



ZEF Bonn
Zentrum für Entwicklungsforschung
Center for Development Research
Universität Bonn

Ahmed Farouk Ghoneim, Ulrike Grote

Number
108

**Impact of Labor Standards
on Egyptian Exports with
Special Emphasis on Child
Labor**

ZEF – Discussion Papers on Development Policy
Bonn, April 2006

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Ahmed Farouk Ghoneim, Ulrike Grote: Impact of Labor Standards on Egyptian Export with Special Emphasis on Child Labor, ZEF – Discussion Papers On Development Policy No. 108, Center for Development Research, Bonn, April 2006, pp. 50.

ISSN: 1436-9931

Published by:

Zentrum für Entwicklungsforschung (ZEF)

Center for Development Research

Walter-Flex-Strasse 3

D – 53113 Bonn

Germany

Phone: +49-228-73-1861

Fax: +49-228-73-1869

E-Mail: zef@uni-bonn.de

<http://www.zef.de>

The authors:

Ahmed Farouk Ghoneim, Faculty of Economics & Political Science, Cairo University, Egypt
(contact: aghoneim@gmx.de)

Ulrike Grote, Zentrum für Entwicklungsforschung, University of Bonn, Germany
(contact: u.grote@uni-bonn.de)

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Acknowledgements

Financial support from the German Agency for Technical Cooperation (GTZ) of this research on Egypt is gratefully acknowledged.

The authors would like to thank Moamen Abdel Hamid and Gihan Aman Allah for excellent research assistance. Special thanks also go to Arnab Basu, Arjun Bedi, Nancy Chau, and Indra de Soysa for their helpful comments, and Jutta Schmitz for her technical assistance.

Abstract

A large proportion of internationally traded goods are subject to labor standards and this proportion is on a continuing rise. Such developments created a hot debate about the impact of labor standards on trade, but there has been no clear international consensus on the net costs and benefits arising from such regulations on market access, export performance and competitiveness in developing countries. This study contributes to the debate by providing results from a survey of 83 firms in the textiles and ready-made garments industry in Egypt. The main result which derived from the descriptive analysis is that child labor is a phenomenon that exists in the textiles and ready-made garments industry with a relatively high share in the sample (16%). All destinations receive exports that embody child labor; however, the non Western destinations seem to receive the lion's share. Moreover, it has been found that a large proportion of firms with child labor export more than 50% of their output.

The econometric findings which focus mainly on the determinants of the supply of core labor standards, suggest that first, several variables related to labor standards show a significant effect on the probability of a firm to export more than 50% of its output and exclusively to the West (namely EU and the US). Second, variables which ensure the enforcement of labor standards have a higher explanatory power for the probability of a firm to perform well in exports than compliance and awareness variables. Third, firms are likely to self-enforce labor standards based on their expectation to improve their market access and the competitiveness of their export products. Thus, the driving forces leading to the implementation of higher labor standards at the firm level are of economic nature rather than social. And finally, for those firms with a high volume of exports to Arab countries and for smaller firms (both exporting to the West or Arab countries), the effect of standards might lead to export diversification.

Kurzfassung

Ein großer und ständig zunehmender Anteil der international gehandelten Waren unterliegt bestimmten Sozialstandards. Diese Entwicklung hat zu einer hitzigen Diskussion über die Auswirkungen solcher Standards auf den internationalen Handel geführt. Bisher konnte jedoch auf internationaler Ebene noch keine Klarheit über die Kosten und Nutzen, die aus diesen Standards für den Marktzugang, die Exportleistung und die Wettbewerbsfähigkeit von Entwicklungsländern entstehen, erreicht werden. Die vorliegende Studie leistet einen Beitrag zur oben genannten Diskussion, indem Ergebnisse einer Befragung von 83 Textilunternehmen im Exportsektor sowie von weiteren Unternehmen im informellen Sektor in Ägypten analysiert werden. Als wesentliches Ergebnis der deskriptiven Analyse konnte gezeigt werden, dass Kinderarbeit noch ein relativ häufig vorkommendes Phänomen in der ägyptischen Textilindustrie ist (16% der befragten Unternehmen). Dies gilt für alle Exportziele (einschließlich von Industrieländern), allerdings insbesondere für Exporte in nicht westliche Länder. Darüber hinaus zeigen die Ergebnisse der Befragung, dass eine große Anzahl der Unternehmen, in denen es noch Kinderarbeit gibt, den mehrheitlichen Teil ihres Outputs (mehr als 50%) exportieren.

Die ökonometrische Analyse, in der hauptsächlich die Determinanten des Angebots von Kernsozialstandards untersucht wurden, hat erstens gezeigt, dass verschiedene Variablen, die sich auf Sozialstandards beziehen, die Wahrscheinlichkeit eines Unternehmens, mehr als 50% seines Outputs und ausschließlich in westliche Länder (USA und EU) zu exportieren, signifikant beeinflussen. Zweitens zeigte die Analyse, dass Variablen, die die Durchsetzung von Arbeitsstandards garantieren, den Exporterfolg eines Unternehmens stärker beeinflussen, als Variablen, die sich auf die Einhaltung von Standards oder das Bewusstsein über Standards beziehen. Drittens sind Unternehmen eher geneigt, Sozialstandards im eigenen Unternehmen zu implementieren, wenn sie sich davon einen verbesserten Marktzugang und steigende Wettbewerbsfähigkeit ihrer Exportprodukte versprechen. Somit sind die Anreize, die zur Implementierung höherer Sozialstandards führen, zumeist ökonomischer und nicht sozialer Natur. Schließlich zeigte die Untersuchung, dass Firmen mit hohem Exportvolumen in arabische Länder und kleinere Unternehmen (die sowohl in westliche als auch arabische Länder exportieren) sich durch Sozialstandards veranlasst sehen könnten, ihre Exporte zu diversifizieren.

1 Introduction

In the last two decades, trade barriers have changed dramatically in their nature, moving from a transparent tariff to non transparent and vague non tariff barriers. Standards in general, and labor and environmental standards in particular, have been among the most important evolving trade barriers (Anderson, 1995; Anderson 1996). Nowadays, a large proportion of international traded goods are subject to standards and this proportion is on a continuing rise. For example, about 75% of EU intra trade and 60% of US exports are subject to standards (World Bank, 2001). Moreover, the Trade Policy Review of the European Union in the year 2000 stated that for the future, the market access conditions for exporters of foodstuffs are likely to be affected by the EU's policy of greater food safety (see WTO, 2000). This has been a result of a number of developments including the success of the General Agreement of Tariff and Trade (GATT) and the World Trade Organization (WTO) in lowering tariff rates significantly, the shift of the comparative advantage especially in "sensitive sectors" from developed to developing countries, and the strong political muscles gained lately by concerned interest groups including among others environmentalists and labor unions in developed countries (for a similar argument see for example Bhagwati, 1995; Lee, 1997).

Such developments created a hot debate about the impact of social policies, particularly environmental and labor standards, on trade between developing and developed countries (Berlin and Lang, 1993; World Bank, 2001). The debate revolves around the legitimacy of social policies and whether they impact trade flows in a negative manner or a positive one. There has been no clear international consensus on the net costs and benefits arising from such regulations on export dynamics and competitiveness in developing countries (Maskus and Wilson, 2000). On the one hand, there has been some evidence that the adoption of common standards tend to reduce imports¹ (World Bank, 2001) and that lower standards are associated with a higher revealed comparative advantage (Rodrik, 1997) or at least increased labor hiring (and hence increased output and exports) in certain sectors where child labor is allowed (Maskus, 1997). Moreover, some researchers advocate the need to link trade to the compliance with social standards that require harmonization on a multilateral level to stop "racing to the bottom" and ensure "a level playing field" among developing countries (see for example, Adamy, 1994; Polaski, 2003a; Bullard, 2001). The harmonization of social standards has started lately to gain support among some developing countries as a reaction to their fear from China's accession to the WTO and the shift of the comparative advantage they acquire in several products to China. On the other hand, most of the research done in this area that has examined the relationship

¹ For example, an OECD study found that differing standards and technical regulations in various national markets, combined with costs of testing and certifying compliance with those requirements can constitute between 2-10% of the firm's overall production costs (cited in Stephenson, 1997, p. 21).

between trade and labor standards has reached the conclusion that imposing more stringent labor standards on developing countries is a wrong action. It is neither likely to cure the ills of the sensitive sectors in developed countries nor raise the social welfare status of workers in the developing world and hence should not be imposed (see for example, Krugman and Lawrence, 1993; Eglin, 2001; Golub, 1997; Maskus, 1997).

Empirical research in this field has been scarce to a large extent (see for example Maskus and Wilson, 2000, van Beers, 1998). The paucity of empirical evidence on this issue has been the main driving force behind the initiation of undertaking this study, which gives an overview of the state of research on this topic worldwide and analyze the impact of labor standards, with special emphasis on child labor in Egyptian export sectors.

The study helps overcoming the deficiency in the literature by setting the steps required for studying such issue on an empirical basis in the context of the Egyptian trade relationship with its major trading partners, namely the European Union and the United States. It is divided into four main chapters following this introduction. Chapter 2 deals with the identification of social standards (mainly labor standards) which impact(ed) exports in Egypt. Chapter 3 describes the main features of the sample used in the textiles and ready-made garments industry to test for the impact of labor standards on Egyptian exports, and investigates the role of labeling in enhancing Egyptian exports. Chapter 4 uses econometric techniques to assess the impact of labor standards with special emphasis on child labor on Egyptian exports and market access to existing or potential markets for Egypt. We end up by providing conclusions and policy implications.

2 Social Standards and their Impact on Exports in Egypt

The legal framework for the labor market including child labor is set by international ILO Conventions as well as national labor laws in Egypt. In addition, there are social standards including mainly labor standards and regulations imposed by international organizations and/or major trading partners which are expected to have an impact on Egyptian exports.

2.1 Legal Framework for Social Standards in Egypt

Egypt as a developing country is not expected to have the same rules and regulations concerning labor standards as its major trading partners in the West (mainly from the EU and the US which together receive about 70% of total Egyptian exports). For example, Egypt was one of the countries that was against the inclusion of non product-related process and production methods (PPM) under the auspices of the TBT agreement, whereas the EU was in favor of it (cited in Tallontire and Blowfield 2000, p. 579). Egypt was also against the US proposal of establishing a working party on labor standards as suggested by the US in the Seattle Ministerial Meeting (Panagariya, 2000).

In the field of labor standards, the analysis in this study is confined to the so-called “core labor standards” which the trade ministers in the first WTO Ministerial meeting in Singapore confirmed adhering to. Table1 identifies such “core standards”² and their ILO convention numbers. The focus on such “core standards” arises from the consensus among the researchers that the imposition of such standards should not deprive the developing countries from their comparative advantage and that their negative consequences on the welfare of their economies are likely to be negligible (see for example, Golub, 1997; Dessing, 1997). Such standards deal mainly with freedom of association and effective recognition of the right to collective bargaining, and elimination of forced or compulsory labor, child labor and discrimination in employment or occupation. These are the very principles identified at the Copenhagen Social Summit (1995) as contributors to “truly sustained growth and sustainable development” (Trebilcock, 1999, p. 3).

² Those “core standards” have a human rights dimension as well as constituting fundamental framework conditions for the exercise of labor rights. For more details see Lee (1997).

Table 1: The ILO's Core Labor Standards Conventions

Convention	Title	Year	Ratified by Egypt
Convention 29	Forced Labor Convention	1930	1955
Convention 87	Freedom of Association and Protection of the Right to Organize	1948	1957
Convention 98	Right to Organize and Collective Bargaining	1949	1954
Convention 105	Abolition of Forced Labor Convention	1957	1958
Convention 100	Equal Remuneration	1951	1960
Convention 111	Discrimination (Employment and Occupation)	1958	1960
Convention 138	Minimum Age	1973	1999
Convention 182	Worst Forms of Child Labor	1999	2002

Source: Singh and Zammit (2000), ILO (2000) and www.ilo.org cited in McCulloch et al. (2002).

Egypt has adhered to all these conventions. Nevertheless, there might be legislative loopholes and/or deficiency in the enforcement mechanisms of such conventions. The most evident example of such non-compliance is the issue of “child labor” which has been evident in a number of economic activities in Egypt whether in the agriculture or manufacturing sectors. Non governmental organizations (NGOs) estimated that there are about 1.5 million children working in Egypt below the age of 15 in different fields, mainly related to agricultural activities (Bureau of Economic and Business Affairs, 2001).

The child labor phenomenon received increased attention due to the popularity of the “unfair competition in trade” raised by the labor interest groups in the developed countries and their fear of “social dumping” and “racing to the bottom” especially after the increased globalization of product and factor markets (see for example Anderson, 1995; Anderson, 1996). Such phenomena have not been researched deeply on country and sectoral levels (Stephenson, 1997) and have not been proven empirically (for a review see McCulloch et al., 2002; Bhagwati, 1995). There has been neither clear cut evidence that adherence to core labor standards is correlated with other measures of economic development nor that such core labor standards develop in a certain direction simultaneously (World Bank, 2001). One empirical study undertaken by Kamal, Paul-Majumder and Rahman (1993) has proven that imposing trade sanctions on Bangladesh for usage of child labor in the garments industry had undesirable effects on poverty and did not stop child labor. On the contrary, the dismissed children were forced to join the informal sector with worse conditions³ (for more details see McCulloch et al. (2002), p.308. For the results of the study see also World Bank (2001)).

³ The legal age for employment in the garments industry in Bangladesh is 14, but until 1992, many younger children than this were working in the garments factories. In 1992, the US introduced a bill aiming at banning the import of items produced by children. Under the threat of the bill, the Bangladesh Garments Manufacturers and Exporters Association (BGMEA) announced the elimination of child labor by October 1994. 50,000 children were dismissed. Since the children had been working to earn money to contribute to their own survival, their dismissal

Nevertheless, the voices for “fair labor standards” still dominate the rhetoric of politicians in developed countries where the national welfare is not the main emphasis, but rather they are driven by the interests of certain groups as labor unions or producers (see for example van Beers, 1998). In fact, the EU has adopted a Generalized Scheme of Preferences (GSP) in January 2002 that doubles the tariff cuts for developing countries on a range of sensitive products like agricultural products, textiles, ready-made garments and steel, if the EU finds those applicant countries to protect basic worker rights (Polaski, 2003b). This is in line with the previous 1984 GSP amendment under which the United States government introduced the possibility of refusing to grant a preferential entry for exports of a beneficiary country “which has not taken or is not taking steps to afford internationally recognized worker rights to workers in the country”.

The Egyptian legislation contains two major separate laws. One deals with the labor code in general (Law 12/2003)⁴ in the labor market, and one deals specifically with child rights and hence contains provisions on child labor (Law 12/1996). Confining our analysis to the core labor standards that have been aforementioned, it seems apparent that the Egyptian labor laws comply with the ILO core standards.

Law 12/2003 which amends Law No. 537/1981 improves the conditions concerning the freedom of association and protection, the right to organize, and collective bargaining. Nevertheless, it subjects them to a number of complex procedures that might result in their ineffectiveness in reality. For example, in the collective agreements among labor unions a provision states that they should not contain any contradictions with rules and regulations related to the General Law and ethics, without explicitly identifying what kind of contradictions might occur. Another example relates to the right of the workers to strike which is subject to prior approvals by the labor union that must be notified and they cannot strike without such approval (see Annex 1 for the law provisions that are related to core labor standards).

Issues of minimum age and worst forms of child labor which are in compliance with core standards from the ILO labor conventions are well settled in the new comprehensive labor law as well as the Child Law (Law No. 12/1996). Egypt’s Child Law was adopted in 1996, following recommendations by Egyptian social scientists and children’s rights advocates aimed at bringing the country’s domestic legislation into conformity with the Convention on the Rights of the Child. The Child Law prohibits the employment of children below the age of 14, but allows children between 12 and 14 to receive vocational training from employers and to take part in seasonal agricultural work, provided that the work “is not hazardous to their health and growth,

left them in even worse circumstances. Most of the children were forced into even more dangerous employment—including prostitution—in the informal sector, and many families, dependant on children’s income, faced even greater poverty. The US has undertaken a positive step “in terms of trade” by increasing the import quota from Bangladesh, but does this positive trade effect overcome the negative “social effect” of increased poverty. This is the question that needs to be seriously addressed.

⁴ For example, the right to strike has been changed by allowing workers now to strike under certain conditions and procedures. On the other hand, it was never allowed to fire workers, not even in difficult economic situations or economic downturns; now it is allowed given certain procedures.

and does not interfere with their studies". The law limits the work-day for children to six hours, only four of which may be consecutive, and requires the provision of one or more breaks totaling no less than one hour per day. The law further prohibits children from working during their weekly days off, official holidays, and between the hours of 8 pm and 7 am (Article 66). However, the problem lies in the enforcement of this law. The major trade partners have accused Egypt of allowing child laborers in different sectors, and especially in cotton cultivation working for 11 hours per day for 6 days per week. Until 1996, child labor in Egypt was governed by the labor law which permitted children to work at the age of 12. The inconsistency between the Child Labor Protection Agreement and Egyptian legislation was rectified with the enactment of a law specifically concerning child labor in 1996 (Al Ahram Weekly Online, May 2002).

A similar problem arises from the fact that market access in some cases was denied because of insufficient documentation affirming compliance with international agreements regarding child labor. For example, a textiles shipment from Egypt worth US\$13 million recently languished in US customs for two weeks until certification was provided affirming that child labor was not used to manufacture the items being exported. The Kamal El-Samouli Company of Al-Mahalla Al-Kubra (a governorate in Egypt) had to obtain the necessary documentation from the Ministry of Manpower and Immigration, and in addition, El-Samouli premises were visited by an American committee on a mission to verify that no children under the age of 14 were working there. El-Samouli is just one of many Egyptian exporters whose products were denied entry by the importing country because they lacked documentation (Al-Ahram Weekly On-line, October 2000).

A comprehensive study prepared by the Government's statistical agency in 1988 indicated that 1.309 million children between the ages of 6 and 14 were employed. In November 1999, the Minister of Social Affairs reported that one million children participate in agricultural activities. Governmental studies also indicate that the concentration of working children is higher in rural than urban areas. Nearly 78% of working children are in the agricultural sector. However, children also work as domestic workers, as apprentices in auto repair and craft shops, in heavier industries such as construction, in brick-making and textiles, and as workers in tanneries and carpet-making factories⁵. While local trade unions report that the Ministry of Labor adequately enforces the labor laws in state-owned enterprises, enforcement in the private sector, especially in family-owned enterprises, is lax. Many of these children are abused by their employers and are overworked, and the restrictions in the Child Law have not improved conditions due to lax enforcement on the part of the Government (Bureau of Democracy, Human Rights, and Labor; U.S. Department of State 2000). Hence, the question arises whether Egypt's adherence to core labor standards could make it easier to utilize its comparative advantage. In other words, does imposing standards, especially those related to child labor as they are the most evident, deprive Egypt from fully utilizing its comparative advantage by lessening the market access of its products in its major trading partners?

⁵ For information on child labor in other countries, see Appendix 5.

2.2 Export Sectors that are Likely to be Affected by Standards

To identify which export sectors are likely to be negatively affected by labor standards, a number of different criteria have been taken into account:

- 1) Importance of the sectors in terms of their contribution to total Egyptian exports (Criteria I).
- 2) Importance of agricultural products as share of their total exports (Criteria II).
- 3) Importance of such sectors in terms of employment intensity (Criteria III)
- 4) Importance of sectors in terms of value added per worker (Criteria IV).

The importance of the sectors in terms of their contribution to the total Egyptian exports (Criteria I) was based on several measures which include their share in total non-oil exports, their comparative advantage (measured by the revealed comparative advantage), and their rate of growth. The importance of sectors in terms of employment intensity is another aspect to be determined (Criteria III and IV). The reason is that the impact of social standards is likely to be felt in a significant matter whenever such sectors are labor-intensive or employ many laborers. Based on the four criteria, the following export sectors and products were identified (Table 2).

Table 2: Identification of Egyptian Export Industries and / or Products that are likely to be Affected by Standards, in Descending Order

I	II	III	IV
Contribution to total Egyptian exports¹	Agricultural Products as Share of Total Exports	Industries as Share of Employment	Value Added Per Worker
Textiles, yarns, fabrics and related products	Rice	Textiles, clothing and leather	Food Products
Articles of apparel and clothing accessories	Cotton	Food, Beverages and Tobacco	Chemicals
Chemicals and related products	Potatoes	Metal products, machinery and equipments	Non-metallic mineral products
Non-Ferrous Metals	Oranges	Paper and derivatives	Textiles
Aluminum		Chemicals and petrochemicals	Machinery except electrical

Note: ¹This criteria is based on the share in total non-oil exports, the comparative advantage (measured by the revealed comparative advantage), and the rate of growth.

Source: Own calculations based on Directions of Trade Statistics Yearbook, 2001 (Criteria I), CAPMAS Statistical Yearbook, June 2002 (II); Industrial Production Statistics, CAPMAS (III); UNIDO Country Industrial Statistics: ISIC Data for Egypt (IV).

Common sectors that appear are the textiles as well as the agricultural and agroindustrial industries. Hence, it was decided to concentrate the research on textiles and ready-made garments as products that are likely to face most of the social standards constraints mentioned before (see also highlights in Table 2). In addition, they are the most likely industries that use child labor and hence are subject to negative implications if social standards are imposed.

3 Data and Descriptive Analysis of Selected Sectors in Egypt

3.1 Data

A field survey of 83 firms was conducted in the textiles and ready-made garments industry in Egypt in 2004 to find out whether labor standards or regulations related to child labor have any impact on the export performance of these firms. The survey included a wide variety of questions on the firms' export performance, their awareness about labor standards including child labor and labeling, their compliance with labor standards as well as enforcement mechanisms and firms' characteristics.

Out of the 83 firms 81 were private whereas 2 were public firms. This sample is considered small if compared to total population which according to the data set of the Federation of the Egyptian Industries contains more than 3000 firms. Even those 3000 firms do not represent the total population as there are many firms that are not registered by the Federation⁶. The sample was geographically distributed among the following five governorates: Greater Cairo consisting of Cairo, Kayobia and Giza (65 firms), Mahalla Kobra (9), and Alexandria (9).

This geographical distribution reflects the nature of the industry which is rather characterized by clusters concentrated in the three aforementioned governorates. All surveyed firms focused on the export business. 49 companies (66%) export more than 50% of their output - in terms of value and volume; only 10 companies (11%) export less than 10% of their output.

This survey in the formal sector was supplemented by a survey of 20 enterprises in selected informal sectors to find out more about the motivation behind hiring child laborers (Box 1, p.17).

3.2 Descriptive Analysis

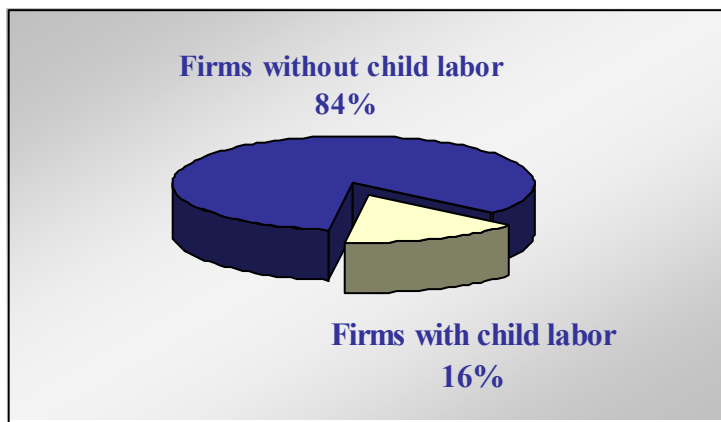
This descriptive part describes the data with respect to the evidence of child labor in the textiles and ready-made garments industry, the firms' awareness about and compliance with labor standards in general as well as the role of labeling.

⁶ According to an interview held with the managing director of the Industrial Chamber of Textiles and Ready Made Garments.

3.2.1 Evidence of Child Labor

The phenomenon of child labor was evident in 13 firms or 16% of the sample (see Figure 1). Five of these 13 firms (6%) have 10 to 20 child laborers below the age of 16; the other eight firms have less than 10 child laborers. It can be further observed that relatively more girls than boys are employed as child laborers. Child laborers had been employed more often on a temporary basis rather than on a permanent one – there was only one company with 12 permanent child laborers.

Figure 1: Distribution of firms according to their use of child labor



Source: Own survey.

It has been also found from the sample that the firms with child labor are all private sector companies. The two public firms do not employ any child laborers. It is also interesting to note that most of the companies with child labor are companies that do not have foreign affiliation; only one subsidiary of a multinational company (out of nine) and one joint venture company (out of six) reported that they were employing child laborers, but both of them only on a temporary basis. The firms with child labor are also mainly small-scale firms as can be seen from the following Table 3.

Table 3: Occurrence of child labor by size of company

Number of workers	Number of firms	In %	Number of firms with child labor
Up to 100	28	33.7	9
100 to 499	27	32.5	4
500 to 1499	20	24.1	0
1500 – 4999	5	6.0	0
More than 5000	3	3,6	0

Source: Own survey

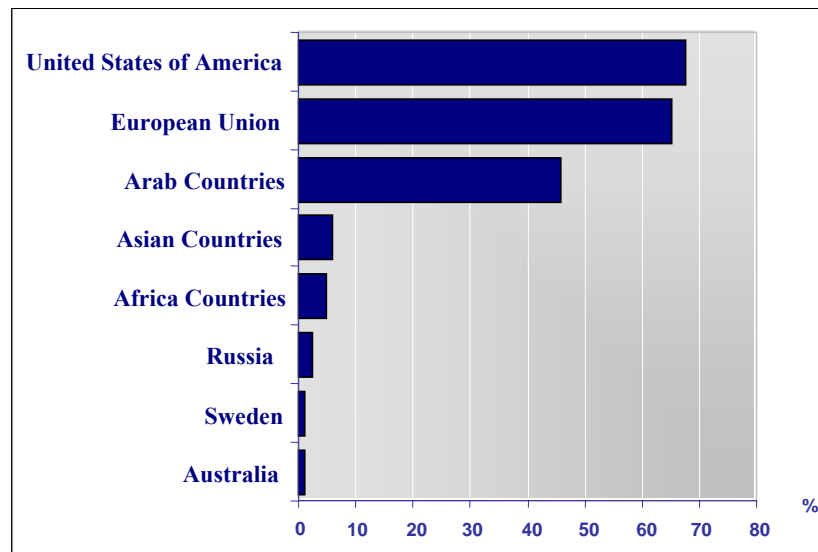
Child laborers were found in six companies with export shares of more than 50%; three companies with child labor had an export share of less than 10%. However, the export-oriented companies are all small-scale companies, and may not export directly but rather be subcontracted by larger firms.

These results are contrary to the expectation that exporting firms do not hire child laborers. This expectation came in contrast to what we assumed that the level of awareness of labor standards in general and child labor prohibition in specific is rather a common aspect of all exporting firms in the textiles and ready-made garments industry. However, the first evident issue that we arrived at is that the level of awareness is rather low among exporters.

Destination of exports

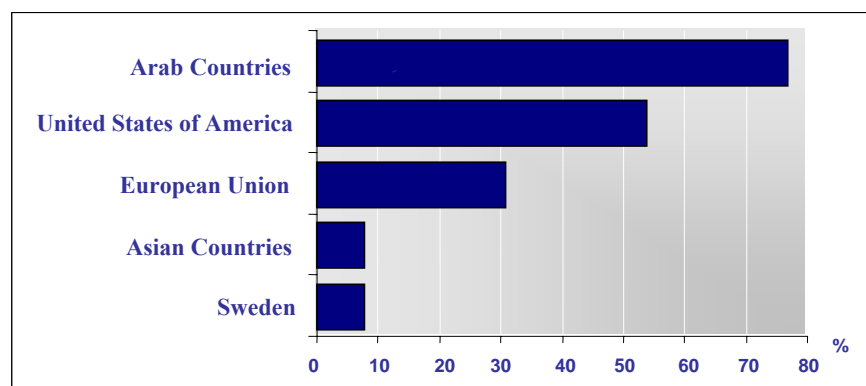
The destinations of exports were mainly the United States and the European Union as shown in Figure 2. However, the exports of firms that hire child labor were mainly directed to Arab countries as shown in Figure 3. This implies that there is a certain level of restrictive measures and a certain level of awareness among exporters on the countries that are less rigid regarding exports that include child labor.

Figure 2: Distribution of firms according to the destination of exports



Source: Own survey

Figure 3: Distribution of firms with child labor according to their export countries



Source: Own survey

The main issue that we deduce from this section is that child labor is a phenomenon that exists in the textiles and ready-made garments industry with a relatively high share in the sample (16%). The phenomenon is not correlated with the destination of exports where all destinations receive exports that embody child labor; however, the non Western destinations seem to receive the lion's share. Finally, and contrary to our expectations, a large proportion of firms with child labor export more than 50% of their output. This implies that child labor is not an impediment to export as usually mentioned in the literature, and it indicates that the level of awareness among Egyptian exporters regarding this issue is relatively low. One possible explanation of the fact that child labor is not an impediment to export is that some sort of export diversification takes place

in the exporting firms; this suggests that firms diversify by additionally exporting to countries with lower standards.

Awareness about labor standards including child labor

An evident example of the low degree of awareness regarding core labor standards in general and child labor in specific is shown in the results in Table 4-5. As can be seen from Table 4, many firms hiring child laborers were not aware of the need to comply with labor standards. This is also true for about 50% of the firms without child labor. Table 5 shows the awareness of firms with child labor about individual selected standards. As can be seen, none of the firms declared that they were aware that it was prohibited, whereas they emphasized that they were aware of other core labor standards of ILO, mainly the issues of discrimination and the right to organize and collective bargaining.

Table 4: Are you aware of the need to comply with labor standards?

	Firms with child labor		Firms without child labor	
	Frequency	%	Frequency	%
Aware	4	30.8	34	48.6
Not aware	9	69.2	36	51.4
Total	13	100	70	100

Source: Own survey

Table 5: Degree of awareness of core labor standards in the firms with child labor

Core labor standards	Know		don't know	
	No.	%	No.	%
Prohibition of child labor	0	0	13	100
Right to Organize and Collective Bargaining	11	85	2	15
Freedom of Association and Protection of the Right to Organize	5	38	8	62
Minimum Age	8	62	5	38
Discrimination (Employment and Occupation)	12	92	1	8
Equal Remuneration	8	62	5	38

Source: Own survey

On the other hand, we find that most firms hiring child laborers believed that imposing labor standards is important to protect the welfare of workers and enhance the market access of their products to the foreign markets. It is interesting to point out that the social objectives dominated the thinking of such firms where they believed that protecting welfare of workers play a predominant role in this regard. Furthermore, 90 to 95% of the firms believe that complying with labor standards will enhance their market access to developed countries and increase the

consumer acceptance of imported products. Almost 70% even indicated that they find it important to ensure fair competition. On the other hand, the firms were also asked about the additional costs due to complying with labor standards in general. More than half of the firms estimated the costs of complying with labor standards to be up to 5%. However, many firms also assumed the additional costs to be much higher (Table 6).

Table 6: Additional costs that will or did occur in case of complying with labor standards

Additional cost in percent	No. of firms	% of firms
Up to 5%	47	56
5-10%	23	27
10-15%	6	7
15-20%	3	4
More than 20%	1	1

Source: Own survey.

Child labor and schooling

The firms with child laborers were also asked about the percentage of children going to school. Six of them indicated that their child laborers do not go to school, two answered that 10 to 15% of their children go to school, while another five said that 50 up to 80% of their children attend school. Those firms with a higher percentage of school attendance also tend to have more child laborers (10 – 20). This might be explained by the fact that each child works fewer hours because of schooling so that the firm employs more children. We also checked whether firms with an export share of more than 50% and exclusively exporting to the West have a higher percentage of temporary child workers compared to firms with a lower export share and not exclusively exporting to the West. We find that the percentage of temporary workers is almost identical across both types of firms. In addition, five firms indicated that they offer special incentives like free books, bonuses, or even a pay rise to encourage them to go to school. Of the 13 firms, five also said that adults can replace children without adding to the production costs, while eight indicated that additional costs would occur.

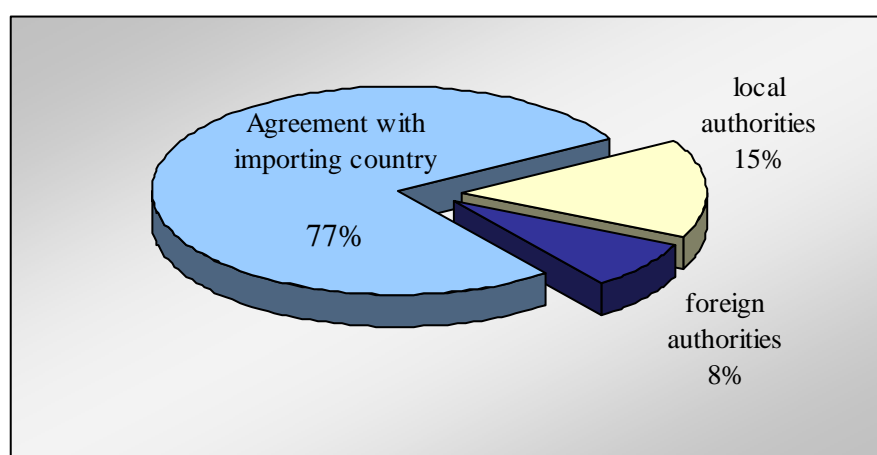
Motivation for hiring children

Being asked about the reasons of hiring child laborers, next to ‘lower wages’, the firms named reasons like ‘more skilled’, ‘preparing well trained skillful workers for future work’, ‘developing their skills’, and ‘their financial need’ or ‘higher learning curve in addition to giving them a better life’.

Enforcement of labor standards

The reason for complying with the prohibition of child labor was mainly based on mutual agreement with the importing country. The role of inspection and monitoring bodies from both local and foreign authorities was considered as being limited (see Figure 4). However, being asked about who should monitor and label labor standards in their field of business in case an agency would be established, about 70% of the firms said that it should be a domestic authority, 22% favored a foreign authority and 7% a joint authority. The major reason for favoring a domestic authority was that they are more aware about the local conditions and that the foreign governments should be prevented from interfering in domestic concerns. On the other hand, the inefficiency of the domestic system was named as the main reason for favoring a foreign authority. Almost 80% of the firms said that on-site monitoring by an agency would be needed, while 20% did not like the idea of on-site monitoring.

Figure 4: Distribution of firms according to the reason of following a specific requirement in production



Source: Own survey

Being asked about the role of trade unions, 20 firms answered that they had workers who are members in trade union, and 22 firms (26%) believed that trade unions are able to impose their demands on the entrepreneurs.

As regards measures which can help to decrease child labor, the opinion was divided. While 12 firms said that strict sanctions would help, 17 suggested the establishment of schools and education centers. Another 9 firms asked for subsidies for educating children and 7 generally indicated that the alleviation of the standard of living would help. Interesting results on child labor enforcement are also derived from the following Table 7 which shows that fines and export stops for non complying firms are considered as the most effective ways of reducing child labor. This opinion is shared by 70 to 80% of the firms. Public awareness raising, legislation and laws, and setting a minimum age are, however, seen as no effective measures in reducing child labor.

Table 7: Attitudes on how to reduce child labor

Rank these ways to stop child labor	Not effective / not effective at all	Limited effectiveness	Effective / very effective
Legislation / laws	33	14	36
Setting minimum age	21	26	36
Imposing fines	8	7	56
Export stop for non complying firms	8	7	68
Public awareness raising	46	14	23

Source: Own survey.

Box 1: Social versus Economic Reasons of Child Labor

There are several reasons behind the child labor phenomenon. In 2004, we undertook an additional small sample survey of 20 interviews in the informal sector asking the employers in different segments of the informal sector which hire children about their main reason behind hiring child labor. The survey results revealed that social objectives were the main reasons behind hiring child labor. Most of the children we dealt with in this survey were the main - if not the only - supporters of their families, came from poor, dysfunctional families where - in most cases - the father is deceased (8 cases), cannot support his family (9 cases) or is ill (8 cases).

Type of products or services of the firm survey (20 firms in the informal sector):

- Sales and installation of car batteries and tires 1
- Car repairing service/mechanic 6
- Car glass - mirrors 1
- Car Accessories (air condition-car furniture) 4
- Metal welding 2
- Aluminum crafting 2
- Leather industry 1
- Car painting 1
- Carpenter 2

Following the results of our survey, child labor is a mean where children provide “social security” for the aging or disabled parents. This is attributed to the government’s inability of providing an efficient social security system for a large part of the Egyptians population. If we dissect this segment of the population, we find that most of them live in slumps where the authority of the government is weak. This isolated world has a remarkable effect on how the child views his community, deals with it and the options available for him to seek a proper life. Surrounded by mechanics, carpenters and handicraftsmen, the child has limited options to choose from at the same time, the value of acquiring any formal education is minimal to him and to the others surrounding him. The easiest way for a child to work is by joining a nearby workshop where he can support his family and at the same time, be consistent - from his own point of view - with the society he lives in. The employers identified that they hire children

mainly for social reasons where they wanted to pay off their disabled father or help in providing assistance to the child's family or provide some sort of vocational training for the child based on his family's request. Financial motivations such as lower costs came at the end of the priorities of all the interviewed employers.

The survey emphasizes that child labor, both from the supply and demand aspects, has social roots. We cannot deal with it solely without taking into consideration the society where it prevails. Moreover, the predetermined misconceptions of abusing children and "sweat shops" type of ideas should be looked at from a more neutral objective point of view.

3.2.2 *Role of Labeling in Enhancing Egyptian Exports*

Closely related is the issue of social labeling as it is praised in many developed countries as a very attractive instrument to raise labor standards in developing countries. Social labels provide information via product labels on whether acceptable labor standards were applied in the production process, including the sensitive question of whether children were employed or not.

The origins of social labeling can be traced back to the White Label initiated by a US labor union already in 1899, declaring that clothing had been produced without women and child laborers. Nowadays, social criteria like 'no child labor', freedom of association, wage levels, working hours etc. have been developed for labels especially in the carpet market, the footwear and sports industry but also in the agricultural sector and the textile industry. The labels are known under names like Rugmark, Kaleen, Step, Pro-Child, Care & Fair or Reebok (see Appendix 1).

In the surveyed textiles and ready-made garments industry in Egypt, labels indicating that no child labor has been involved in the production process are not known to the entrepreneurs. This refers to their own produced products as well as to the inputs they use in their production process. However, two companies state that they have received a certificate that says that they are not using any child laborers. They are being monitored regularly, one of them once and the other one four times a year. For one enterprise, a contract with the importer even specifies that no child labor is allowed in production. 41 companies or 55% indicate that inspections of their company took place to control the use of child laborers.

In general, the attitude towards labeling is divided. Out of the total 83 enterprises, 13 or 20% apply positive attributes to labeling. However, 46 enterprises which is around 66%, do not consider labeling a positive thing, and 21 or 30% do not know. 38 or 64% of the companies do not find it important to receive a certificate saying that they use no child laborers. Four companies (6%) find it too costly, while two companies state that such a certificate is a precondition for entering other certification schemes like ISO (Table 8). Most entrepreneurs believe that the awareness regarding labor standards can be enhanced through formal training conducted by domestic authorities, or seminars and workshops, and publications.

Table 8: Reasons for not certifying

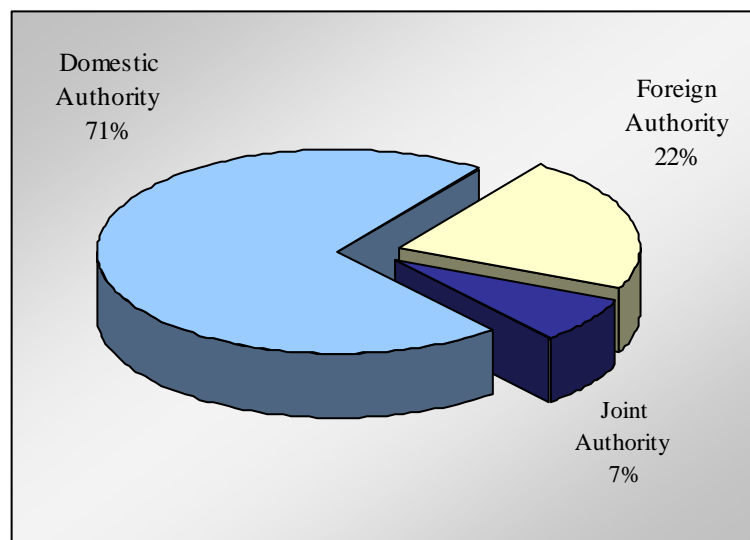
Why they don't have this certificate	Frequency	Percent
Not important	46	65.7
Don't know	21	30
Costly	4	5.7
It's a condition/requirement for other certificates (eg. ISO)	2	2.9

Source: Own survey.

Interestingly, 43 entrepreneurs believe that child labor can be abolished by increased market access. Another 24 indicate that financial aid, reduced taxes or subsidization of raw materials is needed to overcome the cost of abolishing child labor, while 9 entrepreneurs state that no incentives are needed because it is obligatory to abolish child labor, and two indicate that child labor should not be stopped as work helps and protects the children.

Asking about the allocation of responsibilities for implementing labeling schemes, the majority of entrepreneurs clearly stated that domestic authorities should be responsible for its implementation (Figure 5).

Figure 5: Distribution of firms according to the preferred labeling agency



Source: Own survey.

The major reasons behind preferring a domestic authority in charge refer to the fact that local entities have a higher awareness about local conditions. In addition, there is a general concern that foreign governments might interfere in domestic matters. Only a few entrepreneurs indicate the issue of corruption of local authorities, and one indicates that foreign authorities understand the export process better than the domestic authorities.

4 Econometric Analysis

4.1 Conceptual Framework

The main purpose of this section is to identify which factors related to labor affect the export performance of a firm. More in detail, we want to find out whether labor standards in general and child labor in specific have an impact on the export performance of an enterprise. Export performance is captured as more than 50% of exports of a firm and exclusively to the West. We thus define the dependent variable as the probability of a firm to export more than 50% and exclusively to the West. The independent variables have been grouped into the four categories ‘awareness’, ‘compliance’, ‘enforcement’, in addition to ‘firms’ characteristics’:

$$Prob_i(\text{export performance}) = f(A_i, C_i, E, Z_i) + e_i$$

where:

A_i = awareness of labor standards in enterprise i ,

C_i = compliance with labor standards in enterprise i ,

E_i = enforcement of labor standards,

Z_i = firms’ characteristics,

e_i = random variable.

The proxies for the independent variables we used are listed in the following.

1) Awareness of labor standards in enterprise i :

We expect that the probability of exporting to the West with an export share of more than 50% will increase with the level of awareness of labor standards in the firm.

- Do you agree that these labor standards are very important to increase consumer acceptance of imported products? (1=very important; 0=otherwise)
- Do you agree that these labor standards are important to enable access to developed countries’ markets? (1= important; 0=otherwise)
- Do you think that labor standards are very important to protect the welfare of your workers? (1=very important; 0=otherwise)
- Do you agree that these labor standards are important to ensure fair competition? (1=very important; 0=otherwise)
- Do you think that public awareness raising will stop child labor? (1=yes; 0=otherwise)
- Do you think labor standards can affect the competitiveness of your exports positively? (1=yes, 2=otherwise)
- Are you aware of the need to comply with labor standards in some countries? (1=yes; 0=otherwise)

2) Compliance with labor standards in enterprise i:

It is expected that the export performance of an enterprise will increase, the better the enterprise complies with labor standards.

- Do you employ children below 16? (1=yes; 2=no)
- Is the worker in your firm eligible for maternity leave? (1=yes, 2=no)
- Compliance with “prohibition of child labor” (1=yes, 2=no)
- Compliance with freedom of association and protection of the right to organize (1=yes, 2=no)
- Compliance with minimum age (1=yes, 2=no)
- Do you think that increased market access will help abolishing child labor or will make you comply with labor standards? (1=yes; 0=otherwise)
- Is the worker in your firm eligible for paid vacation? (1=yes, 2=no)

3) Enforcement of labor standards from outside the enterprise:

We expect that the probability of an enterprise to export to the West with an export share of more than 50% will increase with the level of enforcement of labor standards. An exception is the variable related to the costs of standards for which we expect a negative correlation.

- In your opinion, what makes you comply with core labor standards? Is it an incentive in terms of better market access? (1=yes; 0=otherwise)
- Is it because of competition with other countries? (1=yes; 0=otherwise)
- In your opinion, what makes you comply with core labor standards? Is it because of inspections and monitoring by a domestic authority? (1=yes; 0=otherwise)
- Do you agree that these labor standards are very important to ensure fair competition? (1=yes; 0=otherwise)
- Are the requirements you follow in production based on mutual agreement between you and your major importing country? (1=yes; 0=otherwise)
- What costs do you think will or did occur as a percentage of total costs in the case of complying with these standards? (1=more than 5%; 0=otherwise)
- Do you think that imposing fines will stop child labor? (1=effective to very effective; 0=otherwise)
- Have there been any inspections in your company to control the use of child laborers by foreign or domestic authorities? (1=yes; 0=otherwise)
- Do you think that setting a minimum age for working will stop child labor? (1=effective to very effective; 0=otherwise)
- Are the requirements you follow in production imposed on you by local and / or foreign authorities? (1=yes; 0=otherwise)

4) Firms' characteristics:

- Is the firm specialized in its sortiment? (1=yes; 2=no)
- Since when has the firm been in business?
- How many workers do you have?
- How many export destinations do you have?
- Do you have a foreign affiliation? (1=no: 2=yes)

For the first three categories, a factor analysis has been conducted to reduce the number of variables by extracting the relevant factors. Thereafter, the factors along with a number of firms' characteristics were used as inputs in the logistic regression equation.

4.2 Results of the Factor Analysis

Factor analyses have been used to reduce the numerous possible variables for the first three categories (awareness, compliance, and enforcement) into determinants which are independent from each other, and which can be used as input factors for the logistic regression analysis. For the firms' characteristics, no factor analysis has been conducted since the data was not suitable for it. An advantage of this approach is that numerous variables can be tested, and only afterwards it is necessary to decide which variables or bundles of variables have explanatory power. In addition, empirical research becomes easier by reducing the data set.

The central matrix for interpretation of the factor analysis results is the rotated component matrix (rotation method: varimax). This matrix gives the factor loadings of individual variables indicating to what extent a factor is related to the input variables. Variables with loadings of more than 0.5 were selected and included in the respective factors (Tables 9-11).

Table 9: Rotated Component Matrix(a) for the awareness variables

Independent variables	Component		
	1	2	3
Do you agree that these labor standards are very important to increase consumer acceptance of imported product?	,796	,061	,117
Do you agree that these labor standards are very important to enable access to developed countries' markets?	,814	,088	,153
Do you think that these labor standards are very important to protect the welfare of your workers?	,244	,632	,311
Do you think that public awareness raising will stop child labor?	-,139	,867	,109
Do you agree that these labor standards are very important to ensure fair competition?	,402	,570	-,194
Do you think that labor standards can affect the competitiveness of your exports positively?	,193	,152	,704
Are you aware of the need to comply with labor standards in some countries if you are already exporting?	-,032	-,015	-,885

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

a Rotation converged in 5 iterations.

Source: Own calculations.

Seven variables about the awareness of labor standards in the enterprises were selected (Table 9). As a result of the factor analysis, three awareness factors were identified as being relevant and independent and named as follows:

- Awareness Factor 1: Opening markets for exports
- Awareness Factor 2: Fairness and awareness
- Awareness Factor 3: Competitiveness through standards

Table 10: Rotated Component Matrix(a) for the compliance variables

Independent variables	Component	
	1	2
Do you employ children below 16?	,733	,502
What are the forms of core labor standards you are aware of to comply with - Prohibition of child labor?	,792	,440
What are the forms of core labor standards you are aware of to comply with - Freedom of Association and Protection of the Right to Organize?	,708	-,456
Do you think that increased market access will help to abolish child labor or will make you comply with labor standards?	-,644	,008
Is the worker in your Firm eligible for maternity leave for female workers?	,465	,286
Is the worker in your Firm eligible for paid vacations?	,106	,708
Do you comply with the core labor standard on Minimum Age?	,074	,597

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

a Rotation converged in 3 iterations.

Source: Own calculations.

Seven variables about the compliance of labor standards in the enterprises were selected (Table 10). As a result of the factor analysis, two compliance factors were identified as being relevant and independent and named as follows:

- Compliance Factor 1: Compliance with selected labor standards
- Compliance Factor 2: paid vacation and minimum age

Table 11: Rotated Component Matrix(a) for the enforcement variables

Independent variables	Component			
	1	2	3	4
In your opinion, what makes you comply with core labor standards (incentive in terms of better market access)?	,735	,215	,377	,054
In your opinion, what makes you comply with core labor standards (because of competition with other countries)?	,724	,303	-,139	,031
Do you agree that these labor standards are very important to ensure fair competition?	,698	-,331	,022	,305
Are the requirements you follow in production Based on mutual agreement between you and your major importing country?	,072	,629	,038	,428
Do you think that imposing fines will stop child labor?	,167	,552	,499	-,060
What costs do you think will or did occur as a percentage of total costs in the case of complying with these standards?	,077	,773	-,083	-,160
Have there been any inspections in your company to control the use of child laborers by foreign or domestic authorities?	-,124	-,092	,759	,130
Do you think that setting min. age will stop child labor?	,489	,102	,699	,042
Are the requirements you follow in production imposed on you by foreign authorities?	,142	,112	-,066	,775
In your opinion, what makes you comply with core labor standards (domestic inspections)?	-,061	,222	-,329	-,716

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

a Rotation converged in 8 iterations.

Source: Own calculations.

Ten variables about the enforcement of labor standards in the enterprises were selected (Table 11). As a result of the factor analysis, four compliance factors were identified as being relevant and independent and named as follows:

- Enforcement Factor 1: market access and fair competition
- Enforcement Factor 2: fines, costs and mutual agreement
- Enforcement Factor 3: control of child labor
- Enforcement Factor 4: controls of labor standards

The negative and positive loadings of the two variables determining the enforcement factor 4 can be explained as follows: while controls by foreign authorities can lead to an improved enforcement of labor standards, domestic inspections may have the opposite effect. A possible interpretation of this is that inefficiency of the domestic system at the domestic level may play a role. This has been also indicated already in the descriptive part of the analysis (Chapter 3).

For the factor analyses, the test of sphericity was conducted to test whether the chosen variables are correlated with each other or not; its “measure of sampling adequacy (MSA)” –

also known as the Kaiser-Meyer-Olkin-criterion - shows to what extent the variables belong together and thus, indicates whether the factor analysis is useful or not. The MSA criterion allows an assessment of the correlation matrix as a whole and also of individual variables. In our calculations, the general MSAs reached values between 0.6 and 0.7 which is assessed as being mediocre; however, the values partly rose to close to 0.7. MSAs > 0.7 are considered as 'middling'. MSAs of individual variables can be assessed from the anti-image matrices (Appendix 2); all variables with MSAs < 0.5 were successively excluded from the calculations. The remaining ones even had MSAs of > 0.8 and > 0.9 which is considered as 'meritorious' and 'marvelous', respectively. For extracting the factors, the Kaiser-criterion was used which means that only factors with eigenvalues of more than 1 are selected.

4.3 Results of the Logistic Regression

For analyzing the impact of independent variables on a categorical dependent variable, a binary logistic regression has been conducted. The dependent variable determines the probability of a firm to perform well in terms of exporting more than 50% and exclusively to the West. The independent variables and factors referring to the awareness about, compliance with and enforcement of labor standards are listed in Table 12 again. The results of the logistic regression allow deciding which variables and factors have a relatively high impact on the probability of good export performance.

Table 12: Variables and their acronyms

Variable	Acronym
Since when has the firm been in business?	firmAGE
How many workers do you have?	NoofWorkers
Is the firm specialized in its sortiment?	Specialized
Do you have a foreign affiliation?	foreignAffilia
How many export destinations do you have?	Nodestinations
Market access and fair competition	EnforceFAC1
Fines, costs and mutual agreement	EnforceFAC2
Control of child labor	EnforceFAC3
Controls of labor standards	EnforceFAC4
Opening markets for exports	AwareFAC1
Fairness and awareness	AwareFAC2
Competitiveness through standards	AwareFAC3
Compliance with selected labor standards	ComplyFAC1
Paid vacation and minimum age	ComplyFAC2

Table 13: Logistic Regression Results for the Probability of Good Export Performance

	B	S.E.	Wald	Df	Sig.	Exp(B)
firmAGE	-,018	,032	,307	1	,580	,982
NoofWorkers	,001	,001	4,655	1	,031**	1,001
Specialized	-3,533	2,510	1,981	1	,159	,029
ForeignAffilia	-2,389	2,125	1,264	1	,261	,092
NOdestinations	-3,794	1,379	7,570	1	,006***	,023
EnforceFAC1	1,974	1,124	3,081	1	,079*	7,197
EnforceFAC2	-2,656	1,141	5,416	1	,020**	,070
EnforceFAC3	,031	,670	,002	1	,963	1,032
EnforceFAC4	1,820	1,148	2,513	1	,113	6,171
AwareFAC1	,028	,664	,002	1	,967	1,028
AwareFAC2	-,598	,683	,768	1	,381	,550
AwareFAC3	2,010	1,241	2,623	1	,105	7,460
ComplyFAC1	,386	1,594	,059	1	,809	1,472
ComplyFAC2	-1,490	1,264	1,390	1	,238	,225
Constant	43,686	64,491	,459	1	,498	9,39E+18

Selected cases: 59; -2 Log likelihood: 30,813; Cox & Snell R Square: ,557; Nagelkerke R Square: ,756

*** Significance level 1% ** Significance level 5%; * Significance level 10%

Source: Own calculations.

Table 13 shows the logistic regression coefficient, Wald test, and odds ratio for each of the predictors. The level of predictive power by the regression is quite high. The estimated relationship for the probability to perform well correctly predicts 88% of the observations. Also the R squares indicate that the dependent variable is well explained by the independent variables (Appendix 3).

The results show that the ‘number of workers’, ‘number of destinations’, as well as the first two enforcement factors ‘market access and fair competition’ and ‘fines, costs and mutual agreements’ have significant partial effects. This means that the larger the enterprise in terms of ‘number of workers’, the more likely it is a good export performer identified by a high share of exports and exclusively to the West. This result also supports the descriptive statistics (Table 3) showing that the larger enterprises are less likely to employ children as workers. The significant variable ‘number of destinations’ has a negative impact on the probability because the more markets (Western and non Western) the firm exports to the more likely it has to comply with different types of standards which negatively affect its export performance. Hence, geographical concentration would enhance the export performance of the firm.

The results also support the hypothesis that firms that are more aware of market access and fair competition considerations are likely to export more than 50%. The second enforcement factor “fines, compliance costs and mutual agreements” has a significant negative effect on the probability of having good export performance. This can be explained by the high loading of the compliance cost variable which indicates that the higher the costs are or are expected to be, the less likely the firm is to perform well in terms of exporting more than 50% exclusively to the

West. Also the fourth enforcement factor has a positive effect on the probability, though not significant. It indicates that domestic and foreign controls improve the enforcement of labor standards and thus lead to better export performance results. On the other hand, the actual control of a firm (enforcement factor 3) for child labor hardly has an effect on the performance.

The odds ratio for the enforcement factor 'market access and fair competition' indicates that when holding all other variables constant, a firm is 7 times more likely to perform well in terms of exporting if it considers labor standards as an incentive of improving its market access than if it does not. This result is supported by the awareness factor 3 which implies that a firm is 7 times more likely to perform well, if it is highly aware of the need to comply with labor standards and if it knows about their effects on the competitiveness of its export products.

In summary, the study shows that several variables related to labor standards and child labor have an effect on the probability of a firm to perform well in the export business. In general, it has been found that variables which ensure the enforcement of labor standards have a higher explanatory power for the probability of better export performance than compliance and awareness variables. The aspect of child labor seems to explain the dependent variable to a much lower extent than labor standards in general. Thus, the two factors related directly to child labor standards (ComplyFAC1 und EnforceFAC3) show a highly insignificant effect on the export performance. For example whether a firm employs child laborers or not has a significant effect on whether the firm has good export performance and exclusively to the West.

5 Conclusion and Policy Implications

The hypothesis that the export performance of a firm is determined by the awareness of, compliance with and enforcement of labor standards including child labor is well supported by the findings of this study. 'Export performance' has been defined as the probability of a firm to export more than 50% of its output and exclusively to the West. It has been found that several variables related to labor standards show a significant effect on the probability of a firm to perform well in the export business or not. In general, it has been found that variables which ensure the enforcement of labor standards have a higher explanatory power for the probability of good export performance than compliance and awareness variables. Thus, firms are likely to self-enforce labor standards based on their expectation to improve their market access and the competitiveness of their export products. Thus, the driving forces leading to an implementation of higher labor standards at the firm level are of economic nature rather than social. This result is along the lines of what Basu, Chau and Grote (2004) found in their study on eco-labeling. Their empirical findings suggest that not environmental reasons determine whether a developing country adopts an eco-labeling program but rather strategic considerations and export orientation of the industry. Thus, some parallels in the debate on environmental and social standards exist in the context of international trade.

The aspect of child labor seems to explain the dependent variable to a much lower extent than labor standards in general. The two factors which include specifically child labor aspects, namely the enforcement factor 3 (control of child labor) and the compliance factor 1 (selected labor standards), are both highly insignificant. Thus, for example whether a firm employs child laborers or not has not a significant effect on whether the firm exports exclusively to the West. This result is supported by the descriptive analysis showing that child labor is a phenomenon that exists in the textiles and ready-made garments industry with a relatively high share in the sample (16%). All destinations receive exports that embody child labor; however, the non Western destinations seem to receive the lion's share. Moreover, it has been found that a large proportion of firms with child labor export more than 50% of their output, and firms with child labor are mainly small-scale firms.

Econometric analysis shows a strong positive relationship between higher standards and the likelihood of enhanced export performance to the West. However, for those firms with a high volume of exports to Arab countries and for smaller firms (both exporting to the West or Arab countries), the effect of standards might lead to the need of more export diversification within a specific region either to the West or to any other region to build on the economies of scale resulting from harmonized or similar standards.

In general, it has been found that there is a low degree of awareness about core labor standards among the surveyed firms in the textiles and ready-made garments industry in Egypt and that the additional costs to comply with labor standards are or are expected to be quite high. However, since it is not clear whether the additional compliance costs actually occurred or whether firms just revealed their expectations, this result should be interpreted carefully. On the other hand, the descriptive part supports our econometric results that firms realize the need and importance to meet labor standards in order to improve their standing in the export business. But while economic considerations drive the export orientation of most export firms, the descriptive results suggest that also social reasons seem to play a role in the decision of some firms to hire children (see Box 1, p.17).

The results of the study suggest different effective enforcement measures from the point of view of export firms. The econometric analysis shows that the enforcement of labor standards has a high explanatory power for the probability of good export performance. This is along the lines of what the descriptive results show; thus, fines and export stops for non complying firms are considered by the surveyed enterprises as the most effective ways for reducing child labor, while public awareness raising campaigns, legislation and laws, and setting a minimum age are seen as rather ineffective measures.

The study shows that the supply of core labor standards is costly for firms; however, the cost is paid back for export firms in terms of better market access and enhanced competitiveness of their products in foreign markets. Interestingly, half of the entrepreneurs believe that child labor can be abolished by increased market access. The demand of core labor standards is certainly more evident in the Western hemisphere than the non-Western part, however, as the study showed in many cases, the whole set of reasons (social and economic) behind the prevailing labor standards' conditions are not taken into consideration.

It has also been found that labels indicating that no child labor has been involved in the production process are not known to the entrepreneurs in the textiles and ready-made garments industry in Egypt. In general, the attitude towards labeling is divided, however, with the majority of enterprises applying negative attributes to labeling. Nevertheless, the labeling proposal suggested in the study and used intensively by some countries as Bangladesh and India seems to be a reasonable solution although it is hardly known and the skepticism about its usefulness is high in Egypt. As argued by Freeman (1996) it gives the consumer purchasing a good to freely decide whether he weighs the normal cost of hiring child labor higher or lower than his moral values.

Other policy implications that can help policy makers to overcome the negative impacts of social regulations, if any, is undertaking mutual recognition agreements (MRA)⁷ as the study showed that they adhere to labor standards only when the importer requires. MRAs in the field of labor standards can overcome the negative effect of different standards prevailing in Egypt and its major trading partners (despite the fact that evidence has shown that it has not been successful in the EU trials with its trading partners, see Stephenson, 1997), taking in consideration the possible scope for harmonization due to the limitations arising from different economic circumstances, and developmental differences (as argued by Anderson, 1995).

⁷ In MRAs, manufacturers are able to obtain required national certificates at the location of production, rather than pay the higher costs of offshore certification. The MRAs are in general applied to technical standards and regulations, and quality management systems. Their application in the field of compliance with labor standards has not been mentioned in the literature according to the knowledge of the authors. Nevertheless, there is nothing that prevents the adoption of such systems in the field of labor standards.

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Appendix 1:

Main Features of the RUGMARK Labeling Scheme

In recent years, frequent and often unsettling media reports have made consumers in the United States and other industrialized countries more aware of the possibility that the goods they purchase could have been produced by a child under exploitative conditions. In response, several non-governmental organizations (NGOs) and corporations are communicating child labor policies to consumers through labels.

Hand-Knotted Carpets

Child labor continues to be a problem in the hand-knotted carpet industries of India, Nepal, and Pakistan. Children are involved in almost every aspect of carpet Production, including dyeing, spinning, and unraveling yarn and weaving, knotting, Cutting, and washing carpets.

Nearly all hand-knotted carpets are made for export. The leading carpet exporting countries are Iran, India, China, Pakistan, Turkey, Nepal and Egypt. The United States and Germany are the world's leading importers. The United States imported \$329 million worth of hand-knotted carpets in 1996. India is the largest single source of U.S. imports of hand-knotted carpets, followed by China.

Consumer Labeling Programs in the Hand-Knotted Carpet Industry

The main child labor labeling programs for carpets are: (a) RUGMARK; (b) Kaleen; (c) STEP; and (d) Care & Fair. RUGMARK and Kaleen are product labels that are affixed to individual carpets. STEP and Care & Fair are company certification programs. Participating companies use the labels for advertising and marketing purposes, but not on individual carpets. we will take RUGMARK as an example of such labeling programs:

RUGMARK: Established in India in September 1994 and expanded to Nepal the following year, RUGMARK® is a private, voluntary certification program providing market-driven incentives for carpet manufacturers to produce without child labor. Efforts are now underway to establish RUGMARK® in Pakistan.

The principal objectives of the program are to: (1) organize individuals and companies in the carpet industry to cease the use of child labor; (2) establish an independent, professional and internationally credible monitoring and certification system for carpets manufactured without child labor; and (3) rehabilitate and educate former child carpet workers. The program is funded primarily by a combination of exporter and importer fees based on the value of the carpets. The monitoring and certification programs of the RUGMARK® initiative, although still new, are the most developed, with an extensive system of checks and balances.

The RUGMARK label, placed on the back of each carpet, displays a carpet with a smiling face. As of June 1997, the Indian RUGMARK Foundation had certified the export of about 636,000 labeled carpets from 164 licensed producers/exporters. As of May 1997, the Nepalese program had 27 licensees and exported about 6,500 certified carpets. In both India and Nepal, the RUGMARK® program is monitored and enforced through an elaborate system of licensee approval, random inspections and carpet tracking. During the production of each carpet, professional RUGMARK® inspectors can make unannounced visits at any time to verify no child labor is being used.

As of June 1997, the Indian RUGMARK Foundation reports having conducted a total of 22,800 inspections of 18,400 registered looms. During the course of these investigations, 1,060 children were found working illegally. As of August 1997, the Nepal RUGMARK Foundation had registered 1,868 looms and made 1,754 unannounced visits to licensees' facilities, finding 143 children illegally working at looms.

RUGMARK-India operates two educational facilities for children. RUGMARK-Nepal operates three rehabilitation schools.

Source: U.S. Department of Labor (1997), *“By the Sweat & Toil of Children, Volume IV: Consumer Labels and Child Labor”*, Bureau of International Labor Affairs.

Appendix 2:

Factor analysis - Awareness variables

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,615
Bartlett's Test of Sphericity	Approx. Chi-Square	79,929
	df	21
	Sig.	,000

Factor analysis - Compliance variables

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,681
Bartlett's Test of Sphericity	Approx. Chi-Square	149,155
	df	21
	Sig.	,000

Factor analysis – Enforcement variables

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,683
Bartlett's Test of Sphericity	Approx. Chi-Square	120,282
	df	45
	Sig.	,000

Factor analysis - Awareness variables

Anti-image Matrices

	Q1.1	Q1.2	Q1.3	Q1.4	Q1.5	Q1.6	Q1.7
Do you think that labor standards are very important to protect the welfare of your workers? (Q1.1)	,622(a)	-,232	-,090	-,087	,073	,251	-,373
Do you agree that these labor standards are very important to increase consumer acceptance of imported product? (Q1.2)	-,232	,651(a)	-,361	-,031	-,037	-,001	,084
Do you agree that these labor standards are very important to enable access to developed countries' markets? (Q1.3)	-,090	-,361	,672(a)	-,193	-,146	,036	,063
Do you agree that these labor standards are very important to ensure fair competition? (Q1.4)	-,087	-,031	-,193	,649(a)	-,144	-,169	-,171
Do you think such standards can affect the competitiveness of your exports positively? (Q1.5)	,073	-,037	-,146	-,144	,607(a)	,391	-,123
Are you aware of the need to comply with labor standards in some countries if you are already exporting? (Q1.6)	,251	-,001	,036	-,169	,391	,537(a)	-,053
Do you think that public awareness raising will stop child labor? (Q1.7)	-,373	,084	,063	-,171	-,123	-,053	,560(a)

a Measures of Sampling Adequacy(MSA)

Factor analysis - Compliance variables

Anti-image Matrices

	Q2.1	Q2.2	Q2.3	Q2.4	Q2.5	Q2.6	Q2.7
Do you employ children below 16? (Q2.1)	,636(a)	-,019	-,156	-,790	-,014	-,202	-,084
Is the worker in your Firm eligible for Paid Vacations? (Q2.2)	-,019	,765(a)	-,004	-,175	,219	-,078	,059
Is the worker in your Firm eligible for Maternity leave for female workers? (Q2.3)	-,156	-,004	,925(a)	-,071	-,025	,001	-,016
What are the forms of core labor standards you are aware of to comply with - Prohibition of child labor? (Q2.4)	-,790	-,175	-,071	,633(a)	-,140	,074	,240
What are the forms of core labor standards you are aware of to comply with - Freedom of Association and Protection of the Right to Organize? (Q2.5)	-,014	,219	-,025	-,140	,671(a)	,098	,216
What are the forms of core labor standards you are aware of to comply with - Minimum Age? (Q2.6)	-,202	-,078	,001	,074	,098	,727(a)	,066
Do you think that increased market access will help to abolish child labor or will make you comply with labor standards? (Q2.7)	-,084	,059	-,016	,240	,216	,066	,768(a)

a Measures of Sampling Adequacy(MSA)

Factor analysis – Enforcement variables

Anti-image Matrices

	Q3.1	Q3.2	Q3.3	Q3.4	Q3.5	Q3.6	Q3.7	Q3.8	Q3.9	Q3.10
In your opinion, what makes you comply with core labor standards (incentive in terms of better market access)? (Q3.1)	,708(a)	-,338	-,113	-,205	-,049	-,143	-,062	-,384	-,202	,014
In your opinion, what makes you comply with core labor standards (because of competition with other countries)? (Q3.2)	-,338	,699(a)	-,049	-,136	-,096	-,058	,059	,019	,070	-,205
In your opinion, what makes you comply with core labor standards (domestic inspections)? (Q3.3)	-,113	-,049	,613(a)	,199	,113	,286	,145	,210	-,026	-,163
Do you agree that labor standards are very important to ensure fair competition? (Q3.4)	-,205	-,136	,199	,684(a)	-,019	-,062	,133	-,160	,150	,169
Are the requirements you follow in production Based on mutual agreement between you and your major importing country? (Q3.5)	-,049	-,096	,113	-,019	,759(a)	-,075	-,014	,023	-,135	-,199
Are the requirements you follow in production Imposed on you by foreign authorities? (Q3.6)	-,143	-,058	,286	-,062	-,075	,649(a)	-,003	,127	-,029	,002
Have there been any inspections in your company to control the use of child laborers by foreign or domestic authorities? (Q3.7)	-,062	,059	,145	,133	-,014	-,003	,640(a)	-,240	,028	,087
Do you think that setting min.age will stop child labor? (Q3.8)	-,384	,019	,210	-,160	,023	,127	-,240	,693(a)	-,268	-,059
Do you think that imposing fines will stop child labor? (Q3.9)	-,202	,070	-,026	,150	-,135	-,029	,028	-,268	,710(a)	-,169
What costs do you think will or did occur as a percentage of total costs in the case of complying with these standards? (Q3.10)	,014	-,205	-,163	,169	-,199	,002	,087	-,059	-,169	,612(a)

a Measures of Sampling Adequacy(MSA)

Appendix 3:

Logistic Regression

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	48,090	14	,000
	Block	48,090	14	,000
	Model	48,090	14	,000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	30,813(a)	,557	,756

a Estimation terminated at iteration number 9 because parameter estimates changed by less than ,001.

Classification Table(a)

Observed			Predicted		
			Is your export share above 50% and you exclusively export to the West?		Percentage Correct
			no	yes	
Step 1	Is your export share above 50% and you exclusively export to the West?	no	33	3	91,7
		yes	4	19	82,6
Overall Percentage					88,1

a The cut value is ,500

Appendix 4:

Questionnaire:

General Information:

- 1) What is the nature of your firm?
 - Private, (please go to question 2)
 - Public enterprise
 - Public

- 2) What is its type?
 - Domestic
 - Subsidiary of Multinational Corporation
 - Joint venture

- 3) Define the type of production that your firm is specializing in and its degree of processing, whether it is:
 - Textiles
 - Ready made garments
 - Others, please define

- 4) How many years has this firm been in business?

- 5) How many workers do you have?
 - o Number of Permanent Workers (...)
 - o Number of Temporary Workers (...)

Section I: Exports:

- 6) Are you engaged in exporting?
 - No
 - Yes, which countries?
 - o EU
 - o USA
 - o Asian Countries, name.....
 - o Arab Countries, name.....
 - o African Countries, name.....

- 7) If yes, what is the share of your total output- in terms of money and volume-, which is directed to exporting?
 - 0-5%
 - 5-10%
 - 10-20%
 - 20-40%
 - 40-50%
 - more than 50%

8) If No, what are the reasons for not being engaged in exporting?

- Domestic market is more profitable
- Costs of compliance with standards is high

- Labor

- Environmental

- Others

- Domestic obstacles
(e.g. Duty-draw-back system, custom procedures, Others)
- Never thought of exporting

9) What are the forms of core labor standards you are aware of to comply with?

- | | | |
|--|-----|----|
| - Prohibition of child labor | Yes | No |
| - Right to Organize and Collective Bargaining | Yes | No |
| - Freedom of Association and Protection of the Right to Organize | Yes | No |
| - Minimum Age | Yes | No |
| - Discrimination (Employment and Occupation) | Yes | No |
| - Equal Remuneration | Yes | No |

10) Are you aware of the need to comply with labor standards in some countries if you are already exporting?

-Yes, (please provide examples)

-No

11) If yes, are you aware of any differences among countries you export to in labor standards compliance demands?

12) Do you agree that these labor standards are important to:

(Please circle the appropriate answer from a 1 to 3 scale

Where 1=not important, 2=important and 3=very important)

- Protect the welfare of your workers
1 2 3
- Increase consumer acceptance of imported products
1 2 3
- Enable access to developed countries' markets
1 2 3
- Ensure fair competition
1 2 3

13) How do you think such standards can affect the competitiveness of your exports?

-Negatively

-Positively

-Neutral

-Don't Know

- 14) Have you been exposed to any kind of actions (penalties) because of hiring child laborers?
- Fines from domestic institutions
 - Canceling the contract with the importing country
 - Others, please specify.
- 15) In your opinion, what makes you comply with core labor standards? (please rank them from 1 to 4 according to your preference where 0=not relevant , 1=some what relevant ,2= relevant, 3=highly relevant)
- An incentive in terms of better market access
0 1 2 3
 - Competition with other countries
0 1 2 3
 - Inspections and monitoring by domestic authority-Ministry of Man Power
0 1 2 3
 - Inspections and monitoring by foreign authority
0 1 2 3
- 16) Have there been any inspections in your company to control the use of child laborers by foreign or domestic authorities?
- Yes
 - No
- 17) What kind of incentives do you think will help in abolishing child Labor or will make you comply with labor standards?
- Increased Market Access
 - Financial Aid to overcome cost of abolishing Child labor
 - Others, please specify
- 18) In case that you had to comply with standards related to child labor, what do you think have happened to the children dismissed?
- They went back to school
[All - most - some - do not know]
 - They found another job
[All - most - some - do not know]
 - They were left unemployed
[All - most - some - do not know]
- 19) What costs do you think you will or did incur in the case of complying with these standards? And by how much percentage out of the total costs of production?
- 1-5%
 - 5-10%
 - 10-15%
 - 15-20%
 - 20%- more

Section (II): Labor Conditions:

	Type A (Less than 16 years)		Type B (More than 16 years)	
	Male	Female	Male	Female
No. of Employees				
Permanent				
Temporary				
<u>Type of Employment :</u> % of workers Part Time- Full Time				
% of Skill Level				
% of Illiterates				
Vacation Days per month				
Types of Payment -salary -commission -wage/hour -piece work -wage/Output Unit -lump sum -others, please specify				

This type of table helps in comparing the characteristics of child labor with a control group (in this case workers aged 16 and above) that should resemble it in every aspect. And that clarifies the differences between the two groups

20) Is the worker in your Firm eligible for:

- A pension	Yes	No
- Bonuses	Yes	No
- Paid vacations	Yes	No
- Sick pay	Yes	No
- Maternity leave for female workers	Yes	No

21) What is the percentage of workers who receive training by the firm?

22) What kind of training do they receive?

- Technical training	Yes	No
-upgrading computer and language skills	Yes	No
-other, please specify		

23) How often do you get the training?

24) What action would the firm take in case of unsatisfactory worker performance?

- Fine
- Salary Cuts
- Firing the worker

25) Among the children working in your firm, what is the percentage of those going to school?

26) Do you have a special incentive for the children who go to school?(e.g. bonuses, free books, partial payment for school expenses)

- Yes, define...
- No

27) Do you offer any social aid programs for the workers' families? (e.g. financial aid in emergency cases, free clothes)

- Yes, define...
- No

28) Why do you hire children?

- less wages
- More skilled
- other reasons, please specify

29) Do you think adults can replace children without adding to the production costs?

- Yes
- No

30) What is the number and percentage of workers you have who are members in trade unions?

31) What do you think about the new Egyptian labor law concerning the workers' conditions? Will it be:

- Better
- No change
- Worse
- Don't know

32) Do you think trade unions can impose their demands on the entrepreneurs?

- Yes
- No

33) Were there any accidents faced by your workers- children or adults- in the last year?

- Yes
- No

34) If yes, were they compensated financially?

- Yes
- No, why.....

35) If not, do you get any compensation whatsoever?

- Yes
- No

Section (III): Institutions:

36) Are you using any method designed to inform consumers that no child labor is used in your production? (Examples may include a label or seal affixed to the product, its packaging or tag; membership in or affiliation with an organization that certifies the product is not made by child labor; or advertisement of child labor free goods).
If so, please describe

37) Do you think labeling is a positive thing?

- Yes
- No

38) If yes, why?

39) Do you label your export products following the needs of the importer?

- Yes
- No

40) If yes, what is your label/certification? What does it say/show?

- 41) Are the requirements you follow in production
- Imposed on you by local authorities? Yes No
 - Imposed on you by foreign authorities? Yes No
 - Based on mutual agreement between you and your major importing country?
Yes No
- 42) Have you been able to get the certificate that says you are not using child labor?
- Yes
 - No
- 43) If No, why? If yes, from where did you get it?
- 44) What is the percentage of your trade partners that has accepted this certificate?
- 45) How much does the certification cost in terms of:
- initial investment cost
 - cost of monitoring
 - others, please specify
- 46) Who covers these costs?
- Your enterprise

 - The importer

 - The government

 - Any combination of the above, please specify

 - Others, please specify
- 47) Is the labeling/certification system monitored?
- Yes

 - No
- 48) If yes, by whom?
- Independently

 - Internal staff

 - Others, please specify

49) How often is your enterprise being monitored?

- less than once a year
- once a year
- 2 times a year
- 4 times a year
- more than 4 times a year

50) Have you encountered any problems with the labeling/certification system?

- Yes
- No

51) If yes, what were the kinds of problems that you faced?

- Problems with meeting the criteria
- Costs are too high
- Problems with monitoring
- Others, please specify

52) How did you address these problems?

53) Have you seen any impact on customer purchasing behavior or attitudes because of your labeling initiative? If yes, was it positive, negative or neutral?

54) Do any inputs that you sell, manufacture, produce or pack have a label or some sort of certification indicating that it is not made by child labor?

55) Rank these ways to stop child labor (please rank them from 1 to 4 according to their effectiveness where 1 is the most effective to 4 less effective):

- Legislations and laws.
1 2 3 4
- Put Minimum age for working.
1 2 3 4
- Impose fines.
1 2 3 4
- Stop exporting for the not complying firms.
1 2 3 4
- Public awareness
1 2 3 4

56) Do you think the international assistance and funds can play an essential role in preventing child labor (like financial projects and traceability projects)?

- Yes
- No

- 57) Do you encounter any certification problems at the port of entry related to issues of labor standards?
- Yes
 - No
- 58) If we are to establish an agency to monitor and label labor standards in your field of business, do you think that this agency should fall under the auspices of domestic authority or foreign authority? Why?
- 59) If the answer is domestic authority, then whose responsibility it should be?
- Ministry of Manpower and Immigration
 - Ministry of Foreign Trade
 - An independent authority
 - a. Private
 - b. Public
- 60) Do you think this agency should perform on-site monitoring for firms?
- 61) From your point of view, what is the optimal solution to overcome this problem?
- 62) By what method, do you think, public awareness regarding labor standards can be enhanced?
- Through seminars & workshops
 - Through formal training conducted by domestic authorities
 - Through publications
 - Others, please specify
- 63) Does your company have any best practices or other ideas that could be shared to reduce child labor abuses in this or other industries?

Appendix 5: Examples of Where Children Work*

Country	Agriculture and Fishing	Manufacturing, Mining and Quarrying	Services
Bangladesh	Shrimp and other seafood; tobacco	<i>Bidis</i> (cigarettes); garments	Bakeries and confectionaries; carpentry; <i>commercial sex workers</i> ; communications; domestic servants; hotels; porters; restaurants; small retail shops; street vendors; transport workers
Brazil	Animal husbandry; cocoa; coffee; cotton; dairy farms; fishing; fruits and vegetables (e.g. apples; bananas; beans; Brazil nuts; cassava; corn; garlic; grapes; guava; oranges and other citrus fruits; peanuts; pineapple; potatoes; rice; tomatoes; watermelon); poultry; <i>rubber</i> ; sisal; <i>sugar cane</i> ; tea; tobacco; tree resin	Ceramics; <i>charcoal</i> ; crates; electronics; footwear; furniture; garments; handicrafts; leather tanning; metallurgy; plastics; rock salt; sawmills/wood-pulp; stone quarrying; textiles; tin-ore and gold mining	Auto repair; bakeries; car washers; commercial sex workers; construction; domestic servants; drug trafficking; garbage pickers; messengers/delivery boys; newspaper delivery; parking garage guards; retail shops; shoe shines; small businesses; street vendors; wood delivery
Egypt	Cotton; jasmine	Bricks; carpets; footwear; handicrafts; leather tanning; plastics; textiles	Auto repair; domestic servants; garbage collection; scavengers; shop assistants; small workshops; street vendors
Guatemala	Beans; broccoli; cardamon; coffee; cotton; flowers; macadamia nuts; melons; raspberries; snow peas; sugar cane; tea	Bricks; fireworks; lime extracting; stone quarrying	Car washers; commercial sex workers; construction; domestic servants; scavengers; shoe shines; stonemasons; street vendors
India	Animal husbandry; <i>cinchona</i> (quinine); cardamon; cashew nuts; coffee; <i>fishing</i> ; forestry; rubber; <i>small scale agriculture</i> ; tea; tobacco	Aluminum; base metals; <i>bidis (cigarettes)</i> ; <i>brassware</i> ; bricks; cardboard boxes; <i>carpets</i> ; fireworks; footwear; garments and textiles; gemstones; <i>glass</i> ; jewelry; leather tanning; <i>locks</i> ; <i>matches</i> ; mining; packaging and manufacturing workshops: <i>seafood</i>	Auto repair; bakeries; bus/taxi conductors; cement recyclers; <i>commercial sex workers</i> ; construction; domestic servants; flower shops; hotels; rag pickers; railway porters; restaurants; rickshaw pullers; shoe shines; street barbers; street vendors; tea shops

Impact of Labor Standards on Egyptian Exports

		processing; silk; slates; soccer balls and other sporting goods; stainless steel silverware; stone breaking; stone quarrying; synthetic jewels; tiles	
Kenya	Animal husbandry; coffee; corn; dairy products; fishing; pineapples; rice; sisal; sugar cane; tea; wheat	Mining; salt harvesting; soapstone carving; stone quarrying	Bus/taxi conductors; commercial sex workers; domestic servants; scavengers; street vendors; tourism
Mexico	Coffee; fruits and vegetables (e.g. broccoli; cucumbers; eggplant; grapes; onions; peppers snow-peas; strawberries; tomatoes); tobacco	Apparel; bricks; fireworks; footwear; traditional handicrafts	Auto repair shops; bars; cafes; car washers; cashiers; commercial sex workers; construction; domestic servants; drug trafficking; grocery packers; hawkers; public markets; shoe shines; small workshops; street performers; street vendors; trash collectors; windshield wipers
Nepal	Animal husbandry; <i>small-scale agriculture</i> ; tea	Baskets; bricks; <i>carpets</i> ; garments; iron smithing; mining; pottery; stone quarrying; stone breaking; wood products	Bakeries; bus/taxi conductors; commercial sex workers; construction; domestic servants; hotels; porters; restaurants; sewing; tea shops; transportation; weaving
Nicaragua	Animal husbandry; bananas; beans; coffee; corn; cotton; fishing; forestry; rice; sugar; tobacco	Rock breaking	Cargo loaders; car washers; cemetery assistants; commercial sex workers; domestic servants; scavengers; shoe shines; small shops; stevedores; street vendors; vehicle guards
Pakistan	<i>Fishing; small-scale agriculture</i> ; tobacco	<i>Bricks; carpets; footwear; furniture; garments; handicrafts; leather tanning; paper and packaging; power looms; soccer balls and other sporting goods; stone/brick crushing; surgical instruments</i>	Auto and engineering workshops; commercial sex workers; construction; domestic servants; <i>scavengers</i> ; shop assistants; tailoring
Peru	Asparagus; coca; coffee; cotton; fruit; rice; shrimp	Bricks; fireworks; <i>gold mining</i> ; moralla (dehydrated potatoes) processing; pumice stone; stone quarrying	Bus/taxi conductors; car washers; commercial sex workers; domestic servants; leaflet distributors; market workers; messengers; street entertainers; street vendors; scavengers; vehicle guards

Philippines	<i>Fishing</i> ; forestry/ logging; fruits and vegetables (e.g. corn); palm plantations; poultry farms; <i>rattan</i> ; rice; seaweed; sugar cane	Charcoal production; coconut processing; <i>cooking oil</i> ; fireworks; fish packing/processing; food products; garments and embroidery; gold mining; handicrafts; mat-weaving/sewing; metal working; <i>print shops</i> ; <i>sardine factory</i> ; stone quarrying; wood and rattan/buri/bamboo furniture; wood products	Bars; car guards; car washers; catering; commercial sex workers; construction; cooks; dancers; domestic servants; entertainers; gas stations; grocery/bakeshops; janitors; newspapers sales; porters; receptionists; restaurants; stevedores; street vendors; wholesale/retail trade
South Africa	Corn; <i>fruits and vegetables</i> ; sugar cane; tobacco	Bricks; textiles	Car parkers; car washers; coal carriers; catering; commercial sex workers; corner cafes; domestic servants; retail shops; taxi fare collectors
Tanzania	Animal husbandry; cloves; coffee; corn; green algae (seaweed); fishing; pyrethrum; rubber; sisal; sugar cane; tea; <i>tobacco</i> ; wheat	Cotton ginning; fish processing; gemstones; mining; sawmills; stone crushing; stone quarrying	Auto repair; bars; cafes; carpentry; car washers; commercial sex workers; domestic servants; markets; restaurants; scavengers; shoe shines; small shops; street vendors; tourism
Thailand	Fishing; garlic; lychee; onions; rubber; shrimp and other seafood; <i>sugar cane</i>	Artificial flowers; candy wrapping; dolls; embroidery; fishing net production; footwear; <i>garments</i> ; gems; glass; leather; <i>paper cups</i> ; plastic products; rattan and wood furniture; <i>shrimp</i> and seafood processing; silver jewelry	Bakeries; car washers; <i>commercial sex workers</i> construction; delivery boys/porters; domestic servants; gas stations; <i>karaoke</i> ; mechanical repair shops; restaurants; retail shops; street vendors
Turkey	Animal husbandry; corn; cotton; fruits and vegetables (e.g. apricots, figs, lemons, nuts, oranges, raisins); tea; tobacco; wheat	Auto parts manufacturing; bricks; carpets; cement; footwear/leather; garments; metal industry; textiles	Auto repair; commercial sex workers; domestic servants; hotels; scavengers; shoe shines; street vendors; tourism; windshield washers

There have been reports of forced or bonded child labor in these industries/occupations.

* Countries included in this table are the 16 countries visited by U.S. Department of Labor officials for this report. The industries and occupations listed are not necessarily exhaustive, and the order in which they are listed is alphabetical and not an indication of the magnitude of child labor in each industry or occupation. The number of industries and occupations cited as employing child workers in a given country does not necessarily reflect the pervasiveness of child labor in that country, since there has been more extensive research on the incidence of child labor in some countries than others.

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