



Stanford

Center for International
Development

Working Paper No. 345

**Globalization, Working Conditions
and Labor Rights: Implications for
Developing Countries**

by

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May 2007



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May 2007: Preliminary; Not for quotation.

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Even after two waves of globalization—one in the late 19th century and the other since World War II—the question of how opening product and labor markets to international competition influences labor conditions remains a topic of significant debate. The debate is important, for beliefs about the linkages between international economic integration and the wellbeing of the world's workers condition both national and international policy discussions. Indeed, as the histories of both waves of globalization demonstrate, political responses to the real or perceived consequences of greater economic integration for workers significantly restrict the ultimate scope of integration.

Discussions of the links between globalization and labor conditions involve a contest of ideas between the predictions of international trade theories on the one hand and various race-to-the-bottom (RTTB) scenarios on the other. The predictions of international trade theories are well-known to economists, but not so widely understood by the public at large. Moreover, trade theories are most explicit about the impacts of free trade on working conditions. During the postwar globalization, the discussion has broadened to include the consequences of international competition for labor rights as well as working conditions. In particular, modern discussions of globalization stress its impact on four areas labor rights: freedom of association, nondiscrimination, abolition of

forced labor, and reduction of child labor. (Throughout the paper, references to “labor conditions” encompass both working conditions and labor rights.) As normally developed, trade theories offer no *direct* implications about the effects of free trade on labor rights.

In contrast, popular critiques of globalization often allege that free trade and multinational companies increase international inequality and have devastating effects on working conditions and labor rights in developing countries. Lurking at the core of these allegations are RTTB scenarios in which companies in developing countries are alleged to degrade working conditions in order to compete effectively in international markets and/or national governments suppress labor rights in order to assist the export prospects of their businesses and attract investment from abroad. In these critiques, globalization produces low wages, long work hours, unsafe working conditions, and suppressed labor rights—the antithesis of an Adam Smith labor market. These critiques usually conclude globalization requires a system of effective international *labor standards* to counter its tendency to produce sweatshop working conditions.¹ One proposal flowing from this line of thinking would have the WTO permit member countries to apply trade sanctions to countries that do not adhere to “core” labor standards, including the four areas of labor rights noted above.

The debates spawned by this contest of ideas often occur with little appeal to evidence on how international economic integration has influenced labor conditions

¹ A note on terminology: A tendency to use the terms “labor conditions” and “labor standards” interchangeably confuses some discussions of the effects of globalization on labor. In this paper, “labor conditions” refer to actual working conditions and labor rights experienced by workers, while “labor standards” refer to policy objectives or legal requirements established through a political process. For example, a statutory minimum wage requirement is a labor standard, while the wage actually received by a worker is a labor condition.

around the world. Indeed, until recently there has been no single source exploring the links between the major forces of globalization and the working conditions and labor rights that comprise a country's labor conditions. In a recent book (Flanagan 2006), I have tried to develop and interpret such evidence for a broad sample of industrialized and developing countries. In this paper, I wish to present the main arguments and findings of that book and to consider their implications for India and other developing countries. The central objective is to provoke discussion on the applicability of the main arguments and findings of the general study to developing countries.

I. Labor Conditions in the Late 20th Century

During the last decades of the 20th century, a broad improvement in working conditions and labor rights accompanied significant increases in the number of countries with open trade policies, larger trade volumes, and higher foreign direct investment flows. Wages increased, hours of work declined, and job safety (as measured by fatal job injury rates and much less directly by life expectancy) improved. Among the major labor rights, freedom of association (and other civil liberties) improved, while child labor force participation rates and a measure of gender discrimination declined. (No data on trends in forced labor are available. See Appendix A for definitions, sources, and availability of the measures of working conditions and labor rights used in this paper.) In large measure, these comments also apply to countries at the extremes of the distribution of labor conditions. If the postwar globalization had a negative impact on labor conditions during the late 20th century, its influence must have been overwhelmed by other factors.

Data for the mid-1990s also show that countries with open trade policies generally have superior working conditions and labor rights (Figures 1 and 2). For the purpose of

these comparisons, countries with open trade policies for at least two-thirds of the 1970-2000 period were defined as “open,” while “closed” countries (including India) had closed policies for at least two thirds of the period.² For each labor condition, the value for open economies is set at 100. Annual compensation per manufacturing worker was six to eight times higher in open economies, reflecting their higher labor productivity. Fatal on-the-job accident rates in manufacturing are significantly lower in lower in open economies. Only the various measures of work hours showed no reliable differences between open and closed economies. Two economy-wide measures (annual hours and the percent of employees working more than 40 hours a week—long hours) as well as weekly hours in manufacturing are essentially the same in each set of countries. The data also show superior labor rights in open economies (Figure 2). (Note that lower values of child labor force participation, the Freedom House civil liberties index, the freedom of association and collective bargaining (FACB) index, the male/female wage differential and the estimated number of people in some form of forced labor constitute superior outcomes.³

To summarize, simple descriptive data do not support the scenarios advanced by globalization skeptics. Anecdotes that give rise to such generalizations may be accurate, but they are not typical of the experience of a large sample of industrialized and

² The multi-hurdle indicator of openness developed by Sachs and Warner (1995) and updated by Wacziarg and Welch (2003) is used to define open trade policies. A country is considered to have open policies if it has (1) an average tariff rate below 40 percent, (2) nontariff barriers covering less than 40 percent of trade, (3) a black market exchange rate premium below 20 percent on average during the 1970s and 1980s, (4) a nonsocialist economic system, and (5) no state monopoly on major exports. This indicator variable captures a range of alternative policies that countries may use to close their economies to international competition but does not capture the degree of openness. By these criteria, India is listed as closed throughout the last half of the 20th century.

³ Varieties of forced labor include bonded labor, in which individuals work for unspecified periods of time to repay debts, compulsory participation in public projects, trafficking in human beings, and outright slavery. See Bales (2004) for a comprehensive discussion.

developing countries. Nonetheless, these descriptive data *cannot* by themselves *prove* that globalization improves labor conditions or even help us understand *how* globalization *might* influence working conditions and labor rights. The remainder of the paper explores these issues.

Evolution of Labor Conditions in Closed Economies

If we are to isolate the effects of trade and other mechanisms of globalization on labor conditions, it is useful to consider first how working conditions and labor rights evolve in closed economies. It should come as no surprise that the foremost influence on labor conditions is a country's level of development. At any point in time, countries with higher income per capita tend to have higher wages, shorter hours of work and safer jobs. High income countries also have stronger labor rights—stronger civil liberties and freedom of association, lower child labor force participation, and less forced labor. (Only a measure of discrimination—the net gender wage differential—is not significantly related to a country's level of development.) Over time, countries that grow most rapidly experience the most rapid advances in working conditions. To an important extent, the inequality in pay, nonmonetary working conditions and labor rights observed around the world result from differences in the level of economic development and national economic growth rates (Flanagan 2006, Chapter 3).

Improving economic growth in the poorest countries encourages improvements in their labor conditions. Recognizing the powerful role of level of development opens a broad policy menu for advancing labor conditions. Even under autarky, a country's labor conditions can improve with higher rates of technical progress, investments in physical and human capital, and the establishment of institutions that clarify property rights

enforce contracts and reduce corruption, for example. The question is whether labor conditions improve even more rapidly in countries that participate in international economic integration, other things equal. An important implication is that to the extent that trade liberalizations raise per capita income, trade itself becomes one mechanism for improving a country's working conditions and labor rights. A large literature has explored and debated the lines of causality between openness to trade and per capita income. Recent studies and literature reviews conclude that after sorting out the significant methodological issues involved in identifying a relationship, trade liberalizations tend to raise economic growth (Berg and Krueger 2003; Wacziarg and Welch 2003). I shall refer to this channel as the *indirect* effect of globalization on labor conditions.

Stressing the important role of economic growth and development should not obscure the huge variance in outcomes around this relationship. Countries at a given level of development vary widely in their labor conditions. The fact that some countries have much better conditions while others have much worse conditions than one would predict from their level of development reflects a myriad of additional factors that influence labor conditions. Even for closed economies, certain institutional characteristics and national labor policies may influence working conditions and labor rights. We defer a discussion of national labor policies to Section IV.

II. Trade and Labor Conditions

International trade theories predict that free trade will improve a country's working conditions indirectly by increasing its per capita income. The principle of comparative advantage predicts that free trade produces a *reallocation of resources* to

their most efficient use, raising national income as countries increasingly export products made from inputs that are relatively abundant domestically and import products made from inputs that are relatively scarce domestically. By eliminating the need to satisfy a nation's consumption needs with domestic production, trade permits labor and other resources to move into activities where their productivity, and hence their compensation, will be relatively high. Other theories accommodate the growth of intra-industry trade by acknowledging that even countries with similar factor proportions can benefit from trading with one another when production is subject to *economies of scale*. While the economies-of-scale motivation does not predict the composition of a country's trade, it does predict that a country's resources are used more productively in a free-trade environment than under autarky. The greater efficiency again permits higher monetary or nonmonetary compensation. *Transfers of technology* that may accompany increased trade flows likewise raise productivity and compensation. In each case free trade should improve working conditions to the extent that it raises per capita income.

Lurking behind these long-run gains are equally well-known distributional consequences. When trade follows comparative advantage, the monetary and nonmonetary rewards to a country's abundant (relatively cheap) factors rise, while returns to its scarce (relatively expensive) factors decline as cheaper imported goods substitute for some domestic production. Incomes in inefficient but formerly protected sectors fall, providing incentives for resources to move to more efficient employment opportunities. Efforts to record the short-run impact of trade liberalization on working conditions with aggregate data pick up some average of the impact on gainers and losers, with the weight of the losers declining as resources move to superior opportunities. In

labor markets with low worker mobility, the burden of the losers can be long-lasting with the major changes occurring with the choices of new cohorts of labor force entrants.

Standard wisdom has held that unskilled labor is the abundant factor in developing countries, while capital and skilled labor are abundant factors in industrialized countries. In this setting, trade liberalization should decrease wage inequality in the former countries while increasing it in the latter countries. Recent studies show that not all trade necessarily corresponds to this scenario, however. When trade transfers technologies developed in industrialized countries to work with the skilled labor that is abundant in those countries, the demand for and returns to skilled labor in developing countries may increase. Evidence supporting such “skill-enhancing trade” has been found for Brazil and Mexico (Arbache, Dickerson, and Green 2004).

Arrayed against the predictions of trade theories is the RTTB notion that free trade will degrade working conditions and labor rights in the export sectors of internationally integrated countries. *How* trade would diminish working conditions is a matter of some mystery. Open trade policies raise foreign demand for a country’s exports and for the services of workers who produce those exports. What then happens to wages and nonmonetary working conditions depends on labor supply conditions, which themselves are determined by the domestic labor market alternatives available to workers. Where there is substantial unemployment or underemployment, increased export demand will raise employment without necessarily improving pay and nonmonetary working conditions. This situation is likely to be the norm in countries with significant reserves of underemployed rural agricultural labor or very high urban unemployment rates. The additional employment will raise total wage income, while

producing little change in monetary and nonmonetary conditions of employment for individual workers.

For economies with little unemployment, export firms will have to meet additional demand by attracting workers away from other jobs by offering wages and nonmonetary working conditions that are superior to what workers already earn in agriculture, in the informal sector, or at other companies in the formal sector. Employers in the latter sectors may raise wage and improve other working conditions in an effort to retain workers in the face of job offers from export firms. Labor market competition effectively spreads the benefits of increased export demand to other sectors.

It is difficult to construct convincing scenarios in which an increase in export demand would degrade working conditions. If increased export production raised monopsony power, a trade liberalization could be associated with diminished working conditions. Nonetheless, it is hard to imagine how increased export production would reduce workers' choice of employers. It is even harder to accept in an era in which workers in even the poorest countries may use the Internet to inform themselves of employment options beyond their local labor market.

These conceptual arguments and the judgment that trade liberalization does not raise monopsony power in export sectors are supported by comparisons of wages in export and nonexport firms in both developing and industrialized countries. These studies invariably find that after controlling for industry and firm size, export firms pay higher wages than nonexport firms, and that this "export wage premium" is largest in less developed countries (Aw and Batra 1998, Bernard and Jensen 1995, Hahn 2004, Van Biesebroeck 2003). Particularly for the poorest countries, the facts do not seem to support

claims that international competition leads exporters to reduce wages below national norms. Of course, economists should be as suspicious of benevolence as malevolence, and the evidence is not air-tight. It is rarely possible to control for worker skills in these studies, so one cannot rule out the possibility that the employees of exporters have more education, training and experience than the employees of nonexporting firms.

Nevertheless, one can wonder whether unobservable worker quality differences account for wage premia as large as 10-12 percent in Korea, 15-17 percent in Taiwan, and 40 percent in sub-Saharan Africa (Flanagan 2006, p. 68).

Trade Liberalization and Working Conditions

Econometric analyses reported in *Globalization and Labor Conditions* seek to determine whether a country's openness to international competition has anything to add to the explanation of working conditions, given a country's level of development.

Openness is alternately measured as a country's trade share (exports plus imports divided by GDP) and the multi-hurdle measure of open trade policy developed by Sachs and Warner and described in footnote 2. If, as implied by international trade theories, openness influences working conditions only indirectly, by raising per capita income, the openness measures themselves will not be statistically significant. The per capita income variable will already capture the indirect effect of trade. If RTTB scenarios have traction, however, the openness measures should be significantly negative, indicating that open trade policies or high trade shares tend to degrade working conditions conditional on a country's per capita income.

As the RTTB hypothesis reminds us, however, there is a significant causality question. Does trade influence working conditions, or do low wages and poor working

conditions influence the volume of trade and a country's willingness to sign trade agreements? This issue is addressed by applying instrumental variables estimation to cross-country data for the mid-1990s. The challenge is to find exogenous variables correlated with the measures of openness that are unlikely to influence labor conditions except through their effect on openness. The regression analyses use the labor-land ratio and dummy variables for small countries and island countries as instrumental variables.⁴

A second problem arises because unobservable influences on some labor conditions may be correlated with openness. The regulation of labor conditions by national governments or labor unions may depend in part on a country's openness, for example. Country panel data for the late 20th century permit fixed effects analyses of each of the working conditions.

The cross-country instrumental variables analyses find *no direct link* between openness and working conditions (Flanagan (2006), p. 211). There is no reliable cross-country statistical evidence that countries with relatively large trade flows or open trade policies have poorer working conditions after controlling for the influence of per capita income. There is also no reliable cross-country evidence that more open countries have *superior* working conditions after accounting for the effects of per capita income and certain institutional features.⁵ With one exception, fixed effects estimates also fail to reveal statistically significant connections between openness and working conditions. The fixed effects analysis does reveal that increased openness is associated with greater job

⁴ The first stage regressions account for 25 to 50 percent of the variance in trade shares and from 40 to more than 90 percent of the variance in open policy, depending on the labor conditions under analysis. There are also questions of causality between some labor conditions and per capita income. Lagging the per capita income variable produced similar coefficients and somewhat stronger statistical significance, supporting the influence of income on labor conditions.

⁵ The independent variables also include measures of the rule of law, risk of expropriation, democracy, ethnic diversity and religious diversity.

safety. Countries that adopt open trade policies experience lower fatal on-the-job accident rates and longer life expectancy. (Higher trade volumes are also associated with longer life expectancy.) In short, trade liberalization improves working conditions mainly by raising per capita income.

Trade Liberalization and Labor Rights

Critics of globalization often claim that the governments of developing countries limit or suspend labor regulations and labor rights in an effort to stimulate exports. Special treatment of labor may be of particular concern in export processing zones (EPZs)—industrial zones in which governments provide basic infrastructure and tax concessions to attract foreign assembly and re-export operations. ILO investigations of EPZs provide a mixed evaluation of their impact (ILO 2003). In contrast, international trade theories offer no *direct* predictions on the relationship between free trade and the labor rights that now figure prominently in most debates over the social consequences of globalization. One can derive implications for labor rights from prior analyses of the effects of free trade, however. Ultimately, the question must be settled empirically. Table 1 summarizes the qualitative results of regression analyses of the relationship between openness and labor rights. The issues and results are discussed below.

Child labor. Virtually all statistical analyses of child labor find an inverse relationship between child labor force participation and income. International trade theories carry with them the implication that trade liberalization should *reduce* child labor through the positive effects of liberalized trade on national income. Increased trade carries with it a potential countervailing effect on child labor force participation, however. For a given level of family income, the relative return to current work versus

schooling, summarized by the rate of return to schooling, will influence the extent of child labor. Since the comparative advantage of countries with extensive child labor is likely to be products made with considerable unskilled labor, reducing trade barriers may raise the wage of unskilled work and reduce the return to schooling, thereby reducing the relative attractiveness of schooling to children and their families. The question is whether this effect is sufficiently strong to overwhelm the income effect. Of course, this concern does not apply to countries in which the “skill-enhancing trade” hypothesis applies. In those countries, technology transfers raise returns to schooling, thereby increasing incentives for children to attend and remain in school.

The empirical assessment of the relationship between openness and child labor parallels the analysis of the relationship between trade and working conditions discussed above. Using country panel data for 1980-1995, the labor force participation rate of 10-14 year old children was regressed on measures of per capita GDP, institutional structure, and the measures of openness discussed earlier. In fixed effects estimation, both the adoption of free trade policies and increased trade shares are associated with lower child labor force participation rates. Greater openness to international markets therefore reduces child labor in two ways. To the extent that trade raises per capita income, fewer families need to rely on child labor to obtain the necessities of life. This influence may once again be termed the *indirect* effect of trade. Greater openness is also directly associated with lower child labor rates in addition to its indirect effect through income. We do not know the exact explanation for the direct effect, but the skill-enhancing trade hypothesis is one candidate. At the least, the finding of a significant direct effect

undermines the hypothesis that free trade reduces the return to schooling for children and other low-skill workers.

This finding includes a powerful policy implication: using trade sanctions to induce countries to reduce child labor is counterproductive. Free trade reduces child labor; restrictions on trade will increase it by reducing the income that permits families to move their children from work to school and possibly by reducing returns to schooling. Policies that expand rather than reduce the choices available to families provide a more effective approach to reducing child labor.

Discrimination. Does globalization increase discrimination against women and other labor force minorities? The leading theory of labor market discrimination predicts that increased competition to hire labor should erode discrimination by providing labor force minorities with additional employment opportunities with employers who have less discriminatory tastes (Becker 1957). To the extent that open trade policies increase the number of export firms and/or multinational companies competing for labor in local labor markets, employer discrimination should decrease. By providing opportunities beyond agriculture and the informal sector, globalization may increase the status and security that comes with higher income.

With only one observation on the net gender wage differential (our measure of discrimination) for each country, panel data analysis is not feasible. In cross-country analysis, both ordinary least squares and instrumental variables estimates find significantly *larger* male-female wage differences in countries with open trade policies, *ceteris paribus*. (There is no statistically significant relationship with trade volumes.) The evidence from the very few other investigations of the issue is likewise mixed (Black and

Brainerd 2004; Berik et al 2003). The reasons for the significant result are not well understood and the underlying data are not ideal (see Appendix A). This is one area in which trade liberalization does not get a clean bill of health and merits much closer study.

Freedom of Association. The UN Universal Declaration of Human Rights and various declarations by the International Labor Organization (ILO) permit workers to form and join collective employee organizations and to engage in collective bargaining with employers. Representatives of international organizations sometimes argue that “rights are costless,” but few workers would be attracted to freedom of association rights that could not be used to alter working conditions. If globalization in fact leads governments to restrict workers’ freedom of association rights, it must be because they fear that maintaining or extending the rights would increase labor costs.

In theory the effect of trade liberalization on the costs associated with freedom of association rights is ambiguous. The underlying issue is how free trade influences the relative bargaining power of labor and management. On the one hand, a larger number of export firms or multinational companies are likely to reduce any employer monopsony power, thereby raising workers’ bargaining power. On the other hand, competition from imports and the increased ability of local employers to outsource should reduce workers’ bargaining power. In short, the net effect of open trade on bargaining power varies from one situation to another and must be settled empirically. We examine the empirical relationship between the Freedom House index of civil liberties (including but not limited to workplace freedom of association) and the workplace-oriented freedom of association and collective bargaining (FACB) index. For each index, lower values signify stronger rights.

Cross-section instrumental variables and fixed effects analyses find that countries with more open trade policies have superior civil liberties, and civil liberties improve more rapidly in countries that adopt open trade policies. (There is no significant relationship between civil liberties and trade volumes.) The mechanisms underlying these results are not well understood. It may be that exposure to greater economic choice and a greater range of ideas raises the demand for greater political choice. Taken at face value, the results have clear policy implications: lowering trade barriers to repressive regimes is less a reward for bad behavior than a stimulus for political change. Beyond the dollar and cents value of trade are its effects on systemic changes in institutions and political systems.

The FACB index, which is more targeted on freedom of association rights at the workplace, is not significantly related to either measure of openness in cross-country analyses. (Panel data are not available for this indicator.) Once again, the data do not support the idea that openness to international competition degrades workplace freedom of association rights. Although openness has no significant direct impact, it indirectly improves these rights by raising per capita income.

Forced labor. Open economies appear to have neither more nor less forced labor (the estimated number of people in slavery as discussed in Appendix A) than closed economies after controlling for level of development, institutional structure, and for the possibility of reverse causation. Openness reduces forced labor indirectly by increasing per capita income.

Applications to India

The findings reviewed above emerge from analyses of country panel data for the last decades of the 20th century. The observations for individual countries are often highly dispersed around the regression relationship, reflecting the effects of international variation in institutions and domestic policies as well as outright measurement error. The results also provide little guidance to the processes through which labor conditions change during the transition from a closed to an open policy regime. All of these issues become salient when taking the findings to the transition experience of a particular country.

In the case of India, trade liberalization dates to the early 1990s. Table 2 reports labor conditions data for India before and after the liberalization. Between 1970 and 2000, weekly hours of manufacturing declined by .8, but the decline *preceded* India's move to more open international trade policies in the early 1990s. The ILO fatal on-the-job injury rate is remarkably (and perhaps suspiciously) stable until an *increase* in 1990. Data collected by the Indian Labor Inspectorate record a sharp increase in the number of fatal job accidents per 100,000 employees between 1990 and 1995 followed by a return to about the 1990 level. (Life expectancy increased more slowly during the 1990s than in the 1980s, but workplace safety is unlikely to be the main influence on this trend.) Turning to child labor, the labor force participation rate of 10 to 14 year old children has declined for at least the past 45 years. The decline from 1990 to 1995 was in line with past trends, but during the second half of the 1990s the decline accelerated. Studies of micro data remind us that these aggregate measures reflect conditions of both short-run gainers and losers from trade liberalization. One recent study found child labor declined

more slowly and school attendance increased less rapidly in rural Indian districts in which the impact of lower protection was greatest. These impacts were not large in magnitude, however (Edmonds et al 2007). Finally, the indicator of civil liberties (where lower values signify superior liberties) deteriorated from 1980 through 1995 before returning to earlier levels. (I could not locate data to evaluate whether India's trade liberalization has had any impact on labor market discrimination and the fraction of the labor force in bonded labor arrangements, a variety of modern forced labor that is empirically important in India.) This evidence presents a mixed picture of the evolution of labor conditions following the shift to more open trade policies in India: Little change in work hours, temporary deteriorations of job safety and civil liberties (our proxy for freedom of association rights), and a more rapid decline of child labor.

Several factors cloud the interpretation of the mixed responsiveness of labor conditions to India's trade liberalization, however. There is first some difficulty with dating India's effective shift to open trade policies. While there is broad agreement that India was essentially closed to international competition prior to the 1990s, the shift to greater openness that began in 1991 was not hurried and not always linear. Prior to 1991,

“... trade policy was characterized by high tariffs and pervasive import restrictions. Imports of manufactured consumer goods were completely banned. For capital goods, raw materials and intermediates, certain lists of goods were freely importable, but for most items where domestic substitutes were being produced, imports were only possible with import licenses. The criteria for issue of licenses were nontransparent, delays were endemic and corruption unavoidable. (Ahluwalia 2002, p. 73)

In 1991, India began to reduce tariffs and phased out import licensing, but the pace of change was slow and uneven.

“Import licensing was abolished relatively early for capital goods and intermediates, which became freely importable in 1993, simultaneously with the switch to a flexible exchange rate regime....

Removing quantitative restrictions on imports of capital goods and intermediates was relatively easy, because the number of domestic producers was small and Indian industry welcomed the move as making it more competitive. It was much more difficult in the case of final consumer goods because the number of domestic producers affected was very large.... Quantitative restrictions on imports of manufactured consumer goods and agricultural products were finally removed on April 1, 2001, almost exactly ten years after the reforms began....”

“Progress in reducing tariff protection...has been even slower and not always steady.... Although India’s tariff levels are significantly lower than in 1991, they remain among the highest in the developing world, because most other developing countries have also reduced tariffs in this period. The weighted average import duty in China and southeast Asia is currently about half the Indian level.” (Ahluwalia 2002, pp. 73-74)

In short, it is not clear *when* India should be dated as having an open international trade policy. While the decline in average tariffs seems dramatic (notwithstanding some increases in the late 1990s), it is difficult to tabulate the path of India’s quantitative restrictions on trade. On the other hand, one can trace the path of Indian imports and exports as import duties and quantitative restrictions declined (Table 3). As trade policies have gradually liberalized, India’s trade sector has gradually expanded. By 2005, the export and import shares of GDP were just over twice their level at the time the reforms began.

The fact that India’s gradual trade liberalization was accompanied by significant deregulation of some domestic markets further obscures the effects of trade liberalization on labor conditions. To the extent that domestic deregulation raised productivity, the scope for improved labor condition should have increased in deregulated sectors. In the case of India, there is a significant question of whether the effects of greater openness can be separated from the effects of the domestic policy changes that occurred around the same time. The broader puzzle is why aggregate measures of India’s labor conditions

were not more responsive to two forces—trade liberalization and one domestic deregulation—that should have advanced them.

Third, distinctive characteristics of India's labor markets inhibit the observation of adjustment of working conditions and some labor rights to trade liberalization. Most of the data on working conditions available for country panels are from the manufacturing sector. In less-developed countries, most jobs are in agriculture or the informal sector. Self-employment is the most common employment status in India, for example. Even in manufacturing, the very small size of most organizations may render them invisible to statistical agencies (Srinivasan and Allen 2007). High gross flows and extensive labor turnover also complicate the description of some labor conditions. A complete assessment of the impact of trade liberalization on working conditions in countries like India should consider the impact on agricultural work and the size of the informal sector. For example, does the informal sector shrink as an expanding export sector draws out labor or expand as inefficient import-competing industries shed labor?

For all these reasons, the macro data that serve tolerably well for country panel analyses are unlikely to provide the most useful guidance to the impact of trade liberalization on labor conditions in specific developing countries over brief periods. Micro studies are more likely to capture the interactions between the formal and informal sectors as well as patterns of resource mobility that will ultimately determine the nature of that impact.

III. International Migration and Labor Conditions

A remarkable feature of modern discussions of globalization is their inattention to the role of international labor markets in altering working conditions around the world.

Virtually all international policy discussions and negotiations focus on extending the reach of free trade. Reducing barriers to international migration is not part of the agenda of the World Trade Organization (WTO). A report on the Social Dimension of Globalization released by the International Labor Organization, the only major international agency focusing on the welfare of the world's workers, did not even include international migration in its list of key characteristics of globalization (ILO 2004a). (A later ILO report on migration focused on concerns about the treatment of migrants in host countries, but failed to address national policies erecting barriers to this mechanism of globalization (ILO 2004b).)

Economic historians have found convincing historical evidence on the efficacy of international migration in narrowing real wage differences among countries that participated in the transatlantic migrations of the late nineteenth century (Hatton and Williamson 1998, 2006). They have also concluded that most of the transatlantic convergence in real wages that developed during the first wave of globalization was attributable to migration flows rather than trade flows (O'Rourke and Williamson 1999). The role of globalization in reducing international inequalities is further buttressed by the fact that little convergence occurred for countries that did not participate in international movements of goods and people in the late 19th century. This evidence notwithstanding, concerns about the consequences of migration for the wages of (some) native workers ultimately led major destination countries to adopt significant immigration restrictions, some of which have now been in place for over a century.

The geography of international migrations has changed considerably since the first wave of globalization with many changes in the identity of sending and receiving

countries. While most of the original destination countries continue to attract many migrants over a century later, European countries that were the sources of migrants in the nineteenth century are now major destination countries for migrants from Asia and Africa. Some South American countries have changed from net immigration to net emigration status. Nonetheless, incentives to move from poorer to richer countries remain at least as large as they were during the first wave of globalization. Indeed, by the late 20th century, workers in countries that did not participate in the first wave of globalization faced the strongest incentives to migrate. Yet, restrictions by national origin and skill along with the rise of humanitarian migration have changed both the size and composition of migration from the 19th century.

Limiting the role of international labor markets slows the improvement of both working conditions and some labor rights in developing countries. Migration in principle can raise the wage incomes of both migrants and the nonmigrants who remain behind. As we have seen, higher incomes are associated with superior labor conditions. Immigration barriers also slow the advance of key human rights emphasized by international organizations. By thwarting a mechanism for raising family incomes, immigration restrictions slow the decline of child labor in developing countries. By limiting the range of global employment choices, the barriers also make it difficult for individuals or groups to escape the effects of domestic discrimination. The forced labor associated with trafficking in human beings is also directly traceable to barriers to legal migration across national boundaries.

Contemporary policy discussions of migration are often framed by concerns over selective impacts of immigration on destination countries. While acknowledging the

wage gains for migrants, destination countries worry about consequences of immigration for domestic substitutes. Such policy discussions more or less ignore the (presumably positive) consequences of the same immigration for complementary factors of production. Nor do they appreciate a point developed later in this section: trade flows may deliver the same services (and consequences for domestic labor markets) that barriers to immigration seek to avoid.

Migration and Developing Countries

Different concerns emerge when the interests of source countries frame discussions of international migration. With one important qualification, international migration should produce benefits for sending countries such as India. Migrants who obtain jobs in destination countries normally earn higher wages. Emigration lowers labor supply in sending countries, which should raise the wages or improve the employment prospects of those left behind. More broadly, sending countries lose the output that emigrants would have been produced and the taxes they would have paid, but save the social expenditures that would have been made on the emigrants' behalf. From this perspective, developing countries may be least concerned with the emigration of unskilled workers, who produce relatively low output, provide little tax revenue, and use few public educational resources.

Source countries' concerns relate to the possibility of "brain drain." Skilled workers produce more output, pay more taxes, and use more public educational resources than unskilled workers. If skilled workers, responding rationally to economic incentives, emigrate with locally-funded skill investments, developing countries confront an aggravating form of the general training problem. They incur the cost of providing skills,

but international migration denies them a return on their investments in skills. Only in the past decade have scholars begun to understand the empirical dimensions of brain drain through the work of Carrington and Detragiache (1998) as improved and extended by Docquier and Marfouk (2006a) and Docquier, Lohest, and Marfouk (2006b). The basic idea is to compare the educational attainment of emigrants and the nonmigrating native population. Their analyses indicate that the most serious brain drain occurs in smaller Caribbean and Sub-Sahara African countries.

There are limits to brain drain concerns. In particular, there are three respects in which the counts of emigrants by educational attainment do not consider benefits that may offset the emigration of skilled workers. Emigrants may send significant remittances to family members in their native country. Some may eventually return to their country of origin with new skills developed during their work in other countries. Finally, the option of international migration may produce a “brain gain” to the extent that the prospect of migration leads residents of a source country, only some of whom will eventually migrate, to acquire more schooling than they would have if the prospect of international migration did not exist. The costs of skilled emigration to source countries may also be overstated: Many residents of less developed countries acquire at least some of their higher education abroad. Nonetheless, a key question for developing countries, particularly in an era in which a pro-skill bias is emerging in the immigration policies of important destination countries, is whether emigration produces net gains.

Applications to India

India provides an excellent laboratory for studying the effects of international migration on wages, nonmonetary working conditions, and general wellbeing in *source*

or sending countries. Emigration exceeded immigration by about 1.4 million people per year during the 1990s. (While large in relation to other countries, these annual net migration flows equal less than .2 percent of India's population.)

The main destinations for Indian emigrants are industrialized OECD countries and several oil-rich Middle East countries. Permanent or long-term emigrants are more likely to end up in the former countries and temporary migrants in the latter countries.

According to India's National Family health Survey, migrants to Middle Eastern countries tend to be young, married, unskilled and semiskilled males. Not only are these migrants likely to return to India after a temporary period of employment abroad, but their skill profile indicates that the danger of brain drain is elsewhere—with emigration to OECD countries.

Recent efforts to measure the extent of brain drain in fact work with data on the educational attainment of the foreign-born residents of OECD countries, which comprise the destinations of the vast majority of the world's immigrants.⁶ By a measure of *relative* brain drain, the number of emigrants with at least 13 years of schooling divided by the number of people in the source country labor force with that level of schooling, India is not one of the 30 countries experiencing the greatest brain drain during the 1990s (Docquier and Marfouk 2006). (In contrast, several of India's neighbors—Laos, Sri Lanka, Hong Kong and Vietnam—make the “top 30” list.) The relative brain-drain score for the top 30 countries ranges from 38 (Micronesia) to 89 (Grenada) percent. For India, the number of emigrants living in OECD countries with a tertiary education equaled 4.3 percent of the number in the Indian labor force with that level of education. As noted

⁶ Migration flows from India to Middle Eastern countries therefore do not figure in the estimates of brain drain published by the World Bank and academic sources.

above, large countries generally score low on the relative brain drain index.⁷ India scores in the top 30 countries in terms of the selectivity of its emigration—the proportion of Indian residents of OECD countries with a tertiary education. Unfortunately, these data do not identify the country in which the foreign residents of OECD countries were educated. We have no estimate of the extent to which India bore the costs of educating its highly-educated emigrants.

India does receive significant flows of remittances from its emigrants. At about \$10 billion per year at the turn of the new century, the annual remittances amounted to the highest in the world (World Bank, 2003, Chapt. 7) These amounted to about three percent of India's GDP, however, placing it well outside the top 20 countries (ranging from 37.3 percent (Tonga) to seven percent (Sri Lanka)). These figures include significant remittances from temporary migrants to Middle East destinations. For example, over 20 percent of the households in Kerala report having at least one member working abroad, and almost one-half of these households receive remittances from their emigrant household members. The experience of these households illustrates how the benefits of migration to sending countries may not be limited to labor market adjustments to reduced labor supply. Even if emigration has only small effects on working conditions at home, the Indian experience shows that the flow of remittances from emigrants facilitates household investments, land purchases, improved child nutrition and superior health care in the households of migrants from sending countries. The impact of remittances on household wellbeing appears to grow with the length of time that a

⁷ Of course, sheer size guarantees that large countries will score high when ranked by the total number of educated emigrants. By this measure, India ranks third, with 1.037 million emigrants living in OECD countries, following the United Kingdom and the Philippines.

migrant is abroad, consistent with the idea that initial remittances may be used to pay off prior loans for migrating and other purposes (Banerjee et al 2002).

India appears to raise few barriers of its own to immigration. When asked whether immigration laws in various countries prevented their company from employing foreign labor, business executives ranked Israel's laws as the most restrictive and Ireland's as the least restrictive among 61 countries. India was ranked as the 16th least restrictive (IMD 2006).

Destination countries that limit the flow of migrants from India and other developing countries seem unaware of the fact that trade and migration can substitute for each other. The outsourcing of certain service activities to India and some other Asian countries is viewed with great concern by politicians in some destination countries, but there seems to be little appreciation of the fact that the growth of outsourcing activities is a logical consequence of immigration restrictions in destination countries. Indeed, the outsourcing phenomenon illustrates the striking limitations of policies that erect barriers to the flow of some service workers. Trade in services becomes a substitute for the migration of service workers. As the growth of outsourcing in India illustrates, immigration barriers may influence where the work is done rather than who (which workers) does the work.

IV. Markets vs. Regulation: The Role of International Labor Standards

Experience during the two major waves of globalization clarifies the powerful influence that international product and labor markets can have on advancing labor conditions around the world. Since 1919, international organizations have also advanced a regulatory approach to advancing worldwide labor conditions—international labor

standards. Under the League of Nations and later the United Nations, the International Labor Organization (ILO) has provided an unusual tripartite forum in which representatives of organized labor, employers, and governments debate and formulate labor standards on a wide variety of topics. By March 2007, the ILO had passed 187 labor standards (“conventions” in the terminology of the ILO) ranging from the very general to the very particular.⁸ For the past ten years, however, the ILO and other international organizations have emphasized four “core” labor rights—freedom of association, nondiscrimination, abolition of forced labor and reduction of child labor. Each of these four rights is supported by two ILO labor standards. Some industrialized countries have proposed that countries that fail to adopt and enforce core labor standards should be subject to trade sanctions—a clear prejudgment that regulation trumps market forces as a mechanism for advancing world labor conditions. In contrast, India has been among the most vociferous of developing countries arguing that such proposals are thinly disguised efforts to interfere with the comparative advantage of low income countries.

A Case for International Labor Standards?

One must ask first why international regulation is desirable in an area that is already heavily regulated at the national level. The employment relationship is perhaps the most regulated of economic relationships in most countries. Few political systems resist demands for regulations that set standards for compensation, work hours, workplace health and safety, dismissal practices, collective bargaining and nondiscrimination and mitigate some labor market risks. Nevertheless, the actual content of national labor regulations varies widely around the world (Botero et al 2004).

⁸ Standards on hours of work, workers’ compensation, and forced labor provide examples of the former. Standards that focus on labor conditions in particular occupations and industries, such as seafarers dockworkers, fishermen, and agriculture provide examples of the latter.

Why should *international* labor standards trump the standards that countries choose for themselves? The main response to this question have been variants on race-to-the-bottom themes. Indeed, the preamble to the ILO charter itself states: “[T]he failure of any nation to adopt humane conditions of labour is an obstacle in the way of other nations which desire to improve the conditions in their own countries.” The idea seems to be that poor labor conditions are a source of competitive advantage in international markets: if one country legislates weak labor standards, others must do the same if they are to compete on a level international playing field. Thus, a key question is whether weak national labor regulations are associated with superior trade performance. Is a country’s trade volume or its trade policy stance related to its level of labor regulation, *ceteris paribus*?

In their analysis of national labor regulations, Botero et al (2004) studied how the strength of national labor regulations governing employment issues, collective bargaining, civil rights and social security varied with a country’s legal traditions, its political orientation, and the level of development. (In their formulation, employment laws pertain to the regulation of wages, hours, and job security; collective relations laws regulate the formation of unions, conduct of collective bargaining, and resolution of labor disputes; civil rights laws address issues of workplace discrimination; and social security laws establish eligibility and benefit levels for unemployment, disability and health insurance, pensions, etc.⁹)

⁹ The indices of national regulations, in which higher values represent stronger regulations, reflect the details of national statutes pertaining to these areas. The indices mainly reflect evaluations of the presence and extent of statutory coverage. In some cases, the indices seek to capture the costs imposed by national statutes of certain personnel actions, such as increasing work hours or dismissing workers. Details and data are in Botero et al (2004).

I have recently extended the analysis to consider whether national labor regulations are also related to a country's trade volume or its trade policy stance by adding measures of trade volumes and trade policies to the analysis of Botero et al. But if there is such a relationship, which way does it go? Countries with less labor regulation may have larger trade shares or be more likely to adopt open trade policies. Alternatively, exposure to international markets may lead governments to weaken labor regulations in an effort to gain international competitive advantage. To address the ambiguity, the relationship was estimated by both instrumental variables and ordinary least squares.¹⁰ Neither of the estimation methods finds significant relationships between the measures of openness and most varieties of labor regulation. The main exception is social security regulation, where countries with more open trade policies are less likely to have generous social security regulations. (There is no significant relationship between the social security index and trade volumes, however (Flanagan 2006, pp. 218-21).) With the possible exception of national social security regulations, unusually weak national labor regulations do not characterize countries with open trade policies or large trade volumes. Globalization does not appear to be associated with weaker national labor regulation.

The Record of International Labor Standards

The uneasy case for international regulation of labor standards notwithstanding, one may still ask whether the system of labor standards administered by the ILO for over 85 years has advanced working conditions and labor rights more effectively than the market forces discussed earlier in the paper. Proponents of international regulation

¹⁰ The instruments for the measures of openness are a country's area, distance from the capital city of major trading partners, and a dummy variable for whether the country is an island. The first-stage regressions explain 27 and 38 percent respectively of the variance in the trade share of GDP and the revised Sachs-Warner open policy dummy variable.

anticipate the following scenario: When individual countries ratify ILO labor standards, they commit to passing conforming national labor legislation and to enforcing that legislation to produce changes in working conditions and/or labor rights. This scenario predicts a positive correlation between the number of labor standards ratified by a country and the quality of its labor conditions. In fact, one can see such correlations in the data (Figures 3-5).

Each scatter diagram in Figure 3 shows the cross-country association between one of the indices of national regulation developed by Botero et al on the vertical axis and the total number of ILO labor standards ratified by a country on the horizontal axis. Both measures are for the mid-1990s. The number of ratified ILO labor standards varies widely among countries, but for each type of national labor regulations, countries that have ratified more ILO standards tend to have stronger national labor regulations. There is also considerable dispersion around the regression line for some types of labor regulation. The next two figures illustrate similar associations between the number of ratifications by a country and measures of that country's actual working conditions (Figure 4) and labor rights (Figure 5). Again, we see a tendency for superior labor conditions to be associated with more numerous ratifications, with considerable dispersion in actual experience. In short, the number of ILO labor standards ratified by a country provides noisy indicator of the strength of national labor regulations and the quality of labor conditions in that country.

The key question is how these scatter diagrams should be interpreted. As noted, proponents of international labor standards see adoption (ratification) of the standards as an *exogenous* influence on domestic regulations and labor conditions. But a key fact

about the ILO system is that the ratification of labor standards by member countries is *voluntary*, and as the scatter diagrams show, countries differ widely in their ratification choices. (India has ratified 38 ILO labor standards, including half of the core labor standards. It has ratified both conventions on forced labor and both conventions on equal opportunity. It has proposed but not yet acted on ratification of two core standards pertaining to child labor and the two standards pertaining to freedom of association.)

Under a regime of voluntary labor standards, a very different scenario can produce the observed correlation between the number of standards ratified and a country's labor regulations and labor conditions. Bringing national labor regulations into conformity with international standards requires costly domestic political action. Why would a country's political leaders incur these costs when there are negligible costs to nonratification of ILO standards? Thinking along these lines leads to a different interpretation of the scatter diagrams: Countries only ratify international labor standards that they have already met or exceeded. National labor conditions drive ratification activity rather than the other way around, and ratification becomes an *endogenous* act that does not signify any alteration in national labor conditions.

Which scenario is correct? The answer to this question has enormous consequences for the role of a system of international labor standards. If ratifications are exogenous, labor standards are one of several factors determining labor conditions. If endogenous, ratifications are symbolic acts reflecting pre-existing labor conditions. In an earlier country panel study of the joint determination of labor standards and labor conditions, I found support for the endogenous labor standards interpretation. Using instrumental variables analysis, I found that labor conditions were significantly

associated with the number of ILO labor standards ratified by a country, but the number of ratifications were not significantly associated with various labor conditions (Flanagan 2003).

Several other findings of this and related studies are pertinent to the debate over labor standards. For example, using fixed effects estimation, I have found no statistically significant relationship between the number of core or noncore labor standards ratified by a country and its labor costs in manufacturing. (Cross-country differences in real wages are almost completely explained by cross-country differences in labor productivity.) In other words, there is no empirical support for the notion that countries acquire manufacturing cost advantages in international competition by failing to ratify ILO labor standards. Likewise, cross-country and fixed effects estimation finds no significant relationship between the number of core or noncore standards ratified by a country and its export performance (measured by the ratio of exports to GDP) or its share of world FDI (Flanagan 2003). In short, there is no empirical support for the view that countries with poor labor conditions acquire competitive advantage in international product and capital markets. The most probable reason for this result is that poor labor conditions signal low productivity, which cancels any potential competitive advantage from low pay.

Combining the evidence in Section II that countries with open trade policies have superior working conditions and labor rights with the absence of evidence that the system of international labor standards has advanced labor conditions shows that proposals to imposed trade sanctions on countries that fail to adopt ILO labor standards may be doubly flawed. The proposals would substitute a policy (trade sanctions) that is likely to degrade labor conditions through negative impacts on a target country's per capita

income in order to induce compliance with labor standards that are not demonstrably effective in improving labor conditions!

Mandatory International Labor Standards?

Some proponents of a system of international labor standards acknowledge the ineffectiveness of the ILO program to date and blame the failures on the regime of voluntary compliance. They propose instead an enforceable system of mandatory international labor standards. How should one think about and project the effects of a mandatory system of international standards? The most productive approach is to consider the effects of national labor regulations on labor conditions in individual countries. After all, to take effect, international labor standards must induce changes in national labor regulations.

Domestic regulations are not benign. It is clear from the many studies of the impact of national labor regulations in both industrialized and developing countries that they can have real effects on efficiency and distribution. Not all of these consequences are intended. Most unintended consequences of labor regulations flow from efforts to escape regulatory costs, much like the adjustments that individuals and organizations make to avoid taxes.

The consequences of labor regulations have been widely studied in industrialized countries and are increasingly well-documented for some developing countries.

Regulations that raise wages or other variable employment costs create incentives to reduce employment. Those who lose or fail to acquire jobs face inferior outcomes of unemployment, labor force withdrawal or (of particular importance in developing countries) employment in the unregulated informal sector. Employers may try to shift

regulatory costs to workers by paying lower wages. The impact of such regulations in developing countries has been analyzed most carefully in several Latin American countries. Studies of the Latin American experience find considerable evidence of *partial* shifting of regulatory costs onto workers, so some disemployment occurs in the formal sector. In summarizing the results of several Latin American country studies on micro data, Heckman and Pages (2004, p. 43) conclude: “Payroll taxation tends to reduce employment and increase unemployment rates across samples and specifications.” Minimum wage increases are also associated with significant employment losses in Latin American countries.

Patterns of gainers and losers also emerge in the wake of strong employment protection regulations. Designed to discourage dismissals by requiring severance payments and advance notice, these regulations breed a reluctance to hire among employers. Both exit flows from and entrance flows into employment decline. Total employment may change little, but unemployment durations grow as it becomes increasingly difficult for the unemployed to get hired. Some regulations exempt part-time and temporary workers, creating an incentive for employers to give preference to exempt workers over covered workers. Such rules simply redistribute job opportunities from covered to uncovered workers.

At a macro level, Botero et al (2004) find that countries with stronger legal protection of labor have more employment in the informal sectors, lower male labor force participation rates, higher youth unemployment rates, and a higher overall unemployment rate. In my own work, I have found that after accounting for the effects of a country’s per capital income, indices of the strength of national labor regulations are not significantly

related to the measures of labor conditions used in this paper (Flanagan 2006, Chapter 7). That is, any improvements in the labor conditions of some workers are countered by deterioration in the labor conditions of other workers.

In short, proposals for a mandatory system of international labor standards must explain how that system would benefit workers generally, when national regulatory systems are unable to do so. Conclusions drawn by Heckman and Pages from the studies of Latin American countries seem more likely:

“The evidence assembled in this volume suggests that labor market regulations are an inequality-increasing mechanism, because some workers benefit while many others are hurt.... Insiders and entrenched workers gain from regulations, but outsiders suffer. As a consequence, job security regulations promote inequality among demographic groups.... The benefits of programs funded with mandatory payroll contributions should be weighed against their costs in terms of employment.... Regulation acts unevenly across different groups in society. Young, uneducated, and rural workers are much less likely to enjoy coverage than older, skilled and urban workers.” (Heckman and Pages 2004, pp. 2, 85)

In a world in which it is difficult to improve labor conditions generally without first raising labor’s productivity, there is a danger that politically driven methods of setting standards and assessing compliance by countries will produce patterns of international gainers and losers rather than a general improvement in labor conditions.

In summary, the case for mandatory international labor standards cannot rest on either the past achievements of the systems of international labor standards or the

effectiveness of national regulations in improving the labor conditions of workers generally. The evidence indicates that such regulations produce net costs and selective redistributions.

V. Concluding Comments

During the final decades of the 20th century, a broad improvement in working conditions and labor rights around the world accompanied a significant expansion of international trade. Some of the improvement would have occurred anyway to the extent that countries advanced their per capita income without the larger trade flows. But to the extent that trade itself raises per capita income, it advances both working conditions and labor rights. In addition, econometric evidence from cross-country and panel data indicates that open trade policies have a further direct effect in advancing some labor rights. The improvements in labor conditions during the globalization of the late 20th century are consistent with the general predictions of international trade theories. Indeed, the data rather decisively reject race-to-the-bottom scenarios that are advanced in some modern globalization debates.

The organizers of this conference are leaving it to the discussants of each paper to comment on the applicability of general findings to India and similarly situated developing countries. Given the decidedly mixed pattern of recent changes in labor conditions in India recorded in Table 2, some assessment of the likely impact of trade liberalization for working conditions and labor rights in India would be valuable. In particular, what labor market adjustments are currently under way? Are they likely to register as changes in the general measures of labor conditions used in cross-country studies?

International migration had much less influence on labor conditions recently than in the late 19th century because of the restrictive immigration policies of industrialized countries. Yet significant flows of both permanent and temporary migrants out of India raise the following questions: To what extent would India benefit from a reduction in migration barriers? To what extent does temporary migration and the substitution of trade in services for long-term migration eliminate the consequences of foreign immigration barriers for Indian workers? What is the evidence on the effect of emigration on the labor market conditions of workers who do not emigrate from India?

How can one sort through the flow of policy proposals for improving labor conditions? A simple first principle of policy choice is to favor policies that expand the opportunities of target groups over policies that contract those opportunities. The evidence reviewed in this paper indicates that trade liberalization policies fare very well by this seemingly obvious criterion. In contrast, many specific policies or policy proposals by some industrialized countries fail this simple test. Consumer boycotts and legal barriers to imports made with voluntary child labor provide one example. By reducing opportunities, these policies reduce the choices available to children, often forcing them into less desirable alternatives.

A system of mandatory international labor standards also does not fit comfortably with this criterion. Regulating labor standards does not by itself create more opportunity. Indeed, evidence reviewed in this paper indicates that the ILO system of labor standards has had a benign impact on working conditions and labor rights around the world. The standards do not instigate changes in national policies. Instead, countries tend to ratify those international standards that they have already met. Proposals to use trade sanctions

against countries that do not adopt key international labor standards flout the criterion in two ways. They would use a policy (trade sanctions) that restricts opportunities to impose a policy that by itself does not create opportunity. There is the additional concern of many developing countries that sanctions would be used to implement standards that counter their comparative advantage. Would the trade sanction proposal be as popular among industrialized countries if developing countries had the primary role in formulating standards?

The doubts expressed about the potential role of international labor standards are not a criticism of all policies targeted on specific labor conditions. After all, economic growth and the forces of globalization account for only a portion of the international variance in labor conditions. Targeted policies that expand the opportunities of target groups merit serious consideration. Various types of school attendance subsidies for children and rural credit institutions that permit families to borrow in the face of a bad harvest (rather than put children to work) provide examples, as does the development of credit union institutions that may reduce the need to accept bondage arrangements. It would be instructive to learn more about the scope for targeted incentive policies to improve labor conditions in modern India. Efforts to advance worldwide labor conditions should not seek to restrict the forces of globalization but rather to supplement them with targeted incentive policies that expand the opportunities of workers around the world.

Appendix A

The Measurement of Labor Conditions

The analyses in this paper consider three dimensions of working conditions—pay, hours of work, and job safety—and four dimensions of labor rights—child labor, employment discrimination, freedom of association, and forced labor. This appendix discusses the concepts, measures and data sources used for each of these labor conditions in this paper. For a more extensive discussion of the measurement choices, see Flanagan (2006, Appendix A).

Pay. Pay consists of five year averages (1980-84 and 1995-99) of annual compensation per worker in manufacturing developed by the United Nations Industrial Development Organization and reported by the World Bank (2001a). This measure “includes all payments in cash or in kind made to ‘employees’ during the reference year in relation to work done for the establishment. Payments include: (a) direct wages and salaries; (b) remuneration for time not worked; (c) bonuses and gratuities; (d) housing allowances and family allowances paid directly by the employer, and (e) payments in kind” plus all contributions by employers to social security programs on behalf of their employees (UNIDO 2002, p. 10). The compensation data are from surveys of relatively large establishments in the formal sector and "are converted into U.S. dollars using the average exchange rate for each year.” (World Bank 2001, Table 2.4). The effectiveness in capturing some elements of compensation may vary from country to country. The fixed-effects estimates discussed in the paper should difference out persistent differences in measurement between countries.

Hours of work. Efforts to develop consistent hours of work data for a large sample of countries encounter significant international differences in reporting practice, driven in part by whether statistical agencies collect work hours information from households, business establishments, or social insurance records. This paper considers three measures of long work hours: The proportion of employees who usually work more than 40 hours a week (ILO 2003); annual work hours for all employees (ILO 2003); and weekly hours of work in manufacturing (<http://laborsta.ilo.org/>).

Job safety. Risky workplace environments vary significantly by industry, and risky behavior varies with age. Ideal comparisons of on-the-job risk between countries would remove the effects of different industrial compositions and demographic structures, but such measures are rare. This paper uses a measure of *fatal* on-the-job injuries. Injury frequency rates rarely capture the effects of occupational diseases, and the actual definition and measurement of an injury rate varies widely among countries—far more than for indicators of other working conditions. This study adjusts reported country data on fatal work injuries to a common measure—the annual number of fatal industrial accidents per 100,000 employees—and reduces distortions introduced by different national industrial structures by reporting data for the manufacturing sector only. (Data limitations prevent the use of gender-specific accident rates.) For most years, data on fatal accidents exist for only about three-dozen countries, reported irregularly during 1970-2000. The sample for fatal accidents includes countries representing a reasonably wide range of economic development, however: Per capita GDP for the countries reporting data on fatal accidents ranges from \$606 (Tanzania) to \$ 21,335 (United States) in 1980 and from \$ 870 (Togo) to \$ 33,293 (United States) in 2000. *Nonfatal* industrial

accidents are a more common workplace hazard, but reliable data on nonfatal accidents is too sparse for reliable analysis. For data on injury rates, see <http://laborsta.ilo.org/>.

Official national statistical systems are more likely to capture information on working conditions than labor rights. It has been left to social scientists to devise and implement measures of freedom of association, nondiscrimination, and forced labor. (Many countries do collect information on the labor force participation rates of children, however.) One consequence of this division of labor is that while indicators of labor rights now exist for a substantial cross-section of countries, most are not available for multiple years.

Child labor. No count of child labor will be complete, but some are more convincing than others. This paper uses ILO data from national household surveys on the labor force participation rate for 10 to 14 year old workers.¹¹ (School enrollment rates can provide some indirect indication of working children, but surveys in developing countries show that child labor is not the inverse of school enrollment (Bhalotra 2003, Edmonds 2003). Some working children also attend school; not all children who do not attend school are working.) The fixed effects estimates reported in the paper control for the effects of errors in reporting that are fixed over time.

Employment discrimination. Of the four core labor rights targeted by international organizations, nondiscrimination in employment is the most controversial to measure. The fact that not all group differences in wage and employment outcomes signal

¹¹ These estimates from the LABORSTA database of the International Labor Organization underestimate worldwide child labor. When the legal working age is 15 years or older, a country's labor force survey may not collect labor force information on younger children, raising the question of whether increases in the number of countries reporting a child participation rate of zero reflect labor market developments or changes in labor law. Where child labor prohibitions exist, work by children may also be under-reported to a statistical authority, even when there is some effort to collect the data. Following international statistical conventions, the data also exclude unpaid household work. Other analysts raise concerns about the consistency of the data over time.

discrimination presents a key difficulty. In well-functioning labor markets, differences in personal qualifications and in other working conditions will produce differences in hiring, pay, and other personnel actions. Much research on labor market discrimination over the past three decades has addressed the problem of parsing the effects of worker qualifications from discrimination in personnel outcomes. Since not all qualifications can necessarily be observed or measured, some imprecision in purported measurements of discrimination always remains after adjustment for the effects of observable qualifications on outcomes. The need for a measure that is available on a reasonably comparable basis for many countries magnifies these difficulties.

This book uses a measure of the pay differences between men and women *net of* observable differences in qualifications as the indicator of discrimination. Pay gaps offer the advantage of summarizing the ultimate effect of a variety of discriminatory personnel practices on two groups. Discrimination in job assignment and promotion will ultimately show up as pay differences, as will the payment of unequal wages for equal work. The focus on gender provides a benchmark for discrimination that is available for many countries in the world.

The measure is the percentage difference between male and female wages that remains *after* adjustments for gender differences in schooling, experience, and other performance-related variables. The data come from a meta-analysis of 263 published papers measuring gender pay differentials in various years from the 1960s through the 1990s in 63 countries from all regions of the world (Weichselbaumer and Winter-Ebmer 2003). Since many papers provide estimates for different populations or time periods, the meta-analysis uses 788 separate estimates of the gender differential. With so many

authors approaching the measurement of gender pay differences with different data sets, different econometric techniques, different control variables, etc., the authors conduct a meta-analysis to put the studies on a common footing in order to develop comparable estimates of the “net” gender differential for different countries. The meta-analysis generated estimates of net gender wage differences for each of the countries, after controlling for year and characteristics of the study. These estimated country effects constitute the measures of discrimination used in this study. Only one observation per country is available—dated here as 1985, about the middle of the period covered by the studies in the meta-analysis.

Freedom of association. Measuring freedom of association rights at the workplace presents a challenge, since there can be differences between the *de jure* rights that national laws provide and the *de facto* rights that a country actually honors and enforces. This paper uses two indices of freedom of association, each of which evaluates both *de jure* and *de facto* rights. In other respects the indices have different strengths and weaknesses. The first index does not exclusively target rights at the workplace, but is available from 1972. The second index targets workplace rights, but is only available for the mid-1990s.

A broad measure of civil liberties developed by Freedom House (FH) provides the a measure of freedom of association rights (<http://www.freedomhouse.org/>) that is available since 1972. The FH index, which evaluates actual practice rather than constitutional guarantees, ranges from 1 to 7 with a score of 1 indicating the strongest liberties. Freedom House uses press reports, publications by nongovernmental organizations, academic analyses and country visits to evaluate the presence of freedom

of choice of employment, equality of opportunity, gender equality, free trade unions and effective collective bargaining using. To the extent that workplace and nonworkplace liberties are positively correlated, it provides a widely available index of broad trends in workplace liberties. In 2000, the Netherlands, the United States and the Scandinavian countries all received a score of 1, indicating the strongest civil liberties, while France, Italy and Spain received scores of 2. Countries with the weakest civil liberties rating (7) included Afghanistan, Iraq, Saudi Arabia, and Syria. China, Iran, and Rwanda were among the countries receiving a slightly better score (6).

A more workplace-oriented index of freedom of association and collective bargaining rights (FACB hereafter) reflects an evaluation of 37 potential interferences with rights to form and operate unions, bargain collectively, and strike. Interferences include violence, arrest or imprisonment of union members or organizers, exclusion of sectors or worker groups from union membership, restrictions on scope of collective bargaining, strike prohibitions, and restricted rights in EPZs. Each interference receives a score of 1 if present and 0 otherwise and also receives a subjective importance weight (1, 1.25, 1.5, 1.75, or 2). The weighted scores are summed to a raw score for each country, and after rescaling, each country's FACB score ranges from 0 to 10 with low numbers reflecting superior workplace freedom of association rights. The FACB index therefore reflects both the number of rights restricted in the country and the subjective weighting of each right. Removing the subjective weights has little impact on the ranking of countries. (See Kucera (2002) for further details.) While the Freedom House measures of civil liberties and FACB overlap—correlation coefficient between the two indices was .56 in

the mid-1990s for the 104 countries with data on each index—the workplace focus of the latter produces a different list of countries at the extremes.

Forced labor. National statistical systems provide no reliable estimates of the extent of forced labor. Given its criminal status in most countries, those who practice slavery are reluctant to report it, and most governments are embarrassed to acknowledge its presence. Official national estimates are prone to understatement, while some estimates by nongovernmental organizations (NGOs) anxious to publicize and dramatize the problem may err in the other direction. In the face of these difficulties, two quite different estimates of the extent of forced labor have emerged in recent years.

One study estimates 27 million slaves worldwide in the late 1990s and provides tentative country-by-country *estimates of slavery* with many caveats (Bales 2000, 2004a, 2004b). Bales defines slavery as “a social and economic relationship in which a person is controlled through violence or its threat, paid nothing, and economically exploited.” His estimates result from weighing qualitative and quantitative information from a variety of sources, including the reports of national governments and their agencies, reports and particularly the sessions that precede them at the International Labor Organization, reports and analyses by NGOs, such as Anti-Slavery International and Human Rights Watch, and press reports. In developing low and high estimates of the number of slaves in each country, he considered the possible biases of different sources and asked country-level experts to critique his “very rough if informed” estimates. The SLAVERY variable used in this paper is the mid-point of his published range for each country.

More recently, the ILO published a much lower estimate of 12.3 million victims of forced labor worldwide based on double-sampling of reports between 1995 and 2004

(ILO 2005).¹² For the ILO, forced labor occurs when work is performed involuntarily and is compelled by menace or the credible threat of a penalty for nonperformance. The ILO provides no estimates by country and stresses that there are many reasons to interpret their aggregate figure as a minimum estimate. The absence of country estimates precluded using the ILO data in the analyses in this paper

A count of the number of *varieties of forced labor* found in a country, as indicated in qualitative reports by the U.S. Department of State and human rights organizations, is the second indicator of the extent of forced labor in a country used in this paper. Ranging from 0 to 8, this variable is available only for the late 1990s (Busse and Braun (2003)). There are separate indicator variables for the four most important types of forced labor (slavery and abduction, coercive recruiting, bonded labor, and prison labor) and for all eight varieties. Clearly, these data provide only rough approximations.

Controls for institutions. The regressions that assess the relationship between labor conditions and measures of each country's openness to international trade include controls for per capita income and economic, social, and political institutions. The institutional variables include indexes of the rule of law and the risk of expropriation (published by the International Country Risk Guide), measures of ethnic diversity and religious diversity (Alesina et al 2003), and a measure of democracy constructed from the Freedom House indexes of civil liberty and political liberty. For details, see Flanagan (2006), Appendix A.

¹² In the double-sampling or capture-recapture method of estimation, two teams of researchers worked independently to produce two independent lists of validated reports of forced labor cases using a variety of ILO and non-ILO sources. "A validated reported case of forced labour was defined as a piece of information on a page or a screen of an original source containing the following four elements: an activity recognized as a form of forced labour ...; a numerical figure indicating the number of identified or identifiable persons involved; a geographical area where the activity is reported to have taken place; and a corresponding date or time interval falling within the period 1995–2004."

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Figure 1. Working conditions in open and closed Economies, 1993.

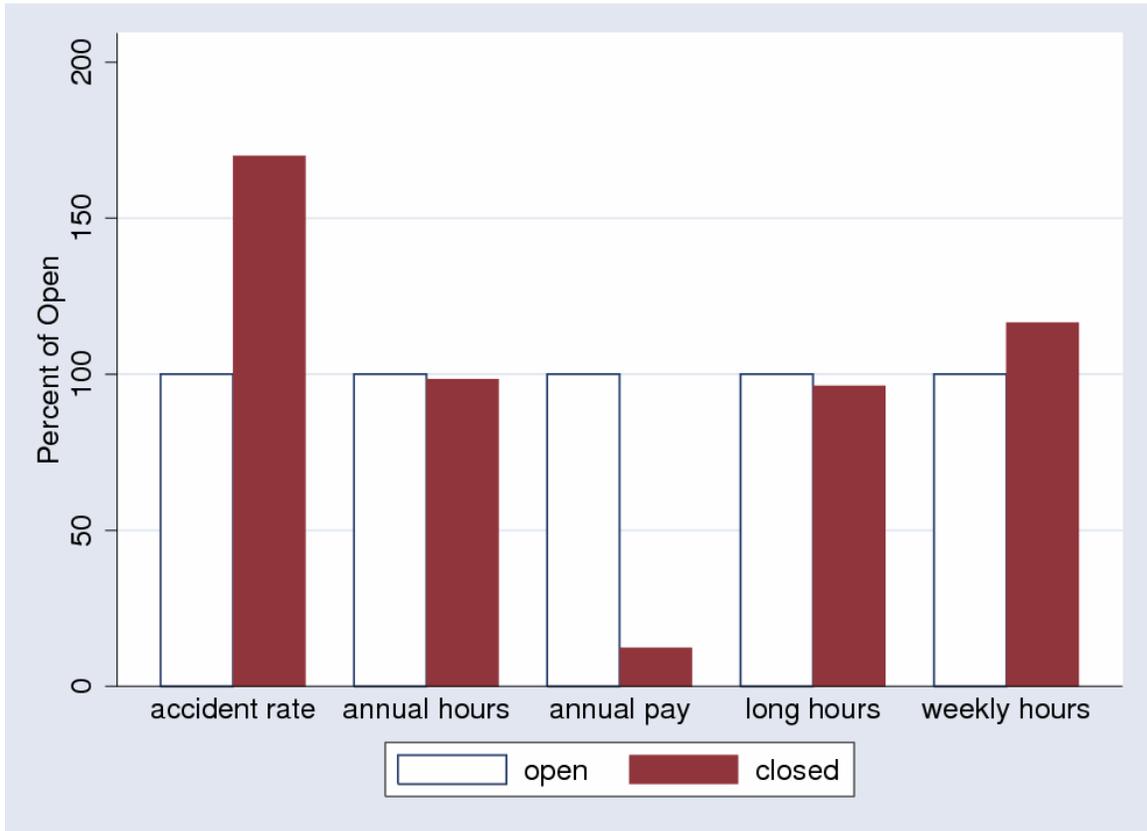


Figure 2. Labor rights in open and closed economies, 1995

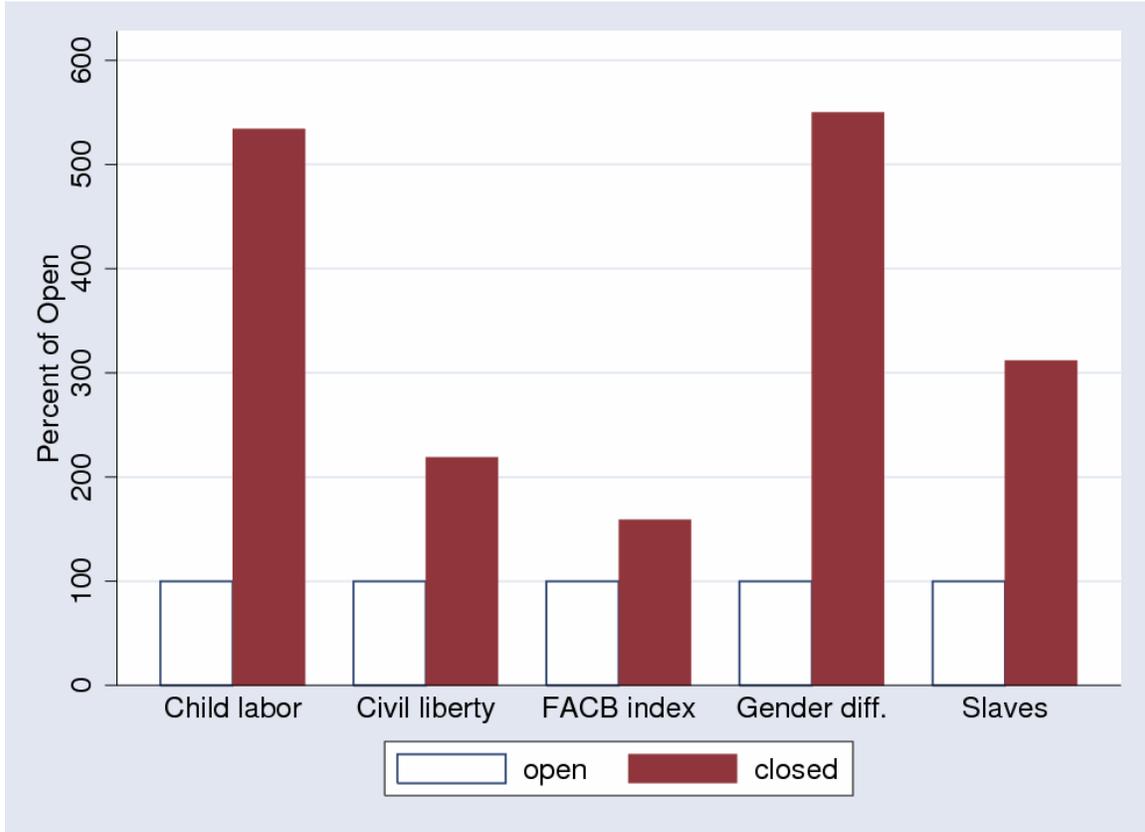


Figure 3. National Labor Regulations and International Labor Standards, 1995

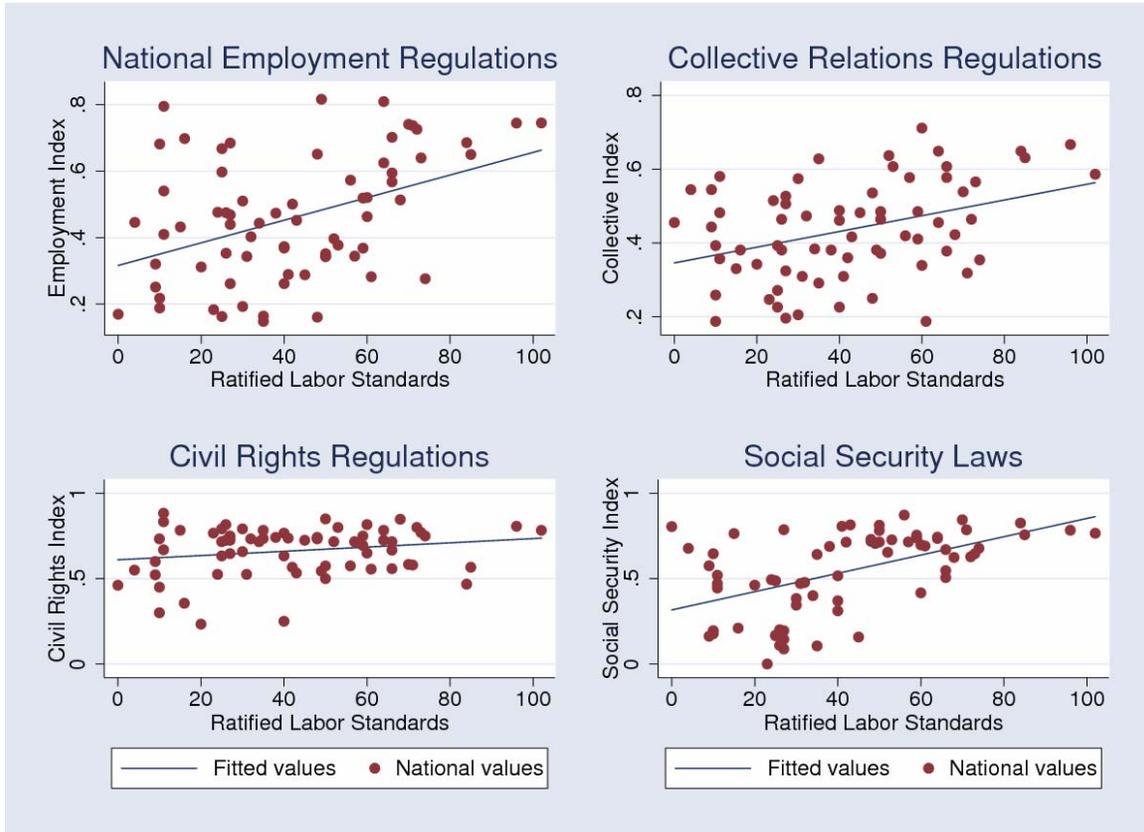


Figure 4. Working Conditions and International Labor Standards, 1995



Figure 5. Labor Rights and Labor Conditions, 1995

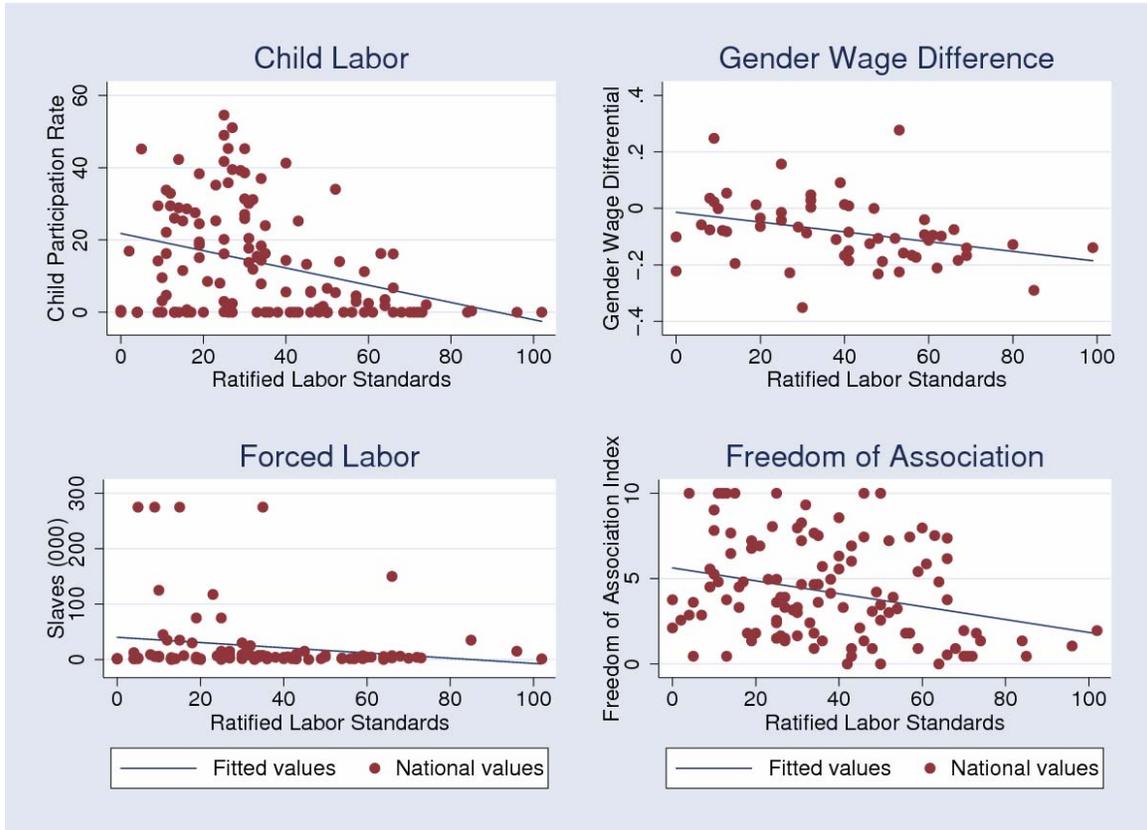


Table 1. Openness and Labor Rights

<u>Labor Right</u>	<u>Openness Measure</u>	<u>Cross-country Instrumental Var.</u>	<u>Panel Fixed Effects</u>
Civil liberties	Trade Share	n.s.	n.s.
	Open Policy	- ***	- *
FACB index	Trade Share	n.s.	n.a.
	Open Policy	n.s.	n.a.
Discrimination	Trade Share	n.s.	n.a.
	Open Policy	+ *	n.a.
Child labor#	Trade Share	n.a.	- *
	Open Policy	n.a.	- *
Slavery	Trade Share	n.s.	n.a.
	Open Policy	n.s.	n.a.

Note: Each result is from a different regression in which the other independent variables are per capita income and measures of the rule of law, risk of expropriation, democracy, ethnic diversity and religious diversity.

n.a. not available

n.s. not significant

* p-value < .01

** p-value < .05

*** p-value < .10

Tobit

estimates

Source: Flanagan (2006), p. 212

Table 2. Working Conditions and Labor Rights, India 1970 - 2000

<u>Working conditions</u>	1970	1980	1990	1995	2000	Change	
						1980 - 90	1990-2000
Weekly work hours	47.3	n.a.	46.4	46.5	46.5	n.a.	0
Fatal job accidents (A)	14	14	20	n.a.	n.a.	6	n.a.
(B)	n.a.	n.a.	32	40	31	n.a.	-1
Life expectancy	47.5	53.7	59.1	61.4	62.8	5.4	3.7
<u>Labor rights</u>							
Civil liberties	3	2.66	3.33	4	3	.67	-.33
Child labor force participation rate	25.5	21.4	16.7	14.4	5.3	-4.7	-11.4

Note: Except for life expectancy, lower values signify superior outcomes. See Appendix A for details on Sources and measurement.

Fatal job accidents (A): ILO data. (B) India labor inspectorate data.

n.a. not available

Table 3. Indicators of Openness, India
(percent)

<u>Year</u>	<u>Import Duty Rates^a</u>	<u>Peak Customs Duty</u>	<u>Percent of GDP</u>	
			<u>Exports</u>	<u>Imports</u>
1991-92	72.5	150	9	9
1995-96	25.9	50	11	12
2000-01	35.7	38.5	13	14
2002-03	29.0	30.8	15	16

^a Weighted average, all
commodities

Sources: Ahluwalia (2002, p.68); World Bank, World Development Indicators (Online).