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**Labor Clauses in Regional Trade Agreements and Effects on Labor Conditions: An Empirical Analysis**

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**Abstract**

An increasing number of bilateral or plurilateral trade agreements (or regional trade agreements: RTAs) include “labor clauses” that require or urge the signatory countries to commit to maintaining a certain level of labor standards. This paper performs an empirical analysis of the impacts of such labor clauses provided in RTAs on working conditions that laborers in the RTA signatory countries actually face, using macro-level data for a wide variety of countries. The paper first examines the texts of labor provisions in more than 220 effective RTAs and (re-)classifies “RTAs with labor clauses” according to two criteria: (i) the agreement urges or expects the signatory countries to harmonize their domestic labor standards with internationally recognized standards, and (ii) the agreement stipulates the procedures for consultations and/or dispute settlement on labor-condition issues between the signatory countries. Based on this labor-clause RTA classification, the paper estimates the impacts of RTA labor clauses on working conditions in countries with two empirical specifications using the sample covering 136 countries or economies and years from 1995 through 2011. The estimation is extended to take into account possible lags in the labor-condition effects of labor clauses as well as to consider potential difference in the impacts for countries in different income levels. The empirical results for the four measures of labor conditions (mean monthly real earnings, mean weekly work hours per employee, fatal occupational injury rate, and the number of the ILO’s Core Conventions ratified) find no evidence for possible pro-labor-condition effects of RTA labor clauses overall, which should be consistent with the view of economics literature that questions the relevance of linking trade policy with issues in the domestic labor standards.

**Keywords:** International trade, Regional trade agreements, Labor standards, Labor clauses

**JEL classification:** F13, F14, F16, F66, J81, J88

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# Labor Clauses in Regional Trade Agreements and Effects on Labor Conditions: An Empirical Analysis\*

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## Abstract

An increasing number of bilateral or plurilateral trade agreements (or regional trade agreements: RTAs) include “labor clauses” that require or urge the signatory countries to commit to maintaining a certain level of labor standards. This paper performs an empirical analysis of the impacts of such labor clauses provided in RTAs on working conditions that laborers in the RTA signatory countries actually face, using macro-level data for a wide variety of countries. The paper first examines the texts of labor provisions in more than 220 effective RTAs and (re-)classifies “RTAs with labor clauses” according to two criteria: (i) the agreement urges or expects the signatory countries to harmonize their domestic labor standards with internationally recognized standards, and (ii) the agreement stipulates the procedures for consultations and/or dispute settlement on labor-condition issues between the signatory countries. Based on this labor-clause RTA classification, the paper estimates the impacts of RTA labor clauses on working conditions in countries with two empirical specifications using the sample covering 136 countries or economies and years from 1995 through 2011. The estimation is extended to take into account possible lags in the labor-condition effects of labor clauses as well as to consider potential difference in the impacts for countries in different income levels. The empirical results for the four measures of labor conditions (mean monthly real earnings, mean weekly work hours per employee, fatal occupational injury rate, and the number of the ILO’s Core Conventions ratified) find no evidence for possible pro-labor-condition effects of RTA labor clauses overall, which should be consistent with the view of economics literature that questions the relevance of linking trade policy with issues in the domestic labor standards.

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## **1. Introduction**

Trade agreements have traditionally dealt with international trade in goods. Trade agreements today, however, cover a much wider variety of topics and issues. Multilateral agreements under the system of the World Trade Organization (WTO) covers the topics of service trade, (trade-related) intellectual properties, (trade-related) investment measures, and so on, in contrast to the former General Agreement on Tariffs and Trade (GATT) covered the topics on merchandise trade only. The situation is the same for bilateral or plurilateral trade agreements—or regional trade agreements or RTAs following the naming by the WTO. Traditional RTAs (typical free trade agreements or FTAs) have been for freer trade in goods between countries, while more recent RTAs aim for liberalization of a wider variety of economic activities including service trade and investment, which are also called economic partnership agreements or EPAs.

At the same time, an increasing number of recent RTAs deal with non-commercial policy issues, especially social issues such as environment and labor. Some of those RTAs include “labor clauses,” i.e., provisions urging or encouraging the signatory countries to commit to maintaining a certain level of labor standards. Indeed, raising labor and/or other social issues in trade negotiations is not a new phenomenon: the Havana Charter in 1948 of the failed-to-exist International Trade Organization (ITO) had a labor provision that urged its member countries to eliminate “unfair labor conditions” from a concern about “social dumping”—meaning to take advantage of (“unfairly”) low or poor labor and/or environment standards for trade competitiveness. Since then, however, the multilateral trade agreement under the GATT/WTO system has refrained from including labor provisions despite repeated proposal from some developed countries such as the United States and Europe. On the other hand, the recent trend of the inclusion of labor provisions in RTAs, especially among some developed countries, should be, at least partially, from response to concerns about potential

negative impacts of globalization among the public in those countries. Such concerns may be raised from the protectionist motive of manufactures in those countries that are facing keener import competitions with emerging-economy exporters (protectionist motives); concerns may also be from the social motives of the public (e.g., movements against sweatshop practices involved in the business activities of some multilateral enterprises).

Are labor clauses in RTAs effective to maintain or improve labor standards in trading partners? On the one hand, some parties in the international society, including the International Labor Organization (ILO) that has recently been expressing a significant interest in labor provisions in trade agreements, seem to expect that sanction through trade-policy measures is effective to have low-standard countries to improve their labor conditions. On the other hand, a number of countries, especially the developing, are concerned about the (ab)uses of such labor provisions by developed-country trading partners from their protectionist motives. Whether or not labor provisions in RTAs are effective for better labor conditions in countries, therefore, should be an important question from both academic and policy-practice perspectives.

The current paper, which is built on my own previous work (Kamata, 2014), is a unique study that attempts to provide an empirical answer to this question using a set of macro-level data on RTA labor clauses and labor conditions for various countries. This paper first reviews the labor-provision classification of 223 RTAs in force proposed in the author's previous study by reexamining the texts of those RTAs and re-defines "RTAs with labor clauses" according to the following two criteria: (i) the agreement urges or expects the signatory countries to harmonize their domestic labor standards with internationally recognized standards, and (ii) the agreement stipulates the procedures for consultations and/or dispute settlement on labor-condition issues between the signatory countries. Based on this refined classification of RTAs with and without labor clauses, the paper estimates the impacts of RTA labor clauses on the

domestic working conditions in trading countries. The paper employs two empirical specifications: one is to measure the significance of labor-clause-inclusive RTAs for each country by the aggregate share of the partners of labor-clause-inclusive RTAs in that country's manufacturing trade, and the other is to focus on the impacts of the first labor-clause-inclusive RTA and the importance of the partner(s) of the RTA as an export partner for each country. The estimation is performed using data for 136 countries or economies for the period between 1995 and 2011, taking into account possible time length for domestic labor conditions to be adjusted complying labor clauses in RTAs. The estimation is also extended to consider potential difference in the impacts across countries in different income levels.

The empirical results find no evidence for possible pro-labor-condition effects of RTA labor clauses overall: the results show that for any of the four labor-condition measures (mean monthly earnings, mean weekly work hours per employee, fatal occupational injury rate, and the number of the ILO's core conventions ratified), almost none of the coefficient estimates on the indexes of labor-clause-inclusive RTAs is significant. This result should be consistent with the view of a number of economists that questions the relevance (or advocate the irrelevance) of linking trade policy with issues in the domestic labor standards. One should also note, however, some limitations in the current approach for the analysis mainly due to the nature and constraint of the data, which are desired to be addressed through an extension of the study. .

The rest of the paper is organized as follows. The following Section 2 presents a brief literature review on the topics of trade and labor standards and of trade agreement/policy and labor standards. Section 3 proposes a (refined) classification of RTA labor clauses through detailed reviews of the currently effective RTAs. Section 4 describes the specifications, data, and results of the empirical analysis, and Section 5 concludes the paper with discussion on limitations in the current approach for the analysis.

## **2. Trade and Labor Standards: A Brief Literature Review**

The issues of the impacts of trade (or more broadly, globalization including FDI) on labor conditions or of the effects of labor standards on trade are not new as research topics, and there exist a number of studies that have investigated these topics. In this section I provide a very brief review of the literature focusing attention on what have and have not been confirmed to date. My previous paper (Kamata, 2014) presents a more detailed literature review on this theme, and there are also other recent studies with a comprehensive survey of the literature such as Brown, Deardorff, & Stern (2011) and Samy & Dehejia (2007). I thus leave more extended literature reviews to these papers.

### **2.1. What Are “Labor Standards”?**

The concept of “labor standards” includes standards for various kinds of labor conditions. The most frequently referred to are the ones so called “internationally recognized core labor standards” (or often more simply “core labor standards”). The International Labour Organization (ILO) declares the following four core labor standards: (i) freedom of association and collective bargaining, (ii) elimination of forced labor, (iii) elimination of child labor, and (iv) elimination of discrimination in respect of employment and occupation. In some cases labor standards that are understood to be basic go beyond these four “core labor standards” by including “decent work”—with acceptable working conditions on wages, hours of work, and occupational safety and health in addition to the four “core” categories. Many pieces of literature primarily consider the “core labor standards,” while some extends the scope to other labor conditions such as those included in the “decent work.”

## **2.2. Effects of Labor Standards on Trade**

Countries would have an incentive to taking advantage of low or lowered labor standards to gain competitiveness for trade in a globalized economy—this is the view shared among producers and officials of some developed countries that are concerned about import competition from emerging economies and also behind the public concern about ‘races to the bottom.’ Do lower labor standards really improve a country’s trade competitiveness? Theoretical literature including Brown, Deardorff, & Stern (1996) and Martin & Maskus (2001) suggests that it is not always the case, and that there will be a number of cases in which countries can worsen their export performances or economic welfare. A number of empirical studies including the OECD (1996), Rodrik (1996), van Beers (1998), and Dehejia & Sammy (2004) have found no convincing relationship between labor standards and export performances of countries.

## **2.3. Effects of Trade (or Globalization) on Labor Standards**

Does increasing world trade, or globalization, deteriorate labor standards in countries? Theoretical views for this question should be the same as those described in the previous paragraph, understanding the view behind the ‘races to the bottom’ concern is that keener competitive pressures lead country to lower standards. Thus, the theoretical literature has not agreed with this view. Overall findings in empirical studies that have addressed this question, such as Huberman & Lewchuk (2003), Edmonds & Pavcnik (2006), and Neumayer & de Soya (2007), agreed that trade openness has no significant impacts on labor standards, or rather that the openness to trade may have positive impacts on some of the core labor standards.

## **2.4. Effectiveness of Linking Trade Policy with Labor Issues**

In contrast to the literature on trade and labor standards, the literature is still



very slim on the issue of trade *policy* (including trade agreements) and labor standards. There are studies that address the issue of the effectiveness of trade sanctions for the improvement of labor standards, especially in the context of developing countries. Martin & Maskus (2001) and Srinivasan (1998) emphasize that trade sanctions will not be effective measures to lead low-standard countries to improved labor standards since trade sanctions are likely to worsen the conditions of workers in those countries. On the other hand, Brown et al. (2011) introduces some cases in which trade sanction or its threat under the Generalized System Preferences (GSP) that the United States has granted to developing countries was successful to improve labor conditions in the developing countries. Also note that there are theoretical studies such as Bagwell & Staiger (2001), Spagnolo (2001), and Limão (2005) that analyze the effects of linkage between trade policy (i.e., tariffs) and social issues in bilateral trade negotiations, while these studies focus on the issue of self-enforcingness or sustainability of such issue-linkage in international agreements.

### **3. Labor Clauses in RTAs: A Close Review**

Labor provisions in RTAs vary in terms of contents and stringency as well as where in the agreements the provisions exist. Some RTAs just declare, typically in their preambles, the signatory countries' commitment to the internationally recognized labor standards with or without mentioning the name of the ILO; others detail for what matters and how the signatories shall cooperate, and/or stipulate procedures for consultation on labor issues raised between the RTA members. Among those RTAs that have detailed provisions on labor matters, some include those labor provisions in the main texts of the RTAs, while others prepare separate side agreements or the minutes of understanding (MOU) for the labor provisions.

Having this wide variety in labor provisions in RTAs, and also given that there is no single definition of RTA "labor clauses," my own previous work (Kamata, 2014)

has classified RTAs in force into six groups in terms of the contents and stringency of labor provisions in those RTAs.<sup>1</sup> That classification puts a focus on whether the provisions refer to the ILO's "core standards" or an equivalent set of the "internationally recognized labor standards," and categorized RTAs that have any provision referring to such internationally recognized standards (i.e., RTAs in Groups 1 through 3) as "RTAs with labor clauses," and the others (i.e., RTAs in Groups 4 through 6) as "RTAs without labor clauses."

For this study, I reexamine my previous classification of RTAs with labor clauses from the perspective of the potential effectiveness of those labor clauses for domestic labor standards or conditions in the RTA member countries (i.e., the between-member coordination of labor standards and the enforcement of the provisions). For this purpose, I conduct an in-depth review of the agreement texts of the set of 223 RTAs that are covered in my previous work (Kamata, 2014). The RTAs on which I have put a particular focus for the review this time are the ones that were categorized as "RTAs with labor clauses" (i.e., those in Groups 1 through 3) in the preceding work, and also those that involve European economies (such as the EU and EFTA) and Canada.<sup>2</sup> I have then redefined and reclassified "RTAs with labor clauses" according to the following two criteria: (i) the RTA has provisions that demand, urge, or at least expect

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<sup>1</sup> The six groups into which the RTAs have been classified are the following:

Group 1: The RTA requires the member countries to make their domestic labor laws consistent with the ILO's guidelines; the RTA also discusses how domestic labor laws should be promoted and enforced in those member countries.

Group 2: The RTA members should strive to have their domestic laws consistent with the ILO guidelines but do not have to commit to do so ultimately; the RTA text also discusses how domestic labor laws should be promoted and enforced in those member countries.

Group 3: The RTA acknowledges the members' commitment to the internationally recognized labor standards but are not ultimately required to follow the ILO's guidelines.

Group 4: The RTA acknowledges labor rights or working conditions but does not refer to the internationally recognized standards.

Group 5: The RTA acknowledges social values including human rights but does not exclusively mention labor rights or working conditions exclusively.

Group 6: The RTA does not mention labor or social matters.

See Table 1 of the paper (Kamata, 2014) for the list of RTAs in each group.

<sup>2</sup> These economies have been, together with the United States, pro-labor-clause countries in the GATT/WTO multilateral trade negotiations.

the signatory countries to harmonize their domestic labor conditions and regulations with the internationally recognized standards such as the ILO's "core" standards or an equivalent set of labor standards, and (ii) the RTA has an extensive set(s) of articles that stipulates the items/issues for which the signatory countries shall cooperate and the procedures for consultations and/or dispute settlement on issues concerning labor conditions, as a part (chapter(s) or title(s)) of the main body of the RTA or a separate side agreement or MOU.<sup>3</sup>

This paper considers two cases of the classifications of RTAs in terms of labor clauses. The first case, which I call the 'conservative' classification, defines/classifies RTAs that satisfy both of the two above-mentioned criteria as "RTAs with labor clauses" and the others as "RTAs without labor clauses" or "labor-clause-non-inclusive RTAs." The second case, which I call the 'liberal' classification, defines/classifies RTAs that satisfy the second criteria ((ii) above) as "RTAs with labor clauses" and the others as "without." Indeed, of those RTAs that detail an institutional arrangement for cooperation and consultations between the RTA members concerning labor matters, there are some RTAs that declare or emphasize the exclusive right of each country to define or regulate its domestic labor laws or standards. These RTAs satisfy the criteria (ii) but does not (i), and thus these are classified as "RTAs with labor clauses" in the *liberal* case but not in the *conservative* case.

The entire list of the RTAs with labor clauses according to both of the 'conservative' and 'liberal' classifications is provided in Table 1. The list covers the 223 RTAs that entered in force and were notified to the WTO by the end of the first half of the year 2013.<sup>4</sup> For a reference purpose, I create another version of labor-clause

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<sup>3</sup> A number of RTAs that cover service trade and/or investment (such as economic partnership agreements or EPAs) have provisions concerning protection and treatment of migrating workers. I do *not* consider these provisions for the labor-clause classification here, since these should be about the issues of barriers to service trade rather than social provisions.

<sup>4</sup> According to the WTO's RTA database, there are 17 RTAs that became effective in and after July 2013. This study does not include these recent RTAs in the labor-clause classification since these should not play roles in the empirical analysis (the data used for the empirical analysis do not cover such recent-year trade statistics).

classification list that is comparable to the classification provided in my previous work. That version classifies RTAs into Groups 1 through 6 according to the two criteria applied in this paper together with the labor-clause consistency with the ILO “core” standards and its stringency. The comparable version of the classification is shown in Appendix Table A9. Note that this updated classification introduces a new group “2.5” for those RTAs that satisfies the above-mentioned criteria (ii) but does not (i).<sup>5</sup>

## 4. Effects of Labor Clauses on Labor Conditions: Empirical Analysis

### 4.1. Empirical Model and Data

#### 4.1.1. Benchmark Empirical Specification

The empirical specification to estimate the impacts of RTA labor clauses on domestic labor conditions in the RTA signatory countries, which is based on my own previous work (Kamata, 2014) that has been inspired by Häberli et al. (2012), is the following:

$$L_{it} = \alpha + \beta_1 TC_{i,t-a}^{LC} + \beta_2 TC_{i,t-a}^{NL} + \mathbf{X}_{it}\gamma + u_i + T_t\delta + \varepsilon_{it} \quad (1)$$

where  $L_{it}$  is a measure of labor conditions in country  $i$  at year  $t$ .  $TC_{it}^{LC}$  is the measures of country  $i$ 's trade concentration with other countries with which country  $i$  has signed a RTA(s) with labor clauses at time  $t$ . Similarly,  $TC_{it}^{NL}$  is the measures of country  $i$ 's trade concentration with the partner(s) of a common RTA(s) *without* labor clauses signed at time  $t$  (these trade-concentration variables will be more described below). The vector  $\mathbf{X}_{it}$  contains a set of variables for economic controls, which are detailed later.  $u_i$  indicates country dummies that represents country-specific time-invariant factors that affect country  $i$ 's labor conditions but are not observable for researchers; and  $T_t$  indicates time

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<sup>5</sup> Therefore, in the current paper the RTAs that are included in Groups 1 and 2 are categorized as “RTAs with labor clauses” in the *conservative* case, and those included in Groups 1, 2, and 2.5 are categorized as “RTAs with labor clauses” in the *liberal* case.

(year) dummies. Finally,  $\varepsilon_{it}$  represents the idiosyncratic error term.

#### 4.1.2. Indicators of Trade Concentration with RTA Partners

$TC_{it}^{LC}$  and  $TC_{it}^{NL}$  in equation (1) above indicate how each country's trade is concentrated with the partners of RTAs with and without labor clauses, respectively. The indicators are defined as follows:

$$TC_{it}^{LC} = \sum_j^N (RTA_{ijt}^{LC} \times TradeShare_{ij,1995}) \quad \text{for } i \neq j$$

$$TC_{it}^{NL} = \sum_j^N (RTA_{ijt}^{NL} \times TradeShare_{ij,1995}) \quad \text{for } i \neq j$$

$RTA_{ijt}^{LC}$  is a dummy variable taking the value one if countries  $i$  and  $j$  are both members of a common RTA(s) with labor clauses as of year  $t$ , while  $RTA_{ijt}^{NL}$  is a dummy taking the value one if the two countries are the members of a common RTA(s) without labor clauses as of year  $t$ . Both dummies take the value zero when the two countries has not signed any common RTA as of year  $t$ .  $TradeShare_{ij,1995}$  is the total manufacturing trade (imports plus exports, in value) between countries  $i$  and  $j$  (as of the year 1995) as the share in country  $i$ 's total manufacturing trade with the rest of the all other countries in the world. The indicator  $TC^{LC}$  ( $TC^{NL}$ ) takes a value between the theoretical minimum zero and the theoretical maximum one, and it takes a greater value as the country has signed an RTA(s) with (without) labor clauses with a larger trade partner(s) and/or with more trade partners. For computing these  $TC$  indicators, the fixed trade share of each partner as of the year 1995 is used for the indexes not to be influenced by possible post-RTA trade increases (RTAs should promote trade between the signatories) or capture the possible effects of growth in trade itself on labor conditions, but to capture the significance of the partners of an RTA(s) with (or without) labor clauses as strictly as possible.<sup>6</sup> However, for a reference purpose, the estimation is also performed with the  $TC$  indicators computed with the trade shares in the current year (i.e.,  $TradeShare_{ijt}$

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<sup>6</sup> The trade shares as of the year 1995 are used since it is the oldest data period in the dataset for this study.

for each year  $t$ ).<sup>7</sup> The trade shares are computed using data on bilateral trade flows obtained from the *UNCTADstat*, an on-line database provided by the UNCTAD.<sup>8</sup>

As indicated in equation (1) above, for the estimation the *TC* indicators are lagged by  $a$  periods (years), considering possible time lag of the impact of RTA labor clauses on the actual domestic labor conditions. The estimation is performed with the lags of one through four years (i.e., for  $a = 1, 2, 3,$  and  $4$ ), for each lag period at one time.<sup>9</sup>

#### 4.1.3. Labor Condition Measures

For the domestic labor condition in each country,  $L_{it}$ , the following four measures are employed: (i) the log of the mean monthly real earnings of employees in manufacturing industries (*earnings*); (ii) mean weekly hours actually worked per employee in manufacturing (*hours*); (iii) fatal occupational injury rate (in percent) in manufacturing (*injury*); and (iv) the number of ILO's core conventions ratified (*conventions*). Data for *earnings* are sourced from the ILO's on-line database *LABORSTA*.<sup>10</sup> The database reports the mean monthly earnings of manufacturing workers for various countries in the nominal local currency unit (LCU), and I convert those data to the real unit measured in constant 2005 US dollars, using the current market exchange rates (annual average) and the US GDP deflator reported in the World Bank's *World Development Indicators* on-line database (WDI).<sup>11</sup> Data for *hours* and *injury* are also obtained from *LABORSTA*, and the data for each variable are used as reported in the database. For another labor-condition measure *conventions*, I count the number of the ILO's core (or fundamental) conventions that each country had ratified as

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<sup>7</sup> When the *TC* indicators computed with the current-year trade shares, the interpretation of equation (1) might be different slightly. That is, equation (1) will estimate how trading with RTA partners with/without labor clauses affect the domestic labor conditions of each trading country.

<sup>8</sup> <http://unctadstat.unctad.org/>

<sup>9</sup> It might take longer than 4 years for RTA labor clauses to have actual impacts on the domestic labor conditions. However, the sample size would be too small if involving too many lag periods since the valid data period is limited only to 17 years from 1995 to 2011.

<sup>10</sup> <http://laborsta.ilo.org/>

<sup>11</sup> <http://data.worldbank.org/data-catalog/world-development-indicators>

of the end of each data period (year  $t$ ). There are eight “core conventions” of the ILO that concern eight fundamental labor standards recognized by the ILO.<sup>12</sup> Therefore, the variable *conventions* takes integer values from the theoretical minimum zero to the theoretical maximum eight. The information on what core convention was ratified as well as when it was ratified by each country is obtained from *NORMLEX*,<sup>13</sup> the ILO’s information system for conventions.

#### 4.1.4. Other Economic Controls

The vector of other control variables  $\mathbf{X}_{it}$  in equation (1) includes: the log of real GDP per capita, in the linear and squared terms; employment in the industry sector as the share (in percent) in the total employment; manufacturing value added as the share in GDP; and two Freedom House’s indexes indicating political rights and civil liberties. The two terms of the log of GDP per capita are included since it is repeatedly confirmed that labor conditions in a country are correlated with the country’s income level. The industry employment share and manufacturing share in GDP are included since trade-related labor standards or conditions should matter the most for workers in the industry or manufacturing sector.<sup>14</sup> Data for these three economic controls are obtained from the WDI, and for the income-level indicator GDP per capita in constant 2005 US dollars are employed.

The indexes of political rights and of civil liberties are included to control for the overall human-right conditions in each country. These indexes are sourced from the *Freedom in the World*, an annual survey report by the Freedom House. Each index is scaled from 1 through 7, with a smaller number indicating a higher degree of freedom.

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<sup>12</sup> The eight Core (or fundamental) Conventions are the following: Forced Labour Convention of 1930 (No. 29), Freedom of Association and Protection of the Right to Organise Convention of 1948 (No. 87), Right to Organise and Collective Bargaining Convention of 1949 (No. 98), Equal Remuneration Convention of 1951 (No. 100), Abolition of Forced Labour Convention of 1957 (No. 105), Discrimination (Employment and Occupation) Convention of 1958 (No. 111), Minimum Age Convention of 1973 (No. 138), and Worst Forms of Child Labour Convention of 1999 (No. 182).

<sup>13</sup> <http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:1:0>

<sup>14</sup> Häberli et al. (2012) also include these variables in their economic controls.

The data for the current paper are obtained from an on-line database provided by the International Institute for Democracy and Electoral Assistance (International IDEA).<sup>15</sup> The Freedom House conducts the evaluation and rating for a country typically with an interval of a few to several years. Therefore, for each country there exist years for which updated indexes are not available (let us call these years “non-surveyed years”).<sup>16</sup> To have the size of sample that is valid for the empirical analysis being as large as possible, I have filled in the data for these Freedom House indexes for *non-surveyed years* in the following manner: basically, the non-surveyed years are filled in with the indexes for the previous surveyed year; but the non-surveyed years are not filled in when the survey interval is significantly long; this way of index filling-in is also avoided when the scores/ratings are very different between the two surveyed years (since we have no clear idea on in what year the score change should have been reflected) or when it is obviously that a significant political event that may affect human rights was the case in that country during a survey-interval period (since we have no clear idea on how to evaluate the impacts on that event on the political rights and civil liberties as well as their persistence).

#### *4.1.5. Resulted Dataset for the Empirical Analysis*

I have tried to gather data for the variables for as many countries as possible and for the years 1995 and onward. Data availability differs for different variables, however, and the resulted dataset for the empirical analysis covers 136 countries and 16 years from 1996 through 2011,<sup>17</sup> for which the data for all the variables on the right-hand side of equation (1) and the data for at least one of the four labor-condition measures (the left- side variable in the equation) are all available. The sample countries covered in the dataset are listed in Table 2. Note, however, that the number of years for

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<sup>15</sup> <http://www.idea.int/>

<sup>16</sup> This is one major reason why in my previous paper (Kamata, 2014) the observations valid for the empirical analysis were very limited.

<sup>17</sup> Equation (1) involves the lagged variables for trade-concentration (*TC*) indicators, and thus the data for the initial period 1995 are not used for the current-year variables.



which data are available differs across countries (i.e., the dataset is not in the form of a balanced panel), ranging from 1 to 17 of 17 years. Table 3 presents the summary statistics of valid observations for each variable in the resulted dataset.

#### 4.2. Estimation Results of the Benchmark Specification

If labor clauses in RTAs contribute to better labor conditions in signatory countries and it is more so when a country joins RTAs with more countries and/or larger partners, we expect that the estimation of equation (1) indicate a positive coefficient on the indicator  $TC^{LC}$  for RTAs with labor clauses (i.e.,  $\hat{\beta}_1 > 0$ ) for the *earnings* and *conventions* regressions and a negative coefficient ( $\hat{\beta}_1 < 0$ ) for the *hours* and *injury* regressions. Or, if RTAs have some negative influence on labor conditions but labor clauses can prevent or alleviate it, the estimation would indicate the coefficient on the indicator  $TC^{NL}$  for RTAs without labor clauses (i.e.,  $\hat{\beta}_2$ ) to be negative for the *earnings* and *conventions* regressions while positive for *hours* and *injury* regressions, but the coefficient  $\hat{\beta}_1$  on  $TC^{LC}$  to be of the opposite sign or zero.

The result of the estimation of equation (1) is shown on Table 4. Following the very first column indicating the variables in the equation, the first set of four columns shows the estimation result with *earnings* as the dependent variable (labor-condition measure)  $L$ . Similarly, the second, third, and fourth sets of four columns in the table show the estimation results for *hours*, *injury*, and *conventions*, respectively. For this benchmark estimation, RTAs are classified based on the ‘conservative’ definition of labor-clause-inclusive RTAs that has been described in Section 3. (The estimation has also been performed using the ‘liberal’ classification of RTAs with labor clauses, but the result is almost identical, as shown in Appendix Table A1.)

As presented in Table 4, in none of the regressions the coefficient estimate on the  $TC^{LC}$  indicator is significant, even for the longer-lagged term. Thus, no evidence for the positive effects of labor clauses in RTAs on the domestic labor conditions, especially

on labor earnings and hours actually worked for which the effects of RTAs without labor clauses (i.e., the coefficients on  $TC^{NL}$ ) are also insignificant.

The estimation gives a positive and significant coefficient on the  $TC^{NL}$  indicator for the 2- and 3-year lagged terms. Especially in the 3-year-lag case, the estimation gives a positive estimate to the coefficient on  $TC^{NL}$  with the 5%-level significance together with a negative (but insignificant) coefficient estimate to the  $TC^{LC}$  indicator. This could suggest a possible deteriorating impact of RTA without labor clauses on occupational safety (and labor clauses in RTAs might be alleviating it). However, considering issues in data quality for the occupational injury rate reported in the *LABORSTA* database,<sup>18</sup> we might have to be cautious in interpreting the estimation result. Moreover, the estimation gives a negative and significant (at the 5% level) coefficient on the  $TC^{NL}$  indicator for the conventions regression for the 4-year-lag case (and a positive but insignificant coefficient on  $TC^{LC}$ ). However, a negative coefficient for the case of the *conventions* equation is difficult to interpret, since the ratification of the conventions is basically irreversible and it should not occur that countries decrease the number of the ILO's Core Conventions that they once ratified due to a new RTA(s) without labor clauses.<sup>19</sup> Therefore, it should be fair to conclude that overall, the benchmark estimation presented here provides no evidence for labor-condition improving or maintaining effects of labor clauses in RTAs.

The estimated coefficients on other control variables than the  $TC$  indicators are insignificant in most of the cases. Interestingly, even the income variables (GDP per capita in the linear and square terms) barely show significant coefficient estimates except for the case of *conventions*. Only the square term of GDP/cap is significant (but at the 10% level only) for *earnings*, and only the linear term is significant for *hours*.<sup>20</sup>

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<sup>18</sup> For instance, for some countries the reported injury rates far exceed 100%.

<sup>19</sup> A fixed-effect regression with country dummies is a “within estimator,” so the estimation performed here should be basically capturing the average over-time variation within each country in the sample.

<sup>20</sup> The estimated coefficients on the two income terms for *earnings* indicate a U-shaped relationship between the labor earnings and GDP/cap with the inflection point at around the

The coefficient estimates on the two income terms are highly significant for the convention regression, and it is consistent with the fact that countries with a higher income tend to have more of the ILO's Core Conventions ratified except for a group of most-developed nations that have ratified less of the conventions than lower-income countries.

The estimation is also performed with the *TC* indicators that are computed using the current-year trade shares for each data period without fixing the shares at those as of 1995. The result is presented in Appendix Tables A2 (when the 'conservative' classification of RTAs with labor clauses applied) and A3 (when the 'liberal' classification is applied). As shown, the result does not differ from that of the benchmark estimation presented in Table 4, but the RTA trade-concentration indicators are even less significant: none of the coefficient estimate on either term is significant in any case.<sup>21</sup>

### 4.3. Estimation for Different Income Groups

The benchmark estimation presented in the previous subsection shows no evidence for the labor-condition impacts of labor clauses in RTAs. However, it might be because the estimation is mixing up different patterns among different trading-country pairs. The effects of RTA labor clauses could differ due to difference in the level of income among countries as well as their RTA partners. For instance, it might be the case that RTA labor clauses contribute to the improvement of the domestic labor conditions in a middle-income country when the country signs the RTA with a high-income partner that apply higher labor standards than those in the middle-income country. On the other hand, labor clauses might not be very effective for an RTA between high-income

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lowest third of the sample. The estimated income-term coefficients for *hours* indicate that the relationship between the hours worked and GDP/cap is negative (i.e., the hours worked monotonically decrease as GDP/cap increases) over almost the entire sample range.

<sup>21</sup> Strictly speaking, the estimated coefficient appears to be significant at the 10% level only for the 3-year-lagged  $TC^{LC}$  in the *conventions* regression.

countries since both countries have applied adequately high labor standards before signing the RTA.

To consider and examine such possible difference in the impacts of RTA labor clauses on labor conditions across countries in different income groups, the benchmark empirical specification is extended and estimated for different income groups of countries and of their RTA partners. Specifically, equation (1) presented in subsection 4.1.1. is modified as follows:

$$L_{it} = \alpha + \sum_{g \in \{H, M, L\}} (\beta_{1,g} TC^{LC,g}_{i,t-a} + \beta_{2,g} TC^{NL,g}_{i,t-a}) + \mathbf{X}_{it}\gamma + u_i + T_t\delta + \varepsilon_{it} \quad (1e)$$

where the partner-income-separated  $TC$  indicators are defined as follows:

$$TC^{LC,g}_{it} = \sum_j^N (RTA^{LC}_{ijt} \times TradeShare_{ij,1995} \times I^g_j) \quad \text{for } i \neq j$$

$$TC^{NL,g}_{it} = \sum_j^N (RTA^{NL}_{ijt} \times TradeShare_{ij,1995} \times I^g_j) \quad \text{for } i \neq j$$

Index  $g = \{H, I, L\}$  indicates the income group of each country:  $H$  represents high-income,  $M$  represents middle-income, and  $L$  represents low-income country groups, respectively. The country income groups are defined following the World Bank based each country's gross national income (GNI) per capita as of the year 1995. That is, the country is high-income if its 1995 GNI per capita is \$9,386 or above, middle-income if between \$766 and \$9,385, or low-income if \$765 or below.<sup>22</sup> This income classification based on GNI per capita as of 1995 is selected to classify each country based on its *ex-ante* income level before the country joins an RTA, and also because 1995 is the oldest data period in the dataset used for the current study. The indexes  $I^g_j$  indicate the income category of the RTA partner(s) for each country  $i$ : that is,  $I^H_j = 1$  when the country's RTA partner  $j$  is high-income (and = 0 otherwise),  $I^M_j = 1$  when the RTA partner  $j$  is middle-income, and  $I^L_j = 1$  when the RTA partner  $j$  is low-income. Equation (1e) thus includes six trade-concentration ( $TC$ ) indicators: a pair of  $TC^{LC}$  and  $TC^{NL}$

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<sup>22</sup> The World Bank applied this income-group classification for its lending operation in the fiscal year 1997.

indicators for three income groups (high, middle, and low) of the RTA partners of each country  $i$ . This extended specification is separately estimated for three income groups of the sample countries (country  $i$ ) as well as for each of the 1- through 4-year lagged terms of the  $TC$  indexes.

The results of the estimation of this extended specification are presented in Tables 5 through 7. By separating the sample countries by income category, the estimation now gives a significant coefficient estimate to either  $TC^{LC}$  or  $TC^{NL}$  indicator in some cases.

Table 5 shows the estimation result for the group of high-income countries. What is notable is that for the *earnings* regression, the coefficient estimate on  $TC^{NL}$  is negative and significant for a short-lag period when the RTA partner(s) is high- or middle-income.<sup>23</sup> This may suggest that a high-income country that has recently signed an RTA without labor clauses with other high- or middle-income country(ies) has tended to experience a decrease in real labor earnings in the following one or two years. This might imply a possible negative impact of RTAs without labor clauses on labor earnings in high-income countries, and a positive and/or insignificant estimate for the coefficient on  $TC^{LC}$  might imply that labor clauses could alleviate such negative labor-condition effect of RTAs. Moreover, also in the *injury* and *conventions* regressions a significant coefficient estimate appears on the  $TC$  indicator(s) in some cases, but as mentioned earlier, we should be cautious in interpreting these results due to the nature of the data on the fatal occupation injury rates and number of core conventions ratified.

Table 6 shows the estimation result for middle-income countries. What is prominent here is that for the *hours* regression the estimated coefficient on  $TC^{LC}$  is negative and significant when the RTA partner(s) is other middle-income country(ies),

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<sup>23</sup> The earnings regression for high-income countries also results in a significant coefficient estimate on the  $TC$  indicators for the case of low-income RTA partners. However, since there basically are no meaningful cases of RTAs with labor clauses involving low-income countries, these estimates should not be meaningful, either. Notice that some of the estimates take an extreme value, which should be due to the limited observations in the sample.

for both short- and long-lag terms. This, however, may not be due to the labor-condition improving (or work-hour-decreasing) effect of RTA labor clauses. Since the coefficient on  $TC^{NL}$  is also negative (but insignificant), this result should rather suggest that RTA trade between middle-income countries may have been saving laborers' hours actually worked regardless of if the RTA(s) has labor clauses or not, perhaps due to some pro-productivity effect of RTA trade.

The estimation is also performed for the group of low-income countries, whose result is shown in Table 7. However, due to the severe limitation in the cases of labor-clause-inclusive RTAs that involve low-income countries as mentioned earlier (see footnote 23),<sup>24</sup> we can hardly find a meaningful message from the presented result for low-income countries.<sup>25</sup>

#### **4.4. Alternative Model for Analyzing the Impacts of the First RTA with Labor Clauses**

##### *4.4.1. Empirical Specification*

The benchmark empirical specification that has been described in the preceding subsections is based on the idea that labor clauses in RTAs would be more influential to the domestic labor conditions in the RTA signatories as the countries joined more RTAs, signed RTAs with more partners, and/or have an RTA(s) with a larger trading partner(s). However, it might be the case that what is really influential would be the first RTA with labor clauses for each country, and that once the country had one labor-clause-inclusive RTA effective, signing an additional RTA(s) with more trading partners would have only marginal impacts on labor conditions since the domestic labor standards and regulations should have been prepared or adjusted in response to the labor clauses in the first RTA.

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<sup>24</sup> See Appendix Table A8 for the list of labor-inclusive-RTAs currently in force and the signatory countries of those RTAs.

<sup>25</sup> The estimation of the extended specification for different country income groups is also performed applying the 'liberal' labor-clause classification, which does not change the result. The estimation is also done with the  $TC$  indicators based on the current-year trade shares, but the result does not differ. These estimation results are presented in Appendix Tables A4, A5, and A6.

Thus, this subsection introduces an alternative empirical specification to estimate this impact of the first set of RTA labor provisions with which a country has agreed and needs to comply.

The following empirical specification is designed to capture the impacts of the first labor-clause-inclusive RTA through (i) accession (or not ever) to any RTA with labor clauses, (ii) time lag of the influence of the RTA's labor provisions, and (iii) the significance or importance of the partner(s) of that RTA as the country's export market:

$$L_{it} = \alpha + \sum_{s \in \{1,2,3,4+\}} \{\beta_{1,s} D_{i,t-s} + \beta_{2,s} (D_{i,t-s} \cdot xshare_i)\} + \mathbf{X}_{it}\gamma + u_i + T_t\delta + \varepsilon_{it} \quad (2)$$

where  $D_{i,t-s}$  indicates the timing when country  $i$  signed the first labor-clause-inclusive RTA for the country, in terms of how many years ( $s = 1, 2, 3, \text{ or } 4^+$ ) prior to the current data year  $t$ . In other words,  $D_{i,t-1} = 1$  if country  $i$  signed its first RTA with labor clauses one year before  $t$  (and = 0 otherwise);  $D_{i,t-2} = 1$  if the country signed two previous years,  $D_{i,t-3} = 1$  if three previous years, and  $D_{i,t-4}^+ = 1$  if the country's first RTA with labor clauses was signed four or more years earlier.  $xshare_i$  is the share of that first labor-clause-inclusive RTA partner(s) in country  $i$ 's total manufacturing exports as of the initial year of that RTA into force.<sup>26</sup> The other variables are as defined and measured with the data used for the benchmark specification.

#### 4.4.2. Estimation Result

The result of the estimation of the alternative specification, or equation (2), is presented in Table 8. The 'conservative' definition is applied to classify RTAs with labor clauses. The result gives insignificant estimates to  $\beta_1$  and  $\beta_2$  for almost all cases except for a few. In the *hours* regression only  $\hat{\beta}_{2,4+}$  is significant at the 10% level with the negative sign, which might suggest that the first RTA with labor clauses would contribute to work-hour reduction when the partner(s) of the RTA is a large export

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<sup>26</sup> The export share of the RTA partner(s) as of the year 1995 is applied when the first labor-clause-inclusive RTA became into force in 1994 or earlier, since trade data are available only for 1995 or later years.

market for the country, but only with a long lag. In addition, in the *injury* regression  $\hat{\beta}_{1,2}$ ,  $\hat{\beta}_{1,4+}$ ,  $\hat{\beta}_{2,1}$ , and  $\hat{\beta}_{2,2}$  are significant at the 10% level, which might suggest a possible positive work-safety impact of the first labor-clause-inclusive RTA but only when the partner is a fairly significant export market; but we should be cautious in interpreting the result of the *injury* regression estimation as pointed out earlier. The overall implication of this estimation result should be that no evidence is found for the labor-condition-improving effects of the first labor-clause-inclusive RTA, and this is consistent with the finding in the analysis of the benchmark model presented in the earlier subsections.

The estimated coefficients on all the other control variables are also insignificant except for a very few cases, while the point estimates are virtually the same as those resulted from the benchmark estimation. This may due to a smaller sample size for this alternative specification than that for the benchmark specification (less observations are valid for the estimation of the alternative specification).

Finally, the estimation is also performed with the classification of RTAs with labor clauses by the ‘liberal’ definition. As shown in Appendix Table A7, the result does not qualitatively differ, while *no* coefficient estimates appear to be significant.

#### 4.4.3. Estimation for Different Income Groups

As performed for the benchmark specification (described in the previous subsection 4.3.), it is worthwhile to extend this alternative specification for estimation to consider the possibly different labor-condition impacts of labor clauses in RTAs for different income groups of countries as well as of their RTA partners. The following extension of equation (2) is considered:

$$L_{it} = \alpha + \sum_{s \in \{1,2,3,4+\}} \{ \beta_{1,s}^g D_{i,t-s}^g + \beta_{2,s}^g (D_{i,t-s}^g \cdot xshare_i^g) \} + \mathbf{X}_{it} \gamma + u_i + T_t \delta + \varepsilon_{it},$$

for  $g = H, M, L$  (2e)

In this extended specification, the timing indexes (dummies) of the first RTA with labor



clauses are separated to indicate whether that first labor-clause-inclusive RTA involves a partner(s) in each income group  $g = H, M, \text{ or } L$  (other than the observed country  $i$  itself). For instance, the index  $D_{i,t-1}^H = 1$  if country  $i$ 's first labor-clause-inclusive RTA became into force 1 year prior to the current year (observation period  $t$ ) and the RTA involves any high-income country as country  $i$ 's partner.  $xshare_i^g$  is the share of the first RTA partner(s) of the income group  $g = H, M, \text{ or } L$  in country  $i$ 's total manufacturing exports as of the year when the first RTA became into force. As for the extended benchmark estimation, the World Bank's country income classification based on the gross national income (GNI) per capita as of 1995 is applied. In theory, for each of the four labor-condition measures, nine separate estimations should be performed for three RTA-partner income groups for each of the three income groups of the sample countries. However, as seen in Appendix Table A8, none of the RTAs with labor clauses involves a valid sample country of the low-income group. Therefore, the regression is performed only for high- and middle-income country groups.

The results of the estimation of the extended equation (2e) are presented in Tables 9 and 10. In these tables, the coefficient estimates on the other control variables than the RTA-related terms are suppressed and the estimation results for different country groups are stacked for the compactness of the tables and to save page space.<sup>27</sup> Table 9 shows the results of the estimation for high-income countries. None of the coefficient estimate is significant, except for  $\hat{\beta}_{2,1}^M$  in the *earnings* regression for the middle-income partners (significant at the 10% level) and  $\hat{\beta}_{1,2}^M, \hat{\beta}_{2,2}^M$  (significant at the 10% level), and  $\hat{\beta}_{3,2}^M$  (significant at the 5% level) in the *conventions* regression for the middle-income partners.<sup>28</sup> This result should basically suggest that for high-income countries, even the first RTA with labor clauses may not be influential to the domestic labor clauses regardless of whether the RTA partner is a high- or middle-income country.

<sup>27</sup> The 'conservative' classification of RTAs with labor clauses is applied for the estimation. Estimation is also performed based on the 'liberal' classification, but the results do not differ.

<sup>28</sup> As mentioned in the earlier subsection 4.2., a negative coefficient in the *conventions* regression is hard to interpret in terms of the impact on labor conditions.

Table 10 shows the estimation results for middle-income countries. In these cases, most of the coefficient estimates are insignificant, but significant are  $\hat{\beta}_{1,3}^M$  and  $\hat{\beta}_{2,3}^M$  in the *earnings* regression for the middle-income partners (at the 5% level),  $\hat{\beta}_{2,1}^M$  in the *injury* regression for the middle-income partners (5%),  $\hat{\beta}_{1,1}^H$  and  $\hat{\beta}_{2,1}^H$  for the high-income partners (5%) and  $\hat{\beta}_{2,3}^M$  and  $\hat{\beta}_{2,4}^M$  for the middle-income partners (10% and 1%, respectively) in the *conventions* regression. Among these, the estimates in the *conventions* regression might suggest that for middle-income countries, the first labor-clause-inclusive RTA with a large(r) export partner would have contributed to motivating them to ratify more of the ILO's Core Conventions, and that effect would have been more immediate when the RTA partner is high-income while the effect is more lagged when the partner is middle-income. Another noticeable thing in the estimation result is that no coefficients are significant in the hours regression, which is inconsistent with the result of the benchmark estimation that is presented in Table 6 and described in the previous subsection 4.3.. Overall, it should be fair to conclude that the separate estimation for different income groups of countries does not uncover the significant impact of RTA labor clauses on the domestic labor conditions for any particular income group of countries, and thus that the overall no influence of RTA labor clauses found through the estimation of equation (2) (in Table 8) should not be due to the mixing up of the different effects for different groups of countries.

## 5. Conclusion and Discussion

As mentioned in the beginning of the paper, extending my previous work (Kamata, 2014), this study has proposed a unique empirical analysis on the effectiveness of labor clauses in regional trade agreements using internationally-comparable macro-level data. The paper has first performed the detailed (re-)examination of labor provisions in the 223 RTAs that have been in force as of the middle of 2013, and presents RTA labor-clause classifications that focus more attention

on the labor-standard coordination between/among the RTA signatories and the enforcement of those labor provisions: specifically, from the perspective of whether the agreement urges or expects the harmonization, to any degree, of labor standards between the signatory countries, and also whether the agreement stipulate the procedures for cooperation, consultations, and/or dispute settlement on issues related to labor conditions between the signatory countries. Based on this refined classification of RTA labor clauses and using an expanded dataset covering 136 countries and 16-year periods, this paper has empirically estimated the impacts of RTA labor clauses on the domestic working conditions in trading countries employing two empirical specifications, one of which is measuring the significance of labor-clause-inclusive RTAs for each country by the ‘trade concentration’ with the RTA partners defined as the aggregate share of the partners of labor-clause-inclusive RTAs in each country’s total manufacturing trade; and another of which is focusing on the impacts of the first labor-clause-inclusive RTA and the importance of the partner(s) of that RTA as an export market for each country. The estimation has taken into account possible lags in the effects of RTA labor clauses due to time length required for a government to adjust the domestic labor conditions complying with the labor provisions. The estimation has also been extended to consider possible difference in the labor-condition impacts of RTA labor clauses for different income groups of countries and their RTA partners.

The empirical results provide no evidence for the pro-labor-condition effects of labor clauses in RTAs: for any of the four labor-condition measures employed (mean monthly earnings, mean weekly work hours per employee, fatal occupational injury rate, and the number of the ILO’s Core Conventions ratified), almost none of the coefficient on the labor-clause-inclusive RTA indexes has been estimated to be significant. Although the estimation gives moderately significant coefficient estimates that indicate a potential pro-labor-condition effect of RTA labor clauses on particular working-condition measures for a few cases with particular income groups of countries,

those results are not strong enough to have the impacts of RTA labor clauses be evident. Indeed, a number of economists (trade economist in particular) argue the relevance (or advocate the irrelevance) of linking trade policy with issues in the domestic labor standards based on research. The result of the current analysis should be consistent with this view. Moreover, some governments (particularly of developing countries) have shown their concerns about possible protectionist motives behind such labor provisions in trade agreements as well as the possibility of abuses of the provisions for trade protection. The result of the current analysis might be in favor of that view by showing non-evident pro-labor impacts of RTA labor clauses.

There should be limitations in the current approaches for the analysis, however, and here I discuss two major limitations. One is due to the measures of working conditions. The current analysis employs as the measures of labor conditions mean monthly earnings, mean weekly hours actually worked per employee, fatal occupational injury rate, and the number of the ILO's Core Conventions ratified, all of which except for the last are the measures of labor-condition "outcome." However, labor provisions in RTAs are concerned with labor *standards* applied in each signatory country of the agreements. Hence, for a strict estimation of the impacts of RTA labor clauses, labor-"standard" measures such as statutory minimum wages and maximum weekly work hours should be employed, if such data are available for an adequately large variety of countries and for fairly long period of time. Although the number of the ILO's Core Conventions is the only "standard" measure in the current set of labor-condition measures, its quality as a labor-standard measure is often questioned in literature, since ratifying many conventions may not necessarily indicate the actual compliance of the corresponding international core labor standards (such as the prohibition of child labor) by the ratifying governments. It is also pointed out as a reason for the inaccuracy of the number of the conventions as a measure of the domestic labor standards that some of the advanced countries that apply highest labor standards in the world have ratified less

of the Core Conventions than most other countries. Since the current analysis does not use any measure of the internationally-recognized core labor standards (or even their outcome) other than the number of the ratified Conventions, it should be desirable to extend the current analysis also using some measure(s) of those international core standards.

The other major limitation is the limited sample of RTAs with labor clauses. As of the end of the first half of the year 2013, only 22 (31 if the “liberal” classification is applied) out of more than 220 effective RTAs were with labor clauses. In addition, most of these labor-clause-inclusive RTAs became in effect very recently (in the late 2000s or no earlier than 2010), as shown in Appendix Table A8. Hence, considering possible time lags expected for the labor clauses to show substantive impacts on labor conditions in the RTA signatory countries (i.e., time required by the governments to adjust the domestic labor standards or regulations), it could be difficult (too early) to detect the impacts of the RTAs with labor clauses in the data available at this moment even if the labor provisions in those RTAs actually had pro-labor-condition effects. Moreover, also shown in Appendix Table A8, the signatory countries of the currently-effective RTAs with labor clauses are dominated by a particular group of countries. Many of them are with very high or moderately high income, and if the income level is highly correlated with working conditions as often pointed out in literature, these countries might initially have fairly high labor standards. It may be thus difficult to detect a possible dynamic effect of RTA labor provisions to bring up labor conditions in a low-standard country to better ones. One possible way to address these difficulties inherent in the current empirical approach is to complement the analysis with a type of case-study approach through which closely examining the case(s) of one or two specific RTAs with labor clauses that have a fairly long history (i.e., became in force in an early time) and on which adequate information is available. An extension or improvement of the current study based on the discussion above is expected to prove the impacts (or no impacts) of

RTA labor clauses on the domestic labor conditions in a stricter manner.

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**Table 1. List of Regional Trade Agreements with Labor Clauses**

(RTAs with \* are included only according to the *liberal* classification.)

USA-Australia	* EFTA-Hong Kong
USA-Bahrain	* EFTA-Montenegro
USA-Chile	* EU-CARIFORUM States
USA-Colombia	* Carribean Community and Common Market (CARICOM, 2002 revised)
USA-Jordan	
USA- Korea (South)	* Chile-China
USA-Morocco	* Chile-Colombia
USA-Oman	* New Zealand-China
USA-Panama	* New Zealand-Malaysia
USA-Peru	* Nicaragua-Taiwan
USA-Singapore	
North American Free Trade Agreement (NAFTA)	
USA-CAFTA-Dominican Republic (CAFTA-DR)	
Canada-Chile	
Canada-Colombia	
Canada-Costa Rica	
Canada-Jordan	
Canada-Peru	
European Economic Area (EEA)	
EU- Korea (South)	<i>No. of RTAs with labor clauses:</i>
Chile-Turkey	22 according to the <i>conservative</i> classification
Trans-Pacific Strategic Economic Partnership (TPSEP or P4)	31 according to the <i>liberal</i> classification

*Notes:*

- RTAs with labor clauses are defined as RTAs, according to the *conservative* classification, that satisfy both of the following two criteria:
  - The RTA has provisions that demand, urge, or at least expect the signatory countries to harmonize their domestic labor conditions and regulations with the internationally recognized standards such as the ILO's "core" standards or an equivalent set of labor standards,
  - the RTA has an extensive set(s) of articles that stipulates the items/issues for which the signatory countries shall cooperate and the procedures for consultations and/or dispute settlement on issues concerning labor conditions, as a part (chapter(s) or title(s)) of the main body of the RTA or a separate side agreement or MOU.
 RTAs with labor clauses under the *liberal* classification are those that satisfy the criterion (ii). (This classification includes the RTA with \* in the list above, which satisfy (ii) but not (i).)
- The labor-clause-inclusive RTAs listed above are classified from the population of 223 RTAs that had entered in force and are notified to the WTO as of July 2013. The Generalized System of Preferences (GSP) are not included in the RTA populations.

**Table 2. Countries in the Sample for Empirical Analysis**

High-income Countries (26 countries)	Middle-income Countries (69 countries)		Low-income Countries (39 countries)
Australia	Algeria	Moldova	Albania
Austria	Antigua & Barbuda	Morocco	Armenia
Bahamas	Argentina	Namibia	Azerbaijan
Belgium	Barbados	Panama	Bangladesh
Canada	Belize	Papua New Guinea	Benin
Cyprus	Bolivia	Paraguay	Bosnia & Herzegovina
Denmark	Botswana	Peru	Burkina Faso
Finland	Brazil	Philippines	Cambodia
France	Bulgaria	Poland	Cameroon
Germany	Chile	Romania	Congo
Iceland	Colombia	Russian Federation	Ethiopia
Ireland	Costa Rica	St. Kitts & Nevis	Georgia
Italy	Croatia	St. Lucia	Ghana
Japan	Cuba	St. Vincent & the Grenadines	Guyana
Korea (South)	Czech Republic		Honduras
Kuwait	Dominica	Samoa	India
Luxemburg	Dominican Republic	Slovakia	Kenya
Netherlands	Ecuador	Slovenia	Kyrgyzstan
New Zealand	Egypt	South Africa	Liberia
Norway	El Salvador	Suriname	Madagascar
Portugal	Estonia	Syria	Mali
Singapore	Gabon	Thailand	Mongolia
Spain	Grenada	Trinidad & Tobago	Mozambique
Sweden	Guatemala	Tunisia	Nepal
United Kingdom	Hungary	Turkey	Nicaragua
United States	Indonesia	Ukraine	Nigeria
	Iran	Uruguay	Pakistan
	Jamaica	Uzbekistan	Rwanda
	Jordan	Vanuatu	Senegal
	Kazakhstan	Venezuela	Sierra Leone
	Kiribati		Sri Lanka
	Latvia		Tajikistan
	Lesotho		Tanzania
	Lithuania	(Income group N.A.) (2 countries)	Togo
	Macedonia		Uganda
	Malaysia		Vietnam
	Maldives	Montenegro	Yemen
	Malta	Serbia	Zambia
	Mauritius		Zimbabwe
	Mexico		

Notes:

- The numbers of data years are different for different countries, ranging from 1 to 16 of the entire 16 time points (between years 1996 and 2011, with lagged variables).
- Income groups are based on the World Bank's income classification as based on the country's gross national income (GNI) per capita as of 1995, defined as follows:
  - High income: \$9,386 or more
  - Middle income: \$ 766 to \$9,385
  - Low income: \$ 765 or less

**Table 3. Summary Statistics for Variables in Labor-condition Regressions;  
for observations valid for the analysis**

	Obs.	Mean	Std. Dev.	Min	Max
log real earnings	761	5.24	2.94	- 4.93	16.37
work hours	665	57.46	43.61	6.84	259
fatal injury rate (%)	535	6.50	31.50	0	720
no. of core conventions	1,324	6.81	1.59	0	8
ln(GDP/cap)	1,324	8.64	1.40	5.00	11.39
industry employment (%)	1,324	23.27	7.03	2.5	48.9
manufacturing v.a. (%)	1,324	16.89	6.22	0	35.63
political rights index	1,324	2.43	1.72	1	7
civil liberties index	1,324	2.69	1.49	1	7

**Table 4. Impacts of RTA with Labor Clauses vs. RTA without Labor Clauses on Labor Conditions (RTAs with labor clauses defined by the conservative classification; and RTA trade concentrations are based on the RTA partners' manufacturing trade share as of 1995.)**

	Dependent variable: Labor Condition Measure															
	Log of Mean Real Monthly Earnings ( <i>earnings</i> )				Mean Weekly Hours Actually Worked ( <i>hours</i> )				Fatal Occupational Injury Rate ( <i>injury</i> )				No. of ILO Core Conventions Ratified ( <i>conventions</i> )			
	Lag 1	Lag 2	Lag 3	Lag 4	Lag 1	Lag 2	Lag 3	Lag 4	Lag 1	Lag 2	Lag 3	Lag 4	Lag 1	Lag 2	Lag 3	Lag 4
RTA Concentration with Labor Clauses $t-1$	.205 (.660)				-7.31 (9.25)				-.0806 (1.41)				.0506 (.293)			
RTA Concentration w/o Labor Clauses $t-1$	.709 (.978)				-8.54 (19.0)				-.515 (4.35)				.531 (.522)			
RTA Concentration with Labor Clauses $t-2$		.218 (.709)				-8.18 (11.7)				.252 (1.69)				.248 (.317)		
RTA Concentration w/o Labor Clauses $t-2$		-.526 (1.28)				-4.67 (20.5)				5.34* (3.16)				.111 (.404)		
RTA Concentration with Labor Clauses $t-3$			.196 (.582)				-12.4 (14.9)				-.577 (1.94)				.397 (.313)	
RTA Concentration w/o Labor Clauses $t-3$			.359 (.840)				-.551 (21.9)				8.04** (3.22)				-.342 (.299)	
RTA Concentration with Labor Clauses $t-4$				-.633 (.564)				-23.0 (19.4)				-.546 (2.45)				.403 (.283)
RTA Concentration w/o Labor Clauses $t-4$				.492 (1.01)				19.4 (15.1)				5.55 (4.04)				-.549** (.279)
ln(GDP per capita)	-14.7 (9.10)	-16.1 (10.8)	-16.0 (11.4)	-18.4 (12.0)	114.4** (47.4)	138.7** (58.6)	104.1 (64.1)	39.5 (70.8)	-8.82 (10.4)	-6.78 (12.2)	-13.3 (15.5)	-17.9 (12.6)	6.96** (2.74)	7.77*** (2.81)	8.19*** (3.03)	6.18** (3.08)
ln(GDP per capita) <sup>2</sup>	.906* (.470)	1.00* (.555)	.964* (.581)	1.12* (.611)	-5.50 (4.33)	-6.75 (5.24)	-4.86 (5.71)	-6.90 (5.76)	-.672 (.673)	.554 (.768)	1.04 (.948)	1.19 (.790)	-.377** (.149)	-.426*** (.153)	-.435*** (.166)	-.297* (.172)
Industry employment (% in total empl.)	-.0139 (.0795)	-.0101 (.0891)	-.0143 (.0938)	-.0237 (.0970)	-1.61 (1.01)	-1.98* (1.15)	-2.01* (1.19)	-2.02 (1.34)	.0660 (.108)	.110 (.128)	.0921 (.137)	.153 (.128)	-.0110 (.0245)	-.0123 (.0237)	-.0184 (.0235)	-.0287 (.0217)
Manufacturing VA (% of GDP)	.0753 (.0496)	.0586 (.0459)	.0645 (.0477)	.0715 (.0481)	-1.30** (.612)	-1.50** (.730)	-1.32 (.796)	-1.46 (.904)	-.181 (.149)	-.188 (.180)	-.219 (.196)	-.135 (.123)	-.0105 (.0188)	-.0100 (.0186)	-.0151 (.0183)	-.0235 (.0186)
Political rights index	-.0058 (.215)	.0546 (.247)	.139 (.314)	.187 (.327)	2.58 (2.77)	3.14 (3.32)	5.42 (4.68)	7.06 (5.57)	.606 (.381)	.571 (.416)	.407 (.470)	.363 (.471)	-.0268 (.0913)	-.0238 (.0816)	.0414 (.0649)	.115 (.0762)
Civil liberty index	-.347 (.286)	-.353 (.303)	-.332 (.310)	-.320 (.312)	-6.51 (4.77)	-6.99 (4.79)	-7.06 (4.95)	-7.92 (4.83)	-.882 (.630)	-.682 (.683)	-.969 (.766)	-.347 (.593)	-.0809 (.130)	-.0241 (.122)	-.0364 (.113)	-.0578 (.110)
No. of observations	700	648	597	540	623	585	548	505	500	468	434	398	1229	1158	1084	1007
Adjusted R <sup>2</sup>	.809	.806	.811	.808	.810	.809	.807	.810	.983	.984	.984	.651	.829	.839	.847	.860

Notes: Fixed-effect regressions for countries. Time (year) dummies are also included. Clustered standard errors are reported in parentheses. \*, \*\*, and \*\*\* indicate the significance at the 10%, 5%, and 1%, respectively.

**Table 5. Impacts of RTA with Labor Clauses vs. RTA without Labor Clauses on Labor Conditions, for High-income Countries**  
(Labor clauses defined by the conservative classification; TC indicators based on the fixed 1995 trade shares)

Dependent variable: Labor Condition Measures		Log of Mean Real Monthly Earnings (earnings)				Mean Weekly Hours Actually Worked (hours)			
		Lag 1	Lag 2	Lag 3	Lag 4	Lag 1	Lag 2	Lag 3	Lag 4
High-income RTA partners	RTA Concentration with Labor Clauses $t_{-1}$	2.38 (2.60)				25.3 (20.0)			
	RTA Concentration w/o Labor Clauses $t_{-1}$	-6.94** (3.00)				-46.8 (46.0)			
	RTA Concentration with Labor Clauses $t_{-2}$		2.09 (2.23)				51.6 (42.9)		
	RTA Concentration w/o Labor Clauses $t_{-2}$		-10.1* (4.95)				-77.9 (84.0)		
	RTA Concentration with Labor Clauses $t_{-3}$			-4.99 (8.94)				-7.51 (15.9)	
	RTA Concentration w/o Labor Clauses $t_{-3}$			-5.38 (4.61)				10.0 (19.9)	
	RTA Concentration with Labor Clauses $t_{-4}$				-4.58 (3.83)				-25.7 (31.6)
	RTA Concentration w/o Labor Clauses $t_{-4}$				-3.28 (4.54)				63.5 (48.6)
Middle-income RTA partners	RTA Concentration with Labor Clauses $t_{-1}$	-1.84 (11.6)				-177.5 (127.1)			
	RTA Concentration w/o Labor Clauses $t_{-1}$	-19.1** (8.19)				37.6 (136.0)			
	RTA Concentration with Labor Clauses $t_{-2}$		4.71 (9.13)				-395.0 (284.9)		
	RTA Concentration w/o Labor Clauses $t_{-2}$		-53.8 (41.9)				111.7 (163.4)		
	RTA Concentration with Labor Clauses $t_{-3}$			12.6 (11.7)				-239.1 (155.8)	
	RTA Concentration w/o Labor Clauses $t_{-3}$			-48.1 (44.8)				-90.5 (130.8)	
	RTA Concentration with Labor Clauses $t_{-4}$				24.1 (20.7)				-49.0 (48.1)
	RTA Concentration w/o Labor Clauses $t_{-4}$				-32.7 (44.4)				60.3 (135.0)
Low-income RTA partners	RTA Concentration with Labor Clauses $t_{-1}$	-2312*** (141.5)				-753.3 (1334)			
	RTA Concentration w/o Labor Clauses $t_{-1}$	-25.4 (15.9)				46.1 (98.8)			
	RTA Concentration with Labor Clauses $t_{-2}$		-2453*** (262.6)				-5182 (5865)		
	RTA Concentration w/o Labor Clauses $t_{-2}$		-17.8* (9.96)				-146.2 (138.0)		
	RTA Concentration with Labor Clauses $t_{-3}$			N.A. (--)				N.A. (--)	
	RTA Concentration w/o Labor Clauses $t_{-3}$			11.2 (30.1)				-245.0 (307.9)	
	RTA Concentration with Labor Clauses $t_{-4}$				N.A. (--)				N.A. (--)
	RTA Concentration w/o Labor Clauses $t_{-4}$				-27.6 (17.6)				-2992 (4361)
ln(GDP per capita)	6.62 (41.0)	39.8 (35.3)	21.8 (41.0)	13.5 (38.7)	-190.9 (165.7)	-154.6 (167.8)	-111.7 (153.0)	-164.2 (124.0)	
ln(GDP per capita) <sup>2</sup>	-.0266 (2.08)	-1.61 (1.74)	-7.22 (1.99)	-3.19 (1.86)	9.29 (7.92)	8.60 (8.39)	5.62 (7.62)	6.90 (5.64)	
Industry employment (% in total employment)	-.322** (.131)	-.432** (.162)	-.411* (.206)	-.432** (.174)	-.750 (1.02)	-1.30 (1.68)	-.638 (1.26)	-.477 (.837)	
Manufacturing VA (% of GDP)	-.0542 (.0605)	-.124 (.102)	-.118 (.109)	-.143 (.110)	.196 (.446)	.418 (.767)	-.194 (.546)	.0205 (.366)	
Political rights index	-.204 (.311)	.201 (.668)	-.257 (.766)	-.461 (.869)	.523 (3.70)	7.04 (7.06)	2.12 (1.86)	-1.18 (2.73)	
Civil liberty index	.159 (.261)	.299 (.363)	.215 (.251)	.358 (.520)	-2.97 (3.79)	-3.07 (5.09)	-4.35 (3.92)	-.249 (2.14)	
No. of observations	174	157	141	122	233	218	203	187	
Adjusted R <sup>2</sup>	.906	.914	.954	.952	.354	.429	.342	.258	

Table 5., continued

Dependent variable: Labor Condition Measures		Fatal Occupational Injury Rate (injury)				No. of ILO Core Conventions Ratified (conventions)			
		Lag 1	Lag 2	Lag 3	Lag 4	Lag 1	Lag 2	Lag 3	Lag 4
High-income RTA partners	RTA Concentration with Labor Clauses $t_1$	9.89 (6.98)				1.65 (.976)			
	RTA Concentration w/o Labor Clauses $t_1$	8.35 (11.1)				1.27 (2.17)			
	RTA Concentration with Labor Clauses $t_2$		14.4 (8.92)				1.88* (.944)		
	RTA Concentration w/o Labor Clauses $t_2$		4.90 (12.2)				2.87* (1.63)		
	RTA Concentration with Labor Clauses $t_3$			18.8* (9.77)				1.02 (.815)	
	RTA Concentration w/o Labor Clauses $t_3$			12.7 (15.9)				4.50*** (1.27)	
	RTA Concentration with Labor Clauses $t_4$				13.2* (6.47)				.635 (.794)
	RTA Concentration w/o Labor Clauses $t_4$				15.2* (7.56)				3.39* (1.67)
Middle-income RTA partners	RTA Concentration with Labor Clauses $t_1$	-86.3* (41.9)				-7.21 (5.22)			
	RTA Concentration w/o Labor Clauses $t_1$	15.1 (30.0)				-17.6 (14.3)			
	RTA Concentration with Labor Clauses $t_2$		-120.7 (66.6)				-2.76 (3.39)		
	RTA Concentration w/o Labor Clauses $t_2$		53.4 (93.3)				-37.1* (18.2)		
	RTA Concentration with Labor Clauses $t_3$			-109.8* (53.2)				-1.57 (2.23)	
	RTA Concentration w/o Labor Clauses $t_3$			-69.8 (89.3)				-24.1 (16.4)	
	RTA Concentration with Labor Clauses $t_4$				-34.1 (28.3)				-7.30 (1.60)
	RTA Concentration w/o Labor Clauses $t_4$				-57.3 (48.6)				-15.9 (15.5)
Low-income RTA partners	RTA Concentration with Labor Clauses $t_1$	491.9 (562.0)				-234.8*** (66.2)			
	RTA Concentration w/o Labor Clauses $t_1$	-14.7 (68.9)				1.33 (9.96)			
	RTA Concentration with Labor Clauses $t_2$		30.0 (480.2)				-232.5*** (65.9)		
	RTA Concentration w/o Labor Clauses $t_2$		-18.1 (74.3)				-10.7 (7.28)		
	RTA Concentration with Labor Clauses $t_3$			-884.0 (715.2)				-172.2** (65.3)	
	RTA Concentration w/o Labor Clauses $t_3$			-133.0 (129.3)				-8.31 (6.70)	
	RTA Concentration with Labor Clauses $t_4$				-1015* (509.5)				-132.0* (71.7)
	RTA Concentration w/o Labor Clauses $t_4$				-51.4 (44.1)				-1.69 (4.91)
ln(GDP per capita)	-100.9 (123.4)	-40.1 (136.6)	55.1 (171.4)	16.4 (65.2)	3.67 (18.6)	-4.28 (19.4)	-9.71 (18.7)	-5.06 (21.8)	
ln(GDP per capita) <sup>2</sup>	4.97 (6.02)	2.17 (6.54)	-2.55 (8.39)	-.883 (3.25)	-.175 (.902)	.210 (.938)	.476 (.908)	.264 (1.04)	
Industry employment (% in total employment)	-.249 (.346)	-.336 (.403)	-.554 (.636)	-.0750 (.224)	.0073 (.0764)	.0263 (.0629)	.0336 (.0518)	.0079 (.0322)	
Manufacturing VA (% of GDP)	-.484 (.343)	-.531 (.404)	-.788 (.741)	-.194 (.222)	.0640 (.0660)	.0352 (.0456)	.0447 (.0367)	.0425 (.0235)	
Political rights index	-2.60 (1.90)	-1.25 (2.44)	-1.23 (2.49)	-1.01 (1.23)	.0023 (.276)	-.118 (.336)	-.0302 (.312)	.187 (.415)	
Civil liberty index	-.100 (1.17)	.652 (1.30)	-.655 (1.24)	-.322 (.991)	-.541 (.323)	-.671** (.308)	-.521* (.281)	-.358 (.239)	
No. of observations	225	212	198	183	350	329	307	284	
Adjusted R <sup>2</sup>	.292	.313	.321	.465	.928	.938	.945	.953	

Notes: Fixed-effect regressions for countries. Time (year) dummies are also included. Clustered standard errors are reported in parentheses. \*, \*\*, and \*\*\* indicate the significance at the 10%, 5%, and 1%, respectively.

**Table 6. Impacts of RTA with Labor Clauses vs. RTA without Labor Clauses on Labor Conditions, for Middle-income Countries**  
(Labor clauses defined by the conservative classification; TC indicators based on the fixed 1995 trade shares)

Dependent variable: Labor Condition Measures		Log of Mean Real Monthly Earnings (earnings)				Mean Weekly Hours Actually Worked (hours)			
		Lag 1	Lag 2	Lag 3	Lag 4	Lag 1	Lag 2	Lag 3	Lag 4
High-income RTA partners	RTA Concentration with Labor Clauses $t_{-1}$	1.27* (.693)				5.14 (17.8)			
	RTA Concentration w/o Labor Clauses $t_{-1}$	1.96 (1.22)				25.8 (25.8)			
	RTA Concentration with Labor Clauses $t_{-2}$		1.75* (.960)				9.27 (17.5)		
	RTA Concentration w/o Labor Clauses $t_{-2}$		-7.38 (1.99)				34.6 (30.1)		
	RTA Concentration with Labor Clauses $t_{-3}$			.428 (.758)				10.8 (21.2)	
	RTA Concentration w/o Labor Clauses $t_{-3}$			2.00 (1.28)				37.2 (29.8)	
	RTA Concentration with Labor Clauses $t_{-4}$				-.426 (.949)				7.56 (25.8)
	RTA Concentration w/o Labor Clauses $t_{-4}$				2.48 (1.84)				26.6 (26.3)
Middle-income RTA partners	RTA Concentration with Labor Clauses $t_{-1}$	-1.77 (2.00)				-71.6** (27.2)			
	RTA Concentration w/o Labor Clauses $t_{-1}$	.757 (1.31)				-80.1 (157.5)			
	RTA Concentration with Labor Clauses $t_{-2}$		-2.34 (2.48)				-86.3** (33.7)		
	RTA Concentration w/o Labor Clauses $t_{-2}$		2.07 (2.45)				-156.1 (148.5)		
	RTA Concentration with Labor Clauses $t_{-3}$			.121 (1.23)				-99.2** (42.4)	
	RTA Concentration w/o Labor Clauses $t_{-3}$			.537 (2.26)				-68.6 (75.9)	
	RTA Concentration with Labor Clauses $t_{-4}$				1.26 (2.19)				-152.5*** (50.3)
	RTA Concentration w/o Labor Clauses $t_{-4}$				.171 (3.81)				6.75 (41.5)
Low-income RTA partners	RTA Concentration with Labor Clauses $t_{-1}$	-77.1* (45.7)				242.4 (625.0)			
	RTA Concentration w/o Labor Clauses $t_{-1}$	-13.4 (17.4)				-167.4 (478.0)			
	RTA Concentration with Labor Clauses $t_{-2}$		-112.1*** (29.3)				387.4 (667.9)		
	RTA Concentration w/o Labor Clauses $t_{-2}$		-11.4 (30.5)				132.2 (339.2)		
	RTA Concentration with Labor Clauses $t_{-3}$			7191*** (2214)				-13732 (51802)	
	RTA Concentration w/o Labor Clauses $t_{-3}$			-19.1 (28.7)				653.8 (538.2)	
	RTA Concentration with Labor Clauses $t_{-4}$				N.A. (--)				N.A. (--)
	RTA Concentration w/o Labor Clauses $t_{-4}$				-34.0 (42.2)				525.3 (576.8)
ln(GDP per capita)	9.69 (9.33)	11.2 (8.55)	4.60 (7.69)	3.37 (7.71)	140.0 (140.7)	121.4 (114.4)	74.0 (110.3)	17.1 (101.4)	
ln(GDP per capita) <sup>2</sup>	-.275 (.532)	-.342 (.482)	.0539 (.425)	.187 (.435)	-5.61 (9.07)	-4.41 (8.14)	-1.96 (8.36)	2.19 (7.37)	
Industry employment (% in total employment)	-.0820 (.0746)	-.0749 (.0727)	-.0454 (.0686)	-.101 (.0860)	-.489 (1.10)	-.463 (1.28)	-.611 (1.70)	-.844 (1.75)	
Manufacturing VA (% of GDP)	.0879* (.0497)	.0564* (.0320)	.0475 (.0336)	.0505 (.0356)	-.790 (.883)	-.885 (.969)	-.587 (1.09)	-1.30 (1.26)	
Political rights index	-.168 (.196)	-.203 (.210)	-.0376 (.238)	-.0070 (.249)	4.03 (3.23)	5.37 (4.06)	7.18 (5.61)	8.24 (6.97)	
Civil liberty index	-.444 (.277)	-.300 (.293)	-.379 (.272)	-.305 (.288)	-11.7 (8.44)	-12.8 (8.61)	-11.1 (7.92)	-12.1 (7.77)	
No. of observations	429	399	370	339	344	324	304	282	
Adjusted R <sup>2</sup>	.805	.812	.800	.794	.817	.815	.812	.820	

**Table 6., continued**

Dependent variable: Labor Condition Measures		Fatal Occupational Injury Rate ( <i>injury</i> )				No. of ILO Core Conventions Ratified ( <i>conventions</i> )			
		Lag 1	Lag 2	Lag 3	Lag 4	Lag 1	Lag 2	Lag 3	Lag 4
High-income RTA partners	RTA Concentration with Labor Clauses $t_1$	-3.12* (1.78)				-.0395 (.390)			
	RTA Concentration w/o Labor Clauses $t_1$	-8.90*** (2.33)				-.440 (.391)			
	RTA Concentration with Labor Clauses $t_2$		-2.12 (2.21)				.312 (.459)		
	RTA Concentration w/o Labor Clauses $t_2$		-.436 (3.23)				-.452 (.419)		
	RTA Concentration with Labor Clauses $t_3$			-3.85 (3.22)				.476 (.496)	
	RTA Concentration w/o Labor Clauses $t_3$			1.32 (4.00)				-.711** (.293)	
	RTA Concentration with Labor Clauses $t_4$				-3.63 (4.60)				.489 (.491)
	RTA Concentration w/o Labor Clauses $t_4$				-.379 (3.40)				-.691** (.277)
Middle-income RTA partners	RTA Concentration with Labor Clauses $t_1$	-3.78 (3.20)				-.251 (1.30)			
	RTA Concentration w/o Labor Clauses $t_1$	21.1 (28.3)				1.96*** (.579)			
	RTA Concentration with Labor Clauses $t_2$		-4.50 (5.54)				.0284 (1.84)		
	RTA Concentration w/o Labor Clauses $t_2$		11.7 (50.9)				.834 (1.10)		
	RTA Concentration with Labor Clauses $t_3$			-3.32 (5.22)				.0321 (1.91)	
	RTA Concentration w/o Labor Clauses $t_3$			35.4 (59.4)				-.357 (.496)	
	RTA Concentration with Labor Clauses $t_4$				-4.24 (7.09)				-.219 (1.84)
	RTA Concentration w/o Labor Clauses $t_4$				100.3 (101.6)				-.604 (1.13)
Low-income RTA partners	RTA Concentration with Labor Clauses $t_1$	N.A. (--)				38.0** (17.5)			
	RTA Concentration w/o Labor Clauses $t_1$	-17.7 (48.8)				2.33 (5.51)			
	RTA Concentration with Labor Clauses $t_2$		N.A. (--)				20.8 (12.8)		
	RTA Concentration w/o Labor Clauses $t_2$		-27.3 (59.3)				-5.96 (4.47)		
	RTA Concentration with Labor Clauses $t_3$			N.A. (--)				20.6*** (7.74)	
	RTA Concentration w/o Labor Clauses $t_3$			-129.4 (162.4)				-5.57 (3.52)	
	RTA Concentration with Labor Clauses $t_4$				N.A. (--)				21.2** (8.18)
	RTA Concentration w/o Labor Clauses $t_4$				-113.4 (146.2)				-2.64 (4.56)
ln(GDP per capita)	-53.7*** (14.8)	-53.9*** (19.1)	-52.7*** (19.4)	-48.4** (18.8)	6.99* (3.83)	9.02** (3.57)	8.72** (3.75)	4.80 (4.18)	
ln(GDP per capita) <sup>2</sup>	2.89*** (.744)	2.87*** (.971)	2.89*** (1.00)	2.43** (1.03)	-.354* (.209)	-.478** (.191)	-.436** (.196)	-.189 (.216)	
Industry employment (% in total employment)	.172 (.213)	.268 (.263)	.208 (.237)	.353 (.223)	-.0219 (.0298)	-.0175 (.0302)	-.0245 (.0308)	-.0336 (.0313)	
Manufacturing VA (% of GDP)	.0146 (.141)	.0114 (.163)	-.0279 (.148)	-.0247 (.140)	-.0131 (.0203)	-.0163 (.0190)	-.0256 (.0158)	-.0247 (.0163)	
Political rights index	.306 (.375)	.414 (.331)	.110 (.504)	-.476 (.755)	-.0817 (.0976)	-.119 (.0909)	-.0653 (.0701)	.0256 (.0163)	
Civil liberty index	.335 (.494)	.179 (.520)	.246 (.583)	.673 (.684)	.0950 (.164)	.197 (.158)	.182 (.146)	.137 (.146)	
No. of observations	221	208	193	178	691	650	607	565	
Adjusted R <sup>2</sup>	.712	.685	.695	.688	.796	.808	.813	.817	

Notes: Fixed-effect regressions for countries. Time (year) dummies are also included. Clustered standard errors are reported in parentheses. \*, \*\*, and \*\*\* indicate the significance at the 10%, 5%, and 1%, respectively.



**Table 7. Impacts of RTA with Labor Clauses vs. RTA without Labor Clauses on Labor Conditions, for Low-income Countries**  
(Labor clauses defined by the conservative classification; TC indicators based on the fixed 1995 trade shares)

Dependent variable: Labor Condition Measures		Log of Mean Real Monthly Earnings (earnings)				Mean Weekly Hours Actually Worked (hours)			
		Lag 1	Lag 2	Lag 3	Lag 4	Lag 1	Lag 2	Lag 3	Lag 4
High-income RTA partners	RTA Concentration with Labor Clauses $t_{-1}$	-17.7** (7.79)				N.A. (--)			
	RTA Concentration w/o Labor Clauses $t_{-1}$	-2.40 (21.1)				-356.3*** (36.9)			
	RTA Concentration with Labor Clauses $t_{-2}$		-18.3*** (4.49)				N.A. (--)		
	RTA Concentration w/o Labor Clauses $t_{-2}$		-3.92 (18.1)				251.9 (746.6)		
	RTA Concentration with Labor Clauses $t_{-3}$			-17.7*** (2.89)				N.A. (--)	
	RTA Concentration w/o Labor Clauses $t_{-3}$			-3.72 (17.7)				3640 (4087)	
	RTA Concentration with Labor Clauses $t_{-4}$				-15.6*** (2.75)				N.A. (--)
	RTA Concentration w/o Labor Clauses $t_{-4}$				N.A. (--)				N.A. (--)
Middle-income RTA partners	RTA Concentration with Labor Clauses $t_{-1}$	N.A. (--)				N.A. (--)			
	RTA Concentration w/o Labor Clauses $t_{-1}$	8.17 (12.5)				N.A. (--)			
	RTA Concentration with Labor Clauses $t_{-2}$		N.A. (--)				N.A. (--)		
	RTA Concentration w/o Labor Clauses $t_{-2}$		9.85 (10.7)				-735.1 (895.9)		
	RTA Concentration with Labor Clauses $t_{-3}$			N.A. (--)				N.A. (--)	
	RTA Concentration w/o Labor Clauses $t_{-3}$			10.4 (11.5)				-6303 (6463)	
	RTA Concentration with Labor Clauses $t_{-4}$				N.A. (--)				N.A. (--)
	RTA Concentration w/o Labor Clauses $t_{-4}$				12.8 (12.5)				23622 (12400)
Low-income RTA partners	RTA Concentration with Labor Clauses $t_{-1}$	N.A. (--)				N.A. (--)			
	RTA Concentration w/o Labor Clauses $t_{-1}$	-9.62 (25.4)				25.7 (202.3)			
	RTA Concentration with Labor Clauses $t_{-2}$		N.A. (--)				N.A. (--)		
	RTA Concentration w/o Labor Clauses $t_{-2}$		-12.3 (16.0)				-5.96 (61.0)		
	RTA Concentration with Labor Clauses $t_{-3}$			N.A. (--)				N.A. (--)	
	RTA Concentration w/o Labor Clauses $t_{-3}$			.834 (11.9)				117.2 (128.5)	
	RTA Concentration with Labor Clauses $t_{-4}$				N.A. (--)				N.A. (--)
	RTA Concentration w/o Labor Clauses $t_{-4}$				10.7 (12.4)				486.3 (384.2)
ln(GDP per capita)	-4.45 (25.6)	-15.7 (28.0)	-17.4 (34.7)	-20.9 (36.4)	-4.91 (208.9)	-186.8 (321.9)	-140.7 (379.7)	1791* (855)	
ln(GDP per capita) <sup>2</sup>	-.506 (1.73)	.227 (1.85)	.309 (2.24)	.502 (2.26)	-.126 (14.2)	11.3 (20.4)	6.94 (21.3)	-119.6** (48.7)	
Industry employment (% in total employment)	-.309 (.177)	-.304 (.178)	-.313 (.185)	-.279* (.145)	-.0813 (.533)	-.232 (.830)	-.425 (1.40)	-1.69 (3.44)	
Manufacturing VA (% of GDP)	-.0864 (.133)	-.103 (.132)	-.0791 (.148)	-.0749 (.104)	-.0402 (.763)	-.390** (.167)	-.344 (.405)	2.28 (6.19)	
Political rights index	-.271 (.415)	-.145 (.470)	-.0650 (.445)	.123 (.501)	-.154 (1.57)	-.325 (1.36)	-4.48 (6.86)	-11.9 (21.0)	
Civil liberty index	-.0274 (.667)	-.0852 (.684)	-.0090 (.723)	.210 (.852)	3.09 (5.18)	5.23 (6.55)	11.1 (14.4)	-18.3 (20.3)	
No. of observations	97	92	86	79	46	43	41	36	
Adjusted R <sup>2</sup>	.904	.898	.899	.898	.993	.992	.992	.942	

Table 7., continued

Dependent variable: Labor Condition Measures		Fatal Occupational Injury Rate ( <i>injury</i> )				No. of ILO Core Conventions Ratified ( <i>conventions</i> )			
		Lag 1	Lag 2	Lag 3	Lag 4	Lag 1	Lag 2	Lag 3	Lag 4
High-income RTA partners	RTA Concentration with Labor Clauses $t_1$	N.A. (--)				-1.85** (.991)			
	RTA Concentration w/o Labor Clauses $t_1$	N.A. (--)				2.97 (3.15)			
	RTA Concentration with Labor Clauses $t_2$		N.A. (--)				-15.9 (24.2)		
	RTA Concentration w/o Labor Clauses $t_2$		N.A. (--)				.842 (3.94)		
	RTA Concentration with Labor Clauses $t_3$			N.A. (--)				-38.1 (26.7)	
	RTA Concentration w/o Labor Clauses $t_3$			N.A. (--)				-1.88 (3.75)	
	RTA Concentration with Labor Clauses $t_4$				N.A. (--)				-.724 (.682)
	RTA Concentration w/o Labor Clauses $t_4$				N.A. (--)				-8.85** (3.85)
Middle-income RTA partners	RTA Concentration with Labor Clauses $t_1$	N.A. (--)				6.75 (7.55)			
	RTA Concentration w/o Labor Clauses $t_1$	-34.5 (84.0)				2.65 (3.43)			
	RTA Concentration with Labor Clauses $t_2$		N.A. (--)				195.0 (323.1)		
	RTA Concentration w/o Labor Clauses $t_2$		-21.6 (62.7)				1.59 (2.75)		
	RTA Concentration with Labor Clauses $t_3$			N.A. (--)				498.5 (357.9)	
	RTA Concentration w/o Labor Clauses $t_3$			24.0 (63.9)				1.59 (2.20)	
	RTA Concentration with Labor Clauses $t_4$				N.A. (--)				4.49 (5.86)
	RTA Concentration w/o Labor Clauses $t_4$				20.0 (122.7)				2.00 (1.89)
Low-income RTA partners	RTA Concentration with Labor Clauses $t_1$	N.A. (--)				-8.48 (33.5)			
	RTA Concentration w/o Labor Clauses $t_1$	146.0 (174.0)				10.6 (12.8)			
	RTA Concentration with Labor Clauses $t_2$		N.A. (--)				-814.5 (1360)		
	RTA Concentration w/o Labor Clauses $t_2$		75.8 (109.3)				2.21 (8.23)		
	RTA Concentration with Labor Clauses $t_3$			N.A. (--)				-2097 (1498)	
	RTA Concentration w/o Labor Clauses $t_3$			35.8 (110.0)				-1.82 (7.65)	
	RTA Concentration with Labor Clauses $t_4$				N.A. (--)				N.A. (--)
	RTA Concentration w/o Labor Clauses $t_4$				84.6* (34.7)				-.583 (6.33)
ln(GDP per capita)	-101.4 (147.5)	-131.1 (200.7)	-223.7 (291.5)	-141.4 (275.1)	8.59 (6.58)	11.0 (6.60)	14.9* (7.98)	10.3 (7.46)	
ln(GDP per capita) <sup>2</sup>	7.36 (9.72)	9.16 (13.5)	15.4 (19.4)	9.66 (18.4)	-.571 (.444)	-.714 (.446)	-.950* (.537)	-.633 (.510)	
Industry employment (% in total employment)	.781 (.842)	.435 (1.47)	.778 (1.72)	.372 (1.11)	-.0514 (.0469)	-.0395 (.0571)	-.0228 (.0574)	-.0477 (.0412)	
Manufacturing VA (% of GDP)	-1.22 (.637)	-1.00 (.552)	-.780 (.696)	-1.25 (.747)	-.0905 (.0687)	-.0587 (.0789)	-.0454 (.0739)	-.0735 (.0750)	
Political rights index	1.93 (3.59)	1.42 (3.36)	.465 (4.37)	.919 (4.13)	.232 (.241)	.311 (.280)	.397 (.274)	.495 (.315)	
Civil liberty index	-.573 (3.01)	-1.13 (4.10)	-1.47 (5.35)	1.75 (2.89)	-.340 (.352)	-.443 (.356)	-.455 (.392)	-.532 (.381)	
No. of observations	54	48	43	37	188	179	170	158	
Adjusted R <sup>2</sup>	.998	.997	.997	.587	.720	.694	.680	.717	

Notes: Fixed-effect regressions for countries. Time (year) dummies are also included. Clustered standard errors are reported in parentheses. \*, \*\*, and \*\*\* indicate the significance at the 10%, 5%, and 1%, respectively.

**Table 8. Impacts of the First RTA with Labor Clauses on Labor Conditions  
(RTAs with labor clauses defined by the conservative classification)**

	Dependent variable: Labor Condition Measure			
	Log of Mean Real Monthly Earnings ( <i>earnings</i> )	Mean Weekly Hours Actually Worked ( <i>hours</i> )	Fatal Occupational Injury Rate ( <i>injury</i> )	No. of ILO Core Conventions Ratified ( <i>conventions</i> )
1 <sup>st</sup> LC-RTA dummy $t-1$ ( $D_{t-1}$ )	-.400 (.663)	2.42 (2.94)	1.78 (1.07)	-.0268 (.194)
$D_{t-1}$ * Initial EX Share of the RTA partner	-.129 (.984)	-14.6 (11.1)	-2.85* (1.65)	.277 (.396)
1 <sup>st</sup> LC-RTA dummy $t-2$ ( $D_{t-2}$ )	-.231 (.786)	3.08 (3.85)	2.94* (1.65)	.248 (.387)
$D_{t-2}$ * Initial EX Share of the RTA partner	-.330 (1.36)	-1.02 (7.19)	-3.26* (1.68)	-.0039 (.528)
1 <sup>st</sup> LC-RTA dummy $t-3$ ( $D_{t-3}$ )	-.0545 (.412)	.310 (3.87)	2.22 (3.87)	.236 (.458)
$D_{t-3}$ * Initial EX Share of the RTA partner	-.372 (.935)	2.41 (7.42)	4.16 (8.47)	.124 (.600)
1 <sup>st</sup> LC-RTA dummy $t-4+$ ( $D_{t-4+}$ )	-.308 (.582)	.0370 (3.57)	2.25* (1.25)	.149 (.418)
$D_{t-4+}$ * Initial EX Share of the RTA partner	.297 (.872)	-20.8* (12.3)	-3.03 (1.86)	.0906 (.542)
ln(GDP per capita)	-12.9 (9.88)	95.5 (58.2)	-9.15 (24.4)	3.26 (3.47)
ln(GDP per capita) <sup>2</sup>	.961 (.583)	-5.57 (3.72)	.448 (1.41)	-.109 (.214)
Industry employment (% in total employment)	-.137* (.0802)	.499 (.497)	.0872 (.195)	-.0500*** (.0177)
Manufacturing VA (% of GDP)	.113* (.0623)	-.728 (.951)	-.0787 (.195)	-.0217 (.0190)
Political rights index	-.269 (.187)	-.0751 (1.30)	-.328 (.683)	-.140 (.0908)
Civil liberty index	-.365 (.338)	.512 (1.95)	-.307 (.570)	-.122 (.133)
No. of observations	453	445	398	705
Adjusted R <sup>2</sup>	.810	.888	.985	.881

*Notes:* Fixed-effect regressions for countries. Time (year) dummies are also included. Clustered standard errors are reported in parentheses. \*, \*\*, and \*\*\* indicate the significance at the 10%, 5%, and 1%, respectively.

**Table 9. Impacts of the First RTA with Labor Clauses on Labor Conditions, for High-income Countries**  
(Labor clauses defined by the conservative classification)

		Dependent variable: Labor Condition Measure							
		Log of Mean Real Monthly Earnings ( <i>earnings</i> )	Mean Weekly Hours Actually Worked ( <i>hours</i> )	Fatal Occupational Injury Rate ( <i>injury</i> )	No. of ILO Core Conventions Ratified ( <i>conventions</i> )				
High-income RTA partners	1 <sup>st</sup> LC-RTA dummy $t-1$ ( $D_{t-1}$ )	.285 (.526)	11.0 (10.0)	2.31 (2.16)	.274 (.206)				
	$D_{t-1}$ * Initial EX Share of the RTA partner	-.924 (1.15)	-45.0 (41.7)	-4.71 (4.33)	.172 (.321)				
	1 <sup>st</sup> LC-RTA dummy $t-2$ ( $D_{t-2}$ )	-.311 (1.02)	4.72 (4.35)	4.43 (4.19)	.118 (.206)				
	$D_{t-2}$ * Initial EX Share of the RTA partner	-1.35 (2.45)	10.4 (13.1)	-5.20 (4.26)	.479 (.324)				
	1 <sup>st</sup> LC-RTA dummy $t-3$ ( $D_{t-3}$ )	.0751 (.656)	.612 (2.84)	-2.15 (5.60)	.128 (.312)				
	$D_{t-3}$ * Initial EX Share of the RTA partner	-2.59 (2.15)	9.71 (13.3)	22.1 (26.2)	.307 (.386)				
	1 <sup>st</sup> LC-RTA dummy $t-4+$ ( $D_{t-4+}$ )	.0672 (.578)	.686 (2.10)	2.50 (1.82)	.167 (.459)				
	$D_{t-4+}$ * Initial EX Share of the RTA partner	-.977 (1.01)	-15.2 (16.1)	-1.25 (2.95)	.106 (.289)				
	No. of observations	176	234	224	340				
	Adjusted R <sup>2</sup>	.888	.412	.305	.955				
Middle-income RTA partners	1 <sup>st</sup> LC-RTA dummy $t-1$ ( $D_{t-1}$ )	-.254 (.489)	-27.4 (25.8)	-2.54 (3.19)	.291 (.183)				
	$D_{t-1}$ * Initial EX Share of the RTA partner	4.05* (2.31)	77.7 (71.7)	-2.25 (11.6)	-.488 (.714)				
	1 <sup>st</sup> LC-RTA dummy $t-2$ ( $D_{t-2}$ )	-1.04 (1.10)	7.90 (6.11)	-1.80 (2.43)	.303* (.172)				
	$D_{t-2}$ * Initial EX Share of the RTA partner	4.22 (3.60)	-10.6 (12.1)	8.71 (8.12)	-1.12* (.575)				
	1 <sup>st</sup> LC-RTA dummy $t-3$ ( $D_{t-3}$ )	-2.04 (3.20)	41.5 (34.5)	12.6 (13.2)	.205 (.129)				
	$D_{t-3}$ * Initial EX Share of the RTA partner	143.1 (457.2)	-5895 (5085)	-46.3 (37.9)	-.909** (.434)				
	1 <sup>st</sup> LC-RTA dummy $t-4+$ ( $D_{t-4+}$ )	-1.19 (1.20)	-.675 (8.22)	-9.69 (1.58)	.0574 (.146)				
	$D_{t-4+}$ * Initial EX Share of the RTA partner	172.1 (228.2)	-1921 (2898)	18.0 (7.85)	-.490 (.615)				
	No. of observations	176	234	224	340				
	Adjusted R <sup>2</sup>	.889	.424	.322	.955				
Low-income RTA partners	1 <sup>st</sup> LC-RTA dummy $t-1$ ( $D_{t-1}$ )	N.A. (—)	N.A. (—)	N.A. (—)	N.A. (—)				
	$D_{t-1}$ * Initial EX Share of the RTA partner								
	1 <sup>st</sup> LC-RTA dummy $t-2$ ( $D_{t-2}$ )								
	$D_{t-2}$ * Initial EX Share of the RTA partner								
	1 <sup>st</sup> LC-RTA dummy $t-3$ ( $D_{t-3}$ )								
	$D_{t-3}$ * Initial EX Share of the RTA partner								
	1 <sup>st</sup> LC-RTA dummy $t-4+$ ( $D_{t-4+}$ )								
	$D_{t-4+}$ * Initial EX Share of the RTA partner								
	N					0	0	0	0
	Adjusted R <sup>2</sup>					—	—	—	—

Notes: Fixed-effect regressions for countries. Time (year) dummies are also included. Clustered standard errors are reported in parentheses. \*, \*\*, and \*\*\* indicate the significance at the 10%, 5%, and 1%, respectively.

**Table 10. Impacts of the First RTA with Labor Clauses on Labor Conditions, for Middle-income Countries**

(Labor clauses defined by the conservative classification)

		Dependent variable: Labor Condition Measure							
		Log of Mean Real Monthly Earnings ( <i>earnings</i> )	Mean Weekly Hours Actually Worked ( <i>hours</i> )	Fatal Occupational Injury Rate ( <i>injury</i> )	No. of ILO Core Conventions Ratified ( <i>conventions</i> )				
High-income RTA partners	1 <sup>st</sup> LC-RTA dummy $t_{-1}$ ( $D_{t-1}$ )	-.766 (1.21)	10.5 (11.1)	.154 (3.10)	-.665** (.244)				
	$D_{t-1}$ * Initial EX Share of the RTA partner	.142 (1.77)	-21.9 (22.5)	-3.41 (5.36)	1.77** (.823)				
	1 <sup>st</sup> LC-RTA dummy $t_{-2}$ ( $D_{t-2}$ )	.232 (.780)	10.4 (14.9)	2.64 (4.89)	.386 (.791)				
	$D_{t-2}$ * Initial EX Share of the RTA partner	-.456 (2.03)	-21.1 (27.0)	-10.3 (7.93)	.195 (1.39)				
	1 <sup>st</sup> LC-RTA dummy $t_{-3}$ ( $D_{t-3}$ )	.825 (.578)	8.69 (16.7)	-5.93 (5.65)	.521 (.869)				
	$D_{t-3}$ * Initial EX Share of the RTA partner	-.552 (2.22)	-14.5 (31.0)	3.55 (8.16)	.203 (1.51)				
	1 <sup>st</sup> LC-RTA dummy $t_{-4+}$ ( $D_{t-4+}$ )	-.494 (.899)	.448 (22.5)	-12.5 (6.23)	.615 (.962)				
	$D_{t-4+}$ * Initial EX Share of the RTA partner	1.46 (1.39)	-29.5 (46.4)	8.99 (11.1)	-.0900 (1.68)				
	No. of observations	265	204	164	337				
	Adjusted R <sup>2</sup>	.787	.935	.626	.746				
Middle-income RTA partners	1 <sup>st</sup> LC-RTA dummy $t_{-1}$ ( $D_{t-1}$ )	-.521 (.695)	.709 (5.04)	2.63 (1.63)	.338 (.464)				
	$D_{t-1}$ * Initial EX Share of the RTA partner	-1.94 (3.27)	-2.47 (44.9)	-23.7** (9.53)	-1.25 (2.06)				
	1 <sup>st</sup> LC-RTA dummy $t_{-2}$ ( $D_{t-2}$ )	1.05 (1.22)	-3.04 (7.40)	.539 (4.02)	-.339 (.540)				
	$D_{t-2}$ * Initial EX Share of the RTA partner	-8.73 (7.23)	18.7 (50.5)	-20.3 (24.6)	6.02 (4.36)				
	1 <sup>st</sup> LC-RTA dummy $t_{-3}$ ( $D_{t-3}$ )	2.60** (1.08)	.549 (8.41)	1.70 (3.15)	-.380 (.571)				
	$D_{t-3}$ * Initial EX Share of the RTA partner	-13.6** (6.23)	14.0 (64.3)	-30.3 (18.8)	7.70* (3.98)				
	1 <sup>st</sup> LC-RTA dummy $t_{-4+}$ ( $D_{t-4+}$ )	-.240 (1.59)	-19.5 (66.6)	-.587 (5.54)	-.765 (.623)				
	$D_{t-4+}$ * Initial EX Share of the RTA partner	-1.28 (4.01)	-27.6 (425.8)	-39.4 (28.2)	10.0*** (3.40)				
	No. of observations	265	204	164	337				
	Adjusted R <sup>2</sup>	.789	.937	.633	.757				
Low-income RTA partners	1 <sup>st</sup> LC-RTA dummy $t_{-1}$ ( $D_{t-1}$ )	N.A. (—)	N.A. (—)	N.A. (—)	N.A. (—)				
	$D_{t-1}$ * Initial EX Share of the RTA partner								
	1 <sup>st</sup> LC-RTA dummy $t_{-2}$ ( $D_{t-2}$ )								
	$D_{t-2}$ * Initial EX Share of the RTA partner								
	1 <sup>st</sup> LC-RTA dummy $t_{-3}$ ( $D_{t-3}$ )								
	$D_{t-3}$ * Initial EX Share of the RTA partner								
	1 <sup>st</sup> LC-RTA dummy $t_{-4+}$ ( $D_{t-4+}$ )								
	$D_{t-4+}$ * Initial EX Share of the RTA partner								
	N					0	0	0	0
	Adjusted R <sup>2</sup>					—	—	—	—

Notes: Fixed-effect regressions for countries. Time (year) dummies are also included. Clustered standard errors are reported in parentheses. \*, \*\*, and \*\*\* indicate the significance at the 10%, 5%, and 1%, respectively.

**Appendix Table A1. Impacts of RTA with Labor Clauses vs. RTA without Labor Clauses on Labor Conditions**  
**(RTAs with labor clauses defined by the *liberal* classification; and**  
**RTA trade concentrations are based on the RTA partners' manufacturing trade share as of 1995.)**

	Dependent variable: Labor Condition Measure															
	Log of Mean Real Monthly Earnings ( <i>earnings</i> )				Mean Weekly Hours Actually Worked ( <i>hours</i> )				Fatal Occupational Injury Rate ( <i>injury</i> )				No. of ILO Core Conventions Ratified ( <i>conventions</i> )			
	Lag 1	Lag 2	Lag 3	Lag 4	Lag 1	Lag 2	Lag 3	Lag 4	Lag 1	Lag 2	Lag 3	Lag 4	Lag 1	Lag 2	Lag 3	Lag 4
RTA Concentration with Labor Clauses $t-1$	.192 (.658)				-7.28 (9.24)				-.0767 (1.41)				.0568 (.294)			
RTA Concentration w/o Labor Clauses $t-1$	.788 (.943)				-8.77 (19.1)				-.593 (4.23)				.513 (.523)			
RTA Concentration with Labor Clauses $t-2$		.203 (.707)				-8.18 (11.7)				.261 (1.69)				.253 (.317)		
RTA Concentration w/o Labor Clauses $t-2$		-.476 (1.28)				-4.71 (20.5)				5.26* (3.10)				.0973 (.405)		
RTA Concentration with Labor Clauses $t-3$			.174 (.583)				-12.3 (14.9)				-.575 (1.94)				.404 (.313)	
RTA Concentration w/o Labor Clauses $t-3$			.417 (.805)				-.614 (21.9)				8.06** (3.22)				-.355 (.300)	
RTA Concentration with Labor Clauses $t-4$				-.665 (.574)				-23.0 (19.4)				-.545 (2.45)				.407 (.282)
RTA Concentration w/o Labor Clauses $t-4$				.571 (.964)				19.3 (15.1)				5.57 (4.06)				-.557** (.280)
ln(GDP per capita)	-14.7 (9.10)	-16.1 (10.8)	-16.0 (11.4)	-18.5 (12.0)	114.5** (47.4)	138.7** (58.6)	104.1 (64.1)	39.6 (70.7)	-8.82 (10.4)	-6.74 (10.4)	-13.3 (15.5)	-17.9 (12.6)	6.97** (2.74)	7.79*** (2.81)	8.23*** (3.04)	6.21** (3.09)
ln(GDP per capita) <sup>2</sup>	.908* (.469)	1.00* (.554)	.968* (.581)	1.13* (.611)	-5.51 (4.33)	-6.75 (5.24)	-4.87 (5.71)	-6.94 (5.76)	.672 (.673)	.672 (.768)	1.04 (.948)	1.19 (.790)	-3.78** (.150)	-4.27*** (.154)	-4.37*** (.166)	-2.98* (.172)
Industry employment (% in total empl.)	-.0140 (.0796)	-.0101 (.0892)	-.0141 (.0938)	-.0231 (.0970)	-1.61 (1.01)	-1.98* (1.15)	-2.01* (1.19)	-2.02 (1.34)	.0657 (.109)	.0657 (.109)	.0922 (.137)	.153 (.128)	-.0111 (.0245)	-.0124 (.0236)	-.0184 (.0235)	-.0288 (.0217)
Manufacturing VA (% of GDP)	.0751 (.0496)	.0585 (.0459)	.0644 (.0477)	.0713 (.0481)	-1.30** (.612)	-1.50** (.730)	-1.32 (.796)	-1.46 (.904)	-.181 (.149)	-.181 (.149)	-.219 (.196)	-.135 (.123)	-.0104 (.0188)	-.0100 (.0186)	-.0151 (.0183)	-.0235 (.0186)
Political rights index	-.0051 (.215)	.0566 (.247)	.141 (.314)	.188 (.327)	2.58 (2.77)	3.14 (3.32)	5.42 (4.68)	7.06 (5.57)	.606 (.380)	.569 (.415)	.407 (.470)	.363 (.471)	-.0276 (.0911)	-.0238 (.0815)	.0414 (.0647)	.115 (.0761)
Civil liberty index	-.347 (.286)	-.355 (.303)	-.334 (.310)	-.322 (.312)	-6.51 (4.77)	-6.99 (4.79)	-7.06 (4.95)	-7.92 (4.83)	-.883 (.630)	-.679 (.683)	-.969 (.766)	-.347 (.593)	-.0807 (.130)	-.0240 (.122)	-.0363 (.113)	-.0578 (.110)
No. of observations	700	648	597	540	623	585	548	505	500	468	434	398	1229	1158	1084	1007
Adjusted R <sup>2</sup>	.809	.806	.811	.808	.810	.809	.807	.810	.983	.983	.984	.651	.829	.839	.847	.860

Notes: Fixed-effect regressions for countries. Time (year) dummies are also included. Clustered standard errors are reported in parentheses. \*, \*\*, and \*\*\* indicate the significance at the 10%, 5%, and 1%, respectively.

**Appendix Table A2. Impacts of RTA with Labor Clauses vs. RTA without Labor Clauses on Labor Conditions**  
**(RTAs with labor clauses defined by the conservative classification; and**  
**RTA trade concentrations are based on the RTA partners' manufacturing trade share in the *current year*.)**

	Dependent variable: Labor Condition Measure															
	Log of Mean Real Monthly Earnings ( <i>earnings</i> )				Mean Weekly Hours Actually Worked ( <i>hours</i> )				Fatal Occupational Injury Rate ( <i>injury</i> )				No. of ILO Core Conventions Ratified ( <i>conventions</i> )			
	Lag 1	Lag 2	Lag 3	Lag 4	Lag 1	Lag 2	Lag 3	Lag 4	Lag 1	Lag 2	Lag 3	Lag 4	Lag 1	Lag 2	Lag 3	Lag 4
RTA Concentration with Labor Clauses $t-1$	.0180 (.665)				-6.74 (8.97)				-.333 (1.31)				.156 (.320)			
RTA Concentration w/o Labor Clauses $t-1$	.150 (.988)				-7.05 (24.9)				-1.42 (4.33)				.613 (.417)			
RTA Concentration with Labor Clauses $t-2$		-.0615 (.641)				-7.28 (11.6)				.0043 (1.72)				.373 (.363)		
RTA Concentration w/o Labor Clauses $t-2$		-.874 (.972)				-10.6 (21.6)				2.41 (3.24)				.170 (.372)		
RTA Concentration with Labor Clauses $t-3$			.0187 (.582)				-10.7 (14.8)				-5.54 (2.11)				.507 (.345)	
RTA Concentration w/o Labor Clauses $t-3$			-.608 (1.00)				-12.6 (20.8)				5.42 (3.27)				-.222 (.317)	
RTA Concentration with Labor Clauses $t-4$				-.536 (.539)				-22.0 (19.0)				-5.59 (2.58)				.499 (.311)
RTA Concentration w/o Labor Clauses $t-4$				-.616 (1.47)				2.42 (12.7)				-.318 (3.06)				-.314 (.350)
ln(GDP per capita)	-15.3* (8.87)	-17.3* (10.4)	-16.7 (11.3)	-18.5 (11.7)	115.2** (46.8)	139.0** (57.6)	107.1* (57.6)	56.6 (67.5)	-9.94 (10.5)	-6.50 (12.8)	-9.71 (17.4)	-18.4 (14.1)	7.21*** (2.71)	7.99*** (2.75)	8.14*** (2.89)	5.92** (2.99)
ln(GDP per capita) <sup>2</sup>	.948* (.456)	1.08** (.533)	1.00* (.571)	1.12* (.594)	-5.59 (4.21)	-6.84 (5.10)	-5.15 (5.38)	-1.66 (5.60)	.744 (.669)	.557 (.798)	.859 (1.04)	1.23 (.877)	-.392*** (.149)	-.441*** (.152)	-.436*** (.158)	-.285* (.168)
Industry employment (% in total empl.)	-.0114 (.0790)	-.0065 (.0887)	-.0114 (.0938)	-.0271 (.0955)	-1.59 (1.06)	-1.91 (1.18)	-1.90 (1.20)	-2.05 (1.34)	.0662 (.111)	.0964 (.137)	.0803 (.151)	.149 (.144)	-.0117 (.0245)	-.0125 (.0236)	-.0176 (.0232)	-.0271 (.0217)
Manufacturing VA (% of GDP)	.0776 (.0493)	.0623 (.0455)	.0683 (.0474)	.0741 (.0479)	-1.28** (.626)	-1.42** (.716)	-1.21 (.766)	-1.38 (.909)	-.176 (.148)	-.178 (.180)	-.224 (.201)	-.153 (.125)	-.0132 (.0186)	-.0114 (.0188)	-.0159 (.0186)	-.0246 (.0191)
Political rights index	.0002 (.215)	.0726 (.242)	.134 (.315)	.184 (.324)	2.64 (2.64)	3.19 (3.31)	5.31 (4.72)	7.11 (5.64)	.614 (.380)	.583 (.419)	.430 (.465)	.356 (.478)	-.0261 (.0813)	-.0269 (.0813)	.0352 (.0667)	.107 (.0760)
Civil liberty index	-.366 (.287)	-.393 (.298)	-.350 (.316)	-.315 (.309)	-6.49 (4.65)	-6.91 (4.78)	-6.90 (4.98)	-7.97 (4.87)	-.929 (.644)	-.753 (.688)	-.976 (.745)	-.512 (.602)	-.0700 (.126)	-.0149 (.119)	-.0272 (.111)	-.0486 (.107)
No. of observations	704	650	597	540	625	586	548	505	500	468	434	398	1234	1161	1085	1007
Adjusted R <sup>2</sup>	.808	.806	.811	.808	.809	.809	.808	.809	.983	.984	.984	.649	.830	.840	.847	.860

Notes: Fixed-effect regressions for countries. Time (year) dummies are also included. Clustered standard errors are reported in parentheses. \*, \*\*, and \*\*\* indicate the significance at the 10%, 5%, and 1%, respectively.

**Appendix Table A3. Impacts of RTA with Labor Clauses vs. RTA without Labor Clauses on Labor Conditions**  
**(RTAs with labor clauses defined by the *liberal* classification; and**  
**RTA trade concentrations are based on the RTA partners' manufacturing trade share in the *current year*.)**

	Dependent variable: Labor Condition Measure															
	Log of Mean Real Monthly Earnings ( <i>earnings</i> )				Mean Weekly Hours Actually Worked ( <i>hours</i> )				Fatal Occupational Injury Rate ( <i>injury</i> )				No. of ILO Core Conventions Ratified ( <i>conventions</i> )			
	Lag 1	Lag 2	Lag 3	Lag 4	Lag 1	Lag 2	Lag 3	Lag 4	Lag 1	Lag 2	Lag 3	Lag 4	Lag 1	Lag 2	Lag 3	Lag 4
RTA Concentration with Labor Clauses $t-1$	-.0418 (.658)				-6.71 (8.95)				-.334 (1.30)				.216 (.313)			
RTA Concentration w/o Labor Clauses $t-1$	.391 (.942)				-7.20 (24.9)				-1.51 (4.38)				.495 (.429)			
RTA Concentration with Labor Clauses $t-2$		-.142 (.640)				-7.27 (11.6)				-.0101 (1.70)				.423 (.356)		
RTA Concentration w/o Labor Clauses $t-2$		-.669 (.953)				-10.7 (21.6)				2.64 (3.31)				.0508 (.369)		
RTA Concentration with Labor Clauses $t-3$			-.0980 (.588)				-10.6 (14.8)				-.562 (2.10)				.593* (.338)	
RTA Concentration w/o Labor Clauses $t-3$			-.378 (.914)				-12.8 (20.8)				5.66 (3.39)				-.420 (.306)	
RTA Concentration with Labor Clauses $t-4$				-.677 (.569)				-21.9 (19.0)				-.580 (2.57)				.586 (.303)
RTA Concentration w/o Labor Clauses $t-4$				-.331 (1.37)				2.04 (12.7)				-.124 (3.20)				-.517 (.336)
ln(GDP per capita)	-15.4* (8.87)	-17.5* (10.4)	-16.8 (11.3)	-18.5 (11.7)	115.3** (46.7)	139.0** (57.2)	107.1* (57.7)	56.5 (67.5)	-10.0 (10.6)	-6.34 (12.8)	-9.33 (17.4)	-18.3 (14.3)	7.34*** (2.70)	8.12*** (2.76)	8.36*** (2.93)	6.10** (3.02)
ln(GDP per capita) <sup>2</sup>	.953** (.455)	1.09** (.532)	1.02* (.571)	1.13* (.595)	-5.59 (4.20)	-6.84 (5.10)	-5.16 (5.38)	-1.66 (5.60)	.751 (.676)	.548 (.798)	.834 (1.05)	1.22 (.884)	-.402*** (.149)	-.450*** (.153)	-.450*** (.162)	-.297* (.169)
Industry employment (% in total empl.)	-.0117 (.0791)	-.0063 (.0887)	-.0112 (.0938)	-.0257 (.0955)	-1.58 (1.06)	-1.91 (1.18)	-1.90 (1.20)	-2.05 (1.34)	.0669 (.111)	.0963 (.136)	.0790 (.150)	.149 (.144)	-.0119 (.0242)	-.0131 (.0232)	-.0186 (.0231)	-.0282 (.0217)
Manufacturing VA (% of GDP)	.0766 (.0493)	.0621 (.0456)	.0682 (.0477)	.0740 (.0481)	-1.28** (.625)	-1.42** (.716)	-1.21 (.766)	-1.38 (.910)	-.176 (.148)	-.178 (.180)	-.221 (.200)	-.152 (.125)	-.0126 (.0187)	-.0110 (.0188)	-.0163 (.0185)	-.0250 (.0190)
Political rights index	.0022 (.216)	.0823 (.242)	.145 (.316)	.188 (.326)	2.64 (2.64)	3.19 (3.31)	5.31 (4.72)	7.11 (5.64)	.618 (.379)	.579 (.414)	.416 (.458)	.355 (.480)	-.0286 (.0875)	-.0295 (.0808)	.0325 (.0663)	.110 (.0751)
Civil liberty index	-.363 (.286)	-.397 (.297)	-.360 (.315)	-.325 (.310)	-6.49 (4.65)	-6.91 (4.78)	-6.89 (4.98)	-7.96 (4.87)	-.929 (.643)	-.753 (.689)	-.977 (.746)	-.507 (.602)	-.0708 (.127)	-.0120 (.118)	-.0212 (.110)	-.0429 (.107)
No. of observations	704	650	597	540	625	586	548	505	500	468	434	398	1234	1161	1085	1007
Adjusted R <sup>2</sup>	.809	.806	.811	.808	.809	.809	.807	.809	.983	.984	.984	.649	.829	.840	.848	.861

Notes: Fixed-effect regressions for countries. Time (year) dummies are also included. Clustered standard errors are reported in parentheses. \*, \*\*, and \*\*\* indicate the significance at the 10%, 5%, and 1%, respectively.



**Appendix Table A4. Impacts of RTA with Labor Clauses vs. RTA without Labor Clauses on Labor Conditions**  
**(Labor clauses defined by the *liberal* classification; TC indicators based on the fixed 1995 trade shares)**

(1) High-income Countries

Dependent variable: Labor Condition Measures		Log of Mean Real Monthly Earnings ( <i>earnings</i> )				Mean Weekly Hours Actually Worked ( <i>hours</i> )			
		Lag 1	Lag 2	Lag 3	Lag 4	Lag 1	Lag 2	Lag 3	Lag 4
High-income RTA partners	RTA Concentration with Labor Clauses $r_{t-1}$	2.40 (2.61)				25.5 (20.1)			
	RTA Concentration w/o Labor Clauses $r_{t-1}$	-6.98** (2.98)				-47.1 (46.3)			
	RTA Concentration with Labor Clauses $r_{t-2}$		2.02 (2.23)				51.6 (42.9)		
	RTA Concentration w/o Labor Clauses $r_{t-2}$		-10.1* (4.95)				-78.3 (84.3)		
	RTA Concentration with Labor Clauses $r_{t-3}$			-4.68 (8.55)				-6.07 (18.0)	
	RTA Concentration w/o Labor Clauses $r_{t-3}$			-4.66 (5.35)				11.4 (18.4)	
	RTA Concentration with Labor Clauses $r_{t-4}$				-6.07 (3.89)				-20.7 (31.1)
	RTA Concentration w/o Labor Clauses $r_{t-4}$				-1.68 (5.84)				69.2 (53.4)
Middle-income RTA partners	RTA Concentration with Labor Clauses $r_{t-1}$	-1.59 (11.7)				-177.9 (127.5)			
	RTA Concentration w/o Labor Clauses $r_{t-1}$	-18.9** (8.21)				37.3 (135.9)			
	RTA Concentration with Labor Clauses $r_{t-2}$		5.12 (9.17)				-395.0 (285.2)		
	RTA Concentration w/o Labor Clauses $r_{t-2}$		-52.8 (41.8)				115.8 (165.9)		
	RTA Concentration with Labor Clauses $r_{t-3}$			11.8 (11.6)				-236.5 (152.8)	
	RTA Concentration w/o Labor Clauses $r_{t-3}$			-51.7 (47.6)				-115.9 (180.1)	
	RTA Concentration with Labor Clauses $r_{t-4}$				23.3 (20.1)				-40.1 (44.7)
	RTA Concentration w/o Labor Clauses $r_{t-4}$				-38.0 (41.8)				-42.9 (153.0)
Low-income RTA partners	RTA Concentration with Labor Clauses $r_{t-1}$	-2317*** (140.1)				-950.8 (1543)			
	RTA Concentration w/o Labor Clauses $r_{t-1}$	-26.1 (15.9)				46.0 (98.6)			
	RTA Concentration with Labor Clauses $r_{t-2}$		-2451*** (256.9)				-5340 (6005)		
	RTA Concentration w/o Labor Clauses $r_{t-2}$		-18.0* (10.0)				-146.4 (138.1)		
	RTA Concentration with Labor Clauses $r_{t-3}$			11625 (35355)				28962 (61468)	
	RTA Concentration w/o Labor Clauses $r_{t-3}$			10.8 (29.6)				-250.1 (314.6)	
	RTA Concentration with Labor Clauses $r_{t-4}$				18209 (23129)				107835 (118578)
	RTA Concentration w/o Labor Clauses $r_{t-4}$				-27.6 (17.5)				-4479 (5975)
ln(GDP per capita)	7.13 (41.2)	40.6 (35.3)	20.5 (41.1)	12.0 (38.5)	-191.0 (165.5)	-153.1 (167.3)	-119.2 (157.8)	-176.1 (128.4)	
ln(GDP per capita) <sup>2</sup>	-.0506 (2.10)	-1.65 (1.74)	-.648 (2.00)	-.239 (1.85)	9.29 (7.91)	8.52 (8.36)	6.00 (7.86)	7.69 (5.87)	
Industry employment (% in total employment)	-.324** (.130)	-.433** (.162)	-.406* (.204)	-.431** (.176)	-.751 (1.02)	-1.31 (1.68)	-.655 (1.29)	-.607 (.983)	
Manufacturing VA (% of GDP)	-.0560 (.0613)	-.126 (.102)	-.119 (.107)	-.145 (.114)	.197 (.446)	.418 (.768)	-.203 (.544)	.0179 (.354)	
Political rights index	-.191 (.306)	.208 (.667)	-.277 (.743)	-.483 (.884)	.539 (3.70)	7.09 (7.10)	1.95 (1.73)	-.886 (2.49)	
Civil liberty index	.132 (.264)	.265 (.364)	.414 (.621)	.638 (.772)	-2.98 (3.79)	-3.13 (5.09)	-4.04 (3.80)	.408 (1.91)	
No. of observations	174	157	141	122	233	218	203	187	
Adjusted R <sup>2</sup>	.906	.914	.954	.952	.354	.429	.338	.255	

Appendix Table A4., *continued*(1) High-income Countries, *continued*

Dependent variable: Labor Condition Measures		Fatal Occupational Injury Rate ( <i>injury</i> )				No. of ILO Core Conventions Ratified ( <i>conventions</i> )			
		Lag 1	Lag 2	Lag 3	Lag 4	Lag 1	Lag 2	Lag 3	Lag 4
High-income RTA partners	RTA Concentration with Labor Clauses $t_{-1}$	9.87 (6.98)				1.56 (.939)			
	RTA Concentration w/o Labor Clauses $t_{-1}$	8.44 (11.2)				1.65 (2.03)			
	RTA Concentration with Labor Clauses $t_{-2}$		14.4 (8.92)				1.80 <sup>*</sup> (.900)		
	RTA Concentration w/o Labor Clauses $t_{-2}$		4.98 (12.2)				3.14 <sup>*</sup> (1.56)		
	RTA Concentration with Labor Clauses $t_{-3}$			18.7 <sup>*</sup> (9.75)				.934 (.776)	
	RTA Concentration w/o Labor Clauses $t_{-3}$			12.8 (16.0)				4.68 <sup>***</sup> (1.26)	
	RTA Concentration with Labor Clauses $t_{-4}$				13.2 <sup>*</sup> (6.47)				.575 (.771)
	RTA Concentration w/o Labor Clauses $t_{-4}$				15.2 <sup>*</sup> (7.58)				3.46 <sup>**</sup> (1.68)
Middle-income RTA partners	RTA Concentration with Labor Clauses $t_{-1}$	-86.3 <sup>*</sup> (41.9)				-6.69 (5.05)			
	RTA Concentration w/o Labor Clauses $t_{-1}$	15.2 (29.8)				-17.6 (14.3)			
	RTA Concentration with Labor Clauses $t_{-2}$		-120.6 (66.6)				-2.28 (3.32)		
	RTA Concentration w/o Labor Clauses $t_{-2}$		53.6 (92.9)				-37.1 <sup>*</sup> (17.9)		
	RTA Concentration with Labor Clauses $t_{-3}$			-109.7 <sup>*</sup> (53.1)				-1.23 (2.18)	
	RTA Concentration w/o Labor Clauses $t_{-3}$			-69.0 (89.1)				-23.8 (16.1)	
	RTA Concentration with Labor Clauses $t_{-4}$				-34.0 (28.3)				-.515 (1.60)
	RTA Concentration w/o Labor Clauses $t_{-4}$				-56.8 (48.6)				-15.7 (15.3)
Low-income RTA partners	RTA Concentration with Labor Clauses $t_{-1}$	522.5 (556.8)				-41.3 (197.4)			
	RTA Concentration w/o Labor Clauses $t_{-1}$	-14.7 (68.7)				.154 (9.58)			
	RTA Concentration with Labor Clauses $t_{-2}$		58.7 (475.9)				-81.5 (65.9)		
	RTA Concentration w/o Labor Clauses $t_{-2}$		-18.1 (74.4)				-11.5 (7.67)		
	RTA Concentration with Labor Clauses $t_{-3}$			-825.4 (712.7)				-41.8 (100.2)	
	RTA Concentration w/o Labor Clauses $t_{-3}$			-133.1 (129.4)				-8.73 (7.15)	
	RTA Concentration with Labor Clauses $t_{-4}$				-978.8 <sup>*</sup> (498.2)				-13.2 (78.2)
	RTA Concentration w/o Labor Clauses $t_{-4}$				-51.4 (44.2)				-1.88 (5.02)
ln(GDP per capita)	-100.9 (123.4)	-40.2 (136.7)	54.8 (171.3)	16.4 (65.2)	3.80 (18.8)	-4.23 (19.5)	-9.67 (18.8)	-4.89 (21.9)	
ln(GDP per capita) <sup>2</sup>	4.96 (6.02)	2.17 (6.54)	-2.53 (8.38)	-879 (3.26)	-.178 (.911)	.210 (.942)	.476 (.913)	.258 (1.05)	
Industry employment (% in total employment)	-.248 (.345)	-.335 (.403)	-.552 (.635)	-.0739 (.223)	.0095 (.0773)	.0280 (.0631)	.0355 (.0524)	.0087 (.0325)	
Manufacturing VA (% of GDP)	-.484 (.343)	-.531 (.404)	-.789 (.741)	-.194 (.223)	.0613 (.0649)	.0327 (.0449)	.0434 (.0365)	.0422 (.0234)	
Political rights index	-2.60 (1.90)	-1.26 (2.44)	-1.23 (2.49)	-1.01 (1.23)	-.0115 (.280)	-.135 (.341)	-.0398 (.316)	.186 (.415)	
Civil liberty index	-.0955 (1.17)	.652 (1.31)	-.655 (1.24)	-.321 (.994)	-.554 (.327)	-.679 <sup>**</sup> (.310)	-.523 <sup>*</sup> (.281)	-.358 (.238)	
No. of observations	225	212	198	183	350	329	307	284	
Adjusted R <sup>2</sup>	.292	.313	.321	.465	.927	.938	.945	.953	

Appendix Table A4., *continued*

## (2) Middle-income Countries

Dependent variable: Labor Condition Measures		Log of Mean Real Monthly Earnings ( <i>earnings</i> )				Mean Weekly Hours Actually Worked ( <i>hours</i> )			
		Lag 1	Lag 2	Lag 3	Lag 4	Lag 1	Lag 2	Lag 3	Lag 4
High-income RTA partners	RTA Concentration with Labor Clauses $t_{-1}$	1.38** (.677)				5.22 (17.8)			
	RTA Concentration w/o Labor Clauses $t_{-1}$	2.46** (1.01)				26.5 (25.9)			
	RTA Concentration with Labor Clauses $t_{-2}$		1.87 <sup>+</sup> (.943)				9.24 (17.5)		
	RTA Concentration w/o Labor Clauses $t_{-2}$		-.357 (2.01)				34.7 (30.1)		
	RTA Concentration with Labor Clauses $t_{-3}$			1.37 <sup>+</sup> (.730)				10.5 (21.8)	
	RTA Concentration w/o Labor Clauses $t_{-3}$			2.47 <sup>+</sup> (1.24)				37.3 (29.8)	
	RTA Concentration with Labor Clauses $t_{-4}$				.0901 (.769)				-5.07 (32.5)
	RTA Concentration w/o Labor Clauses $t_{-4}$				2.78 (1.79)				27.4 (26.6)
Middle-income RTA partners	RTA Concentration with Labor Clauses $t_{-1}$	-2.14 (2.11)				-70.4** (27.7)			
	RTA Concentration w/o Labor Clauses $t_{-1}$	-.0531 (1.34)				-90.0 (155.0)			
	RTA Concentration with Labor Clauses $t_{-2}$		-2.84 (2.60)				-86.2** (33.8)		
	RTA Concentration w/o Labor Clauses $t_{-2}$		1.06 (2.16)				-156.7 (148.5)		
	RTA Concentration with Labor Clauses $t_{-3}$			-2.13 (2.02)				-98.2** (43.0)	
	RTA Concentration w/o Labor Clauses $t_{-3}$			-.806 (1.77)				-68.7 (76.0)	
	RTA Concentration with Labor Clauses $t_{-4}$				-.465 (.941)				-166.8** (36.3)
	RTA Concentration w/o Labor Clauses $t_{-4}$				-.974 (3.89)				6.09 (42.9)
Low-income RTA partners	RTA Concentration with Labor Clauses $t_{-1}$	-63.3** (24.0)				222.1 (620.4)			
	RTA Concentration w/o Labor Clauses $t_{-1}$	2.13 (16.4)				-159.1 (477.0)			
	RTA Concentration with Labor Clauses $t_{-2}$		-89.5*** (20.6)				387.4 (667.2)		
	RTA Concentration w/o Labor Clauses $t_{-2}$		4.29 (23.0)				132.8 (339.2)		
	RTA Concentration with Labor Clauses $t_{-3}$			-199.7*** (22.5)				-5868 (56206)	
	RTA Concentration w/o Labor Clauses $t_{-3}$			-.844 (15.8)				662.0 (541.1)	
	RTA Concentration with Labor Clauses $t_{-4}$				-197.1*** (21.9)				1166756. (884719)
	RTA Concentration w/o Labor Clauses $t_{-4}$				-14.6 (28.6)				550.9 (585.2)
ln(GDP per capita)	9.29 (9.27)	10.6 (8.45)	6.37 (8.11)	2.66 (8.12)	141.2 (140.9)	121.4 (114.4)	70.6 (110.7)	22.4 (101.5)	
ln(GDP per capita) <sup>2</sup>	-.251 (.527)	-.299 (.475)	-.0233 (.450)	.231 (.459)	-5.69 (9.07)	-4.42 (8.14)	-1.79 (8.40)	1.93 (7.30)	
Industry employment (% in total employment)	-.0854 (.0743)	-.0746 (.0725)	-.0773 (.0737)	-.0947 (.0873)	-.489 (1.10)	-.464 (1.28)	-.545 (1.71)	-1.00 (1.72)	
Manufacturing VA (% of GDP)	.0822 <sup>+</sup> (.0483)	.0500 (.0314)	.0503 (.0337)	.0446 (.0347)	-.792 (.885)	-.886 (.969)	-.581 (1.10)	-1.44 (1.27)	
Political rights index	-.193 (.197)	-.233 (.210)	-.164 (.245)	-.0870 (.251)	4.07 (3.24)	5.37 (4.06)	7.23 (5.63)	8.07 (6.99)	
Civil liberty index	-.448 (.272)	-.317 (.286)	-.349 (.273)	-.307 (.298)	-11.8 (8.47)	-12.8 (8.61)	-11.2 (7.93)	-12.2 (7.86)	
No. of observations	429	399	370	339	344	324	304	282	
Adjusted R <sup>2</sup>	.807	.815	.807	.803	.817	.815	.812	.821	

Appendix Table A4., *continued*

(2) Middle-income Countries, *continued*

Dependent variable: Labor Condition Measures		Fatal Occupational Injury Rate ( <i>injury</i> )				No. of ILO Core Conventions Ratified ( <i>conventions</i> )			
		Lag 1	Lag 2	Lag 3	Lag 4	Lag 1	Lag 2	Lag 3	Lag 4
High-income RTA partners	RTA Concentration with Labor Clauses $r_{t-1}$	-2.78 (1.77)				-.0886 (.384)			
	RTA Concentration w/o Labor Clauses $r_{t-1}$	-9.08*** (2.36)				-.597 (.382)			
	RTA Concentration with Labor Clauses $r_{t-2}$		-2.02 (2.26)				.267 (.454)		
	RTA Concentration w/o Labor Clauses $r_{t-2}$		-.694 (3.32)				-.541 (.420)		
	RTA Concentration with Labor Clauses $r_{t-3}$			-4.16 (3.07)				.450 (.493)	
	RTA Concentration w/o Labor Clauses $r_{t-3}$			1.59 (4.10)				-.757** (.296)	
	RTA Concentration with Labor Clauses $r_{t-4}$				-3.51 (4.57)				.483 (.491)
	RTA Concentration w/o Labor Clauses $r_{t-4}$				-.384 (3.43)				-.695** (.281)
Middle-income RTA partners	RTA Concentration with Labor Clauses $r_{t-1}$	-3.41 (3.10)				.135 (1.44)			
	RTA Concentration w/o Labor Clauses $r_{t-1}$	20.5 (28.7)				2.02*** (.690)			
	RTA Concentration with Labor Clauses $r_{t-2}$		-4.17 (5.62)				.326 (1.90)		
	RTA Concentration w/o Labor Clauses $r_{t-2}$		12.4 (51.5)				.866 (1.14)		
	RTA Concentration with Labor Clauses $r_{t-3}$			-3.01 (5.30)				.305 (1.97)	
	RTA Concentration w/o Labor Clauses $r_{t-3}$			34.2 (59.8)				-.399 (.520)	
	RTA Concentration with Labor Clauses $r_{t-4}$				-4.29 (7.04)				-.0415 (1.89)
	RTA Concentration w/o Labor Clauses $r_{t-4}$				103.7 (102.9)				-.772 (1.24)
Low-income RTA partners	RTA Concentration with Labor Clauses $r_{t-1}$	5782. (4294)				29.2** (12.9)			
	RTA Concentration w/o Labor Clauses $r_{t-1}$	-14.2 (46.0)				-1.79 (5.75)			
	RTA Concentration with Labor Clauses $r_{t-2}$		7523. (4052)				15.8 (9.14)		
	RTA Concentration w/o Labor Clauses $r_{t-2}$		-36.7 (57.8)				-8.75 (4.45)		
	RTA Concentration with Labor Clauses $r_{t-3}$			12436*** (3766)				13.7* (7.37)	
	RTA Concentration w/o Labor Clauses $r_{t-3}$			-148.1 (168.5)				-7.16* (3.68)	
	RTA Concentration with Labor Clauses $r_{t-4}$				-6852** (2913)				10.3 (10.5)
	RTA Concentration w/o Labor Clauses $r_{t-4}$				-109.0 (145.0)				-3.19 (4.55)
ln(GDP per capita)	-46.2** (17.6)	-45.7** (12.0)	-42.7** (19.6)	-51.2** (20.3)	7.67** (3.72)	9.48*** (3.54)	9.13** (3.78)	4.99 (4.20)	
ln(GDP per capita) <sup>2</sup>	2.44** (.966)	2.38* (1.19)	2.33** (1.04)	2.61** (1.14)	-.395* (.202)	-.506*** (.189)	-.461** (.198)	-.202 (.218)	
Industry employment (% in total employment)	.144 (.226)	.209 (.271)	.102 (.227)	.374 (.231)	-.0234 (.0295)	-.0192 (.0300)	-.0259 (.0306)	-.0339 (.0313)	
Manufacturing VA (% of GDP)	.0332 (.146)	.0363 (.163)	.0126 (.143)	-.0307 (.143)	-.0095 (.0200)	-.0141 (.0188)	-.0246 (.0158)	-.0241 (.0164)	
Political rights index	.154 (.456)	.287 (.361)	.0256 (.510)	-.470 (.750)	-.083 (.101)	-.120 (.0925)	-.0648 (.0696)	.0252 (.0867)	
Civil liberty index	.224 (.500)	.0403 (.529)	-.0384 (.608)	.787 (.727)	.103 (.164)	.203 (.158)	.187 (.146)	.143 (.146)	
No. of observations	221	208	193	178	691	650	607	565	
Adjusted R <sup>2</sup>	.711	.686	.701	.688	.797	.808	.813	.816	

Appendix Table A4., *continued*(3) Low-income Countries

Dependent variable: Labor Condition Measures		Log of Mean Real Monthly Earnings ( <i>earnings</i> )				Mean Weekly Hours Actually Worked ( <i>hours</i> )			
		Lag 1	Lag 2	Lag 3	Lag 4	Lag 1	Lag 2	Lag 3	Lag 4
High-income RTA partners	RTA Concentration with Labor Clauses $t_{-1}$	-16.7** (6.59)				N.A. (--)			
	RTA Concentration w/o Labor Clauses $t_{-1}$	-2.37 (21.1)				-356.3*** (36.9)			
	RTA Concentration with Labor Clauses $t_{-2}$		-17.3*** (4.10)				N.A. (--)		
	RTA Concentration w/o Labor Clauses $t_{-2}$		-3.92 (18.1)				251.9 (746.6)		
	RTA Concentration with Labor Clauses $t_{-3}$			-17.7*** (2.89)				N.A. (--)	
	RTA Concentration w/o Labor Clauses $t_{-3}$			-3.72 (17.7)				3640 (4087)	
	RTA Concentration with Labor Clauses $t_{-4}$				-15.6*** (2.75)				N.A. (--)
	RTA Concentration w/o Labor Clauses $t_{-4}$				N.A. (--)				N.A. (--)
Middle-income RTA partners	RTA Concentration with Labor Clauses $t_{-1}$	N.A. (--)				N.A. (--)			
	RTA Concentration w/o Labor Clauses $t_{-1}$	8.17 (12.5)				N.A. (--)			
	RTA Concentration with Labor Clauses $t_{-2}$		N.A. (--)				N.A. (--)		
	RTA Concentration w/o Labor Clauses $t_{-2}$		9.85 (10.7)				-735.1 (895.9)		
	RTA Concentration with Labor Clauses $t_{-3}$			N.A. (--)				N.A. (--)	
	RTA Concentration w/o Labor Clauses $t_{-3}$			10.4 (11.5)				-6303 (6463)	
	RTA Concentration with Labor Clauses $t_{-4}$				N.A. (--)				N.A. (--)
	RTA Concentration w/o Labor Clauses $t_{-4}$				12.8 (12.5)				23622 (12400)
Low-income RTA partners	RTA Concentration with Labor Clauses $t_{-1}$	N.A. (--)				N.A. (--)			
	RTA Concentration w/o Labor Clauses $t_{-1}$	-9.62 (25.4)				25.7 (202.3)			
	RTA Concentration with Labor Clauses $t_{-2}$		N.A. (--)				N.A. (--)		
	RTA Concentration w/o Labor Clauses $t_{-2}$		-12.3 (16.0)				-5.96 (61.0)		
	RTA Concentration with Labor Clauses $t_{-3}$			N.A. (--)				N.A. (--)	
	RTA Concentration w/o Labor Clauses $t_{-3}$			.834 (11.9)				117.2 (128.5)	
	RTA Concentration with Labor Clauses $t_{-4}$				N.A. (--)				N.A. (--)
	RTA Concentration w/o Labor Clauses $t_{-4}$				10.7 (12.4)				486.3 (384.2)
ln(GDP per capita)	-4.45 (25.6)	-15.7 (28.0)	-17.4 (34.7)	-20.9 (36.4)	-4.91 (208.9)	-186.8 (321.9)	-140.7 (379.7)	1791* (855)	
ln(GDP per capita) <sup>2</sup>	-.506 (1.73)	.227 (1.85)	.309 (2.24)	.502 (2.26)	-.126 (14.2)	11.3 (20.4)	6.94 (21.3)	-119.6** (48.7)	
Industry employment (% in total employment)	-.309 (.177)	-.304 (.178)	-.313 (.185)	-.279* (.145)	-.0813 (.533)	-.232 (.830)	-.425 (1.40)	-1.69 (3.44)	
Manufacturing VA (% of GDP)	-.0864 (.133)	-.103 (.132)	-.0791 (.148)	-.0749 (.104)	-.0402 (.763)	-.390** (.167)	-.344 (.405)	2.28 (6.19)	
Political rights index	-.271 (.415)	-.145 (.470)	-.0650 (.445)	.123 (.501)	-.154 (1.57)	-.325 (1.36)	-4.48 (6.86)	-11.9 (21.0)	
Civil liberty index	-.0274 (.667)	-.0852 (.684)	-.0090 (.723)	.210 (.852)	3.09 (5.18)	5.23 (6.55)	11.1 (14.4)	-18.3 (20.3)	
No. of observations	97	92	86	79	46	43	41	36	
Adjusted R <sup>2</sup>	.904	.898	.899	.898	.993	.992	.992	.942	

Appendix Table A4., *continued*

(3) Low-income Countries, *continued*

Dependent variable: Labor Condition Measures		Fatal Occupational Injury Rate (injury)				No. of ILO Core Conventions Ratified (conventions)			
		Lag 1	Lag 2	Lag 3	Lag 4	Lag 1	Lag 2	Lag 3	Lag 4
High-income RTA partners	RTA Concentration with Labor Clauses $t_1$	N.A. (--)				-2.01* (1.08)			
	RTA Concentration w/o Labor Clauses $t_1$	N.A. (--)				2.97 (3.15)			
	RTA Concentration with Labor Clauses $t_2$		N.A. (--)				-7.86 (16.9)		
	RTA Concentration w/o Labor Clauses $t_2$		N.A. (--)				.722 (3.80)		
	RTA Concentration with Labor Clauses $t_3$			N.A. (--)				-16.0 (18.9)	
	RTA Concentration w/o Labor Clauses $t_3$			N.A. (--)				-2.05 (3.32)	
	RTA Concentration with Labor Clauses $t_4$				N.A. (--)				-18.9 (24.8)
	RTA Concentration w/o Labor Clauses $t_4$				N.A. (--)				-8.03* (4.12)
Middle-income RTA partners	RTA Concentration with Labor Clauses $t_1$	N.A. (--)				8.79 (7.88)			
	RTA Concentration w/o Labor Clauses $t_1$	-34.5 (84.0)				2.64 (3.43)			
	RTA Concentration with Labor Clauses $t_2$		N.A. (--)				87.2 (212.8)		
	RTA Concentration w/o Labor Clauses $t_2$		-21.6 (62.7)				1.63 (2.72)		
	RTA Concentration with Labor Clauses $t_3$			N.A. (--)				201.0 (241.1)	
	RTA Concentration w/o Labor Clauses $t_3$			24.0 (63.9)				1.52 (2.12)	
	RTA Concentration with Labor Clauses $t_4$				N.A. (--)				247.0 (325.4)
	RTA Concentration w/o Labor Clauses $t_4$				20.0 (122.7)				1.57 (2.04)
Low-income RTA partners	RTA Concentration with Labor Clauses $t_1$	N.A. (--)				-18.0 (36.1)			
	RTA Concentration w/o Labor Clauses $t_1$	146.0 (174.0)				10.6 (12.8)			
	RTA Concentration with Labor Clauses $t_2$		N.A. (--)				-352.3 (894.3)		
	RTA Concentration w/o Labor Clauses $t_2$		75.8 (109.3)				2.01 (8.13)		
	RTA Concentration with Labor Clauses $t_3$			N.A. (--)				-834.8 (1024)	
	RTA Concentration w/o Labor Clauses $t_3$			35.8 (110.0)				-2.02 (7.48)	
	RTA Concentration with Labor Clauses $t_4$				N.A. (--)				-1037 (1391)
	RTA Concentration w/o Labor Clauses $t_4$				84.6* (34.7)				-743 (6.31)
ln(GDP per capita)	-101.4 (147.5)	-131.1 (200.7)	-223.8 (291.5)	-141.4 (275.1)	8.60 (6.58)	10.8 (6.69)	14.7* (8.09)	9.14 (7.74)	
ln(GDP per capita) <sup>2</sup>	7.36 (9.72)	9.16 (13.5)	15.4 (19.4)	9.66 (18.4)	-.571 (.444)	-.703 (.449)	-.941* (.543)	-.565 (.522)	
Industry employment (% in total employment)	.781 (.842)	.435 (1.47)	.778 (1.72)	.372 (1.11)	-.0514 (.0467)	-.0433 (.0602)	-.0307 (.0611)	-.0587 (.0491)	
Manufacturing VA (% of GDP)	-1.22 (.637)	-1.00 (.552)	-.780 (.696)	-1.25 (.747)	-.0906 (.0688)	-.0586 (.0789)	-.0462 (.0748)	-.0759 (.0783)	
Political rights index	1.93 (3.59)	1.42 (3.36)	.465 (4.37)	.919 (4.13)	.231 (.241)	.300 (.282)	.373 (.269)	.468 (.303)	
Civil liberty index	-.573 (3.01)	-1.13 (4.10)	-1.47 (5.35)	1.75 (2.89)	-.336 (.353)	-.428 (.363)	-.420 (.387)	-.483 (.386)	
No. of observations	54	48	43	37	188	179	170	158	
Adjusted R <sup>2</sup>	.998	.997	.997	.587	.720	.694	.680	.716	

**Appendix Table A5. Impacts of RTA with Labor Clauses vs. RTA without Labor Clauses on Labor Conditions**  
**(Labor clauses defined by the conservative classification; TC indicators based on the current-year trade shares)**

(1) High-income Countries

Dependent variable: Labor Condition Measures		Log of Mean Real Monthly Earnings ( <i>earnings</i> )				Mean Weekly Hours Actually Worked ( <i>hours</i> )			
		Lag 1	Lag 2	Lag 3	Lag 4	Lag 1	Lag 2	Lag 3	Lag 4
High-income RTA partners	RTA Concentration with Labor Clauses $t_{-1}$	3.02 (2.40)				1.96 (10.5)			
	RTA Concentration w/o Labor Clauses $t_{-1}$	-3.34 (4.17)				-10.2 (53.0)			
	RTA Concentration with Labor Clauses $t_{-2}$		-3.49 (2.29)				53.3 (49.0)		
	RTA Concentration w/o Labor Clauses $t_{-2}$		-3.93 (4.70)				-51.5 (89.4)		
	RTA Concentration with Labor Clauses $t_{-3}$			-8.47 (6.63)				10.6 (28.7)	
	RTA Concentration w/o Labor Clauses $t_{-3}$			-4.36 (2.52)				22.5 (46.6)	
	RTA Concentration with Labor Clauses $t_{-4}$				-2.97 (4.46)				-7.01 (23.0)
	RTA Concentration w/o Labor Clauses $t_{-4}$				-1.81 (2.57)				16.8 (71.3)
Middle-income RTA partners	RTA Concentration with Labor Clauses $t_{-1}$	-3.65 (6.11)				-38.1 (35.2)			
	RTA Concentration w/o Labor Clauses $t_{-1}$	-26.5** (10.8)				86.3 (152.2)			
	RTA Concentration with Labor Clauses $t_{-2}$		11.5** (5.09)				-193.3 (163.1)		
	RTA Concentration w/o Labor Clauses $t_{-2}$		-49.6** (19.9)				-63.0 (151.2)		
	RTA Concentration with Labor Clauses $t_{-3}$			9.00* (4.73)				-134.6 (106.5)	
	RTA Concentration w/o Labor Clauses $t_{-3}$			-41.5 (26.1)				-53.6 (121.3)	
	RTA Concentration with Labor Clauses $t_{-4}$				4.54 (5.98)				13.8 (20.4)
	RTA Concentration w/o Labor Clauses $t_{-4}$				-35.8 (22.5)				105.7 (124.2)
Low-income RTA partners	RTA Concentration with Labor Clauses $t_{-1}$	-1395*** (132.2)				22.8 (506.3)			
	RTA Concentration w/o Labor Clauses $t_{-1}$	-11.8** (5.51)				33.6 (29.6)			
	RTA Concentration with Labor Clauses $t_{-2}$		-1327*** (126.0)				-4284 (4587.5)		
	RTA Concentration w/o Labor Clauses $t_{-2}$		-4.08 (3.04)				-65.7 (71.2)		
	RTA Concentration with Labor Clauses $t_{-3}$			N.A. (--)				N.A. (--)	
	RTA Concentration w/o Labor Clauses $t_{-3}$			3.98 (6.55)				-73.5 (92.7)	
	RTA Concentration with Labor Clauses $t_{-4}$				N.A. (--)				N.A. (--)
	RTA Concentration w/o Labor Clauses $t_{-4}$				-6.59 (6.42)				232.5 (1016)
ln(GDP per capita)	-13.3 (47.0)	55.0 (37.6)	30.2 (41.3)	2.79 (35.2)	-114.7 (150.7)	-256.6 (273.1)	-128.6 (189.1)	-85.9 (111.6)	
ln(GDP per capita) <sup>2</sup>	.967 (2.37)	-2.37 (1.84)	-1.10 (1.99)	.290 (1.71)	4.87 (6.87)	12.4 (12.8)	6.06 (8.95)	3.00 (5.60)	
Industry employment (% in total employment)	-.314** (.118)	-.487*** (.151)	-.441** (.168)	-.407** (.164)	-.419 (.732)	-.603 (1.22)	-.568 (1.18)	-.510 (.860)	
Manufacturing VA (% of GDP)	-.0587 (.0620)	-.118 (.0996)	-.0626 (.0858)	-.125 (.110)	-.294 (.530)	.121 (.572)	-.190 (.539)	-.0473 (.395)	
Political rights index	-.114 (.293)	.317 (.505)	-.0166 (.645)	-.285 (.731)	-3.07 (5.49)	3.51 (5.46)	1.52 (2.51)	-1.39 (2.80)	
Civil liberty index	.0689 (.246)	-.142 (.351)	-.408* (.202)	-.0318 (.400)	-1.60 (2.72)	-4.55 (5.28)	-4.07 (4.25)	-.532 (2.02)	
No. of observations	174	157	141	122	233	218	203	187	
Adjusted R <sup>2</sup>	.907	.919	.959	.954	.344	.414	.337	.255	

Appendix Table A5., *continued*

(1) High-income Countries, *continued*

Dependent variable: Labor Condition Measures		Fatal Occupational Injury Rate (injury)				No. of ILO Core Conventions Ratified (conventions)			
		Lag 1	Lag 2	Lag 3	Lag 4	Lag 1	Lag 2	Lag 3	Lag 4
High-income RTA partners	RTA Concentration with Labor Clauses $t-1$	7.86 (5.03)				1.15 (.853)			
	RTA Concentration w/o Labor Clauses $t-1$	19.7 (25.9)				4.07* (.942)			
	RTA Concentration with Labor Clauses $t-2$		15.2* (7.88)				.918 (.662)		
	RTA Concentration w/o Labor Clauses $t-2$		18.6 (33.4)				7.28*** (1.04)		
	RTA Concentration with Labor Clauses $t-3$			20.7 (12.0)				.894 (.672)	
	RTA Concentration w/o Labor Clauses $t-3$			39.9 (39.7)				8.07* (1.77)	
	RTA Concentration with Labor Clauses $t-4$				12.0** (5.45)				.736 (.753)
	RTA Concentration w/o Labor Clauses $t-4$				25.7** (9.76)				6.22*** (1.15)
Middle-income RTA partners	RTA Concentration with Labor Clauses $t-1$	-32.7* (17.8)				-4.05 (2.82)			
	RTA Concentration w/o Labor Clauses $t-1$	-2.10 (30.4)				7.21** (2.77)			
	RTA Concentration with Labor Clauses $t-2$		-54.7* (30.3)				-3.55* (2.01)		
	RTA Concentration w/o Labor Clauses $t-2$		-5.70 (48.1)				4.98* (2.47)		
	RTA Concentration with Labor Clauses $t-3$			-54.7* (30.0)				-3.02* (1.56)	
	RTA Concentration w/o Labor Clauses $t-3$			-79.3 (59.2)				1.98 (2.93)	
	RTA Concentration with Labor Clauses $t-4$				-17.2 (13.6)				-2.45 (1.44)
	RTA Concentration w/o Labor Clauses $t-4$				-40.3 (35.9)				.826 (1.79)
Low-income RTA partners	RTA Concentration with Labor Clauses $t-1$	54.1 (332.6)				-97.5** (45.8)			
	RTA Concentration w/o Labor Clauses $t-1$	-1.18 (16.8)				.806 (2.41)			
	RTA Concentration with Labor Clauses $t-2$		-390.3 (256.5)				-84.2** (33.2)		
	RTA Concentration w/o Labor Clauses $t-2$		-11.2 (24.7)				-.293 (1.76)		
	RTA Concentration with Labor Clauses $t-3$			-933.5 (564.5)				-77.1** (32.1)	
	RTA Concentration w/o Labor Clauses $t-3$			-39.2 (40.8)				-.410 (1.39)	
	RTA Concentration with Labor Clauses $t-4$				-669.6 (406.5)				-75.8** (33.3)
	RTA Concentration w/o Labor Clauses $t-4$				-4.12 (8.57)				.732 (.944)
ln(GDP per capita)	-107.7 (131.8)	-97.0 (156.3)	-33.2 (165.3)	-4.46 (74.5)	.759 (16.1)	-12.4 (17.5)	-11.7 (14.9)	-2.97 (20.0)	
ln(GDP per capita) <sup>2</sup>	5.27 (6.41)	4.81 (7.48)	1.75 (8.00)	.269 (3.68)	-.0012 (.772)	.634 (.827)	.614 (.717)	.192 (.959)	
Industry employment (% in total employment)	-.208 (.310)	-.270 (.378)	-.566 (.657)	-.0632 (.242)	-.0211 (.0682)	.0140 (.0600)	.0228 (.0481)	.0051 (.0282)	
Manufacturing VA (% of GDP)	-.545 (.466)	-.654 (.580)	-.833 (.822)	-.195 (.222)	.0366 (.0579)	-.0443 (.0478)	.0528 (.0334)	.0477** (.0210)	
Political rights index	-2.77 (2.01)	-2.28 (2.92)	-2.01 (3.09)	-.697 (1.01)	-.0885 (.252)	-.183 (.334)	.0772 (.265)	.299 (.398)	
Civil liberty index	-.268 (1.10)	-.0588 (1.11)	-1.29 (1.40)	-.518 (1.07)	-.353 (.295)	-.345 (.253)	-.288 (.188)	-.194 (.125)	
No. of observations	225	212	198	183	350	329	307	284	
Adjusted R <sup>2</sup>	.279	.302	.320	.461	.931	.942	.951	.956	



Appendix Table A5., *continued*

(2) Middle-income Countries

Dependent variable: Labor Condition Measures		Log of Mean Real Monthly Earnings ( <i>earnings</i> )				Mean Weekly Hours Actually Worked ( <i>hours</i> )			
		Lag 1	Lag 2	Lag 3	Lag 4	Lag 1	Lag 2	Lag 3	Lag 4
High-income RTA partners	RTA Concentration with Labor Clauses $t_1$	1.37 (1.17)				14.0 (24.9)			
	RTA Concentration w/o Labor Clauses $t_1$	3.75** (1.57)				8.28 (13.3)			
	RTA Concentration with Labor Clauses $t_2$		1.97 (1.60)				21.2 (25.8)		
	RTA Concentration w/o Labor Clauses $t_2$		.410 (1.83)				24.6 (22.7)		
	RTA Concentration with Labor Clauses $t_3$			-1.47 (1.38)				18.9 (33.9)	
	RTA Concentration w/o Labor Clauses $t_3$			3.39** (1.58)				40.8 (32.9)	
	RTA Concentration with Labor Clauses $t_4$				-1.12 (1.23)				13.2 (57.5)
	RTA Concentration w/o Labor Clauses $t_4$				4.49** (1.89)				42.9 (40.6)
Middle-income RTA partners	RTA Concentration with Labor Clauses $t_1$	-3.88 (2.49)				-93.4 (100.7)			
	RTA Concentration w/o Labor Clauses $t_1$	-9.08 (1.44)				58.6 (88.4)			
	RTA Concentration with Labor Clauses $t_2$		-5.19 (3.73)				-124.5 (127.8)		
	RTA Concentration w/o Labor Clauses $t_2$		1.20 (1.27)				-18.7 (51.9)		
	RTA Concentration with Labor Clauses $t_3$			.378 (3.08)				-114.5 (152.7)	
	RTA Concentration w/o Labor Clauses $t_3$			-1.45 (2.16)				-43.4 (42.2)	
	RTA Concentration with Labor Clauses $t_4$				2.37 (3.13)				-164.5 (255.9)
	RTA Concentration w/o Labor Clauses $t_4$				-4.66 (3.46)				-62.0 (60.7)
Low-income RTA partners	RTA Concentration with Labor Clauses $t_1$	-51.5*** (12.9)				357.7 (353.2)			
	RTA Concentration w/o Labor Clauses $t_1$	-9.16*** (2.88)				20.1 (52.7)			
	RTA Concentration with Labor Clauses $t_2$		-65.0*** (9.85)				318.1 (373.7)		
	RTA Concentration w/o Labor Clauses $t_2$		-13.7*** (3.50)				59.3 (48.5)		
	RTA Concentration with Labor Clauses $t_3$			1358*** (495.0)				-2984 (8435)	
	RTA Concentration w/o Labor Clauses $t_3$			-17.0*** (5.39)				57.7 (49.9)	
	RTA Concentration with Labor Clauses $t_4$				N.A. (--)				N.A. (--)
	RTA Concentration w/o Labor Clauses $t_4$				-25.8*** (5.52)				62.0 (58.7)
ln(GDP per capita)	7.39 (8.99)	10.2 (8.92)	2.11 (7.50)	-2.79 (7.95)	178.2 (160.4)	104.2 (133.5)	52.5 (108.1)	-24.9 (119.4)	
ln(GDP per capita) <sup>2</sup>	-.115 (.517)	-.264 (.496)	.173 (.406)	.479 (.416)	-7.73 (9.84)	-3.41 (8.81)	-1.15 (7.88)	3.88 (7.89)	
Industry employment (% in total employment)	-.0881 (.0700)	-.0750 (.0688)	-.0443 (.0655)	-.0956 (.0831)	-.443 (1.25)	-.388 (1.51)	-.588 (1.76)	-1.05 (1.87)	
Manufacturing VA (% of GDP)	.0862 <sup>+</sup> (.0506)	.0445 (.0316)	.0495 (.0341)	.0517 (.0353)	-1.04 (.860)	-.791 (.966)	-.409 (1.13)	-.882 (1.20)	
Political rights index	-.0669 (.193)	-.0509 (.207)	.155 (.219)	.190 (.208)	3.34 (2.42)	4.41 (3.62)	7.13 (5.70)	8.14 (6.87)	
Civil liberty index	-.518 <sup>+</sup> (.274)	-.416 (.309)	-.433 (.268)	-.306 (.288)	-10.1 (6.82)	-11.7 (7.88)	-11.0 (8.09)	-11.0 (7.25)	
No. of observations	429	399	370	339	344	324	304	282	
Adjusted R <sup>2</sup>	.812	.818	.813	.817	.816	.812	.809	.816	

Appendix Table A5., *continued*(2) Middle-income Countries, *continued*

Dependent variable: Labor Condition Measures		Fatal Occupational Injury Rate (injury)				No. of ILO Core Conventions Ratified (conventions)			
		Lag 1	Lag 2	Lag 3	Lag 4	Lag 1	Lag 2	Lag 3	Lag 4
High-income RTA partners	RTA Concentration with Labor Clauses $t_{-1}$	-2.74 (2.53)				-1.01** (.497)			
	RTA Concentration w/o Labor Clauses $t_{-1}$	-10.3*** (2.51)				-.256 (.413)			
	RTA Concentration with Labor Clauses $t_{-2}$		-1.81 (2.71)				-.858 (.542)		
	RTA Concentration w/o Labor Clauses $t_{-2}$		-4.74** (2.09)				-.428 (.463)		
	RTA Concentration with Labor Clauses $t_{-3}$			-1.29 (2.74)				-.723 (.578)	
	RTA Concentration w/o Labor Clauses $t_{-3}$			-2.83 (2.80)				-.592* (.316)	
	RTA Concentration with Labor Clauses $t_{-4}$				.272 (6.68)				-.829 (.573)
	RTA Concentration w/o Labor Clauses $t_{-4}$				-4.95** (1.87)				-.458 (.292)
Middle-income RTA partners	RTA Concentration with Labor Clauses $t_{-1}$	-4.53 (9.46)				4.18* (2.24)			
	RTA Concentration w/o Labor Clauses $t_{-1}$	22.4 (14.4)				1.09 (.926)			
	RTA Concentration with Labor Clauses $t_{-2}$		-6.58 (12.6)				5.66* (2.89)		
	RTA Concentration w/o Labor Clauses $t_{-2}$		21.6 (19.1)				-.690 (1.10)		
	RTA Concentration with Labor Clauses $t_{-3}$			-10.9 (12.9)				5.61** (2.75)	
	RTA Concentration w/o Labor Clauses $t_{-3}$			11.1 (10.3)				-1.60 (.970)	
	RTA Concentration with Labor Clauses $t_{-4}$				-14.5 (20.0)				5.92** (2.94)
	RTA Concentration w/o Labor Clauses $t_{-4}$				8.77 (9.47)				-1.65 (1.40)
Low-income RTA partners	RTA Concentration with Labor Clauses $t_{-1}$	N.A. (--)				19.9*** (3.73)			
	RTA Concentration w/o Labor Clauses $t_{-1}$	.350 (8.12)				1.58 (1.22)			
	RTA Concentration with Labor Clauses $t_{-2}$		N.A. (--)				14.8*** (3.45)		
	RTA Concentration w/o Labor Clauses $t_{-2}$		-1.52 (6.45)				.861 (1.24)		
	RTA Concentration with Labor Clauses $t_{-3}$			N.A. (--)				12.7*** (2.99)	
	RTA Concentration w/o Labor Clauses $t_{-3}$			-3.84 (9.02)				-.136 (1.07)	
	RTA Concentration with Labor Clauses $t_{-4}$				N.A. (--)				13.6*** (2.93)
	RTA Concentration w/o Labor Clauses $t_{-4}$				-7.41 (12.4)				.0547 (.991)
ln(GDP per capita)	-44.8*** (11.8)	-41.8 (16.7)	-41.6** (16.0)	-38.0 (24.2)	7.82* (3.98)	9.37** (3.71)	7.97** (3.72)	3.22 (3.74)	
ln(GDP per capita) <sup>2</sup>	2.58*** (.622)	2.34 (.818)	2.32 (.810)	1.80 (1.21)	-.410* (.221)	-.514** (.204)	-.411** (.206)	-.117 (.212)	
Industry employment (% in total employment)	.0910 (.171)	.219 (.250)	.299 (.252)	.450* (.259)	-.0226 (.0299)	-.0255 (.0303)	-.0313 (.0289)	-.0348 (.0291)	
Manufacturing VA (% of GDP)	.0372 (.138)	.0383 (.163)	-.0592 (.150)	-.0957 (.139)	-.0139 (.0206)	-.0105 (.0194)	-.0191 (.0154)	-.0180 (.0154)	
Political rights index	.373 (.393)	.272 (.432)	-.0879 (.529)	-.504 (.731)	-.0954 (.0912)	-.141* (.0816)	-.0899 (.0695)	.0020 (.0860)	
Civil liberty index	.356 (.512)	.288 (.540)	-.0003 (.621)	.336 (.638)	.121 (.161)	.239 (.157)	.230 (.143)	.193 (.145)	
No. of observations	221	208	193	178	691	650	607	565	
Adjusted R <sup>2</sup>	.723	.697	.699	.685	.800	.816	.823	.826	

Appendix Table A5., *continued*(3) Low-income Countries

Dependent variable: Labor Condition Measures		Log of Mean Real Monthly Earnings ( <i>earnings</i> )				Mean Weekly Hours Actually Worked ( <i>hours</i> )			
		Lag 1	Lag 2	Lag 3	Lag 4	Lag 1	Lag 2	Lag 3	Lag 4
High-income RTA partners	RTA Concentration with Labor Clauses $t_1$	-15.7*** (4.28)				N.A. (--)			
	RTA Concentration w/o Labor Clauses $t_1$	4.87 (5.05)				-178.1*** (24.5)			
	RTA Concentration with Labor Clauses $t_2$		-15.8*** (4.43)				N.A. (--)		
	RTA Concentration w/o Labor Clauses $t_2$		3.18 (5.06)				-146.8*** (13.8)		
	RTA Concentration with Labor Clauses $t_3$			-16.3*** (4.06)				N.A. (--)	
	RTA Concentration w/o Labor Clauses $t_3$			1.71 (5.06)				-159.6*** (44.2)	
	RTA Concentration with Labor Clauses $t_4$				-14.4*** (3.59)				N.A. (--)
	RTA Concentration w/o Labor Clauses $t_4$				N.A. (--)				N.A. (--)
Middle-income RTA partners	RTA Concentration with Labor Clauses $t_1$	N.A. (--)				N.A. (--)			
	RTA Concentration w/o Labor Clauses $t_1$	-8.13 (3.64)				22.8 (32.7)			
	RTA Concentration with Labor Clauses $t_2$		N.A. (--)				N.A. (--)		
	RTA Concentration w/o Labor Clauses $t_2$		1.44 (2.86)				-6.11 (20.3)		
	RTA Concentration with Labor Clauses $t_3$			N.A. (--)				N.A. (--)	
	RTA Concentration w/o Labor Clauses $t_3$			.145 (3.99)				48.1 (68.6)	
	RTA Concentration with Labor Clauses $t_4$				N.A. (--)				N.A. (--)
	RTA Concentration w/o Labor Clauses $t_4$				4.19 (3.96)				10.7 (80.8)
Low-income RTA partners	RTA Concentration with Labor Clauses $t_1$	N.A. (--)				N.A. (--)			
	RTA Concentration w/o Labor Clauses $t_1$	7.97 (9.04)				-17.9 (52.9)			
	RTA Concentration with Labor Clauses $t_2$		N.A. (--)				N.A. (--)		
	RTA Concentration w/o Labor Clauses $t_2$		4.26 (10.3)				38.3 (78.1)		
	RTA Concentration with Labor Clauses $t_3$			N.A. (--)				N.A. (--)	
	RTA Concentration w/o Labor Clauses $t_3$			1.33 (9.63)				24.6 (94.5)	
	RTA Concentration with Labor Clauses $t_4$				N.A. (--)				N.A. (--)
	RTA Concentration w/o Labor Clauses $t_4$				.966 (7.82)				399.8 (280.1)
ln(GDP per capita)	-8.79 (23.9)	-6.38 (23.6)	-11.5 (27.9)	-3.27 (27.1)	24.8 (151.5)	-129.4 (237.1)	-462.2 (705.4)	745.1** (252.9)	
ln(GDP per capita) <sup>2</sup>	-7.02 (1.64)	-3.41 (1.61)	-0.0603 (1.83)	-6.620 (1.72)	-2.03 (10.2)	7.80 (15.1)	27.3 (42.9)	-50.5*** (12.4)	
Industry employment (% in total employment)	-.322* (.174)	-.319* (.180)	-.319 (.183)	-.277 (.162)	-.282 (.739)	-.121 (.647)	-.598 (1.17)	-1.14 (3.37)	
Manufacturing VA (% of GDP)	-.127 (.123)	-.120 (.129)	-.0834 (.136)	-.0674 (.107)	.213 (.558)	-.305 (.320)	-.813 (.558)	-.739 (6.49)	
Political rights index	-.317 (.403)	-.207 (.456)	-.0581 (.436)	.172 (.454)	-.0293 (1.78)	-.771 (1.38)	.590 (3.65)	-6.41 (21.9)	
Civil liberty index	-.250 (.639)	.137 (.621)	-.0441 (.764)	.112 (.841)	2.51 (3.67)	5.70 (6.63)	10.4 (10.2)	.0118 (6.79)	
No. of observations	97	92	86	79	46	43	41	36	
Adjusted R <sup>2</sup>	.905	.898	.897	.898	.992	.992	.992	.956	

Appendix Table A5., *continued*

(3) Low-income Countries, *continued*

Dependent variable: Labor Condition Measures		Fatal Occupational Injury Rate ( <i>injury</i> )				No. of ILO Core Conventions Ratified ( <i>conventions</i> )			
		Lag 1	Lag 2	Lag 3	Lag 4	Lag 1	Lag 2	Lag 3	Lag 4
High-income RTA partners	RTA Concentration with Labor Clauses $t_{-1}$	N.A. (--)				-2.93* (1.65)			
	RTA Concentration w/o Labor Clauses $t_{-1}$	N.A. (--)				-2.75 (1.64)			
	RTA Concentration with Labor Clauses $t_{-2}$		N.A. (--)				-2.77 (2.11)		
	RTA Concentration w/o Labor Clauses $t_{-2}$		N.A. (--)				-5.66 (1.14)		
	RTA Concentration with Labor Clauses $t_{-3}$			N.A. (--)				-5.91 (3.53)	
	RTA Concentration w/o Labor Clauses $t_{-3}$			N.A. (--)				-8.75 (1.04)	
	RTA Concentration with Labor Clauses $t_{-4}$				N.A. (--)				1.85 (2.95)
	RTA Concentration w/o Labor Clauses $t_{-4}$				N.A. (--)				-14.5 (14.9)
Middle-income RTA partners	RTA Concentration with Labor Clauses $t_{-1}$	N.A. (--)				5.21 (6.23)			
	RTA Concentration w/o Labor Clauses $t_{-1}$	-50.4 (35.8)				2.11 (2.30)			
	RTA Concentration with Labor Clauses $t_{-2}$		N.A. (--)				7.42 (9.75)		
	RTA Concentration w/o Labor Clauses $t_{-2}$		-13.4 (15.7)				2.88 (2.25)		
	RTA Concentration with Labor Clauses $t_{-3}$			N.A. (--)				28.5. (20.6)	
	RTA Concentration w/o Labor Clauses $t_{-3}$			8.86 (21.4)				2.79 (1.98)	
	RTA Concentration with Labor Clauses $t_{-4}$				N.A. (--)				-13.6 (14.8)
	RTA Concentration w/o Labor Clauses $t_{-4}$				5.10 (23.3)				1.62 (1.52)
Low-income RTA partners	RTA Concentration with Labor Clauses $t_{-1}$	N.A. (--)				35.8. (35.4)			
	RTA Concentration w/o Labor Clauses $t_{-1}$	77.5 (71.1)				2.97 (3.66)			
	RTA Concentration with Labor Clauses $t_{-2}$		N.A. (--)				36.6. (35.8)		
	RTA Concentration w/o Labor Clauses $t_{-2}$		37.4 (37.8)				-1.59 (4.64)		
	RTA Concentration with Labor Clauses $t_{-3}$			N.A. (--)				34.0. (38.5)	
	RTA Concentration w/o Labor Clauses $t_{-3}$			59.4 (62.8)				-4.99 (4.89)	
	RTA Concentration with Labor Clauses $t_{-4}$				N.A. (--)				N.A. (--)
	RTA Concentration w/o Labor Clauses $t_{-4}$				30.7 (62.2)				-2.94 (3.64)
ln(GDP per capita)	-250.0* (122.3)	-183.7 (108.7)	-175.1 (210.4)	-138.2 (305.2)	10.0 (7.22)	15.2** (6.95)	18.1** (6.95)	7.77 (7.51)	
ln(GDP per capita) <sup>2</sup>	17.1* (8.25)	12.6 (7.61)	12.6 (14.2)	9.52 (19.8)	-.648 (.476)	-.977** (.472)	-1.15** (.479)	-.459 (.520)	
Industry employment (% in total employment)	.825 (.919)	.367 (1.29)	.783 (1.40)	.237 (.620)	-.0279 (.0581)	-.0258 (.0541)	-.0131 (.0518)	-.0384 (.0369)	
Manufacturing VA (% of GDP)	-1.54* (.715)	-.992 (.557)	-.818 (.543)	-1.28 (.955)	-.0483 (.0817)	-.0470 (.0765)	-.0519 (.0706)	-.0769 (.0740)	
Political rights index	-.519 (1.80)	.971 (2.72)	-.354 (4.48)	1.61 (4.70)	.198 (.238)	.333 (.266)	.442 (.279)	.516 (.308)	
Civil liberty index	1.42 (2.19)	-.748 (3.51)	.521 (6.46)	1.22 (5.15)	-.390 (.316)	-.486 (.348)	-.505 (.412)	-.533 (.450)	
No. of observations	54	48	43	37	188	179	170	158	
Adjusted R <sup>2</sup>	.998	.997	.997	.571	.705	.702	.694	.715	

**Appendix Table A7. Impacts of the First RTA with Labor Clauses on Labor Conditions  
(RTAs with labor clauses defined by the *liberal* classification)**

	Dependent variable: Labor Condition Measure			
	Log of Mean Real Monthly Earnings ( <i>earnings</i> )	Mean Weekly Hours Actually Worked ( <i>hours</i> )	Fatal Occupational Injury Rate ( <i>injury</i> )	No. of ILO Core Conventions Ratified ( <i>conventions</i> )
1 <sup>st</sup> LC-RTA dummy $t-1$ ( $D_{t-1}$ )	-.707 (.649)	3.37 (3.55)	-.457 (1.15)	.0047 (.191)
$D_{t-1}$ * Initial EX Share of the RTA partner	.318 (.996)	-14.3 (11.3)	-.267 (1.87)	.104 (.399)
1 <sup>st</sup> LC-RTA dummy $t-2$ ( $D_{t-2}$ )	-.315 (.693)	.833 (3.75)	2.13 (1.62)	.231 (.375)
$D_{t-2}$ * Initial EX Share of the RTA partner	-.316 (1.17)	3.12 (6.84)	-1.75 (1.58)	-.119 (.509)
1 <sup>st</sup> LC-RTA dummy $t-3$ ( $D_{t-3}$ )	-.144 (.419)	-.814 (4.17)	1.07 (1.94)	.123 (.427)
$D_{t-3}$ * Initial EX Share of the RTA partner	-.149 (1.03)	5.54 (7.35)	5.47 (8.26)	.0893 (.587)
1 <sup>st</sup> LC-RTA dummy $t-4+$ ( $D_{t-4+}$ )	-.345 (.558)	-1.56 (3.54)	1.13 (1.38)	.170 (.385)
$D_{t-4+}$ * Initial EX Share of the RTA partner	.422 (.879)	-16.0* (9.17)	-1.63 (1.65)	.0439 (.505)
ln(GDP per capita)	-12.5 (9.73)	90.3 (58.2)	-14.0 (24.5)	3.08 (3.62)
ln(GDP per capita) <sup>2</sup>	.937 (.576)	-5.45 (3.74)	.802 (1.40)	-.128 (.213)
Industry employment (% in total employment)	-.130 (.0795)	.484 (.483)	.123 (.185)	-.0099 (.0277)
Manufacturing VA (% of GDP)	.110* (.0620)	-.746 (.961)	-.129 (.141)	-.0119 (.0260)
Political rights index	-.198 (.174)	-.114 (1.32)	-.0058 (.484)	-.0298 (.0105)
Civil liberty index	-.330 (.341)	.406 (2.10)	-.102 (.607)	-.152 (.170)
No. of observations	471	453	412	807
Adjusted R <sup>2</sup>	.809	.887	.985	.857

*Notes:* Fixed-effect regressions for countries. Time (year) dummies are also included. Clustered standard errors are reported in parentheses. \*, \*\*, and \*\*\* indicate the significance at the 10%, 5%, and 1%, respectively.

**Appendix Table A8. Information on RTAs with Labor Clauses (in force as of the end of the first half of 2013)**

RTA	Members/Signatories	Date into force	Income Category
US-Australia	USA	1-Jan-2005	High
	Australia	1-Jan-2005	High
US-Bahrain	USA	1-Aug-2005	High
	Bahrain	1-Aug-2005	High
US-Chile	USA	1-Jan-2004	High
	Chile	1-Jan-2004	Middle (upper)
US-Colombia	USA	15-May-2012	High
	Colombia	15-May-2012	Middle (lower)
US-Jordan	USA	17-Dec-2001	High
	Jordan	17-Dec-2001	Middle (lower)
Korea-US	USA	15-Mar-2012	High
	Korea (S)	15-Mar-2012	High
US-Morocco	USA	1-Jan-2006	High
	Morocco	1-Jan-2006	Middle (lower)
US-Oman	USA	1-Jan-2009	High
	Oman	1-Jan-2009	Middle (upper)
US-Panama	USA	31-Oct-2012	High
	Panama	31-Oct-2012	Middle (lower)
US-Peru	USA	1-Feb-2009	High
	Peru	1-Feb-2009	Middle (lower)
US-Singapore	USA	1-Jan-2004	High
	Singapore	1-Jan-2004	High
NAFTA	USA	1-Jan-1994	High
	Canada	1-Jan-1994	High
	Mexico	1-Jan-1994	Middle (upper)
CAFTA-DR	USA	1-Mar-2006	High
	Costa Rica	1-Jan-2009	Middle (lower)
	Dominican Rep.	1-Mar-2007	Middle (lower)
	El Salvador	1-Mar-2006	Middle (lower)
	Guatemala	1-Jul-2006	Middle (lower)
	Honduras	1-Apr-2006	Low
	Nicaragua	1-Apr-2006	Low
Canada-Chile	Canada	5-Jul-1997	High
	Chile	5-Jul-1997	Middle (upper)
Canada-Colombia	Canada	15-Aug-2011	High
	Colombia	15-Aug-2011	Middle (lower)
Canada-Costa Rica	Canada	1-Nov-2002	High
	Costa Rica	1-Nov-2002	Middle (lower)
Canada-Peru	Canada	1-Aug-2009	High
	Peru	1-Aug-2009	Middle (lower)
Canada-Jordan	Canada	1-Oct-2012	High
	Jordan	1-Oct-2012	Middle (lower)
Turkey-Chile	Turkey	1-Mar-2011	Middle (lower)
	Chile	1-Mar-2011	Middle (upper)
TPSEP (P4)	Brunei Darussalam	12-Jul-2006	High
	Chile	8-Nov-2006	Middle (upper)
	New Zealand	28-May-2006	High
	Singapore	28-May-2006	High
EEA	Austria	1-Jan-1995	High
	Belgium	1-Jan-1994	High
	Bulgaria	1-Jan-2007	Middle (lower)
	Croatia	1-Jul-2013	Middle (upper)
	Cyprus	1-May-2004	High
	Czech Republic	1-May-2004	Middle (upper)
	Denmark	1-Jan-1994	High
	Estonia	1-May-2004	Middle (lower)
	Finland	1-Jan-1995	High
	France	1-Jan-1994	High
	Germany	1-Jan-1994	High
	Greece	1-Jan-1994	High
	Hungary	1-May-2004	Middle (upper)
	Ireland	1-Jan-1994	High
	Italy	1-Jan-1994	High
	Latvia	1-May-2004	Middle (lower)
	Lithuania	1-May-2004	Middle (lower)
	Luxembourg	1-Jan-1994	High
	Malta	1-May-2004	Middle (upper)
	Netherlands	1-Jan-1994	High
	Poland	1-May-2004	Middle (lower)
	Portugal	1-Jan-1994	High
	Romania	1-Jan-2007	Middle (lower)
	Slovakia	1-May-2004	Middle (lower)
	Slovenia	1-May-2004	Middle (upper)
	Spain	1-Jan-1994	High
	Sweden	1-Jan-1995	High
UK	1-Jan-1994	High	
Iceland	1-Jan-1994	High	
Liechtenstein	1-Jan-1994	High	
Norway	1-Jan-1994	High	
EU-Korea	Austria	1-Jul-2011	High
	Belgium	1-Jul-2011	High
	Bulgaria	1-Jul-2011	Middle (lower)
	Croatia	1-Jul-2013	Middle (upper)
	Cyprus	1-Jul-2011	High
	Czech Republic	1-Jul-2011	Middle (upper)
	Denmark	1-Jul-2011	High
	Estonia	1-Jul-2011	High
	Finland	1-Jul-2011	High
	France	1-Jul-2011	High
	Germany	1-Jul-2011	High
	Greece	1-Jul-2011	High
	Hungary	1-Jul-2011	Middle (upper)
	Ireland	1-Jul-2011	High
	Italy	1-Jul-2011	High
	Latvia	1-Jul-2011	Middle (lower)
	Lithuania	1-Jul-2011	Middle (lower)
	Luxembourg	1-Jul-2011	High
	Malta	1-Jul-2011	High
	Netherlands	1-Jul-2011	High
	Poland	1-Jul-2011	High
	Portugal	1-Jul-2011	High
	Romania	1-Jul-2011	Middle (lower)
	Slovakia	1-Jul-2011	High
	Slovenia	1-Jul-2011	High
	Spain	1-Jul-2011	High
	Sweden	1-Jul-2011	High
UK	1-Jul-2011	High	
Korea (S)	1-Jul-2011	High	

  

RTA	Members/Signatories	Date into force	Income Category
EFTA-Hong Kong*	Iceland	1-Oct-2012	High
	Liechtenstein	1-Oct-2012	High
	Norway	1-Nov-2012	High
	Switzerland	1-Oct-2012	High
EFTA-Montenegro*	Hong Kong	1-Oct-2012	High
	Iceland	1-Oct-2012	High
	Liechtenstein	1-Sep-2012	High
	Norway	1-Nov-2012	High
	Switzerland	1-Sep-2012	High
CARICOM (rev)*	Montenegro	1-Sep-2012	(N.A.)
	Antigua & Barbuda	5-Jul-2001	Middle (upper)
	Bahamas	5-Jul-2001	High
	Barbados	5-Jul-2001	Middle (upper)
	Belize	5-Jul-2001	Middle (lower)
	Dominica	4-Jul-2003	Middle (lower)
	Grenada	4-Jul-2002	Middle (lower)
	Guyana	5-Jul-2001	Low
	Haiti	4-Jul-2003	Low
	Jamaica	5-Jul-2001	Middle (lower)
	Montserrat	5-Jul-2001	(N.A.)
	St. Kitts & Nevis	5-Jul-2001	Middle (upper)
	St. Lucia	6-Aug-2002	Middle (upper)
	St. Vincent & the Grenadines	5-Jul-2001	Middle (lower)
	Suriname	5-Jul-2001	Middle (lower)
Trinidad & Tobago	5-Jul-2001	Middle (upper)	
EU-CARIFORUM States*	Austria	1-Nov-2008	High
	Belgium	1-Nov-2008	High
	Bulgaria	1-Nov-2008	Middle (lower)
	Croatia	1-Jul-2013	Middle (upper)
	Cyprus	1-Nov-2008	High
	Czech Republic	1-Nov-2008	Middle (upper)
	Denmark	1-Nov-2008	High
	Estonia	1-Nov-2008	Middle (lower)
	Finland	1-Nov-2008	High
	France	1-Nov-2008	High
	Germany	1-Nov-2008	High
	Greece	1-Nov-2008	High
	Hungary	1-Nov-2008	Middle (upper)
	Ireland	1-Nov-2008	High
	Italy	1-Nov-2008	High
	Latvia	1-Nov-2008	Middle (lower)
	Lithuania	1-Nov-2008	Middle (lower)
	Luxembourg	1-Nov-2008	High
	Malta	1-Nov-2008	Middle (upper)
	Netherlands	1-Nov-2008	High
	Poland	1-Nov-2008	Middle (lower)
	Portugal	1-Nov-2008	High
	Romania	1-Nov-2008	Middle (lower)
	Slovakia	1-Nov-2008	Middle (lower)
	Slovenia	1-Nov-2008	Middle (upper)
	Spain	1-Nov-2008	High
	Sweden	1-Nov-2008	High
UK	1-Nov-2008	High	
Antigua & Barbuda	1-Nov-2008	Middle (upper)	
Bahamas	1-Nov-2008	High	
Barbados	1-Nov-2008	Middle (upper)	
Belize	1-Nov-2008	Middle (lower)	
Dominica	1-Nov-2008	Middle (lower)	
Dominican Rep.	1-Nov-2008	Middle (lower)	
Grenada	1-Nov-2008	Middle (lower)	
Guyana	1-Nov-2008	Low	
Jamaica	1-Nov-2008	Middle (lower)	
St. Kitts & Nevis	1-Nov-2008	Middle (upper)	
St. Lucia	1-Nov-2008	Middle (upper)	
St. Vincent & the Grenadines	1-Nov-2008	Middle (lower)	
Suriname	1-Nov-2008	Middle (lower)	
Trinidad & Tobago	1-Nov-2008	Middle (upper)	
Chile-China*	Chile	1-Oct-2006	Middle (upper)
	China	1-Oct-2006	Low
Chile-Colombia*	Chile	8-May-2009	Middle (upper)
	Colombia	8-May-2009	Middle (lower)
New Zealand-China*	New Zealand	1-Oct-2008	High
	China	1-Oct-2008	Low
New Zealand-Malaysia*	New Zealand	1-Aug-2010	High
	Malaysia	1-Aug-2010	Middle (upper)
Nicaragua-Taiwan*	Nicaragua	1-Jan-2008	Low
	Taiwan	1-Jan-2008	High

*Note:* The income categories of countries are classified by the World Bank based on GNI/cap in 1995.

**Appendix Table A9. Classification of RTAs in terms of Contents & Stringency of Labor or Labor-related Provisions**

(revised from Table 1 in Kamata (2014))

**Group 1:** RTAs demanding domestic labor laws to be consistent with the ILO guidelines or equivalent set of internationally recognized standards; stipulating the procedures for cooperation, consultations, and/or dispute settlement on labor issues (8 RTAs):

USA-Colombia; USA-Korea (South); USA-Panama;  
Canada-Chile; Canada-Colombia; Canada-Jordan; Canada-Peru;  
NAFTA

**Group 2:** RTAs urging members to harmonize domestic labor laws following the ILO guidelines or equivalent set of internationally recognized standards; stipulating the procedures for cooperation, consultations, and/or dispute settlement on labor issues (14 RTAs):

USA-Australia; USA-Bahrain; USA-Chile; USA-Jordan; USA-Morocco;  
USA-Oman; USA-Peru; USA-Singapore;  
USA-CAFTA-Dominican Republic (CAFTA-DR);  
Canada-Costa Rica; Chile-Turkey;  
European Economic Area (EEA); EU-Korea (South)  
Trans-Pacific Strategic Economic Partnership (TPSEP or P4)\*;

**Group 2.5:** RTAs stating that each member has the right to determine and regulate its domestic labor standards without requiring harmonizing them with each other; stipulating the procedures for cooperation, consultations, and/or dispute settlement on labor issues (9 RTAs):

EFTA-Hong Kong; EFTA-Montenegro; EU-CARIFORUM States;  
New Zealand-Malaysia; New Zealand-China;  
Chile-China; Chile-Colombia; Nicaragua-Taiwan;  
Caribbean Community and Common Market (CARICOM);

**Group 3:** RTAs affirming members' commitment to the ILO standards or equivalent set of internationally recognized standards, without requiring to have domestic labor laws to the ILO guidelines (9 RTAs):

European Free Trade Association (EFTA); EFTA-Albania; EFTA-Canada;  
EFTA-Colombia; EFTA-Peru; EFTA-Serbia; EFTA-Ukraine;  
EU-Chile; Japan-Philippines;

**Group 4:** RTAs mentioning labor rights but not in the context of the ILO standards; mentioning to aim to improve working conditions (3 RTA):

EFTA-Chile; EFTA-Mexico; EFTA-SACU (Southern African Customs Union)

\* The agreement among Brunei, Chile, New Zealand, and Singapore, which is now being negotiated for the expanded Trans-Pacific Partnership (TPP) with other 8 countries.

**Appendix Table A9, continued:**

Group 5: RTAs mentioning social matters including human rights, but not labor issues exclusively (51 RTAs):

Andean Community; Australia-New Zealand; Brunei-Japan;  
China-Hong Kong; Colombia-Mexico;  
Colombia-El Salvador & Guatemala & Honduras;  
Common Economic Zone (CEZ);  
Common Market for Eastern & Southern Africa (COMESA);  
Eastern African Community (EAC);  
Economic Community of West African States (ECOWAS);  
Gulf Cooperation Council (GCC);  
Latin American Integration Association (LAIA);  
Melanesian Spearhead Group (MSG);  
Southern African Development Community (SADC);  
MERCOSUR; MERCOSUR-India;  
West African Economic and Monetary Union (WAEMU);  
Hong Kong-New Zealand; India-Japan; India-Singapore;  
Japan-Indonesia; Japan-Malaysia; Japan-Singapore; Japan-Thailand;  
Japan-Viet Nam; Pakistan-Malaysia; Peru-South Korea;  
Singapore-Australia; Thailand-New Zealand; Turkey-Jordan;  
Turkey-Palestine;  
EFTA-Egypt; EFTA-Macedonia; EFTA-Jordan;  
EFTA- Korea (South); EFTA-Lebanon; EFTA-Morocco;  
EFTA-Palestinian Authority; EFTA-Singapore; EFTA-Tunisia;  
EU-Albania; EU-Côte d'Ivoire; EU-Egypt; EU-Israel; EU-Jordan; EU-Lebanon;  
EU-Montenegro; EU-Morocco; EU-PNG/Fiji; EU-Serbia; EU-Tunisia

Group 6: RTAs not mentioning any labor or social matters (129 RTAs)

(all other RTAs in force and notified to the WTO as of July 2013; list omitted)

*Note:* This table shows a revised version of the RTA classification presented by Kamata (2014), Table 1.