

The Effects of Globalization on Working Conditions: El Salvador 1995-2005

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ABSTRACT

This paper investigates the effect of globalization on working conditions in El Salvador employing extensive household surveys from 1995 to 2005. Working conditions are defined by information on wages, hours of work, benefits (bonuses, vacations, meals, housing, transportation, health insurance, etc.) and details about the working environment (smog, dust, gases, noise, extreme temperatures, dangerous tools, etc.). These are analyzed on the light of structural shifts in the economy, identifying declining and expanding sectors associated with globalization (trade liberalization, migration, and foreign direct investment). Given El Salvador's uniqueness in the relatively large role of migration and remittances, this paper assess also their impact on working conditions.

Like many other developing countries, El Salvador's experience with globalization has been characterized by increasing foreign investment and total trade over the last 15 years. Also like other developing countries, these changes have been concentrated in relatively few sectors. While an ambitious privatization program has attracted foreign direct investment (FDI) in several key non-tradable sectors (banking and telecommunications, for example), much of the export-focused FDI has concentrated narrowly in the apparel sector. This sector generally imports intermediate inputs for assembly and re-export. In Spanish-speaking developing countries, this is often referred to as the maquila sector.

In the sections that follow, we first characterize globalization in El Salvador. We focus on El Salvador's trade policies and the related changes in both trade and investment. In particular, we identify the sectors that seem to be most internationally engaged. In addition to the "usual" experience with globalization, El Salvador has been unique in the relatively large role of remittances. These remittances may have important, albeit indirect, effects on working conditions. They may increase reservation wages, effectively reducing labor supply and increasing market wages. On the other hand, they may also act as a form of insurance, making workers receiving remittances less dependent on insurance programs linked to work. In this case, remittances may reduce the observed work-related insurance benefit (which is one possible measure of working conditions). We explore these hypotheses in the sections that follow.

In the second section we describe the institutional history of labor legislation and basic indicators of working conditions in the country. In the third section we employ El Salvador's extensive household surveys to estimate wage offer curves to lay the

foundation for a more detailed study of the possible effects of remittances, controlling for selection bias, inter-industry wage differentials for the apparel sector, and probit equations for indicators of working conditions in the country. We close the chapter with conclusions and some public policy implications.

1. Globalization in El Salvador

Globalization has many faces. Globalization includes rising values and volumes of trade in goods and services among countries. It also deals with development and spread of technologies, especially information and telecommunication technologies, which allow access to information all over the world. The ability to connect with production, distribution and knowledge networks rapidly increased the potential for development around the globe. Very importantly, it also deals with international migration changes economic relations and structures among and within countries.¹ It also deals with the spread of democracy and democratic institutions in the world. All these faces can affect the behavior and the structure of labor markets within a country. The effects depend on which of these features are more important for a particular country, and the particular (idiosyncratic) characteristics of the country that determines how prepared (or not) it is to take advantage of the new opportunities and challenges posed by globalization.

Development is a process. The other important idea that lies behind the specific effort of this paper is that development is a process. Globalization involves evolving economic and political factors. During a reform processes, legal changes are only the first step. To construct economic and democratic institutions that best suit a country (not simply copying and pasting institutions from other countries),² a country needs to make many changes that may not be immediately politically and economically feasible. Thus, implementation may be slow. Success depends on whether the country picks the right sequence to implement reforms and how fast it can implement this sequence. Factors affecting how the country reacts to the reform may be beyond a government's control, being the result of multiple interactions between society and the state. Therefore, the quality of governance institutions to deal with differences among individuals and groups of individuals is also very important. These features are an important part of any study of globalization.

Among Latin American countries, El Salvador has implemented liberalization reforms with more eagerness. In the 2006 Index of Economic Freedom, El Salvador ranks second after Chile.³ El Salvador is among the only three countries in Latin America that enjoy investment-grade risk rating in the region. BID (2006) presents a general

¹ Williamson (2005) discusses the importance of migration and demographic transitions in the development process. He points that when a demographic shock affects a specific group of the population (i.e. young working age population), and when this shock is big, it has a long term impact on the economy.

² Hausmann, Rodrik and Velasco (2005) posed the problem of countries facing many policy goals against the feasibility to address all of them at one time. Since this is not possible, they suggest that the best thing to do is to identify those constraints that have a bigger impact on development in a particular country, and to focus efforts on those constraints.

³ The Heritage Foundation and The Wall Street Journal (2006).

index of quality of public policies.⁴ Among Latin American countries only Chile falls in the “Very High” category. Six other countries, including El Salvador, fall in the “High” category.⁵ El Salvador enjoys a stable policy framework and compares favorably in terms of adaptability, efficiency, and implementation and effectiveness of application. In categories of coordination and coherence and public orientation, El Salvador falls in the “Medium” category.

In this section, we discuss the trade liberalization program in El Salvador, determine the relevant sample period, and then describe changes in trade volumes, tariffs, and foreign direct investment. Clearly for El Salvador, remittance-generating migration is a stylized fact of the economy that considerably impacts labor markets.

The making of a market economy in El Salvador

In 1989 El Salvador initiated the process of constructing a market economy based on a democratic system and individual freedoms. The development agenda had two important components. The first was to find a peaceful way to resolve the 19-year-old civil war and to build the democratic institutions needed for effective governance. These efforts concluded with the signature of the Peace Accords in 1992, which included important reforms to the Judiciary, the Police, the Army, the electoral system and disarmament and incorporation of guerrillas into the political system. This just meant the beginning of a process to build democratic institutions. Since then there have been other reforms, and more will happen as the country realizes which ones work better than others.

The second component was the socio-economic agenda. The purpose was to build a market economy based on the principles of individual freedom, decentralization of decision making processes, prices as basic economic signals, competition as a warranty of economic efficiency, and the supplementary role of the state.⁶ The social agenda sought to make El Salvador a country of owners, prioritizing targeting of social expenditure towards poorest households, decentralization of social services, subsidies to demand, and private and communal participation in execution of projects.⁷

1.1. Trade and Tariff Policy

Within the context described above, we can divide the liberalization program of El Salvador into two stages. The first stage began in 1989, and it was predominantly a unilateral liberalization process, where tariffs were reduced according to a particular calendar (see Table 1.1).⁸ Beyond tariff reductions, most import and export licenses

⁴ The index is the average of six indicators describing the quality of public policies: 1) stability, 2) adaptability, 3) coordination and coherence, 4) implementation and effectiveness of application, 5) public interest orientation, and 6) efficiency. The scale ran from 1 to 4; higher values indicate better quality of public policies.

⁵ Brazil, Colombia, Costa Rica, El Salvador, Mexico and Uruguay.

⁶ See FUSADES (1989) for a proposal of an economic and social strategy for the country. The strategy proposed by FUSADES strongly influenced the agenda of the first ARENA government, headed by President Alfredo Félix Cristiani in the 1989-1994 period.

⁷ For a description of initial reforms see Rivera-Campos (2000) and also Liévano (1996).

⁸ This part relies on Alas de Franco (2002).

were eliminated. Some barriers remain, such as those protecting jute, henequen, imported salt, sugar, wheat flour, and saccharine. Tariff protection also remains in place for certain products such as sweetened drinks, alcoholic beverages, tobacco. Rice still enjoys the protection of import quotas.

Import liberalization was accompanied by policies seeking to eliminate anti-export bias in the economy and to provide incentives for export promotion. To promote exports, legislation in 1991 created free trade zones for exporting firms that gave them a tariff free area to produce for export. The legislation included other tax incentives such as exemptions from income tax and local/municipal taxes for a minimum of ten years. In addition, El Salvador has a policy of 6% drawback of value added to exports.

The reduction in tariff protection was dramatic. The average tariff fell from around 21.9% in 1991 to 5.7% in 1994. The percentage of revenue collected from import tariffs over the value of total imports of goods (an indirect measure of tariffs protection) suggests that effective tariff protection actually increased between 1991 and 1994, even though nominal rates were falling (Figure 1.1). Improvement in tax revenue management and customs explains this result. Since 1994, however, the tariff revenue ratio declined steadily from 6.6% of total imports in that year to 2.67% in 2005.

The second stage of trade liberalization sought to obtain better access to international markets mainly through free trade agreements. El Salvador enjoyed preferential access to U.S. and European markets through the Caribbean Basin Initiative (CBI) and the Generalize System of Preferences (GSP). El Salvador has signed 5 trade agreements, as illustrated in Table 1.1.

Central America started negotiating the Central American Free Trade Agreement (CAFTA) in 2002. The five Central American countries signed the agreement with the United States on May 28, 2004. El Salvador was the first Central American country to ratify the treaty, thus bringing it into effect, on March 1, 2006. One motivation El Salvador had in entering CAFTA negotiations was to protect its apparel sector after the end of the Multi-Fiber Arrangement (MFA) in 2005. The goal was to "lock in" access to the U.S. market in a way that might survive the end of the MFA.

1.2. Investment Regime

Foreign direct investment (FDI) has been an important component in the development strategy of El Salvador, and a key factor in the process of globalization. In 1990 new legislation was passed, giving wide warranties to foreign investment.⁹ In 1999 the government further revised the foreign investment law,¹⁰ giving freedom to invest in almost all sectors of the economy. The new law granted freedom to repatriate profits, warranty for national treatment and non discrimination to FDI; access to domestic financing; registration through a single window to simplify all paperwork; intellectual property protection; tax incentives; and restrictions in very few activities.

⁹ Alas de Franco (2002). The first FDI legislation was passed in April 1988. The bill was reformed in January 1989 and significantly again in December 1989.

¹⁰ FUSADES (2003). Ley de Inversión Extranjera (Decreto Legislativo no. 732, Noviembre 1999),

The government also signed Bilateral Investment Treaties (BTI) with the United States, some European countries, and some South American countries. Several of these treaties were enhanced within the framework of Free Trade Agreements (FTA). El Salvador has also signed the Multilateral Investment Guarantee Agreement (MIGA).

1.3 Trade and Foreign Direct Investment

1.3.1 Trade Trends

El Salvador's goods trade has accelerated, increasing the ratio of exports to GDP from 10.8% in 1990 to 22.4% in 2000 (See Figure 1.2). Since 2000, however, the rate of growth of exports has declined considerably: total exports have remained close to 20% of GDP over the last five years. On the other hand, trade liberalization and abundance of foreign exchange (due to remittances), have lead to even faster growth in total imports. Imports as percentage of GDP increased from 23.3% in 1990 to 39.9% in 2005.

Composition of Exports and its Trends

Over the past fifteen years El Salvador has undergone important changes in the composition of exports. In 1990, traditional exports, mainly coffee, sugar, cotton and shrimp, amounted to nearly 51% of total exports. Their share in total exports declined steadily over the 1990-2006 period, ending with a share of 7.5% in 2006. Another major change is the rapidly increasing role of maquila exports (mainly apparel), which grew from US\$137 million in 1991 to US\$1.9 billion in 2004, reaching 58% of total exports. Finally, the other major change is an increase in non-traditional exports, which include some agricultural products and many kinds of light manufacturing, from US\$287 million in 1990 to US\$1.65 billion in 2006 (see Table 1.3).

Apparel (maquila exports)

“Maquila”, also sometimes referred to as export processing, refers to activities involving the assembly of imported intermediate inputs and exporting the finished goods. In the case of apparel, for instance, this means importing cut and uncut fabric for assembly (sewing) into garments.

In case of El Salvador and other countries of the region, including Mexico, it is important to look into a historical perspective to understand the evolution of maquila exports. The expiration of the MFA, which eliminated quotas regulating the flow in textiles in the world in January 1st, 2005¹¹ is a critical event in the evolution of the maquila sector. After the first round of economic reforms and liberalization, maquila exports took off with great success, increasing from close to zero in 1990, to over \$1.6 billion in 2000. After that, growth in maquila (mostly apparel and textile) slowed down, to reach a peak in 2004, near US\$1.9 billion. After January 1st 2005, maquila exports slowed and even decreased, to reach US\$1.6 billion in 2006. The resulting loss in employment has been considerable (as shown below). Employment growth fell

¹¹ See the WTO at http://www.wto.org/english/tratop_e/texti_e/texintro_e.htm.

in 2001, 2002, 2004 and 2005, possibly suggesting that even before the expiration of the MFA, some companies started to shift elsewhere in the world.

India, Bangladesh, China, and perhaps Indonesia, have lower wages and possibly higher productivity than El Salvador. Their rising participation in world trade may contribute to the relative decline in El Salvador's maquiladora sector after 2000. If growth in the maquila sector affected working conditions, its contraction may have the opposite effect.

Composition of Imports and its Trends

Among the four major import aggregates: maquila, consumption, intermediate and capital goods, imports of intermediate goods are the largest and increased from US\$629 million in 1990 to US\$2.8 billion in 2006. The second component includes consumption goods imports, which increased from US\$399 million in 1990, to US\$2.4 billion in 2006, and increased their share from 24.6% in 1991 to 31.5% in 2006 (Table 1.3).¹² Similar to maquila exports, maquila imports increased rapidly from 1991 to 2000, but during the 2000-2005 period, maquila imports grew at a very mild rate, even reducing their share in total imports. The fourth component is imports of capital goods; these increased rapidly between 1990 and 1995, stabilized between 1996 and 1999, and increased again in 2000. They stayed at similar level until 2006, decreasing in share overall since 1999.

1.3.2 Foreign Direct Investment

Systematic FDI data are available since 1997, when the Central Bank adopted the standards of the IMF's Fifth Balance of Payments Manual. Overall, between 1997 and 2006, FDI (not including intercompany transactions) increased seven fold, from US\$480 million in 1997 to US\$4.37 billion in March 2006 (Tables 1.4 and 1.5). The new dynamics of CAFTA and large investments in the banking sector have created new opportunities that will bring an additional US\$1 billion in FDI between 2006 and 2007. Most of this increase comes from the acquisition of controlling equities of the three largest banks in the country by Citibank, HSBC, and Bancolombia. The main FDI partner is the United States, followed by Mexico (with large investment in the telecom sector) and Venezuela (with a large investment in the sector of distribution of electricity).

FDI in El Salvador is biased toward the non-tradable sector.¹³ Privatization of electricity and communications attracted the first large inflow of FDI in 1998, reaching US\$1.6 billion in that year alone (Table 1.5). The FDI share towards the non-tradable sector went from 44.3% in 1997 to 71.1% in 1998, and it remained close to 70% until to 2004. Privatization of the banking sector and financial liberalization occurred in early 1990s, but equity was mainly bought by local investors. Recently, however, FDI has gone into the banking sector, with acquisitions of national and

¹² From 2003 to 2005 the increase in share of intermediate and consumption goods is strongly associated with the increase in oil prices.

¹³ Among others, see World Bank (1996) (El Salvador: Meeting the Challenge of Globalization), and Rivera Campos (2000), and FUSADES (2003). For this section, in the tradable sector we include: Industry, Agriculture and Fishing, Mines, and Maquila; in the non-tradable sector we include Sales, Services, Construction, Communications, Electricity, and Financial Sector.

regional (Central American) banks by General Electric Finance, Scotia Bank, and HSBC. In 2006, Citibank and Bancolombia announced an offer to buy all equities of the two largest banks in El Salvador. By September 2007 FDI in the non-tradable sector reached above 74%, after including new investments in the banking sector.

FDI in the tradable sector increased from US\$266 million in 1997 to US\$1.2 billion in 2005 (more than a fourfold increase). In the maquila sector FDI has gone from US\$57.2 million in 1997 to US\$299 million in 2005. FDI in manufacturing has steadily grown from US\$196.4 million in 1997 to US\$853.5 million in 2005 (an increase of 4.3 times the initial value). The case of fishing is also worth mentioning, due to a Spanish investment for tuna fishing and canned tuna that received preferential treatment with CAFTA; FDI in this sector has increased from zero in 1997 to US\$66 million in 2005.

Investment in the service sector also has increased. Air Canada recently bought the airplane maintenance branch from the Salvadoran national company AEROMAN, which is the only company in Latin America certified to service Airbus (and has contracts with Jet Blue and America West). Call centers also represent an important area for FDI, with investments from Dell, Sykes, America Móvil, and others.

1.4 Macroeconomic Impact of Remittances and Migration

Massive migration and flows of remittances have had a major impact on macroeconomic conditions in El Salvador. Remittances reached almost 18% of GDP (totaling US\$3.32 billion) in 2006 (see Figure 1.3). This influx of income from abroad increases the demand for both tradable and non-tradable goods. The price of tradable goods is checked by international prices as in any open economy.¹⁴ On the other hand, non-tradable goods are not subject to international competition and supply is restricted by availability of resources (land, labor, capital). As a result, the relative price of non-tradable goods goes up, leading to an appreciation of the real exchange rate. The relative price of tradable goods versus non-tradable goods decreased steadily from 100 in 1990 to 79.5 in 2005.¹⁵

This appreciation makes exporting more difficult, and shifts investment incentives towards the non-tradable sectors of the economy. The shares of both tradable and non-tradable sectors have evolved over the period, in 1991 the share of the tradable goods sector in GDP was 39.3%, and declined steadily to 32.5% in 2005. The decline is due mainly to the fall of the share in agriculture in total GDP, while manufacturing industry maintained an average of 22.2% over the period, meaning that it has managed to adapt to changes in international conditions and relative prices. The

¹⁴ Between 1991 and 2000 El Salvador fixed its exchange rate. Since January 1st 2001, the US dollar has been the unit of exchange and legal tender, displacing the former currency, the *colon*.

¹⁵ GDP deflators were obtained dividing GDP at current prices by GDP at constant prices for each sector. The relative price was obtained dividing GDP deflator of tradable sector by GDP deflator of non-tradable sector. GDP of the tradable sector is the addition of three sectors, as defined by national accounts in the Central Bank, a) Agriculture, fishing and hunting, b) Mines; c) Manufacturing Industry. GDP of the non-tradable sector is the addition of nine sectors, as defined by national accounts in the Central Bank, d) Electricity, Gas and Water, e) Construction; f) Sales, Restaurants and Hotels, g) Transportation, Storage and Communications, h) Finance and Insurance, i) Real Estate and Services; j) Housing Rental, k) Communal, Social, Personal and Domestic Services, l) Government Services. Data and estimation results are available upon request.

appreciation of the exchange rate (plausibly due to remittances) creates a problem like the Dutch Disease.

Exchange rate appreciation means that relative prices stimulate non-tradable sectors, such as services, real state, financial sector and sales. The finance and insurance sector increased its share from 2.2% of GDP in 1990 to 4.5% in 2005; transportation, storage and communication sector increased from 7.3% of GDP to 9.2%; sales, restaurants and hotels from 18.1% to 19.4%; construction from 3.5% to 4.2%; other services from 6.1% to 7.7%; and real state increased from 3.5% to 4.3%. Not all non-tradable sectors have moved in the same direction, however. Government services declined from 7.4% to 6.5%, reflecting the policy of minimizing state involvement in the economy. Housing rents' share also fell, from 11.3% to 7.4%.

Changes in real wages

Trejos and Gindling (2004) analyze changes in wage inequality in Central America during the 1990s. They find that the sign of the change in inequality between 1995 and 1999 depends on the measure of inequality. These results may signal significant changes in industry-specific wages. Formal sector workers in the two main tradable sectors, agriculture and manufacturing, have experienced falling real wages over the 1991-2004 period (Figure 1.4). On the other hand, the trend of real wages within the non-tradable sector varies over time. In the cases of electricity, gas and water, transportation, and telecommunications, the trend was positive until 2001 but was negative in the 2000-2004 period. It is interesting to see that in the financial sector, though it has been one of the more dynamic sectors, real wages have declined steadily from 1991 to 2004. Wages in the sales sector have also fallen, although at slower rates. Real wages were stable in the personal service sector until 1996 but rose afterwards (see Figure 1.5).

2. Working Conditions in El Salvador

El Salvador's labor law is a direct product of its recent history. Civil war violently gripped El Salvador during the 1980s. The U.S. Department of State (2008) notes that human rights violations were “rampant” during the civil war. After the war, the United Nations helped supervise a “Truth Commission” to help deal with some of the worst offenses, and the accord stipulated that those responsible for human rights violations be removed from military and government posts.

The civil war provides an important context for reforms to labor law in El Salvador. Bronstein (1997) notes that several Latin American countries reformed labor laws and incorporated revisions into the constitution in the late 1970s and early 1980s. In 1983 El Salvador implemented detailed constitutional reforms governing several aspects of working conditions, such as home work, domestic service, and protection against dismissal without good cause (Bronstein 1997). These reforms were generally considered to extend social protections and entitlements, but the context of the civil war made it difficult to enforce such provisions. After the Peace Accords, another comprehensive reform of El Salvador's labor law in 1994¹⁶ extended social

¹⁶ Decree No. 859 of 21 April 1994, as listed in the 12 May 1994 edition of the *Diario Oficial*.

protections, especially in the areas of maternity protection, women's work, compensation for dismissal without just cause, and application of labor law to apprentices (Bronstein 1997). The reform was considered to be significant improvement in worker protections over the previous code, including mechanisms for inspection and monitoring, sanctions (civil/administrative and penal), and tripartite discussion (see the year 2004 reports filed with the ILO). Significantly, this reform led to the ratification of 14 ILO conventions, as shown in Table 2.1.

Ratification of these 14 conventions highlighted El Salvador's reluctance to ratify ILO conventions 87 (Freedom of Association and Protection of the Right to Organize) and 98 (Right to Organize and Collective Bargaining). Article 7 of El Salvador's constitution recognizes the freedom of association, but this article did not apply to government workers. The government's main argument for refusing to ratify these conventions was that the constitution prohibited government workers from organizing unions on the grounds that public services were essential and therefore could not be interrupted. Throughout the 1990s and early 2000s, El Salvador faced increasing international criticism from labor groups for these provisions.

The Spanish tuna investment by Grupo Calvo played an important role in pressuring El Salvador to ratify ILO core conventions 87 and 98, as well as conventions 135 (Workers' Representatives Convention) and 151 (Labour Relations Public Service). While the European Union threatened to withdraw El Salvador from the European General System of Preferences if the country did not ratify these conventions, Grupo Calvo (the tuna company) threatened to withdraw their investment from El Salvador because it would lose the preferential treatment in the European Union. El Salvador did everything a country could do to avoid losing this preference and to continue negotiating an economic agreement with the European Union. In September 6, 2006, these four conventions were ratified, overcoming long lasting prejudices against labor unions. At the end of October 2006, however, the Supreme Court of El Salvador ruled that it was unconstitutional, suggesting the issue may continue to be contentious.

On March 1, 2006, El Salvador became the first Central American country to approve, and thus bring into force, the CAFTA. In the 2006 report filed with the ILO, the government of El Salvador noted that it began to reform labor law to bring it into accordance with the provisions of the CAFTA. In particular, they noted that reforms of Articles 211 and 248 (of El Salvador's labor law) were in progress, with the goal of reducing the number of workers required to start a union from 35 and to reduce the time required to wait to reapply for union status after an application had been rejected from 6 months.

The timing of El Salvador's reversal on the ratification of the two remaining core ILO conventions strongly suggests that international engagement played a significant role in El Salvador's decision because it coincided with the CAFTA negotiations. International pressure increased during these negotiations and created an incentive to adopt these core conventions. Other international forces have played a role in changing labor standards in El Salvador. Frundt (2004) points out that the National Labor Committee (NLC) convinced the apparel company Gap to open its Salvadoran apparel contractor, Mandarin, in the 1995 holiday season, thus opening the way for international pressure to affect labor standards. That action, the first example of independent (non-government) external monitoring in the world, resulted in the

creation of the *Grupo de Monitoreo Independiente de El Salvador* (GMIES). Frundt (2004) notes that as a result, a union at Mandarin was recognized, fired workers were rehired, and workers reported improved conditions. Unfortunately, the union's efforts were reportedly undermined by another union loyal to the company that mitigated previous changes. GMIES went on to monitor five other plants with mixed success. One plant closed to avoid unionization. In another, workers reported more success than at the Mandarin plant. In all cases, however, the monitoring brought attention to working conditions in these factories, which may be a critical first step towards improvements.

During the CAFTA negotiations, El Salvador faced criticism for failing to enforce existing labor laws. In the 2006 report filed with the ILO,¹⁷ the Office of the International Confederation of Free Trade Unions (ICFTU) repeated the concerns it had filed in previous years' reports about enforcement of labor laws, especially with respect to union activity. The ICFTU alleged that the right to collective bargaining had not been respected in Export Processing Zones (EPZs). They also raised other concerns about the structure and application of labor law. In particular, they note that the law requires the union leaders must be Salvadoran by birth and that trade unions are prohibited from political activities. These provisions have been used to minimize union power. Furthermore, they reflected the government's comments about legal obstacles to strikes, noting that 51 per cent of workers must approve a strike, whether or not they are members of the union, and a strike is only legally recognized if it relates to a change in a collective agreement or defends workers' professional interests. The ICFTU's comments state that, under these conditions, the Ministry of Labor has considered all strikes in El Salvador illegal.

Although in most countries there are relatively few resources devoted to monitoring compliance by employers, there is some indication that El Salvador is increasing resources for enforcement. Enforcement was a specific topic in the free trade agreement with the United States (CAFTA) negotiations. The Office of the U.S. Trade Representative reported in February 2005 that El Salvador had increased the budget for the Labor Ministry by 20%. The Ministry of Labor increased the number of inspectors from 73 in 2002 to 171 in 2005 and cut the average time to hear a labor complaint in half (USTR 2005). In addition the U.S. government allocated funds to support institutional capacity in Central America. While these are important steps, concerns persist about the length of the judicial process to follow up on workers' complaints and that law enforcement focuses mainly on medium to large firms, neglecting the broad scope of informal jobs in the country. With the signature of CAFTA, the government faces the choice of enforcing compliance or risking trade sanctions.

Anecdotal evidence also suggests a lack of enforcement may not necessarily be due to a lack of government intent or ability. For example, a 2005 New York Times article described the experience of textile workers whose (foreign) assembly plant had closed suddenly and pulled operations out of El Salvador (Thompson 2005). National law requires that dismissed workers are entitled to compensation but the government can do little to enforce these provisions on companies that are no longer in the country. Foreign investment *leaving* El Salvador therefore may threaten working conditions.

¹⁷ ILO reports are available at <http://www.ilo.org/dyn/declaris/>.

3. Household Survey Analysis

To complement the qualitative analysis, the following four sections present a quantitative analysis of working conditions in El Salvador. The first section contains a description of the data. The second section presents some basic descriptive statistics that illustrate the main changes in labor markets in El Salvador. The third section includes an econometric model of participation (Heckman's selection model) for labor conditions and probit models of non-wage working conditions (specifically, whether workers have signed a contract or whether they registered with social-security). This section also includes descriptive statistics of other non-wage working conditions for 2005. The last section concludes with an analysis of inter-industry wage differentials.

3.1 Data

El Salvador has a history of collecting labor market and expenditure data through household surveys. El Salvador conducts the *Encuesta de Hogares de Propósitos Múltiples* (EHPM) each year. The survey covers basic demographic information as well as labor market experience, housing, and other indicators. While data are roughly available from 1989 until the present, survey and sample changes restrict the sample used here to 1995-2005. This period covers the process of trade liberalization and rising globalization in El Salvador. To analyze the surveys together, the analysis focuses on workers with positive wage earnings (earnings from paid labor). The sample was further restricted to several key variables: age, gender, education, occupation, sector of employment, geographic area and remittances.

Table 3.1 contains sample characteristics. These simple statistics reveal several important features of the survey data. The first column contains the sample size. These numbers represent a subsample of the number of workers in the sample who are between 10 and 65 years old (inclusive) and have positive earnings from wages. As the table clearly shows, there is a lot of variation in sample size over the 1995-2005 period. Most notably, there is a significant increase in sample size in 1998 over 1997, and again in 1999 and 2000 over the previous year. The sample size falls back to 1998 levels in 2001 and rises to 1999 levels in 2002-2005.

While mean age is relatively steady from 1995 to 2005, the female employment share falls through the sample, from just over 41% in 1995 to just under 37% in 2003, and around 30% in 2004 and 2005. Interestingly, average education remains roughly constant through the sample period, although the average of the last two years is higher than the average over the first two years, possibly suggesting a gradual increase in average education levels.

Table 3.2 contains sector employment shares for 1995 and 2005. If these samples are representative, the samples indicate significant changes in employment patterns in El Salvador. The share of workers in agriculture, particularly food agriculture, falls from nearly 25% to just over 16%. At the same time, the share of workers in sales (retail and wholesale) rises from just over 22% to nearly 29.5%. In terms of manufacturing, perhaps the most significant change is in the textile and apparel sectors. The share of workers in textiles falls by nearly two-thirds, from about 2.1% to just over 0.5%. This may be due to rising imports of textile products for assembly. In contrast, the share in apparel rises from about 4.6% to 6.6% in 2003, but decreases to 4.7% in 2005. This

fall coincides with the end of the MFA. These patterns are similar to other small developing countries, particularly Honduras and Nicaragua, whose experiences with rising globalization coincided with the growth of apparel manufacturing. Note that other manufacturing sectors – food, beverages, and tobacco, wood, and other manufacturing - either contract or remain steady.

The various industries have very different demographic characteristics. Table 3.3 shows that, in particular, rather than being a sector that employs less-educated workers, the average education level in apparel is not statistically different than (and slightly above) the national sample average. Agriculture, not surprisingly, has very low average education levels. Utilities, public administration and social services have relatively high education levels, but apparel has the highest average education of all manufacturing industries.

One of the main characteristics of apparel seems to be the large concentration of women. Over 70% of employment in the sector is female. Only other services have a higher concentration of female employment, and the female share of employment in apparel is nearly double that in the other manufacturing industries.

It may also not seem surprising that workers in apparel are younger than other sectors. Indeed, Table 3.3 shows that for the same subsample, the average age in apparel is lower than in all other sectors. Thus, as in other countries, apparel in El Salvador is characterized by relatively young women. One key difference in El Salvador is that education levels in apparel seem to be relatively high.

3.2 General Labor Market Conditions

Given the trends described in part 2 of this paper, we will focus our attention on three specific periods:

1991-2000: Continuation of first phase of trade liberalization with unilateral tariff reduction, export promotion efforts, and beginning of privatization process, with large FDI coming to utilities sector, and some to industry or manufacturing. Garment exports kept growing. Remittances, as a share of GDP, fall during this period.

2000-2004: Beginning of second phase of trade opening through signing of free trade agreements (Mexico, Dominican Republic, Chile, Panama). FDI flows into non-tradable and tradable sectors. Maquila exports slow. This period also suffered many shocks: coffee price shock, 2001 earthquakes, oil price shock. Remittances increase from 13.3% of GDP to 16.3%.

2004-2005: Continuing efforts to sign a free trade agreement with the U.S., incoming flows in FDI in financial sector. The end of Multifiber agreement triggers a fall in maquila exports, dominated by garment industry. Nontraditional exports grow. Remittances keep increasing to 17% of GDP. Coffee prices recover.

Labor Force Participation

Labor force participation, defined as all economically active population ten years and older divided by total population in the same age range, was close to 50% in 1997 and from 2000 to 2005 has remained around 52%, with little change (See Table 3.4). Labor force participation for men fell from 68.5% in 1997 to around two thirds in 2000-2005. Women's labor force participation, however, increased from 35.3% in 1997 to 38.7% in 2000, 38.6% in 2004, and 39.5% in 2005. The contraction of the agricultural sector (mainly male employment) and the gain in garment and sales employment (up to 2003) explain these trends.

A first approximation of the impact of remittances on labor markets and working conditions is shown in labor force participation. We compare labor force participation between those living in households that do and do not receive remittances. In 2005, labor force participation was around 42% for those workers who reside in a remittance-receiving household. For those living in a household not receiving remittances, labor force participation is around 56%. In other words, the data suggest that remittances reduce labor force participation by 13% in the subset of population that receive remittances. This could be biased if remittances are directed mainly to women, but specific calculations by sex show that for women and men labor force participation is 12% and 13% smaller for the subset of populations living in households that receive remittances (See Table 3.4).

Rate of Unemployment

The unemployment rate declined between 1997 and 2000. Between 2000 and 2004, however, it remained close to 6.9% and increased to 7.2% in 2005. The most important changes have occurred for women, where the rate of unemployment declined steadily between 1997 and 2000 from 5.3% to 3.7%. After a jump to 5.2% in 2001, unemployment rate remained close to 3.5% until 2003 and then increased to 4.8% in 2005. Given that women's participation in the garment industry is much larger than men's, it seems that women's rate of unemployment follows a pattern similar to what is happening in maquila exports, especially in 2004 and 2005, that coincided with the end of quotas associated with the Multifiber Agreement (See Figure 3.1).

Employment by economic sector

Table 3.5 shows four features about employment in El Salvador in 2005. First, employment opportunities are concentrated in large sectors, sales with 29.5% of all employed, agriculture, with 19.5% and manufacturing (including food and beverages, garment and textile, and other industry) with 16.4%. Second, women participate mainly in sales and services, but they also have high shares in manufacturing of food and beverages and garments and textiles. Men, however, participate more in agricultural activities and sales.

Third, remittances do not change the overall pattern of distribution of employment by economic sector. And fourth, employment by firm size has a U-shaped distribution, where micro enterprises generate 61.2% of employment, and large firms 29%. Also is important to see that in the garment industry the employment share is larger in large firms, which tend to participate more in the regulated segment of the labor market.

Average hours per week

The average number of hours per week in their main job, for those that were employed is 42.2; the difference between men and women is very little, 42.6 compared to 41.7 on average, but it varies across sectors. For women, those working as maids have the longer work week (they are not protected by contracts and legislation). Regarding the impact of remittances on average number of hours per week, it is 40.2 hours for those receiving remittances, and 42.7 hours for those not receiving remittances. Regarding firm size, the average hours per week increases with firm size, from 39.3 for micro enterprise to 47.3 hours for large firms. Generally micro enterprises represent the informal sector, where they may enjoy more flexible hours, while large firms are subject to legislation enjoying less flexibility (See Table 3.6).

One of the main features of labor markets in El Salvador is rigidity in the labor week in the regulated segment of the market, determined by labor legislation. Density functions of the distribution of number of hours per week for employed population in their main job show that the distribution is concentrated around 44 hours per week, which is the number of hours established in the labor code. However, there are differences between men and women. For women, the distribution has two peaks, one smaller one around 22 hours, and the normal one at 44 hours; this suggest that for many women it is important to keep a part time job. On the other hand, workers living in a household that receives remittances have more dispersed hours. That is, they show less concentration at the 44 hours peak, while those not receiving remittances show a pattern more similar to the general distribution, that is, high concentration at 44 hours.

Wages and wage rates

The following includes only those employed as wage laborers, whether temporary or permanent; does not include self employed, employers, cooperativists, non remunerated family members, trainees or domestic services (maids).

For those employed as wage laborers, the average wage rate per hour is \$1.51; the highest wage rate is found in the educational sector, followed by administration and defense, reflecting mainly jobs in the public sector. But in the private sector economy, highest wages are found in services and utilities (electricity, gas and water), and the lowest wages are found in agriculture, \$0.69 per hour. In the sales sector, where most people are employed, the wage rate is \$1.25 per hour. In manufacturing, the wage rate varies by sub-sector: \$1.08, \$1.48, and \$1.54, in garment and textile, food and beverages and other manufacturing respectively. Therefore, it is important to note that maquila-related sectors pay lower wages than in the other two sub-sectors. It is also true, however, that in these two sectors, women's wage rate is lower than men's, while in other manufacturing, women's wage rate is higher (see table 3.7).

Overall, workers receiving remittances have a higher wage rate per hour than those not receiving remittances: \$1.63 compared to \$1.49 per hour (although these differences may not be statistically significant). Remittances have a positive effect on the wage rate in the garment and textile industry but not in the beverage and food sector, and in the other manufacturing sector, the impact is contrary to expected. In

Sales, one of the more important sectors, the average wage rate is also smaller for those receiving remittances. Regarding firm size, the average wage rate per hour is almost twice as large in large firms compared to microenterprises, revealing that the quality of employment is better in the latter.

Heckman's Selection Model

The importance of remittances in El Salvador suggests they affect labor market participation and in the determination of wages. Heckman's selection model (Heckman (1979)) is one way to address these questions. The decision to work or not work is made by the individuals. Thus, those who were not working constitute a self-selected sample and not a random sample. It is likely some of the workers receiving remittances would earn low wages choose not to work and this would account for part of the missing wage data. Thus, it is likely that we will over estimate the wages of the workers in the population. The Heckman approach accounts for information on the non-working individuals.

Our approach assumes that there is one model predicting wages and one model predicting whether a person will be working. The identifying assumptions for the selection mechanism are that family characteristics and geographic location affect participation in labor markets. Regarding family characteristics, it is plausible that having young children at home may detract parents to participate in labor markets, especially women. Two variables, the percentage of children less than 6 years old in total members of households and the percentage of children between six and twelve years of age, capture these effects. Multiplying each of the previous two variables by the dummy variable indicating the observation belongs to a woman (FEMALE) generates controls for whether the effects are different for women. Regarding geographic location, those located further from large markets are less likely to participate in labor markets because there are fewer opportunities in their locality. Regional dummies, excluding the reference location (the metropolitan area of San Salvador) capture this effect.

Table 3.8 reports results for three different years: 2000, 2004 and 2005. The main determinants for sample selection are the female and remittances dummies; in both cases the probability of participation in labor markets is strongly reduced in all years; on the other hand education and age have a positive impact on labor participation, although the latter may decrease as one grows older. Also, having children younger than six years old reduces the probability of women to participate in labor markets, but not for men. However, having children between six and twelve years of age seems to reduce the probability of labor market participation, for both men and women. Regional controls are all statistically significant and they show that in the capital city labor participation is higher. The statistical test for the importance of the sample selection mechanism is also significant, indicating an improvement over the linear regression in terms of consistency and bias of the parameter estimators. The result for the remittance dummy provides evidence that those receiving remittances have more discretion regarding their participation in labor markets; they can have longer periods searching for jobs, since they have remittances as a cushion, or simply they have higher reservation wages and take more time to find jobs.

After considering sample selection, the results suggest that education has a positive effect on wages and age has a hyperbolic impact. Workers in urban areas and working in the public sector enjoy much higher wages, while women have lower wages after controlling for the other variables. Remittances have a positive effect on wages, which is an indicator on how remittances have a positive impact on reservation wages. Remittances reduce labor market participation, but also, once a worker decides to participate in the labor market, it closes the deal with a wage premium.

3.3 Non-wage aspects of working conditions in El Salvador

Contractual characteristics

Table 3.9 shows the main aggregates for working conditions in El Salvador in 2005 beyond wages. Overall, for those employed as wage laborers only 38.7% have signed a contract. The percentage is higher for women, for those receiving remittances, and with firm size. This pattern is followed in the percentage of those that are registered in Social Security, 51.8%, and that received the mandatory year-end payment (*AGUINALDO*). It is interesting that registration to social security and year-end payment increases with firm size, indicating that there are two segments in the market, those that are regulated by legislation, composed mainly by large firms, and those unregulated, mainly micro and small firms. It is worth mentioning that export-oriented firms tend to be large firms, and therefore are more prone to comply with labor regulations and provide better benefits to workers. Below, using a Probit model we test this hypothesis for social security registration and contracts, as function of individual characteristics, other control variables and industry dummies. The remaining labor benefits or extra payments are almost all voluntary and therefore the percentage is much smaller. Only 4.3% report receiving overtime pay, which specified by the Labor Code to be twice the normal wage.

Table 3.10 presents the percentage of employed that have signed a contract or that are registered to social security (the mandatory health insurance) by industry for years 2000, 2004 and 2005. In general we do not observe major changes over time in the shares of workers with signed contract or with registration to social security across industries. On average, for 2005, close to 20% of workers had signed contract and close to 30% were registered to social security (health insurance). However, there are large differences across industries. For instance, workers in agricultural sectors are very unlikely to be registered in social security or to sign a contract, similarly for those in husbandry and fishing and women working as maids (domestic service); construction and sales workers with signed contracts and social security are below average. On the other hand, other manufacturing, textile and apparel sector have above average percentage of workers with signed contracts and social security registration. Furthermore, workers and four key non-tradable goods sectors enjoy more possibilities for signed contracts and registration to social security, those are utilities, education, public administration and financial services, which tend to have larger firms or organizations. It is clear that labor law enforcement and compliance is concentrated in large and formal sectors of society, and widely neglected in those sectors where there is abundance of smaller and informal firms.

Work environment

The 2005 EHPM survey introduced a new question about physical conditions in the work place: whether there is dust, smog, gas emissions, noise, extreme temperatures, with dangerous machinery, underground or heights activities, insufficient lightening, with chemicals or carrying heavy load, and others not specified. Table 3.11 shows the outcomes by industry. The negative labor condition that is most typical is dust in the work place, with 41.8% of workers reporting this problem. This is especially high for construction, agricultural and mining workers, as expected. On the other hand, the percentage is lower in financial intermediation and textile and garments sectors, close to 28%, showing they enjoy better conditions on average. In fishing, only 6.2% report dusty conditions.

Apparel-sector workers report better than average working environment in terms of dust, smog, gas emissions and carrying of heavy load, and working with chemicals. On the other hand, an above-average percentage of workers report noisy conditions, working with dangerous machinery, with insufficient lightening. The percentage of workers complaining about extreme temperatures in the apparel sector is not different from the mean. These characteristics are what one would expect in this type of industry. Also, we note that on “other, not specified”, negative working environment, apparel and textile industries have the largest percentages (16.5% and 15.8%, well above the other industries and the average; this suggests there is an additional condition that should be further investigated which is special to this industry. In the next section probit regressions are run for each of these conditions as a function of industrial sector and individual characteristics, in order to identify the differences among sectors.

Probit model for contractual aspects of labor

To test whether these differences are due to differences in worker characteristics, or differences in industry characteristics, we present Probit estimations for signing a contract, or registration to social security, as a function of individual characteristics, such as education, age and sex, other control variables, such as area of residence (urban dummy), public sector dummy, and whether a worker’s household receive remittances, and industry dummies.

Table 3.12 present the results for 2000, 2004 and 2005. We observe that control variables have similar impact as wages. The likelihood of signing a contract and participating in social security insurance increases with age, education, living in urban areas, and working in the public sector. On the other hand, women have less access to contracts or social security insurance. Remittances, however, have an unexpected sign, and different from the one obtained in wage regression. Instead of improving labor conditions (contracts or social security registration) like wages, those receiving remittances are less likely to sign a contract or receive social security registration. This requires further exploration. One possibility is that those receiving remittances are better able to negotiate a higher wage, while on the other hand, are less demanding regarding health insurance or other type of security because remittances are in a way a mean of diversifying risk. In case of need, the sending relative can provide a sort of insurance. This could explain why employers are willing to pay a premium to those

receiving remittances: hiring remittance-receiving workers may reduce the cost of hiring a worker by avoiding contributions to social security health insurance.¹⁸

After controlling for the aforementioned variables, few surprises emerge in the pattern of industry differences. Workers in public administration, utilities, financial intermediation, and other manufacturing are more likely to sign a contract and to register for social security health insurance. While the differences across most industries are stable, the apparel industry effects change over time. While there was a positive impact on the probability of signing a contract and registering to social security in 2000, the sign of the marginal effect (discrete change) turns negative in 2005 for signing a contract and negative for 2004 for social security registration, coinciding with the expiration of the Multifiber Agreement, and suggests another way in which this structural change in the international apparel market may be having a negative impact on Salvadoran working conditions.

Probit Model for Working Environment

Table 3.13 presents the marginal effect of belonging to a particular industry in the probability of working in an environment with some of these negative features; marginal effects were calculated after controlling for age, education, and a female dummy. The omitted sector was the apparel industry so that coefficients in other industries represent the difference with this sector.¹⁹ The outcomes are similar to the uncontrolled differences. For instance, in the apparel sector, the problems that are mentioned more often than in other industries are noisy environment, use of dangerous machine, bad illumination and “other”; similarly, the marginal effects results show that working in the apparel sector is more likely to report a noisy environment than is fifteen other sectors, it is more likely to report working with dangerous machines than in fourteen sectors, it is more likely to report bad illumination than in 10 other sectors, and it is more likely to report “other” problems than in 14 other sectors.

When comparing to other sectors in manufacturing the differences in marginal effects depend on the specific sector. For instance, food and beverages and other manufacturing are more likely to report a dusty and smoggy environment and gases in the workplace than in apparel. In apparel concerns about noise and “other problems” are more frequent than in food, beverages and other manufacturing industries. In some sectors, working conditions seems to fare worse than in apparel. Positive marginal effects appear in eight sectors for dusty conditions, seven sectors for working with chemicals, six sectors for working with gases, and four sectors for working with heavy load.

These results suggest that working in manufacturing generally comes with several unpleasant characteristics relative to non-manufacturing employment. These

¹⁸ We thank Amy Damon for pointing out that there may be secondary effects on workers by changing the insurance pool if there are systematic differences between workers that stay in and leave.

¹⁹ Note that the decision of which industry to exclude is arbitrary. The reported results (in terms of the coefficients) are basically transitive. That is, if industry A has better conditions than the omitted industry, and industry B has worse conditions, then we can conclude that industry A has better conditions than industry B. The formal tests of statistical significance of differences across industries are more straightforward when one omits the industry of interest.

differences may exist in every country due to the intrinsic nature of manufacturing relative to other activities because manufacturing workers tend to work in factories. Among manufacturing industries, however, apparel has only two dimensions that suggest that conditions are worse (noise and "other"). Thus, the claim that conditions are particularly bad in apparel would depend on the weight given to these two dimensions (which could be subjective).

3.4 Inter industry wage differentials

One measure of working conditions is the difference between the wage one earns in one's industry of employment and the wage one would earn if employed in another sector. This difference is known as a wage differential. These differentials are not usually explained by differences in demographic characteristics, such as gender, age, and education, and seem to represent a benefit to workers who can get jobs in high wage industries. Since globalization in El Salvador has been concentrated in the apparel sector, it is important to first compare wages in that sector with other sectors within El Salvador. The household surveys described above contain information about monthly income from different sources. The analysis focuses on wage income, which is reported as monthly wage from remunerated employment. Dividing the monthly wage by the number of hours that individuals worked during the month generates wage per hour. The dependent variable used in the subsequent analysis is the natural log of the hourly wage, which is customary in labor market analysis because the natural log of wages is approximately normally distributed.

Normally, studies of wage differentials limit the sample to workers in the private sector (non-military and non-government), workers who are not self-employed, and workers who work a certain number of hours (for example, full-time workers). In this study, however, all sectors are included because we are interested the most comprehensive comparison. The minimum age in the sample is 9 years.

The first column of Table 3.14 presents the percent difference from the overall average that workers earn in each industry in 2000, after controlling for demographic characteristics and key variables for labor market participation.²⁰ This percent difference (the log difference) is known as the wage differential (or wage premium) earned in each industry. The top of Table 14 contains the wage differentials earned for different demographic characteristics. Females, for example, in 2000 earned about 9.9% less than other workers when controlling for sector, age, education, urban area, regional dummies, and whether the individual lives in a household receiving remittances. Older and more educated workers earn higher wages, as do those living in urban areas. It is noteworthy that those receiving remittances have a slightly higher wage, indicating they have higher reservation wages.

As in other countries, industry-specific wage differentials are statistically and economically significant. Even after controlling for all demographic variables working in the public sector gives a wage differential of 60.4% in 2000. In food agriculture workers earn 27.7% less than average wage. Workers in the wood manufacturing industries earn below-average wages, -40.8%, while those in the food manufacturing industries (with beverages and tobacco) earn above-average wages

²⁰ As described in the Technical Appendix to this volume, we calculate the appropriate standard errors for the differences from the mean, following Haisken-deNew and Schmidt (1997).

(9.4%). Workers in utilities, construction, and finance, however, earn well above-average wages, 48.3%, 14.9%, and 31.7%. These sectors are all considered non-tradable sectors. Utilities and finance have significant important FDI shares.

Interestingly, workers in apparel earned about 10.3% more than the average wage in 2000. Average wages, therefore, are low because they higher mostly young women; however, young women, with similar characteristics, are likely to earn more than the average in the apparel sector, depending on the size of the wage premium. This premium is not large relative to other estimated differentials. In particular, workers in public administration and social services earn premiums of 15.6% and 22% respectively. In fact, of all the positive wage premiums, only the food and beverage industry and other agriculture and husbandry and fishing have a smaller premium.

The second and third columns in Table 3.14 present the results for 2004 and 2005. In agricultural food sector we observe that the negative wage differential falls considerably compared to 2000. The main reason for this is the large drop in coffee prices during the period 1997-2001, the main agricultural export crop in El Salvador. Although 2004 and 2005 were recovery years for agriculture, the wage differential is still negative.

Before 2005 the Multifiber Agreement was active, favoring countries in Central America that had preferential access to the U.S. market through the Caribbean Basin Initiative. On January 1, 2005 the MFA expired. Since this was known by 2004, many firms in the sector began to migrate to countries with a comparative advantage after the elimination of quotas in the sector (mainly South Asian Countries and China). In Table 3.14 we observe how the wage differential for apparel declined in those years, as well as employment industry shares (Table 3.2). Interestingly, the rising wage premium coincides with a falling female share of total employment in apparel.

Correlations between working conditions and IIWDs

One possibility is that positive wage differentials offset poor working conditions. This hypothesis, known as *compensating differentials*, has been often tested using risk as a measure of non-wage working conditions. In El Salvador, two possible measures of non-wage working conditions that relate to risk are having a contract (which reduces employment risk) and social security. The correlation between the propensity of these two benefits across industries and the wage differentials reveals whether or not the wage differentials are compensating for poor conditions.

The correlation between IIWDs in 2005 in Table 3.14 and the 2005 percent with contract in Table 3.10 is 0.37. The correlation between IIWDs in 2005 in Table 3.14 and the 2005 percent with social security is table 3.10 is 0.43. Both of these correlations are positive: industries with positive wage differentials tend to have higher non-wage working conditions (at least those that are not associated with intrinsic industrial activity). These correlations suggest that the wage differentials in El Salvador are not consistent with the compensating differential hypothesis (although the positive differentials could be compensating for other aspects of working conditions).

The relationship between FDI and IIWDs

Ideally one would have sufficient data to regress inter-industry wage differentials on a full set of variables that characterize globalization. A full set of these variables is not available for El Salvador. In this section we present some evidence about the link between globalization (FDI) and the IIWDs.

The available FDI data are sorted into different industries than the estimated IIWD results. These two data sets can be compared by reclassifying the industries in Table 3.14 into the following 10 industries: agriculture, fishing, mining, apparel, non-apparel manufacturing, utilities, construction, sales, services, and financial. Estimating inter-industry wage differentials, ω , for these ten industries for each year from 1997 to 2005 (inclusive) creates a dataset of ten industries and seven years of data that can be matched with the FDI data from Table 1.5. These data represent FDI stocks, rather than flows. Differencing the FDI data captures the effects of FDI flows. The following regression equation allows for the possibility that FDI flows take time (one year) to affect wages:

$$(1) \quad \omega_{it} = \alpha + \beta \Delta FDI_{it-1} + u_{it}.$$

The (random-effects) estimate for β is 0.0005628, which is significant at the 5% level. The standard deviation of the change in FDI is 106.8591, which implies that a one-standard-deviation change in FDI would lead to an increase of the inter-industry wage differential by 0.06.

The estimated positive link between FDI and inter-industry wage differentials is consistent with the literature that estimates the link between non-wage measures of working conditions and FDI (Daude et al 2003, Mosley and Uno 2007). These and previous studies generally find non-negative (either zero or positive) relationships between FDI and working conditions. None of these studies, however, directly analyze inter-industry wage differentials. Nevertheless, there are several reasons to interpret these results with caution. First, these results are estimated over very small samples (only 7 time-series observations). Although these differentials are estimated controlling for demographic characteristics, they do not include other macroeconomic explanatory variables that might contribute to these differentials. Nevertheless, there is no evidence that increasing FDI *lowers* wage differentials.

4. Conclusions

Globalization in El Salvador is mainly characterized by important efforts in trade liberalization, export promotion, and an attractive legal framework for FDI. At the same time, outward migration has been a widespread phenomenon in El Salvador, to the point that remittances play an important role in macroeconomic conditions and in individual decision making processes. Remittances may affect labor supply, and, by extension, working conditions, by increasing the reservation wage and by raising the prices of non-tradables relative to tradeable goods.

In terms of the maquila sector, globalization exhibits several distinct periods. During the 1990s, as liberalization progressed, the maquila sector expanded. Since 2000, the maquila sector leveled out and in 2004 began to contract, possibly due to the expectation for

elimination of the Multifiber Agreement. This paper has shown that previous to the expiration of the Multifiber Agreement, wage differential for the apparel sector was positive with respect to total average and maintained a positive trend, as well as the share of employment. On the other hand, starting in 2004 the trend changed, and employment share decreased as well as the inter industry wage differential. Although wage differentials are still positive for the apparel sector, average wages are low given the characteristics of workers in the sector, mainly young women. Regarding other working conditions, econometric results show that in the apparel sector the percentage of workers with signed contract or with registration to the social security health care insurance was above average, after controlling for age, education, sex, public sector and remittances. This advantage has declined somewhat as maquila exports have fallen, although it has remained positive. These results suggest that those keeping their jobs in the sector still enjoy these advantages as compared to working in other sectors, possibly because it is a regulated sector dominated by large exporting firms.

Because firms in the maquila sector are large and pay low average wages, they catch a lot of attention in the media. They are characterized as 'sweatshops'. International protests against the sector have created monitoring efforts, such as GMIES, and lobbied to obtain more compliance and labor law enforcement in the sector. Such efforts, however, though positive for workers in that sector, may ignore the fact that there is a positive wage premium for working in the sector—workers with similar characteristics earn lower wages on average in other sectors -- and that labor conditions, in terms of social security benefits and contract signing, are better than in other sectors.

This analysis raises an interesting point that seems to be rarely mentioned. Qualitative and quantitative analysis suggests that, relative to other sectors (especially other manufacturing sectors), export-oriented-FDI-dominated apparel seems to have better conditions. As a globalized sector, it receives much international attention. Only about 5% of workers, however, work in apparel. Domestic service and agricultural workers represent 4.3% and 16% of employment in El Salvador, and workers in these two sectors have far worse conditions and lower wages (-52% and -14% wage differentials below the mean, respectively in 2005) than apparel workers. After controlling for individual and household characteristics, maids are very unlikely to enjoy a contract or contribute to social security, and agricultural workers are 17.4% less likely to signed a contract and 20% less likely to contribute to social security. In El Salvador, it is almost impossible for a small, informal firm or a family to enroll a worker in social security. If efforts were made to change the rules for enrollment in social security, many workers could register for social security benefits. Rather than focusing efforts on 5% of workers, labor policy could obtain larger welfare gain by addressing the problems of the 20% in worse conditions. In other words, the seemingly positive effects of globalization do not seem to be reaching workers who are less exposed to international markets.

Regarding the impact of remittances in labor market in El Salvador, a model of sample selection suggests that remittances have a negative impact on labor market participation, and that those that decide to work as wage labor earn higher wages, suggesting that remittances have a positive impact on reservation wages. However, when we tested for the impact of remittances on other working conditions, such as signing a contract or registering to social security, we found receiving remittances reduced the likelihood of receiving these

benefits. A plausible explanation for this, from the perspectives of workers, is that remittances are a sort of insurance, and diversification of risk, therefore they are less demanding on signing a contract or registering to social security. From the perspective of employers, they compensate the higher wages paid to workers with remittances, with lower benefits in terms of registration to social security.

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Figure 1.1

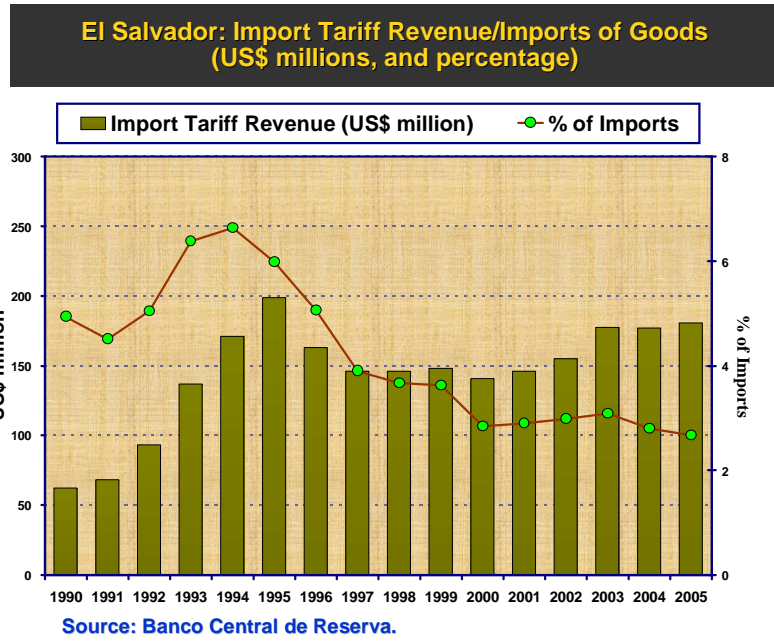


Figure 1.2

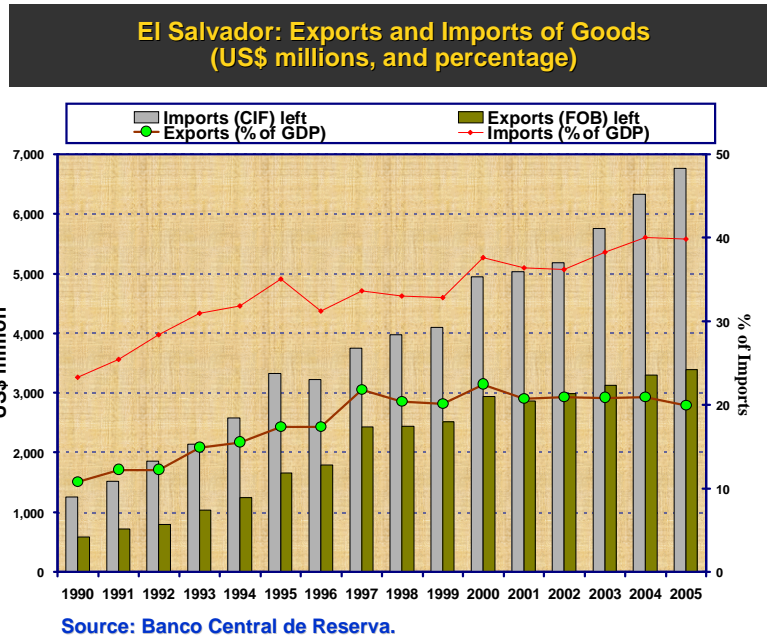


Figure 1.3 Remittances 1990-2006 (US\$ millions and % of GDP)

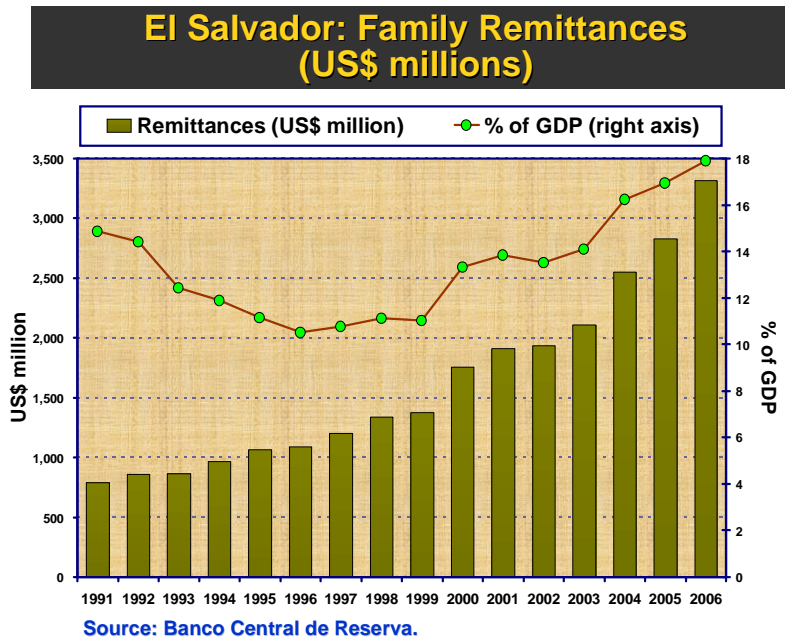
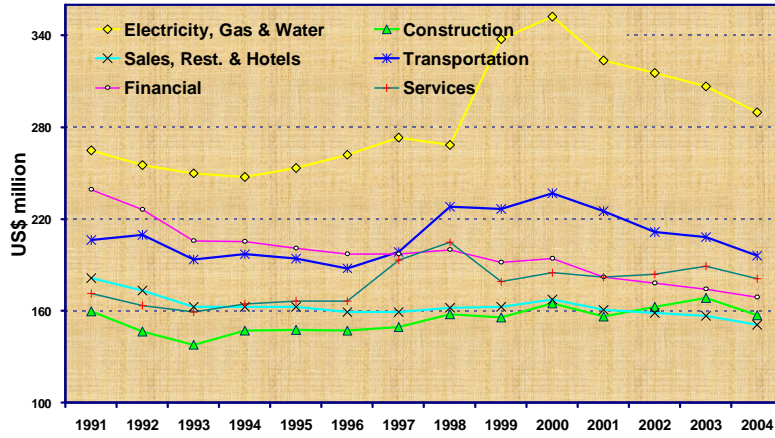


Figure 1.4: Evolution of real wages in tradable sector



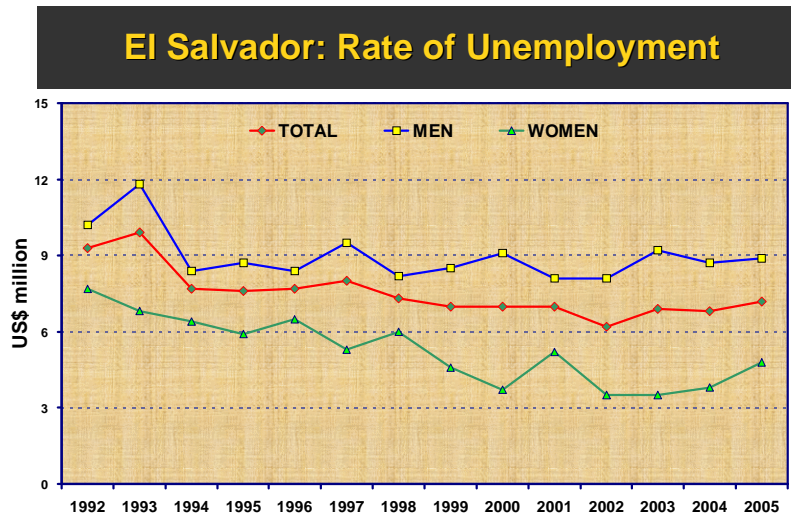
Figure 1.5: Evolution of real wages in non-tradable sector

El Salvador: Evolution of Real Wages in Non Tradable sectors (index or real wage)



Source: Banco Central de Reserva.

Figure 3.1 El Salvador: Rate of Unemployment by Sex, 1992-2005



Source: EHPM, DIGESTYC.

Table 1.1

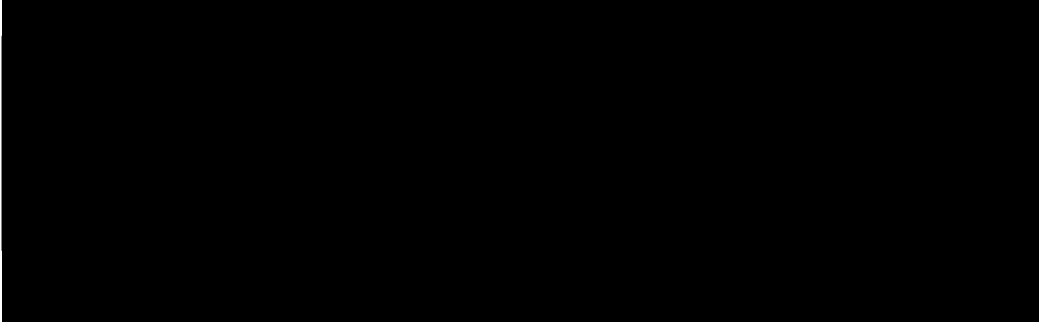


Table 1.2

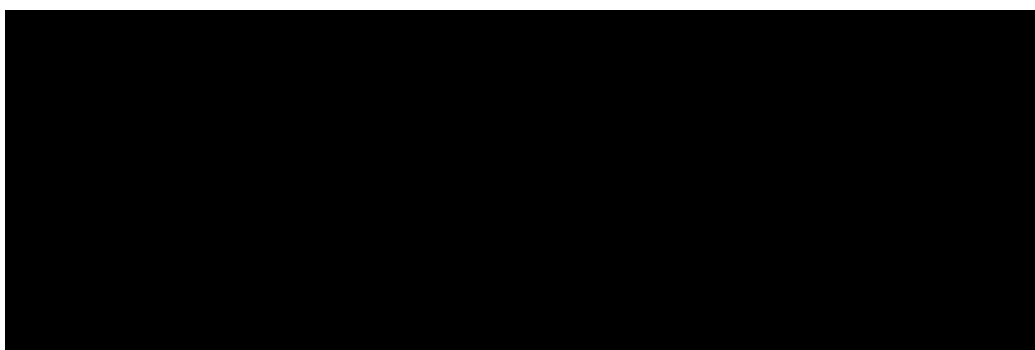


Table 1.3

Foreign Direct Investment By Country of Origin
Saldos anuales y trimestrales
US\$ Millions

PAÍS	1998	1999	2000	2001	2002	2003	2004/1	2005/2	Ene/Mzo. 2006/2
EEUU	463.4	606.3	715.8	822.7	880.1	950.1	1015.5	876.5	878.0
Venezuela	296.9	296.9	309.5	309.5	309.5	309.5	309.5	309.5	309.5
Francia	208.9	212.9	212.9	214.5	214.7	214.7	5.8	5.8	5.8
Chile	91.2	91.2	91.3	91.5	91.5	91.7	92.2	87.7	107.4
México	80.5	66.7	66.7	69.0	72.7	84.7	616.3	647.8	647.8
Panamá	66.0	72.6	79.6	85.6	100.7	102.3	105.1	144.5	216.7
España	29.3	68.4	68.4	120.5	159.0	161.4	194.9	195.2	195.2
Bahamas	63.0	64.5	64.8	65.2	71.4	72.8	74.2	68.6	68.6
Alemania	41.9	41.9	44.0	75.7	78.7	84.8	84.9	89.4	92.1
Costa Rica	25.4	42.5	47.6	63.3	69.6	70.3	70.4	67.4	67.4
Singapur	32.1	32.1	32.1	32.1	32.1	32.2	32.5	36.5	37.3
Holanda	26.1	26.1	32.2	32.2	34.8	39.1	39.1	55.0	56.3
Perú	17.1	22.2	22.2	22.3	22.3	22.3	22.3	22.3	22.9
Nicaragua	15.4	17.6	20.7	25.0	32.9	33.2	33.2	21.3	21.3
Ecuador	21.0	21.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
Canadá	14.2	17.3	17.7	44.6	45.8	46.6	56.6	130.3	153.2
Guatemala	10.7	15.2	25.5	32.0	38.7	48.2	52.1	70.4	76.2
Aruba	14.6	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
Corea del Sur	12.2	12.9	14.5	14.9	14.9	22.9	23.8	26.0	22.1
Suiza	11.7	11.7	11.7	11.7	11.7	11.7	15.6	16.8	16.8
Japón	11.2	11.2	11.3	14.0	14.2	14.2	14.2	14.2	14.2
Bermudas	10.6	10.6	10.6	10.6	10.6	11.2	12.4	12.3	12.3
Taiwán	3.6	5.3	27.2	40.2	42.1	56.9	57.5	58.6	58.6
Inglaterra	4.8	4.8	6.4	6.4	6.4	6.4	7.4	8.2	9.4
Honduras	4.7	4.7	6.5	9.3	9.3	19.4	21.0	21.6	21.8
Islas Británicas	4.2	4.2	4.2	4.2	23.1	29.2	56.2	356.2	356.2
Italia	3.3	0.0	0.0	0.0	26.6	26.6	26.6	26.6	26.6
Israel	0.0	0.0	0.0	0.0	8.5	10.4	22.9	1.0	1.5
Otros	0.0	4.0	5.9	11.0	14.0	19.9	27.2	27.0	29.5
	1,583.9	1,799.7	1,973.1	2,252.1	2,460.0	2,616.5	3,113.1	3,420.2	3,548.5
Préstamos entre empresas de inversión extranjera	n.d.	n.d.	n.d.	n.d.	673.6	686.2	659.4	752.7	820.2
Total	1,583.9	1,799.7	1,973.1	2,252.1	3,133.6	3,275.4	3,655.5	4,172.9	4,368.7

1/ Cifras revisadas

2/ Cifras Preliminares

Fuente: Departamento de Balanza de Pagos; Banco Central de Reserva

Los datos reportados corresponden a acciones y participaciones de capital y utilidades reinvertidas de las empresas de inversión extranjera directa, no incluyen préstamos que las empresas de inversión extranjera adeudan a su casa matriz o filiales

Table 1.4

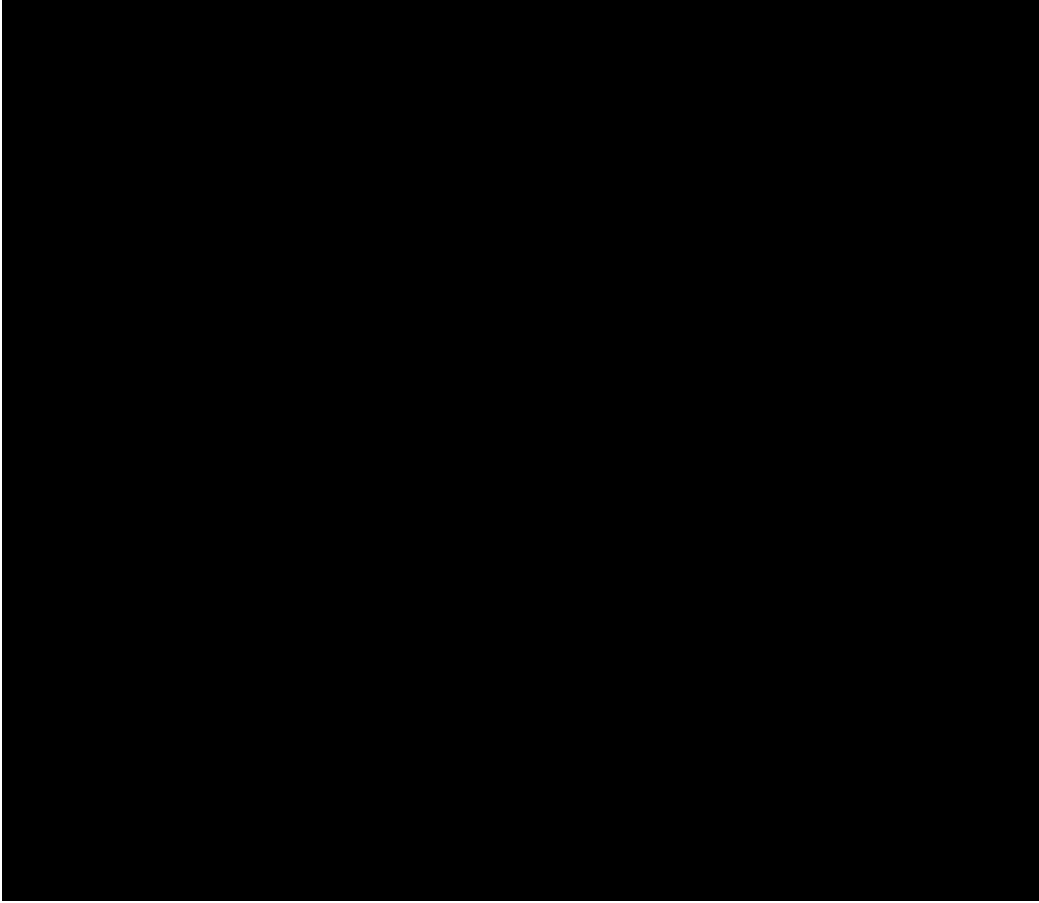


Table 2.1
ILO Conventions Ratified by El Salvador

Convention	Description	Date Ratified
12	Workmen's Compensation (Agriculture) Convention, 1921	11.10.1955
29	Forced Labour Convention, 1930	15.06.1995
77	Medical Examination of Young Persons (Industry) Convention, 1946	15.06.1995
78	Medical Examination of Young Persons (Non-Industrial Occupations) Convention, 1946	15.06.1995
81	Labour Inspection Convention, 1947	15.06.1995
87	Freedom of Association and Protection of the Right to Organise Convention, 1948	6.09.2006
88	Employment Service Convention, 1948	15.06.1995
98	Right to Organise and Collective Bargaining Convention, 1949	6.09.2006
99	Minimum Wage Fixing Machinery (Agriculture) Convention, 1951	15.06.1995
100	Equal Remuneration Convention, 1951	12.10.2000
104	Abolition of Penal Sanctions (Indigenous Workers) Convention, 1955	18.11.1958
105	Abolition of Forced Labour Convention, 1957	18.11.1958
107	Indigenous and Tribal Populations Convention, 1957	18.11.1958
111	Discrimination (Employment and Occupation) Convention, 1958	15.06.1995
122	Employment Policy Convention, 1964	15.06.1995
129	Labour Inspection (Agriculture) Convention, 1969	15.06.1995
131	Minimum Wage Fixing Convention, 1970	15.06.1995
135	Workers' Representatives Convention, 1971	6.09.2006
138	Minimum Age Convention, 1973	23.01.1996
	note <i>Minimum age specified: 14 years</i>	
141	Rural Workers' Organisations Convention, 1975	15.06.1995
142	Human Resources Development Convention, 1975	15.06.1995
144	Tripartite Consultation (International Labour Standards) Convention, 1976	15.06.1995
150	Labour Administration Convention, 1978	2.02.2001
151	Labour Relations (Public Service) Convention, 1978	6.09.2006
155	Occupational Safety and Health Convention, 1981	12.10.2000
	note <i>Has ratified the Protocol of 2002</i>	
156	Workers with Family Responsibilities Convention, 1981	12.10.2000
159	Vocational Rehabilitation and Employment (Disabled Persons) Convention, 1983	19.12.1986
160	Labour Statistics Convention, 1985	24.04.1987
	note <i>Acceptance of all the Articles of Part II has been specified pursuant to Article 16, paragraph 2, of the Convention.</i>	
182	Worst Forms of Child Labour Convention, 1999	12.10.2000

Notes: ILO "Core" labor standards are in bold type. El Salvador has ratified all of the ILO core labor standards. Source: ILO.

Table 3.1 Sample Characteristics for Employed Workers

Year	Freq.	Mean Age (years)	Female Share	Mean Education (years)
1995	10,703	33.97	41.53%	7.20
1996	10,863	34.28	40.96%	7.36
1997	7,859	33.72	38.40%	8.08
1998	9,746	31.82	37.88%	8.21
1999	13,736	31.31	36.13%	7.90
2000	14,009	32.14	35.61%	8.18
2001	9,973	32.93	34.99%	7.76
2002	12,820	33.16	36.56%	8.10
2003	12,769	32.54	36.89%	7.53
2004	12,467	31.95	29.89%	7.98
2005	12,721	32.51	30.72%	8.25

Table 3.2 Industry Employment Shares

INDUSTRY	TOTAL				
	1995	2000	2003	2004	2005
Sales	22.2	26.3	27.4	29.3	29.5
Ag Food	25.0	20.8	17.4	18.4	16.1
Social Services	5.3	6.7	6.0	6.8	6.9
Construction	6.8	5.1	7.1	6.4	5.7
Food Bev	6.1	5.8	5.2	5.3	5.6
Mfg Other	5.3	5.4	4.3	5.1	5.0
Financial Interm.		3.8		4.1	4.7
Apparel	4.6	6.0	6.6	5.5	4.7
Transport	4.3	4.7	4.4	5.0	4.7
Domestic Service		4.3		4.7	4.3
Public Admin.	4.1	5.3	3.9	3.9	3.9
Education		3.0		3.4	3.8
Ag Other	2.1	0.1	1.6	0.0	3.4
Textile	2.1	1.0	0.7	0.5	0.5
Husb. & Fishing	1.3	0.7	1.5	0.7	0.5
Utilities	0.2	0.4	0.1	0.4	0.3
Wood	0.5	0.5	0.6	0.3	0.3
Mining	0.1	0.1	0.1	0.1	0.1
Others		0.1		0.0	0.0

INDUSTRY	MEN			WOMEN		
	2000	2004	2005	2000	2004	2005
Sales	17.9	20.3	20.8	38.5	42.3	41.7
Ag Food	32.7	29.0	24.7	3.6	3.2	4.0
Social Services	3.6	4.4	4.4	11.1	10.3	10.5
Construction	8.5	10.6	9.5	0.2	0.5	0.2
Food Bev	4.0	3.5	4.1	8.4	8.1	7.8
Mfg Other	7.3	6.8	6.8	2.6	2.5	2.5
Financial Interm.	4.4	5.0	5.5	2.9	2.7	3.6
Apparel	2.5	2.8	2.0	11.1	9.5	8.6
Transport	7.3	7.5	7.2	0.9	1.3	1.1
Domestic Service	0.5	0.7	0.7	9.9	10.5	9.3
Public Admin.	6.3	4.9	4.7	3.9	2.4	2.7
Education	1.9	2.0	2.1	4.6	5.5	6.1
Ag Other	0.1	0.0	5.3	0.0	0.0	0.7
Textile	0.6	0.5	0.5	1.6	0.5	0.6
Husb. & Fishing	1.1	1.0	0.9	0.1	0.2	0.1
Utilities	0.6	0.6	0.4	0.0	0.1	0.1
Wood	0.5	0.3	0.3	0.5	0.4	0.3
Mining	0.1	0.1	0.2	0.0	0.0	0.0
Others	0.1	0.0	0.0	0.0	0.0	0.0

Table 3.3 Industry Employment Characteristics 2003

Industry	Education	Female	Age
Ag Food	3.37	11.42%	33.82
Ag Other	4.67	10.31%	31.09
Husb. & Fishing	4.54	6.58%	30.82
Textiles	8.06	28.93%	33.44
Mining	4.91	8.70%	30.09
Food Bev Tob	7.13	36.57%	31.68
Apparel	8.13	70.50%	27.94
Wood	3.16	34.62%	34.23
Mfg Other	8.01	17.16%	30.73
Utilities	11.56	14.81%	33.63
Construct	5.75	3.31%	33.50
Sales	8.13	44.23%	29.71
Transport	7.71	8.95%	32.37
FIRE	9.73	31.37%	33.86
Public Admin	10.37	25.98%	36.07
Soc Services	13.32	62.58%	36.43
Other Services	5.30	76.96%	33.34
Overall	7.53	36.90%	32.54

Table 3.4: Labor Force Participation 1997-2005

	MEN	WOMEN	ALL	NO REMI	REMITT	WOMEN		MEN	
						NO REMI	REMITT	NO REMI	REMITT
1997	68.5	35.3	50.9						
2000	67.7	38.7	52.2	54.6	42.9	40.9	30.84	69.73	58.73
2004	66.5	38.6	51.7	54.6	41.7	41.3	30.00	68.94	57.21
2005	67.4	39.5	52.4	55.9	41.9	42.8	30.48	70.44	57.33

Table 3.5

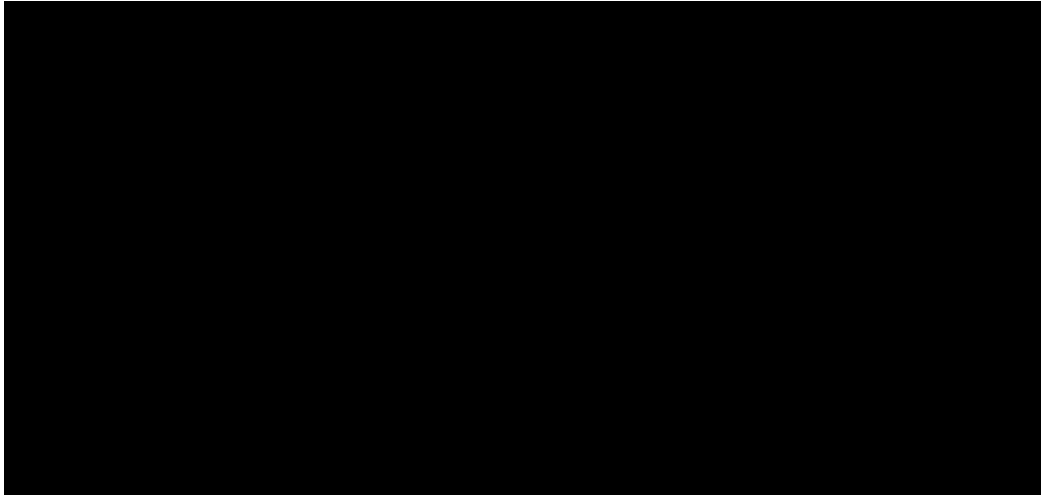


Table 3.6

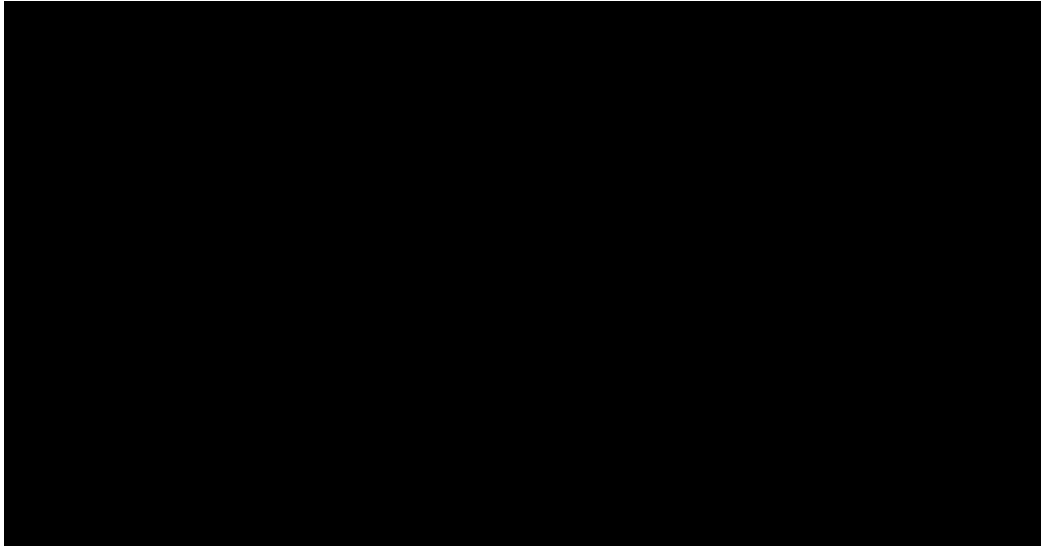


Table 3.7

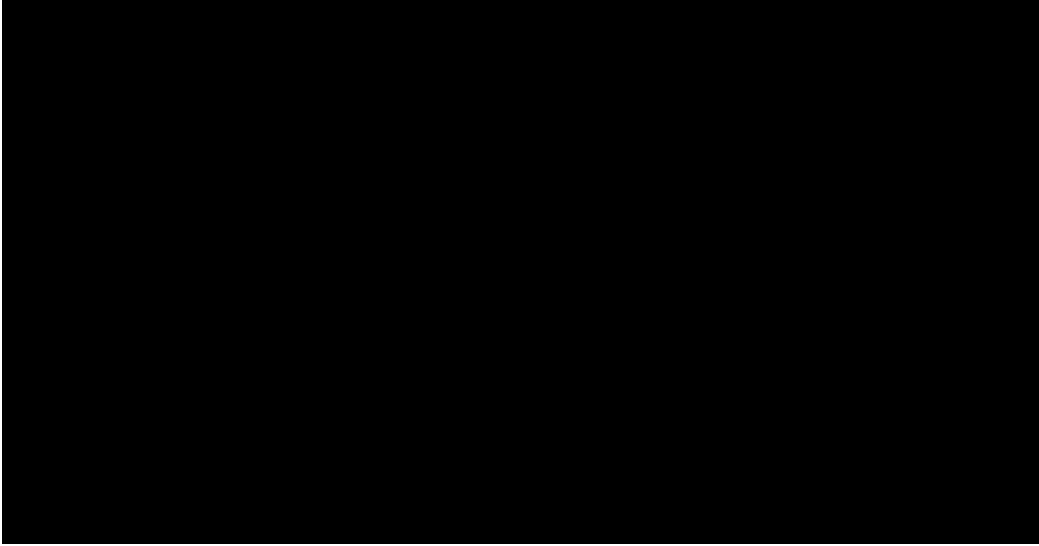


Table 3.8
Table 3.9:**Table 4.4: Working conditions and benefits for wage laborers in El Salvador**

Working conditions or benefits			REMITTANCES		FIRM SIZE				ALL
	MALE	FEMALE	NO	YES	MICRO	SMALL	MEDIUM	LARGE	
Percentage of Workers that:									
Signed Contract	32.1	52.5	38.3	40.6	38.7	24.4	31.6	69.4	38.7
Registered in Social Security	43.7	68.5	51.2	54.7	10.1	46.0	50.2	85.1	51.8
Received payment for end of year holiday	39.5	64.9	47.4	49.6	13.7	42.7	49.0	74.8	47.8
Received Payment for vacations	11.1	18.3	13.4	13.5	2.6	16.1	15.5	20.6	13.4
Received payment for food or refreshments	8.4	14.7	10.6	9.7	17.0	8.0	7.2	6.5	10.4
Received payment for uniform	8.8	11.2	9.4	10.5	0.9	6.0	9.4	17.2	9.6
Received payment for bonus or commissions	5.7	10.3	6.6	10.0	1.4	7.1	5.9	11.7	7.2
Received payment for extra hours	3.3	6.2	4.2	4.5	0.5	1.7	4.2	7.8	4.3
Received payment for transportation	1.8	1.6	1.7	2.1	0.5	2.3	1.4	2.6	1.8
Received payment for housing	1.3	0.5	1.1	0.7	1.4	1.2	1.0	0.7	1.0
Received payments in kind	0.9	0.7	0.9	0.8	0.6	0.7	1.4	1.0	0.9
Received payment for private health insuranc	0.0	0.1	0.0	0.1	0.0	0.0	0.3	0.1	0.0

Table 3.10: Percentage of employed with signed contract and with social security by industry

INDUSTRY	Percent with signed contract			Percent with social security		
	2000	2004	2005	2000	2004	2005
Ag Food	1.2	0.9	0.6	2.7	2.3	1.4
Ag Other	12.2	0.0	4.7	37.5	0.0	6.6
Husb. & Fishing	0.9	5.8	0.9	2.9	9.5	1.0
Mining	15.9	15.2	11.9	29.3	37.7	25.6
Utilities	39.8	35.0	78.7	86.6	84.2	90.4
Construction	11.1	8.0	10.8	26.1	18.0	19.0
Sales	8.6	7.8	9.3	18.2	19.3	18.0
Transport	14.0	13.3	17.1	28.7	29.4	30.0
Financial Intermed.	37.4	32.2	42.7	66.3	65.4	67.8
Public Admin.	40.5	28.3	96.5	91.1	90.6	90.4
Education	42.6	28.9	84.6	83.9	85.0	87.4
Social Services	19.2	16.7	34.3	39.4	38.3	40.1
Domestic Service	0.0	0.0	0.0	0.0	100.0	0.0
Others	66.2	16.6		70.7	100.0	
Food Bev	17.2	12.7	12.9	27.5	25.7	23.4
Mfg Other	24.3	21.5	29.6	43.7	42.6	46.4
Textile	24.7	30.9	36.4	38.9	45.9	50.7
Apparel	32.4	33.5	38.0	60.5	65.5	60.2
Wood	1.1	0.0	4.2	2.3	4.7	13.5
Total	14.6	12.1	20.2	29.0	29.7	29.3

Table 3.11: Percentage of workers that declared special physical conditions in the work place by industry

Industry	Dusty	Smoggy	Gases	Noisy	Temperature	Machine	Underground	Heights	Poor light	Chemicals	Heavy Loads	Other
Ag Food	71.9	12.9	2.0	8.0	39.7	39.3	2.2	2.2	7.1	11.7	24.7	1.6
Ag Other	52.0	14.6	3.9	19.2	35.5	36.9	0.8	0.6	7.4	7.6	22.6	1.8
Husb. & Fishing	6.2	5.3	2.0	9.0	41.2	33.2	0.0	0.8	7.1	0.0	17.8	4.2
Mining	60.0	29.6	8.9	20.3	23.4	41.3	2.0	0.0	6.1	19.7	32.4	0.0
Utilities	34.5	24.1	11.1	26.1	22.4	15.4	3.0	11.0	9.1	10.3	8.7	1.8
Construction	73.6	19.4	7.5	29.0	30.2	39.7	6.1	13.6	8.8	8.5	39.5	1.7
Sales	32.4	27.7	15.5	27.2	18.1	15.8	0.3	0.9	8.7	6.0	15.6	0.9
Transport	51.2	46.8	19.9	31.7	21.6	13.5	0.9	1.8	9.3	2.8	17.8	1.0
Financial Interm.	23.1	14.3	5.1	13.8	10.8	21.2	0.3	1.7	9.0	3.0	3.3	1.3
Public Admin.	29.7	19.4	11.1	20.3	16.5	21.9	0.7	1.4	7.0	5.4	4.9	2.1
Education	27.4	8.3	3.4	30.3	11.9	2.8	0.2	0.7	8.2	1.1	0.4	1.1
Social Services	20.3	12.0	6.0	17.4	13.7	11.6	0.4	0.3	8.9	9.3	3.8	0.6
Food Bev	33.3	35.2	14.4	30.0	30.3	20.5	0.4	1.9	10.0	5.2	20.9	0.2
Mfg Other	43.8	27.2	15.4	42.8	32.5	40.6	1.0	1.4	10.7	18.7	20.0	0.4
Textile	25.9	5.8	2.8	35.9	15.6	28.6	0.0	1.5	10.4	9.4	14.3	15.8
Apparel	28.3	14.1	4.9	44.9	25.5	31.9	0.6	0.7	13.8	4.3	8.0	16.5
Wood	45.7	10.2	0.0	39.8	32.7	65.8	0.0	4.0	0.0	9.5	14.9	0.0
Total	41.3	20.9	9.4	25.4	23.3	24.3	1.2	2.4	8.9	7.2	15.6	2.3

Table 3.12: Probit Models for Signed Contract for employed workers (marginal effects)

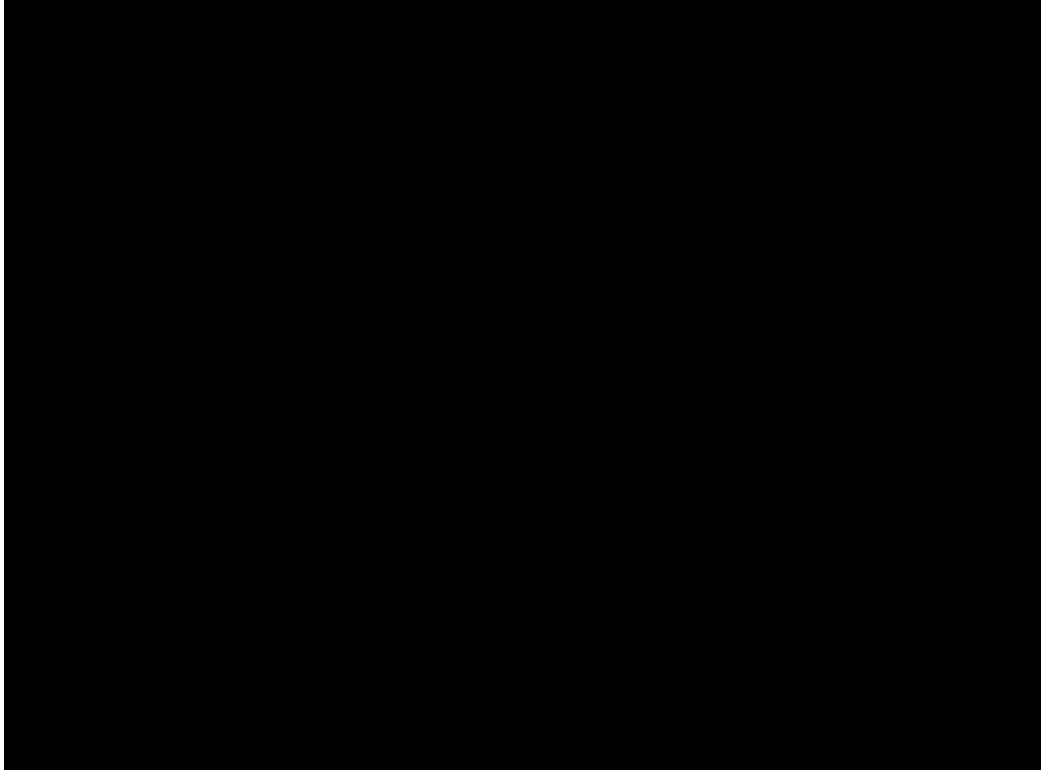
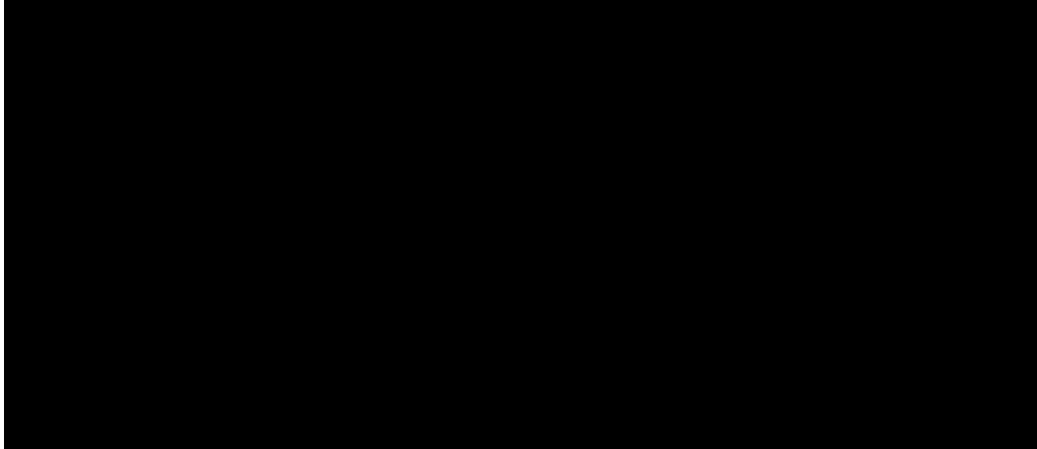
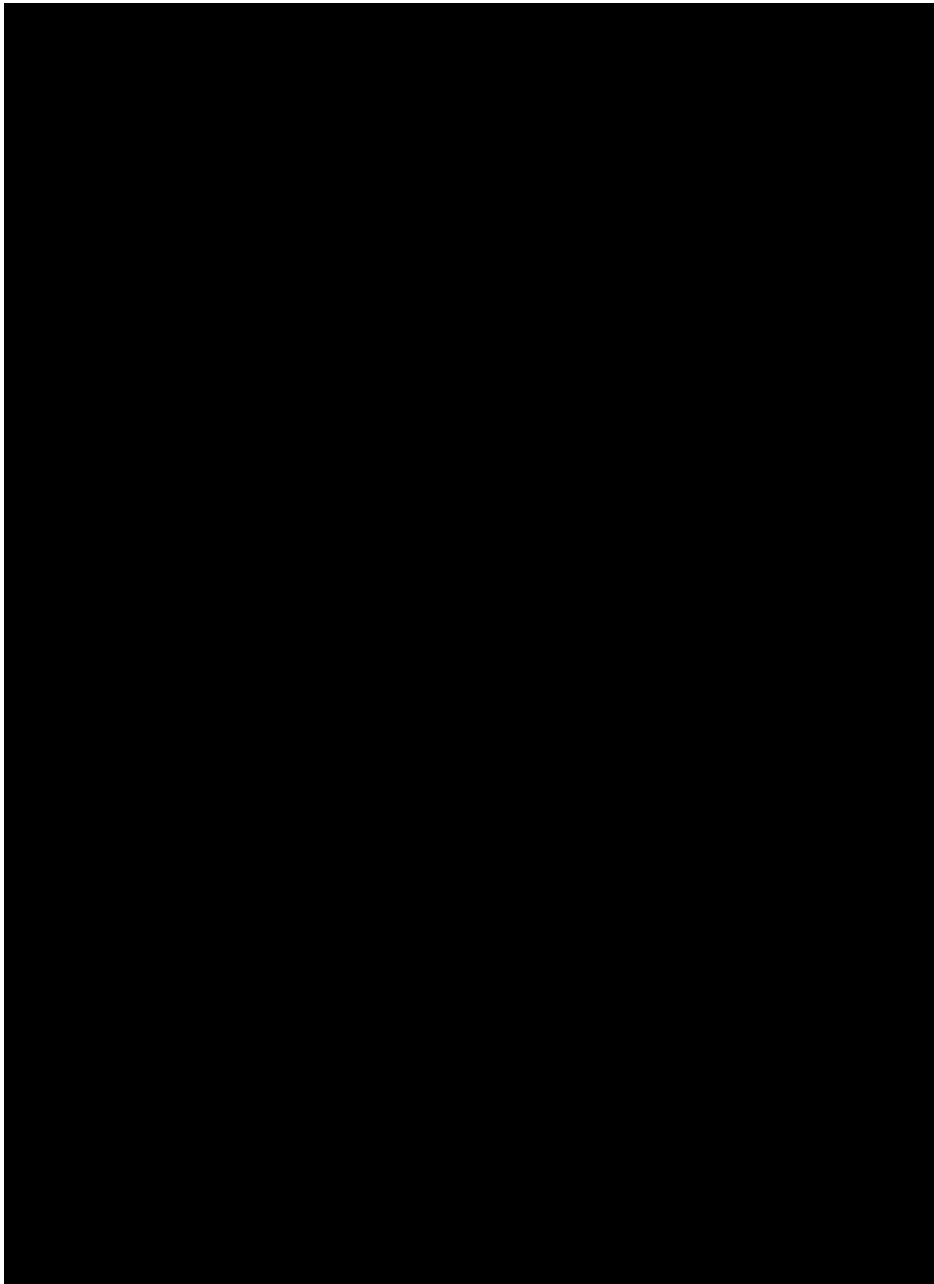


Table 3.13: Probit Models of workers that declared special physical conditions in the work place by industry after controlling for individual characteristics



**Table 3.14: Inter Industry Wage Differential in 2000, 2004 and 2005
With Demographic Characteristics**



Notes: Wage differentials represent the percent (log) difference in each sector from the overall mean wage.