied on labour contractors to staff their farms and 115 000 of these establishments employed temporary workers for periods of 30 days or less (Instituto Brasileiro de Geografia e Estatística, 2006, p. 264). Typically, labour contractors charge a piece rate for the work and pay their workers on a piece rate. These contractors have no fixed costs and own few assets such as pick-up trucks that can be traded easily. For this reason, they have no incentive to increase labour productivity (Piore, 1990). Rather, their incentive is to minimize costs, which often entails violating a variety of labour

regulations. To address this problem, and as described in the two preceding sections, labour inspectors and prosecutors used TST-331 to reassign liability for labour violations to the farms, mills and industries that govern the supply chain. Larger enterprises have been able to absorb the additional costs of compliance by mechanising, keeping many of the remaining workers year-round and turning some of the mandatory labour practices into a source of competitive advantage (for instance, by selecting the most productive employees and helping them acquire valuable new skills). However, smaller farms have not been so fortunate. In fact, small farms are so squeezed that a strict inspection regime would likely drive them out of business. Instead of forcing the matter to this adverse outcome, labour inspectors and prosecutors have helped develop an innovative hiring arrangement called an "employers' consortium", as discussed below.

*4.3.2. Addressing the problem.* In the mid-1990s, small farmers from the state of Paraná started joining forces and hiring workers as a group. In these arrangements, collectively called "employers' consortia", farmers share the fixed costs of hiring workers; providing them with working tools, personal protection equipment, housing, food and transportation; and dealing with necessary paperwork. Correspondingly, the workers remain formally employed year-round and simply move systematically from farm to farm to attend to each farmer's demand. As a result, workers are entitled to all the benefits of formal employment, including but not limited to minimum wages, social security benefits and unemployment insurance, while each employer pays for a small share of the overall burden.

And yet, implementation was not easy. Brazilian laws determine that an individual farmer who hires workers must contribute only 2.7% of payroll to Social Security. However, formal businesses must contribute between 26.8% and 28.8% of payroll, depending on the circumstances. Initially, Social Security officials determined that employers' consortia were formal businesses and therefore members had to contribute at the higher rate, making the arrangement uneconomical. In addition, labour judges feared that employers' consortia were just another ploy by labour contractors intended to bypass existing regulations and ignore workers' rights. The farmers who formed the original group of consortia tried to contest these charges and interpretations, but only made headway after labour inspectors and prosecutors helped convince the courts that in fact, consortia were an ingenious and legitimate solution to the problem of informality in the rural sector. Labour inspectors and prosecutors also convinced Social Security administrators to tax consortia at the rate of 2.7% (previously reserved for individual farmers) instead of the higher rate assigned to businesses. In 1999, the Labour Inspectorate, the Social Security Administration and other relevant public-sector organizations accepted these arguments and issued official directives that cleared the way for the establishment of employers' consortia.

*4.3.3. Outcomes.* Once the legal hurdles had been removed, the Ministry of Labour created a task force of labour inspectors to facilitate the implementation of employers' consortia among small farmers throughout the country. These labour inspectors conducted training sessions for other inspectors, produced educational videos and disseminated the consortium concept to farmers' groups (ENAP, 2000). They also wrote a manual for farmers on how to assemble and manage an employer consortium, which the Ministry of Labour published online. The effort paid off: in 2000, the Ministry of Labour reported that

684 farms had created 18 consortia, which employed 8768 workers (ENAP, 2000, p. 63). In that same year, ENAP, a government-run training centre for public managers, awarded the initiative a prize for "innovation in government". By 2001, numbers had grown fivefold to sevenfold: 3446 farms had created 103 consortia which employed 65 587 workers (Zylberstain, 2003, p. 28, citing SEFIT/MTE). In addition to helping small farmers formalize their workforce, employers' consortia also helped farmers and workers engage with each other to decrease labour unrest and improve job satisfaction, which increases productivity (ENAP, 2000, p. 62). For example, in one consortium, worker absenteeism decreased dramatically from 15.8% in 1997 to 2.15% in 2002, and labour productivity increased from 4.89 to 7.92 tons of sugarcane harvested per person per day, or 62% overall (Zylberstain, 2003, p. 30).

Despite these concrete achievements, enthusiasm for employers' consortia eventually waned. Consortia can be challenging to manage so farmers would establish a central office and hire a professional manager to run the enterprise. In essence, these managers face the same challenges as labour contractors: they must smooth demand for labour over time, keep overall costs low and charge each farmer for direct services and a share of indirect costs. In some cases, particularly in irrigated areas, farmers staggered their harvests and made it easier for the consortium to work. In others, as documented by Barbosa & Alves (2008), consortia managers asserted their independence, allowed farmers and workers to move in and out of the arrangement at will and offered labour services in the open market. As part of the same process, farmers stopped perceiving themselves as members of a specific consortium and started shopping around for whichever consortia offered the best service at the lowest price. In the end, these consortia became a new cloak for the same old practices. Eventually, labour inspectors and prosecutors realized that consortia are not a panacea. Rather, they are a tool that makes it possible for farmers to comply with relevant regulations, but does not ensure results nor render vigilance obsolete.

### *4.4. Firework Production in Minas Gerais: Technical Upgrade and Trade Protection*

*4.4.1. Background.* Brazil is the second largest producer of fireworks in the world: it has 5% of the global market, while China has 85%. The Brazilian fireworks industry is composed of 60–70 mostly small firms located in and around the municipality of Santo Antônio do Monte (Samonte), in the southeastern state of Minas Gerais (Rezende, 2007, p. 24; Santos, 2007, p. 21). According to available estimates, these firms employ 3000–5000 people and generate an additional 7000–10 000 jobs among suppliers, distributors, retailers and service providers.

In Samonte, the manufacture of fireworks is a relatively artisanal endeavour. Firms are located in the rural areas which are quite far from urban centres. Moreover, these enterprises intentionally do not operate under a single roof. Rather, they assign each manufacturing process to a separate shed to decrease the risk that a fire or explosion will simultaneously engulf the whole facility. Fireworks are produced almost entirely by hand, and most sheds do not have electrical power in order to minimize the risk of sparks. Historically, these firms produced fireworks of inconsistent quality and questionable safety at a relatively low price, for the domestic market. To supplement their own output, they purchased fireworks from informal and rudimentary producers that permeated the industry (Santos, 2007, p. 42). Some of these informal producers worked from home with limited or no supervision. Children often cohabited the premises and in some cases even

helped assemble the explosives. Other producers consisted of improvised factories known as "*trambiques*", which had dedicated facilities but did not pay taxes, register their workers or comply with labour, environmental or product safety regulations.

For many years, firework manufacturers adopted a fatalistic attitude towards health and safety. The industry averaged six documented accidental deaths a year, but as reported by a labour inspector interviewed by Pires (2008, p. 217), "[producers] believed that accidents were unfortunate, but natural. And the fireworks activity was necessarily risky: some time someone will die". Instead of safety precautions, workers and managers relied on superstition. Observers often noticed that facilities had strings of orange peel hanging from the ceiling, which they believed helped prevent explosions. They also had pictures of Catholic saints on the walls to guard workers against accidents (Pires, 2008, p. 217).

In the late 1990s, the Brazilian government lifted trade barriers across all economic sectors and the country was flooded with cheap Chinese imports, including fireworks. On average, Chinese fireworks cost US$710 per ton, while Brazilian fireworks cost US$2350 (Aliceweb Database, 2012).[11] Not surprisingly, sales of domestic fireworks plummeted and Samonte producers responded by trying to reduce their costs further. They lowered workers' piece rates, crammed sheds with additional workers, hired novices at low salaries and eliminated remaining safety precautions. Workers made less money per unit, so they worked faster to obtain the same pay. They did not clean their clothes, tools or work environment of dangerous chemicals, and allowed assembled explosives to accumulate in their respective sheds instead of moving them to separate warehouses throughout the workday. In addition, manufacturers started experimenting with compounds that add colour to the fireworks. However, these chemicals are not always stable or safe and experiments sometimes went awry (Santos, 2007, p. 67). Accidents increased even further, and explosions were often fatal.

*4.4.2. Addressing the problem.* Technically, the Brazilian army had overseen fireworks production since the early 1970s, but the supervision consisted mostly of document reviews. The situation changed in 1998, when an informal fireworks factory located in the state of Bahia exploded, killing 64 people. After this tragedy, the army opened an outpost in Samonte and started cracking down on illegal "*trambiques*" and other unregistered operations (Santos, 2007, p. 51). Labour inspectors and labour prosecutors also moved in and started inspecting fireworks factories more closely. Not surprisingly, they uncovered appalling work and safety conditions (Santos, 2007, pp. 25–31). Many facilities did not have windows or ventilation of any kind. In some sheds, the walls were not painted and the floors were not paved, so workers could not see whether explosive powders had accumulated in the dirt. Workers had no access to running water to wash hands or clothes, sanitize their benches or humidify the air. Improvised pieces of equipment were riddled with rusty parts and leaks. Producers used unstable compounds such as potassium chlorate, which is cheap but also known to self-ignite. Many workers had no training or experience. They wore flammable clothes, and some even smoked near the work sites. Workers were paid exclusively on a piece rate which is not allowed by Brazilian law. Mandatory overtime was fairly common and workers handled toxic compounds such as lead and mercury without adequate protection.

Labour inspectors and prosecutors imposed hefty fines and threatened producers with criminal and civil prosecution. Producers contested the charges and claimed that many of the requirements were either useless or unaffordable. To help with the negotiations, the

labour inspectors reached out to a chemist affiliated with FUNDACENTRO, a state-owned research institute subordinate to the Ministry of Labour. After prolonged discussions, the majority of producers signed a Deferred Prosecution Agreement (TAC), in which they agreed to change many of their practices and help government authorities draft new guidelines for the industry. Pursuant to these interventions, managers improved the layout of their factories, paved floors and walls, enhanced ventilation, installed faucets and water tanks near production lines and built separate warehouses to store dangerous materials (Santos, 2007, pp. 25–26, 71). They fitted production sheds with thermometers and humidity gauges and provided workers with non-flammable uniforms. Firms upgraded their machines and standardized their practices, including imposing limits to the amount of explosives added into each type of device, the thickness of cardboard shells and the quality of fuses. As indicated in Figures 3 and 4, accidents declined markedly even as imports from China grew.

Yet, many of these precautions increased production costs and made it even more difficult for Brazilian producers to compete. As reported by a local newspaper: "Chinese invasion shakes up fireworks cluster in Minas Gerais: imports are up by 660% and the revenue of local firms is down by 40%" (Moreira, 2005). Brazilian firework producers needed a source of competitive advantage. Unable to undercut their competitors' prices, they decided to invest in superior product quality and safety.

In 2000, a group of 13 leading firework producers based in Samonte joined forces to export their products (SEBRAE, 2003, pp. 6–7). They formed a consortium named "Brazilian Fireworks", hired a foreign consultant and visited trade shows in the USA, Canada and other advanced economies. At these visits, they learned that their goods lagged far behind the international norms in terms of both product quality and safety.

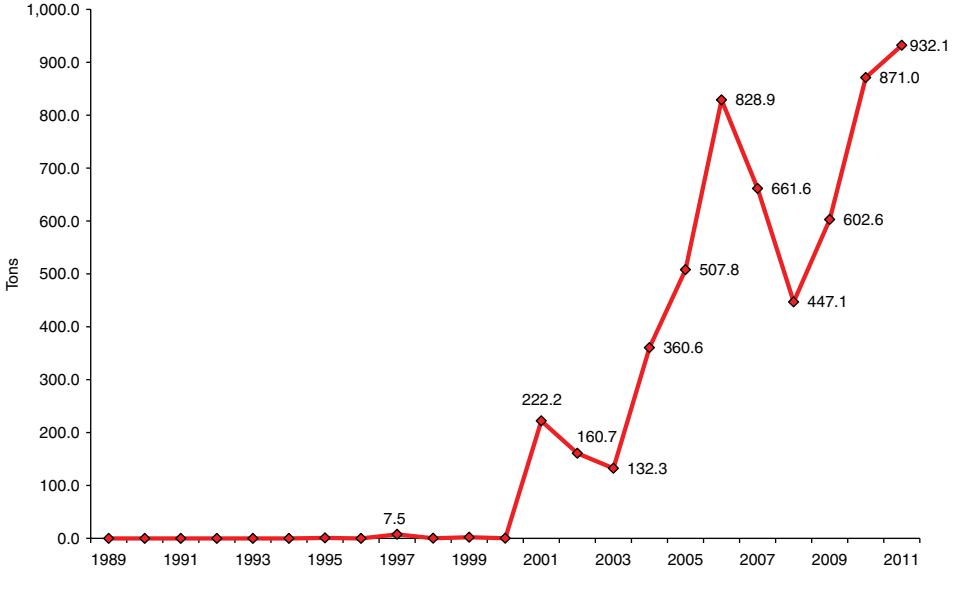


**Figure 3.** Fireworks imports from China to Brazil (tons).
*Source*: Aliceweb Database (2012).

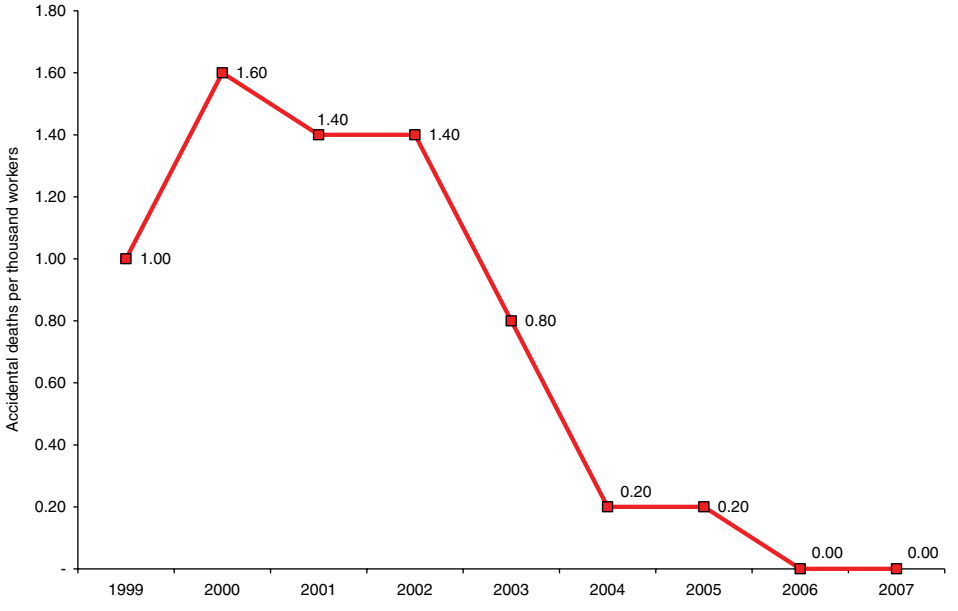


**Figure 4.** Accidental deaths per thousand workers in firework production (Samonte).
*Source*: Trivelato & Barreto (n.d.).

In 2001, these producers joined forces with Samonte's municipal government; SEBRAE, the national small-business promotion agency; and APEX, the national export-promotion agency to invest approximately R$200 000 in a small lab that would help them meet international quality standards. Since then, the consortium has ceased to function, but the collaborative and educational experience planted the seeds for Samonte's subsequent strategy.

In 2006, Brazilian firework producers allied themselves with labour inspectors, prosecutors and other organizations, and convinced the Brazilian Army to require that all fireworks sold in the country, independent of whether the product was imported or domestic, conform to strict safety and quality standards as determined by an accredited lab (Ministério da Defesa, 2006). At the same time, they convinced SENAI, a publicly funded but privately managed industrial training and technology research agency, to set up a laboratory and training centre in Samonte devoted to improving firework safety and quality. Together with the firework producers association, SENAI invested R$1.6 million in a sophisticated lab that became a centre for training, research, development and testing of inputs, manufacturing practices and finished fireworks, and that has been available to all producers in the cluster. Since 2007 this lab has been accredited by the Army and the Brazilian National Standards Authority to determine whether new products meet quality and safety requirements so they can be sold in the country (Xeyla, 2006).

*4.4.3. Outcomes.* After the army standards were put into place, the inability of Chinese fireworks to meet the higher requirements caused imports to drop for the following two years (see Figure 3), giving domestic producers some respite. Eventually, Chinese imports met the new standards and imports rose again. Predictably, some Brazilian producers

started importing fireworks to diversify their portfolios (Diário do Comércio, 2012). Despite all these challenges, the Brazilian industry retained its vitality in both the domestic and foreign markets. In 2005, immediately before the SENAI lab entered into operation, Brazilian producers had exported 325 tons of fireworks at US$1630 per ton, which yielded US$530 000 in total revenue. In 2011, they exported 544 tons of fireworks at US$3120 per ton, which yielded US$1.7 million in total revenue (Aliceweb Database, 2012). The doubling of unitary prices and tripling of total revenue becomes even more impressive when one realizes that the Brazilian currency appreciated considerably against the US dollar during the same period. To sum up, while this Brazilian industry has experienced significant vicissitudes, it survived the inflow of cheap Chinese imports and increased its own exports, all while improving products, labour standards and manufacturing practices. This outcome gives hope to challenged industries everywhere.

## 5. Conclusion

In recent years, a number of studies have shown that neoliberal reforms, FDI and trade liberalization are not unequivocally linked to a decline in labour regulations (Murillo & Schrank, 2005; Mosley & Uno, 2007; Greenhill *et al.*, 2009; Ronconi, 2012). In fact, neoliberal reforms and increased flows in goods and capital often go hand in hand with stronger labour protections and empowered enforcement bureaucracies. But while these studies identify a correlation, they do not examine how these seemingly opposing policy orientations coexist. To clarify this matter, this paper examined how Brazilian labour inspectors and prosecutors enforced labour laws in four industries (see Table 1). These cases were not selected because they represent national patterns of regulatory enforcement. Similarly, they do not allow for inferences on how the findings apply to other industries within Brazil. Instead, the industries were selected because they are characterized by endemic violation of labour regulations, including those degrading conditions that Brazilian law defines as analogous to slavery. As such, their uneven but mostly upward trajectory suggests four important reflections on how developing countries may enforce labour regulation in a post-neoliberal world.

First, infractions are often associated with outsourcing and subcontracting, which are legal-economic arrangements that increase economic flexibility but hide labour abuses from view and shield leading firms (and final consumers) from legal and moral responsibility. Both outsourcing and subcontracting have become increasingly common in recent years as they help private firms adapt to the vagaries of competitive markets and comply with fairly rigid labour regulations without drastic changes to their remaining processes and procedures. In fact, triangular employment relations, misclassification of workers and joint-employment status are also widespread phenomena in advanced industrial nations (Davidov, 2004; Zatz, 2008). These types of arrangements are often associated with serious infringements of labour regulations and have no easy or obvious solution.

Second, international buyers were not central characters in these stories but they still played an important role in supporting improved standards abroad. As summarized in Table 1, in three out of four cases Brazilian producers wanted to export their goods to the USA and/or Western Europe and thus remained vulnerable to scandals concerning labour standards in their supply chains. Decreasing international tolerance further, US-based manufacturers of competing goods such as sugar, corn-based ethanol and steel willingly

**Table 1.** Summary of case studies

| Industry | Central problem | Enforcement challenge | International setting | Domestic enforcement strategy | Positive outcomes |
|---|---|---|---|---|---|
| Charcoal production (Amazon region) | Slave labour and other violations | Small, mobile and informal producers in remote regions | US press reported on labour violations in the Amazon, which created pressure on smelters | Government agents moved legal responsibility over violations downstream to smelters | Smelters established long-term contracts with charcoal suppliers, obtained better charcoal, created non-profit entity to monitor compliance |
| Sugarcane harvest (São Paulo) | Degrading work conditions and other violations | Informal, mobile labour contractors without fixed assets | Brazil is trying to create a global market for ethanol, which makes it vulnerable to scandals | Government agents assigned legal responsibility over violations to larger farms and mills | Integrated mills upgraded their labour practices and mechanized the harvest; small farms hard-pressed to compete |
| Short-term labour demand in small farms (country-wide) | Informality and other violations | Small farms have limited resources and must cope with sharp peaks in labour demand | n/a | Government agents helped farmers create employers' consortia | Members of consortia staggered production, smoothed labour demand and retained workers year-round |
| Firework production (Minas Gerais) | Unsafe work practices | Safer practices are costly and industry was losing share to cheap imports | Producers are trying to export to the USA and EU; they must also contend with cheap imports from China | Government agents compelled producers to change their practices and convinced the army to mandate quality testing for all fireworks sold in the country | Producers created training centre and test lab, upgraded manufacturing practices, maintained domestic sales and increased exports |

added to any existing outrage since they stood to gain from the resulting protectionism. Going forward, this particular lever for improved labour standards abroad may lose some of its power. In recent years, the share of developing country exports going to other developing countries has risen from 17.2% in 2000 to 27.5% in 2007 (Reuters, 2009). Likewise, the share of Brazilian exports going to China has risen from less than 2% in 2000 to 17% in 2012 (Aliceweb Database, 2012) and it is not clear whether consumers in these new markets will pay as much attention to labour standards abroad as their counterparts in the USA and Western Europe currently do.

Third, and most importantly, the protagonists of these stories were the labour inspectors and prosecutors who showed remarkable commitment and ingenuity in their enforcement activities. In two cases—charcoal production and sugarcane harvest—inspectors used TST-331 to reassign legal responsibilities to leading firms in the supply chain in ways that made compliance both legally inevitable and economically possible. In a third case—temporary work in small farms—they helped create employers' consortia, a novel socio-legal arrangement that made compliance achievable, if not inevitable. And in the fourth case—firework production—enforcement agents forced producers into upgrading their manufacturing practices but also helped institute a technical barrier to trade concerning product quality and safety that protected Brazilian producers and consumers from cheaper but unsafe firework imports. In summary, these agents went beyond the typical analogy of enforcement to "police work", in which regulators find violations and impose fines that are high and certain enough to trigger the necessary changes. Rather, they devised local agreements and arrangements that realigned interests, reshaped conflicts and redistributed the risks, costs and benefits of doing business and complying with the law across a tailor-made assemblage of public, private and non-profit entities (Coslovsky *et al.*, 2011, p. 322).

But how do regulatory enforcement agents perform these complicated tasks? By dint of their position, Brazilian labour inspectors and prosecutors retain considerable autonomy and discretion. To increase their legal powers further, they also found ways to link up with the judiciary authorities, which is no easy feat and should not be taken for granted. In Brazil, judges tend to maintain a narrow focus on cases, not on policy (Taylor, 2008). Moreover, they tend to adopt a reactive, cautious and supposedly neutral stance that emphasizes legal minutiae over social considerations. Despite this conservative outlook, a panel of Brazilian labour judges issued TST-331, which became a crucial weapon in the inspectors' enforcement arsenal. This apparent contradiction between conservative orientation and progressive rule-making, together with the possible existence of factions and alliances within the judiciary and between the judiciary and other institutions, suggests fruitful avenues for future research. Likewise, the cases presented here might give the erroneous impression that TST-331 can be used whenever a large firm is close enough to the violations to be forced to take the blame. This does not seem to be true. In other Brazilian cases, large firms have successfully avoided responsibility over their suppliers' or consumers' practices, and thus inspectors and prosecutors have been forced to find other ways to improve labour standards in that supply chain (Roberto Pires, personal communication). How regulators may harness the power of large firms, and how some large firms find ways to turn their legal obligations into a source of competitive advantage, remains topics for additional research.

Finally, the cases discussed here bring to the fore an underappreciated feature of the post-neoliberal (or neo-developmental) state. As suggested by Grugel & Riggirozzi (2012), post-neoliberalism revolves around the idea that states should take an enhanced

role in promoting development in their societies. In particular, the post-neoliberal state strives to complement policies that favour macroeconomic stability and export-led growth with new mechanisms for social inclusion and welfare. So far, scholars interested in this concept have delineated the theoretical and political boundaries of the construct. They have not yet paid the necessary attention to those levers of state power that allow governments to move beyond the provision of a seemingly neutral institutional context and actively define and govern supply chains for maximum welfare (McGrath, 2013). It is in this job that labour inspectors and prosecutors, alongside environmental licensing and development financing officers as well as other regulatory enforcement officials, can become a powerful yet fine-grained tool for policy-making in the contemporary world. The strategies that these agents adopt and the alliances that they make will help determine the possibilities for fruitful state intervention in the 21st century.



## Notes

[1] Data concerning workforce are available at http://www.enterprisesurveys.org/Data/ExploreTopics/workforce#–7 (accessed 24 October 2012). In a more visible and controversial endeavour, in 2004 the Doing Business Report started ranking countries according to the flexibility of their employment regulations. The exact methodology has changed over time, but in 2004 the "employment regulations" category was composed of three items: flexibility of hiring, conditions of employment (i.e. wages and hours) and flexibility of firing. On that year, Brazil came near the bottom of the ranking for all three items. The Doing Business Report used these data to calculate an overall "employment laws" index, and this index suggested that Brazil possessed the third least flexible system of labour laws among the 133 countries surveyed (World Bank, 2004, p. 36). In 2010, the Doing Business Report increased its coverage to 183 countries and Brazil ranked 138th in the "employing workers" category (World Bank, 2010, p. 110). Even though numerous observers and analysts have challenged the pertinence of this exercise (Berg & Cazes, 2008; Bakvis, 2009) and even if the editors of the Doing Business Report stopped using the labour data to calculate rankings, the data suggest that Brazilian businesses continue to see national labour laws as a major impediment to private-sector competitiveness.

[2] The administrative structure of the Brazilian prosecutorial service mirrors the court system. The federal government has four prosecutors' offices: labour prosecutors, federal prosecutors, military prosecutors and a prosecutors' office for the national capital. In addition, each of Brazil's 26 states has a prosecutors' office of its own. These professionals are admitted to a specific agency and cannot transfer between them. Independent of affiliation, all these officials have similar rights, duties and legal powers. In theory, different offices handle different types of cases. In practice, and particularly when prosecutors act extra-judicially (i.e. outside of the courtroom), their attributions overlap so state-level prosecutors can intervene in some labour cases. For this reason, this paper treats them as a homogeneous group.

[3] All interviews were conducted in Portuguese by the author, a native speaker who also translated the selected excerpts into English.

[4] For an insightful discussion on the multidimensional aspects of modern-day slavery, see McGrath (2012).

[5] From 1995 to 2002, the mobile squads conducted an average of 22 raids and freed 736 workers per year (Ministério do Trabalho e Emprego 2012). In 2002, the local office of the International Labour Organization provided the Brazilian government with technical and financial support so that it could combat slave labour with additional vigour (Audi, 2008, pp. 47–48). From 2003 to 2011, the mobile inspection squads conducted an average of 119 raids and freed 3975 workers per year, a sixfold increase from the earlier period.

[6] The text of the agreement (in English) is available at http://www.reporterbrasil.com.br/documentos/national_agreement.pdf and a list of signatories is available at http://www.reporterbrasil.org.br/pacto/signatarios (both accessed 24 October 2012).

[7] In Brazil, an employment relationship is formal when the employer registers the worker with the proper government authorities, pays all the payroll taxes and provides the worker with the applicable rights and benefits.

[8] Given that domestic and international buyers of pig iron and steel are increasingly concerned with labour standards in their supply chains, a smelter that operates outside the ICC umbrella is likely to have difficulties selling its products.

[9] Data on accidents correspond to total accidents per year for workers who perform the activity coded as A.1.01.13-0 (or simply 113) under the Brazilian "Classificação Nacional de Atividades Econômicas" (CNAE), also described as "cultivo de cana-de-açúcar".

[10] Brazilian labour law determines that every worker must possess a government-issued labour "carnet" ("Carteira de Trabalho e Previdência Social"), a passport-like document updated by employers and government authorities to reflect the worker's employment history.

[11] Average prices for the period 2000–2011 for fireworks imported from China and exported by Brazil.

## References


Aliceweb Database Web (2012), available at: http://aliceweb2.desenvolvimento.gov.br//index/home (accessed 12 September 2012).

Amengual, M. (2010) Complementary labor regulation: the uncoordinated combination of state and private regulators in the Dominican Republic, *World Development*, 38(3), pp. 405–414.

Amengual, M. (2012) Cambios en la capacidad del Estado para enfrentar las violaciones de las normas laborales: los talleres de confección de prendas de vestir en Buenos Aires, *Desarrollo Económico (Argentina)*, 51(202–203), pp. 291–311.

Anderson, A. B. (1990) Smokestacks in the rainforest: industrial development and deforestation in the Amazon basin, *World Development*, 18(9), pp. 1191–1205.

Appelbaum, E., Berg, P., Bailey, T. & Kalleberg, A. L. (2000) *Manufacturing Advantage* (Ithaca, NY: ILR Press).

Artur, K. (2008) *O TST frente à terceirização* (São Carlos: EDufscar/FAPESP).

Audi, P. (2008) A Organização Internacional do Trabalho e o Combate ao Trabalho Escravo no Brasil, in: G. C. Cerqueira, R. R. Figueira, A. A. Prado & C. M. L. Costa (Eds) *Trabalho Escravo Contemporâneo no Brasil: Contribuições críticas para sua análise e denúncia* (Rio de Janeiro: UFRJ), pp. 47–53.

Bakvis, P. (2009) The World Bank's Doing Business Report: a last fling for the Washington consensus? *Transfer: European Review of Labour and Research*, 3–4, pp. 419–438.

Bandiera, O., Prat, A. & Valletti, T. (2009) Active and passive waste in government spending: evidence from a policy experiment, *American Economic Review*, 99(4), pp. 1278–1308.

Banerjee, A. & Duflo, E. (2006) Addressing Absence, *Journal of Economic Perspectives*, 20(1), pp. 117–132.

Barbosa, G. R. & Alves, F. J. C. (2008) A volta dos gatos no complexo agroindustrial citrícola paulista: Os consórcios de produtores rurais, *Informações Econômicas*, 38(10), pp. 16–27.

Berg, J. & Cazes, S. (2008) Policymaking gone awry: the labor market regulations of the doing business indicators, *Comparative Labor Law and Policy Journal*, 29(4), pp. 349–381.

Bieszczat, F. H. (2008) Labor provisions in trade agreements: from The NAALC to now, *Chicago-Kent Law Review*, 83, pp. 1387–1408.

Birdsall, N., de la Torre, A. & Valedo Caicedo, F. (2010) The Washington Consensus: assessing a damaged brand, *Center for Global Development Working Paper 213*.

Cardoso, L. Z. L. (2010) *Uma Fenda na Justiça – A Defensoria Pública e a Construção de Inovações Democráticas* (São Paulo: Hucitec).

Castilho, Araripe (2012) SP atinge 65% de colheita mecanizada de cana-de-açúcar, *Folha de Sao Paulo*, March 30, 2012, available at: http://www1.folha.uol.com.br/cotidiano/ribeiraopreto/1069446-sp-atinge-65-de-colheita-mecanizada-de-cana-de-acucar.shtml (accessed 22 November 2013).

Chaudhury, N., Hammer, J., Kremer, M., Muralidharan, K. & Rogers, F. H. (2006) Missing in action: teacher and health worker absence in developing countries, *Journal of Economic Perspectives*, 20(1), pp. 91–116.

Compromisso Nacional para Aperfeiçoar as Condições de Trabalho na Cana-de-Açúcar (2013) *Dados de Emprego*, available at: http://www.secretariageral.gov.br/compromissocana/publicacoes-e-documentos/copy_of_dados-de-emprego (accessed 10 May 2013).

CONAB (2013) Perfil do Setor do Açúcar e do Álcool no Brasil: Volume 5 – Safra 2011/2012 (Brasilia: Diretoria de Política Agrícola e Informações, Superintendência de Informações do Agronegócio), available at:

http://www.conab.gov.br/OlalaCMS/uploads/arquivos/13_10_02_11_28_41_perfil_sucro_2012.pdf (accessed 20 November 2013).

Coslovsky, S. (2009) *Compliance and Competitiveness: How Prosecutors Enforce Labor and Environmental Laws and Promote Economic Development in Brazil* (Cambridge: Massachusetts Institute of Technology).

Coslovsky, S. (2011) Relational regulation in the Brazilian Ministério Publico: the organizational basis of regulatory responsiveness, *Regulation & Governance*, 5, pp. 70–89.

Coslovsky, S., Pires, R. & Silbey, S. (2011) The pragmatic politics of regulatory enforcement, in: D. Levi-Faur (Ed.) *Handbook on the Politics of Regulation* (Cheltenham: Edward Elgar), pp. 322–334.

Coslovsky, S. & Locke, R. (2013) Parallel paths to enforcement: private compliance, public regulation, and labor standards in the Brazilian sugar sector, *Politics & Society*, 41(4), pp. 496–525.

Daughters, R. & Harper, L. (2007) Fiscal and political decentralization reforms, in: E. Lora (Ed.) *The State of State Reform in Latin America* (Washington, DC: The Inter-American Development Bank), pp. 213–261.

Davidov, G. (2004) Joint employer status in triangular employment relationships, *British Journal of Industrial Relations*, 42(4), pp. 727–746.

Diário do Comércio (2012) *Dólar em alta impulsiona produção de fogos em MG* (São Paulo: Associação Brasileira de Supermercados).

DIEESE (2007) Desempenho do setor sucroalcooleiro brasileiro e os trabalhadores, Estudos e Pesquisas, ano 3, n.30.

DIEESE (2011) T47: População com 10 anos ou mais, por condição de atividade e grupos de idade, in: *Anuário dos Trabalhadores 2010/11* (Porto Alegre: DIEESE), available at: http://www.dieese.org.br/anuario/AnuTrab2010/Arquivos/indicadores_mercadotrabalho_estruturamerctrabalho_t47.html (accessed 13 May 2013).

Djankov, S., McLiesh, C. & Ramalho, R. M. (2006) Regulation and growth, *Economics Letters*, 92(3), pp. 395–401.

Dowbor, M. (2008) Origins of successful health sector reform: public health professionals and institutional opportunities in Brazil, *IDS Bulletin*, 38(6), pp. 73–80.

ENAP (2000) *Ações premiadas no 5 concurso de Inovações na Gestão Pública Federal 2000* (Brasilia: ENAP).

Esbenshade, J. (2004) *Monitoring Sweatshops: Workers, Consumers, and the Global Apparel Industry* (Philadelphia, PA: Temple University Press).

Evans, P. & Rauch, J. (1999) Bureaucracy and growth: a cross-national analysis of the effects of "Weberian" state structures on economic growth, *American Sociological Review*, 64(5), pp. 748–765.

FAOSTAT Database (2012). Web (accessed 9 October 2012).

Frundt, H. J. (1998) *Trade Conditions and Rights: US Initiatives, Dominican and Central American Responses* (Gainesville: University Press of Florida).

Frye, T. & Shleifer, A. (1997) The invisible hand and the grabbing hand, *AEA Papers and Proceedings*, 87(2), pp. 354–358.

Fuentes, A. (2007) *A Light in the Dark: Labor Reform in Guatemala During the FRG Administration, 2000–2004* (Cambridge, MA: Massachusetts Institute of Technology).

Greenhill, B., Mosley, L. & Prakash, A. (2009) Trade-based diffusion of labor rights: a panel study, *American Political Science Review*, 103(4), pp. 169–190.

Greenpeace (2012) *Driving Destruction in the Amazon – How Steel Production is Throwing the Forest into the Furnace* (Amsterdam: Greenpeace International).

Grugel, J. & Riggirozzi, P. (2012) Post-neoliberalism in Latin America: rebuilding and reclaiming the state after crisis, *Development and Change*, 43(1), pp. 1–21.

Huberman, M. & Meissner, C. M. (2010) Riding the wave of trade: the rise of labor regulation in the golden age of globalization, *The Journal of Economic History*, 70, pp. 657–685.

Instituto Brasileiro de Geografia e Estatística (2006) *Censo Agropecuário: Brasil, Grandes Regiões e Unidades da Federação* (Rio de Janeiro: IBGE).

Instituto Carvão Cidadão (2012) *Relação consolidada de produtores de todas etapas* (Imperatriz: Instituto Carvão Cidadão), available at: http://www.carvaocidadao.org.br/media//uploads_media/RELAES_DE_PRODUTORES_ACUMULADA_DE_TODAS_ETAPAS_-.pdf (accessed 24 October 2012).

International Trade Center (2013) available at: http://www.trademap.org/tradestat/Product_SelCountry_TS.aspx

Iskander, N. (2010) *The Creative State Forty Years of Migration and Development Policy in Morocco and Mexico* (Ithaca, NY: Cornell University Press).

Joshi, A. (1998/1999) Progressive bureaucracy: an oxymoron? The case of joint forest management in India, *Rural Development Forestry Network Paper 24a*.
Kay, T. (2005) Labor transnationalism and global governance: the impact of NAFTA on transnational labor relationships in North America, *American Journal of Sociology*, 111(3), pp. 715–756.
Krueger, A. (1990) Government failures in development, *Journal of Economic Perspectives*, 4(3), pp. 9–23.
Locke, R. M., Amengual, M. & Mangla, A. (2009) Virtue out of necessity?: compliance, commitment and the improvement of labor conditions in global supply chains, *Politics & Society*, 37(3), pp. 319–351.
Lora, E. (2001) Structural reforms in Latin America: what has been reformed and how to measure it, *The Inter-American Development Bank Working Paper 466*.
Lora, E. (2007) State reform in Latin America: a silent revolution, in: E. Lora (Ed.) *The State of State Reform in Latin America* (Washington, DC: The Inter-American Development Bank), pp. 1–56.
Mauro, P. (1995) Corruption and growth, *The Quarterly Journal of Economics*, 110(3), pp. 681–712.
Mayer, F. & Gereffi, G. (2010) Regulation and economic globalization: prospects and limits of private governance, *Business and Politics*, 12(3), pp. 1–25.
McAllister, L. K. (2008) *Making Law Matter: Environmental Protection and Legal Institutions in Brazil* (Palo Alto, CA: Stanford University Press).
McGrath, S. (2012) Many chains to break: the multi-dimensional concept of slave labour in Brazil, *Antipode* (online version).
McGrath, S. (2013) Fuelling global production networks with slave labour?: migrant sugar cane workers in the Brazilian ethanol GPD, *Geoforum*, 44, pp. 32–43.
Ministério da Defesa (2006, September 11) *Portaria no. 9 de 08 de Maio de 2006: Normas reguladoras para classificação, importação e avaliação técnica de fogos de artifícios, artifícios pirotécnicos e artefatos similares* (Brasilia: Diário Oficial da União).
Ministério da Justiça (2006a) *Diagnóstico Ministério Público dos Estados* (Brasilia: Secretaria da Reforma do Judiciário).
Ministério da Justiça (2006b) *Diagnóstico Ministério Público do Trabalho* (Brasilia: Secretaria da Reforma do Judiciário).
Ministério de Minas e Energia (2011) *Anuário Estatístico do Setor Metalúrgico* (Brasilia: Ministério de Minas e Energia).
Ministério da Previdência Social (2005) *Anuário Estatístico da Previdência Social* (Brasilia: MPS/DATAPREV).
Ministério da Previdência Social (2008) *Anuário Estatístico da Previdência Social* (Brasilia: MPS/DATAPREV).
Ministério da Previdência Social (2009) *Anuário Estatístico da Previdência Social* (Brasilia: MPS/DATAPREV).
Ministério da Previdência Social (2011) *Anuário Estatístico da Previdência Social* (Brasilia: MPS/DATAPREV).
Ministério do Trabalho e Emprego (2008) *Quadro comparativo da fiscalização do trabalho – 1990 a 2008* (Brasilia: Ministério do Trabalho e Emprego).
Ministério do Trabalho e Emprego (2012a) *Trabalho Escravo no Brasil em Retrospectiva: Referências para estudos e pesquisas* (Brasilia: Ministério do Trabalho e Emprego).
Ministério do Trabalho e Emprego (2012b) *Quadro Geral Das Operacoes de Fiscalizacao Para Erradicacao do Trabalho Escravo – SIT/SRTE 1995 a 20110* (Brasilia: Ministério do Trabalho e Emprego).
Monteiro, M. A. (2006) Em busca de carvão vegetal barato: o deslocamento de siderúrgicas para a Amazônia, *Novos Cadernos NAEA*, 9(2), pp. 55–97.
Moraes, M. A. F. D. (2007a) O Mercado de Trabalho da Agroindústria Canavieira: Desafios e Oportunidades, *Economia Aplicada*, 11(4), pp. 605–619.
Moraes, M. A. F. D. (2007b) Indicadores do Mercado de Trabalho do Sistema Agroindustrial da Cana-de-Açúcar do Brasil no Período 1992-2005, *Estudos Econômicos*, 37(4), pp. 875–902.
Moraes, M. A. F. D. (2008) Sugar cane sector in Brazil: labor indicators and migration, unpublished presentation, available at: http://migrationfiles.ucdavis.edu/uploads/cf/files/conference_may_2008/azanha-sugar_cane_sector_in_brazil-labor_indicators_and_migration.pdf (accessed 13 May 2013).
Moreira, I. (2005) Invasão chinesa abala pólo mineiro de fogos: importação de produtos chineses cresceu 660% em 2004 e receita de empresas locais caiu 40%, *Valor Econômico*, Caderno especial, October 21, p. A12.
Mosley, L. & Uno, S. (2007) Racing to the bottom or climbing to the top? Economic globalization and collective labor rights, *Comparative Political Studies*, 40(8), pp. 923–948.
Mulainathan, S. & Schnabl, P. (2010) Does less market entry regulation generate more entrepreneurs? Evidence from a regulatory reform in Peru, *International Differences in Entrepreneurship*, pp. 159–177.
Murillo, M. V. (2000) From populism to neoliberalism: labor unions and market reforms in Latin America, *World Politics*, 52, pp. 135–174.

Murillo, M. V. & Schrank, A. (2005) With a little help from my friends: partisan politics, transnational alliances, and labor rights in Latin America, *Comparative Political Studies*, 38(8), pp. 971–999.

Murillo, M. V. & Schrank, A. (2010) Labor organizations and their role in the era of political and economic reform, in: C. Scartascini, E. Stein & M. Tommasi (Eds) *How Democracy Works: Political Institutions, Actors, and Arenas in Latin American Policymaking* (Washington, DC: The Inter-American Development Bank and Harvard University), pp. 247–268.

Nadvi, K. (1999) Collective efficiency and collection failure: the response of the Sialkot surgical instrument cluster to global quality pressures, *World Development*, 27(9), pp. 1605–1626.

Neumayer, E. & Soysa, I. (2006) Globalization and the right to free association and collective bargaining: an empirical analysis, *World Development*, 34(1), pp. 31–49.

Olken, B. & Pande, R. (2012) Corruption in developing countries, *National Bureau of Economic Research Working Paper Series*, working paper 17398.

O'Rourke, D. (2003) Outsourcing regulation: analyzing nongovernmental systems of labor standards and monitoring, *Policy Studies Journal*, 31, pp. 1–29.

Phillips, N. (2013) Unfree labour and adverse incorporation in the global economy: comparative perspectives on Brazil and India, *Economy and Society*, 42(2), pp. 171–196.

Phillips, N. & Sakamoto, L. (2012) Global production networks, chronic poverty and "slave labor" in Brazil, *Studies in Comparative International Development*, 47(3), pp. 287–315.

Pinhanez, M. (2012) Rekindling governments from within: getting public sector elite officials to support government reform in Brazil, in: A. H. Amsden, A. DiCaprio & J. A. Robinson (Eds) *The Role of Elites in Economic Development* (New York: Oxford University Press), pp. 307–326.

Piore, M. (1990) Labor standards and business strategies, in: S. Herzenberg & J. P. Lopez (Eds) *Labor Standards and Development in the Global Economy* (Washington, DC: Bureau of International Labor Affairs), pp. 55–86.

Piore, M. & Schrank, A. (2008) Toward managed flexibility: the revival of labour inspection in the Latin world, *International Labour Review*, 147, pp. 1–23.

Pipkin, S. (2006) *Written in Invisible Ink: A Case Study on the Politics of Free Trade Reform and Labor Regulation in Guatemala* (Cambridge: Massachusetts Institute of Technology).

Pires, R. (2008) Promoting sustainable compliance: styles of labour inspection and compliance outcomes in Brazil, *International Labour Review*, 147, pp. 199–229.

Polaski, S. (2004) Protecting labor rights through trade agreements: an analytical guide, *U.C. Davis Journal of International Law & Policy*, 10(13), pp. 13–25.

Polaski, S. (2006) Combining global and local forces: the case of labor rights in Cambodia, *World Development*, 34(5), pp. 919–932.

Quaresma, L. F. (2009) *Relatório Técnico 59: Perfil do Ferro-Gusa, Ministério de Minas e Energia, Banco Mundial, Projeto de Assistência Técnica ao Setor de Energia* (Belo Horizonte: J. Mendo Consultoria).

Reuters (2009) *Growth in South-South Trade*, available at: http://in.reuters.com/article/2009/02/08/trade-south-table-idINL571378720090208 (accessed 16 May 2013).

Rezende, K. C. (2007) *A Importacao de Fogos de Artificio da China: A Visao Dos Empresarios e Distribuidores do Polo Pirotecnico de Santo Antonio do Monte e Regiao Frente ao Elevado Aumento Da Importacao* (Belo Horizonte: Faculdade Novos Horizontes).

Rodriguez-Garavito, C. A. (2005) Global governance and labor rights: codes of conduct and anti-sweatshop struggles in global apparel factories in Mexico and Guatemala, *Politics and Society*, 33(2), pp. 203–233.

Rodrik, D. (1998) Why do more open economies have bigger governments? *Journal of Political Economy*, 106(5), pp. 997–1032.

Ronconi, L. (2012) Globalization, domestic institutions, and enforcement of labor law: evidence from Latin America, *Industrial Relations: A Journal of Economy and Society*, 51, pp. 89–105.

Rosati, F. (2011) Understanding the Brazilian success in reducing child labour: empirical evidence and policy lessons, *ILO Working Paper*, available at: http://www.ucw-project.org/attachment/Brazil_20june1120110622_103357.pdf

Santos, E. M. M. S. (2007) *O Trabalhador Pirotécnico de Santo Antônio do Monte e seu Convívio Diário com o Risco de Acidente Súbito* (Belo Horizonte: Pontificia Universidade Católica de Minas Gerais).

Schmitz, H. (2000) Does local co-operation matter? Evidence from industrial clusters in South Asia and Latin America, *Oxford Development Studies*, 28(3), pp. 323–336.

Schrank, A. (2009) Professionalization and probity in a patrimonial state: labor inspectors in the Dominican Republic, *Latin American Politics and Society*, 51(2), pp. 91–115.

SEBRAE (2003) *Histórias de Sucesso: Experiências Empreendedoras – Indústria de Fogos de Artifício* (Belo Horizonte: SEBRAE).
Secretaria de Planejamento (1984) *The Greater Carajas Program: Legislation and Norms* (Brasilia: Presidency of the Republic, Secretariat of Planning).
Secretaria Especial dos Direitos Humanos (2008) *2o Plano Nacional para Erradicação do Traballho Escravo* (Government of Brazil).
Silva, G. M. A. & Oliveira, E. R. (2013) Perfil da produção dos fornecedores de cana-de-açúcar na safra 2009/2010, *ORPLANA*, available at: http://www.orplana.com.br/perfil.html (accessed 9 May 2013).
Silva, M. A. M. (2007) Trabalho e trabalhadores na região do "mar de cana e do rio de álcool", in: J. R. Novaes & F. Alves (Eds) *Migrantes: Trabalho e trabalhadores no complexo agroindutrial canavieiro (os heróis do agronegócio brasileiro)* (São Carlos: EDUFSCar), pp. 55–86.
SITI (2013) Sistema de Informações sobre Focos de Trabalho Infantil, Secretaria de Inspeção do Trabalho, Ministério do Trabalho e Emprego, available at http://sistemasiti.mte.gov.br/
Smith, M. & Voreacos, D. (2006) CVRD Won't sell iron ore to producers that allow slave labor, *Bloomberg News* [New York].
Snyder, R. (2001) *Politics after Neoliberalism: Reregulation in Mexico (Cambridge Studies in Comparative Politics)* (Cambridge: Cambridge University Press).
Svensson, J. (2005) Eight questions about corruption, *Journal of Economic Perspectives*, 19(3), pp. 19–42.
Taylor, M. (2008) *Judging Policy: Courts and Policy Reform in Democratic Brazil* (Stanford, CA: Stanford University Press).
Tendler, J. (1997) *Good Government in the Tropics,* The Johns Hopkins Studies in Development (Baltimore, MD: The Johns Hopkins University Press).
Tewari, M. & Pillai, P. (2005) Global standards and environmental compliance in India's leather industry, *Oxford Development Studies*, 33(2), pp. 245–267.
Treisman, D. (2000) The causes of corruption: a cross-national study, *Journal of Public Economics*, 76(3), pp. 399–457.
Trivelato, G. C. & Barreto, J. M. A. (n.d.) *Prevenção de explosões na fabricação de fogos de artifício no arranjo produtivo de Santo Antonio do Monte (MG)* (Belo Horizonte: FUNDACENTRO).
UNCTAD (2012) *Inward FDI Stock, by Host Region and Economy, 1980–2007*, available at: http://archive.unctad.org/templates/download.asp?docid=10592&lang=1&intItemID=3277 (accessed October 24 2012).
UNICA Datasets (2011/2012) Web, Histórico de Produção e Moagem por Safra, available at: http://www.unicadata.com.br/historico-de-producao-e-moagem.php?idMn=32&tipoHistorico=4 (accessed 20 November 2013).
US Congress (2007) *U.S. Brazil Relations: Hearing Before the Subcommittee on the Western Hemisphere of the Committee on Foreign Affairs House of Representatives One Hundred Tenth Congress First Session* (Washington, DC: Government Printing Office).
Vogel, S. K. (1996) *Freer Markets, More Rules: Regulatory Reform in Advanced Industrial Countries,* Cornell Studies in Political Economy (Ithaca, NY: Cornell University Press).
Voreacos, D. & Smith, M. (2006) U.S. Congress to probe slave-made goods from Brazil, *Bloomberg News* [New York].
World Bank (2003) *Company Codes of Conduct and International Standards: An Analytical Comparison* (Washington DC: World Bank).
World Bank (2004) *Doing Business in 2004: Understanding Regulation* (Washington DC: World Bank).
World Bank (2010) *Doing Business in 2010: Comparing Regulation in 183 Economies* (Washington, DC: World Bank).
WTO (2012) *Time Series on International Trade*, available at: http://stat.wto.org/StatisticalProgram/WSDBStatProgramHome.aspx?Language=E
Xeyla, R. (2006) *Copa do Mundo e Festas Juninas aquecem vendas de fogos de artifício Empresários mineiros apostam em comemorações para alavancar vendas do setor* (Brasilia: Agência Sebrae de Notícias).
Zatz, N. D. (2008) Working beyond the reach or grasp of employment law, in: A. Bernhardt, H. Boushey, D. Dresser & C. Tilly (Eds) *The Gloves Off Economy: Problems and Possibilities at the Bottom of America's Labor Market* (Cornell University Press).
Zylberstain, H. (2003) Condomínio de empregadores: uma solução eficiente e justa para vínculos de curta duração, in: J. P. Z. Chahad & M. C. Cacciamali (Eds) *Mercado de Trabalho no Brasil: novas práticas trabalhistas, negociações coletivas e direitos fundamentais no trabalho* (São Paulo: LTr), pp. 157–189.