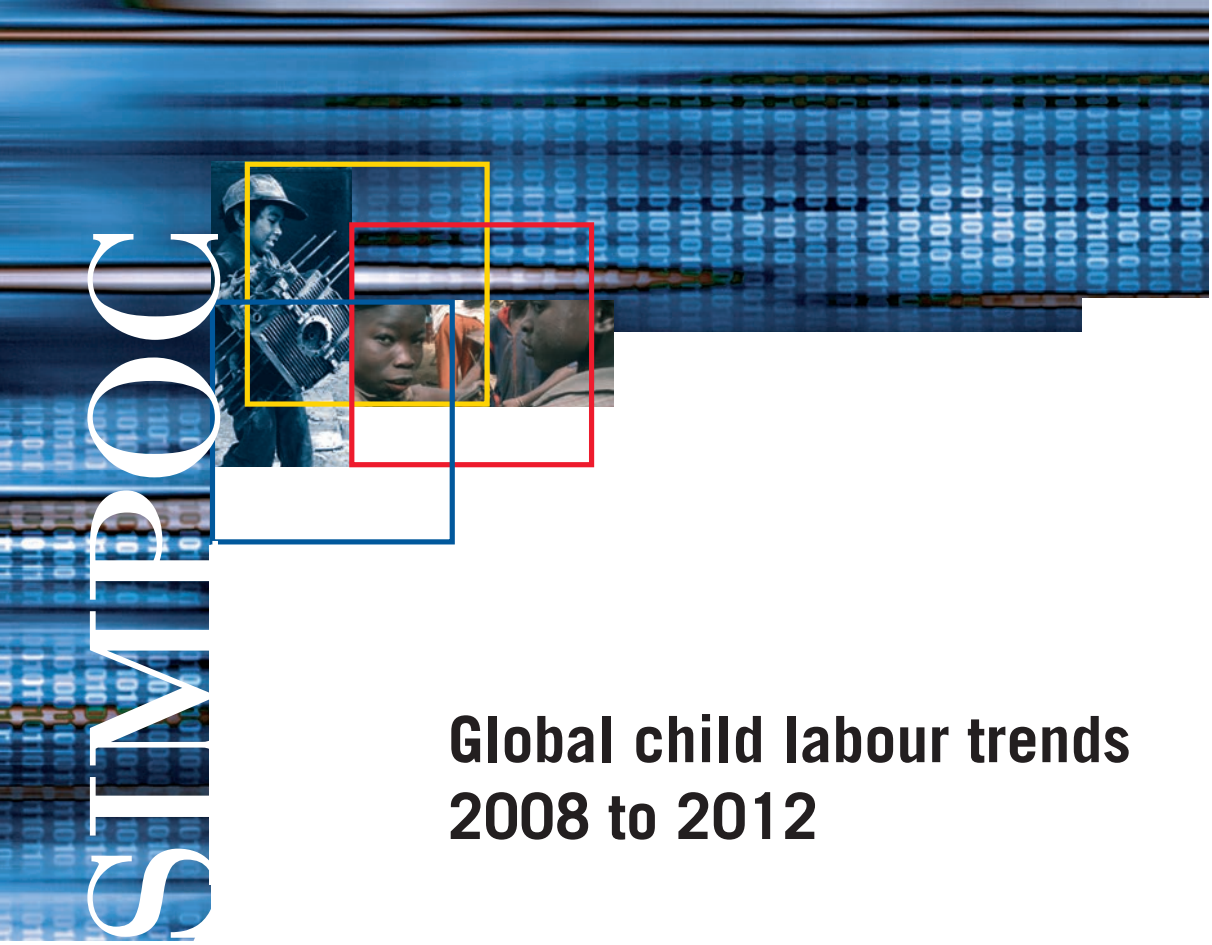

International Labour Office
Geneva

# Global child labour trends 2008 to 2012

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International Programme on the Elimination of Child Labour (IPEC)

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# Summary of highlights

The new global estimates on child labour allow us to measure progress in various forms of children's work between 2008 and 2012. The estimates are based on an extrapolation of child labour data from 75 national household surveys. New estimates on worst forms of child labour other than hazardous work, such as children in bonded labour or trafficked children, are not available. Here is a breakdown of some key findings.

**Children in employment**. There were some 264 million children ages 5 to 17 in economic activity in the world in 2012 (16.7 per cent). This is 42 million fewer than in 2008. Boys continue to be more exposed to employment than girls (18.1 per cent against 15.2 per cent).

**Child labour**. Child labour, a more restricted category than is "children in employment", excludes all children working legally in accordance with ILO Conventions Nos. 138 and 182. About one-tenth of the total child population—i.e. 168 million children aged 5-17 years—was involved in child labour in 2012. The global number of child labourers in this age group dropped considerably, from 215 million in 2008 (13.6 per cent) to 168 million in 2012 (10.6 per cent). This represents 47 million fewer than in 2008.

**Table 1. Estimates of various forms of children's work, 5-17 years old, 2008 and 2012**

| | Total children | Children in employment | | Child labour | | Hazardous work | |
|---|---|---|---|---|---|---|---|
| | ('000) | ('000) | % | ('000) | % | ('000) | % |
| **World** | | | | | | | |
| 2008 | 1,586,288 | 305,669 | 19.3 | 215,269 | 13.6 | 115,314 | 7.3 |
| 2012 | 1,585,566 | 264,427 | 16.7 | 167,956 | 10.6 | 85,344 | 5.4 |
| **Boys** | | | | | | | |
| 2008 | 819,891 | 175,777 | 21.4 | 127,761 | 15.6 | 74,019 | 9.0 |
| 2012 | 819,877 | 148,327 | 18.1 | 99,766 | 12.2 | 55,048 | 6.7 |
| **Girls** | | | | | | | |
| 2008 | 766,397 | 129,892 | 16.9 | 87,508 | 11.4 | 41,296 | 5.4 |
| 2012 | 765,690 | 116,100 | 15.2 | 68,190 | 8.9 | 30,296 | 4.0 |
| **5-14 years** | | | | | | | |
| 2008 | 1,216,854 | 176,452 | 14.5 | 152,850 | 12.6 | 52,895 | 4.3 |
| 2012 | 1,221,071 | 144,066 | 11.8 | 120,453 | 9.9 | 37,841 | 3.1 |
| **15-17 years** | | | | | | | |
| 2008 | 369,433 | 129,217 | 35.0 | 62,419 | 16.9 | 62,419 | 16.9 |
| 2012 | 364,495 | 120,362 | 33.0 | 47,503 | 13.0 | 47,503 | 13.0 |

**Hazardous work by children**. Hazardous work is a subcategory of child labour. The number of children in this worst form of child labour (WFCL) accounts for almost half of all child labourers (85.3 million). Boys outnumber girls in hazardous work (55 million and 30.3 million, respectively). The number of children in hazardous work in the world declined by 30 million, from 115.3 million in 2008 to 85.3 million in 2012.

**Regional distribution of child labourers and children in hazardous work**. In absolute terms, it is the Asia-Pacific region that has the most child labourers ages 5-17 (77.7 million) as compared with 59 million in Sub-Saharan Africa and 12.5 million in Latin America and the Caribbean. Yet Sub-Saharan Africa region has the highest incidence of child labour, with one in five children involved. About one in twelve of the total child population in Middle East and North Africa (9 million) was in child labour in 2012 (Tables in Annex 3).

In the age group 5-14 years old, most of the observed decline in the overall number of child labourers is in the number of child labourers in Asia and the Pacific (Table 2). The number of child labourers also decreased modestly in Latin America and the Caribbean. For the first time, there was a slight decrease in child labour in Saharan Africa region, not only in absolute numbers but also in relative terms (from 52.2 million to 47.7 million and a 3.7 percentage point decrease in incidence).

With regard to children in hazardous work (5-17 years-old), the largest number of children in this worst form of child labour is found in the Asia-Pacific (33.9 million) and Sub-Saharan Africa (28.8 million) regions. There are 9.6 million children in hazardous work in Latin America and the Caribbean and 5.2 million in Middle East and North Africa regions. In relative terms, Sub-Saharan Africa region has the highest incidence of children in hazardous work, with one in ten children involved (Tables in Annex 3).

**Table 2. Regional estimates of various forms of children's work, 5-14 years old, 2008 and 2012**

| | Children | Children in employment | | Child labour | | Hazardous work | |
|---|---|---|---|---|---|---|---|
| | ('000) | ('000) | % | ('000) | % | ('000) | % |
| **World** | | | | | | | |
| 2008 | 1,216,854 | 176,452 | 14.5 | 152,850 | 12.6 | 52,895 | 4.3 |
| 2012 | 1,221,071 | 144,066 | 11.8 | 120,453 | 9.9 | 37,841 | 3.1 |
| **Asia and the Pacific** | | | | | | | |
| 2008 | 651,815 | 96,397 | 14.8 | 81,443 | 12.5 | - | - |
| 2012 | 637,579 | 64,419 | 10.1 | 52,702 | 8.3 | - | - |
| **Latin America and the Caribbean** | | | | | | | |
| 2008 | 110,566 | 10,002 | 9.0 | 9,722 | 8.8 | - | - |
| 2012 | 110,035 | 8,986 | 8.2 | 7,924 | 7.2 | - | - |
| **Sub-Saharan Africa** | | | | | | | |
| 2008 | 205,319 | 58,212 | 28.4 | 52,229 | 25.4 | - | - |
| 2012 | 220,077 | 57,623 | 26.2 | 47,735 | 21.7 | - | - |
| **Other regions** | | | | | | | |
| 2008 | 249,154 | 10,700 | 4.3 | 9,456 | 3.8 | - | - |
| 2012 | 253,380 | 13,038 | 5.1 | 12,091 | 4.8 | - | - |
| Of which MENA 2012 | 86,117 | 7,076 | 8.2 | 6,396 | 7.4 | - | - |

**Sectoral distribution of child labourers**. Children engaged in child labour work in all the three broad groupings of economic activity (agriculture, industry and services). Among child labourers ages 5 to 17 in the world, 58.6 per cent are involved in the agricultural sector, 7.2 per cent are employed in industry and 32.3 per cent in services (of which 6.9 per cent are in domestic work). These results are almost identical to those obtained in 2008 except for services (60 per cent in agriculture, 7 per cent in industry and 25.6 per cent in services).

**Status in employment of child labourers**. The bulk of child labourers remain in the form of contributing family workers[1] (68.4 per cent), 22.5 per cent are in paid employment and 8.1 per cent in self-employment. In 2008, there were 68 per cent of child labourers among contributing family workers, 21 per cent in paid employment and 5 per cent in self-employment.

**Child labour by level of national income**. For the first time, the global estimate of child labour is presented for different levels of national income. The countries are grouped into four categories according to their gross national income (GNI) per capita: low income, lower middle income; upper middle income and high income. The incidence of child labour in low income countries is 22.5 per cent, against 9 per cent in countries with lower middle income and 6.2 per cent in countries with upper middle income. The incidence of child labour is not estimated for high income countries since no information was gathered to allow any type of estimation.

[1] The terms "contributing family workers" and "unpaid family workers" are used interchangeably in this publication.

# Introduction 1

ILO's reports on global estimates and trend have proved to be important vehicles for raising the profile of child labour in the world. They have also helped to set forth the role of IPEC as a driving force behind the global effort to combat and eventually eliminate child labour. In the past, global estimates of child labour were published in the Director-General's Global Reports 2002, 2006 and 2010. Methodological details were provided in an accompanying technical compendium.

The last measurement of the global trend of child labour made by the ILO was published in 2010 and concerned the period from 2004 to 2008.[2] It was the second issue of the ILO's global estimation of child labour trend, generally undertaken on a four-yearly basis.[3] Earlier ILO global estimates of child labour were in the form of stock values for specific years, not designed to provide direct measurement of trends. The earliest stock estimates were published in 1996 for the year 1995,[4] followed by updates published in 2002 for the year 2000.[5] In all cases, the global estimates were calculated for different forms of work of children, with breakdowns by sex, age group, broad geographical region, sector of activity and status in employment.

To ensure comparability of the results, the preparation of the present global estimates of child labour trends for the period 2008 to 2012 has been based on the same methodology, with certain new features:

a) Extended geographical coverage with 75 new datasets of primary data on child labour from countries covering the period from 2008 to 2012. The regional breakdown includes separate full-sample estimates for the Middle East and North African region.

b) Provision of more detailed estimates. In line with the recently approved ILO Convention No. 189 and Recommendation No. 201 on decent work for domestic workers, an attempt has been made to produce separate estimates of child labour in domestic work. Also, for the first time, child labour estimates are provided for groupings of countries at different levels of national income. These results should contribute to the analysis of the economic and financial crisis over the last few years.

c) Fuller estimation of trends by incorporating in the matched sample, not only countries appearing both in the current and the previous round of global estimation, but also countries with multiple datasets in the current round. The extension of the coverage of the matched sample should lead to more accurate estimation of trends.

d) More elaborate evaluation of the results. In the present round of estimation the calculation of the standard errors of the global estimates are extended to refer also to rates and trends. The results are also evaluated not only in terms of the comparability of the raw versus the adjusted data, but also in terms of their coherence with worldwide trends of related phenomena.

The preparation of the ILO global estimation of child labour trends is carried out under the overall coordination of IPEC/SIMPOC, with the technical support of the ILO's Department of Statistics and the inter-agency research programme Understanding Children's Work (UCW) involving the ILO, UNICEF and the World Bank based at ILO

[2] ILO, *Global child labour developments: Measuring trends from 2004 to 2008*, International Programme on the Elimination of Child Labour (IPEC), Statistical Information and Monitoring Programme on Child Labour (SIMPOC), (Geneva, 2010).

[3] ILO, *Global child labour trends 2000 to 2004* (Geneva, April 2006).

[4] ILO, *Child labour: Targeting the Intolerable*, Geneva, 1996 and Ashagrie, K., *Statistics on Working Children and Hazardous Child Labour in Brief*, (Geneva, ILO, 1997, rev. 1998).

[5] ILO, *Every child counts: New global estimates on child labour* (Geneva, 2002).

Office, Rome. As a stand-alone methodological document, the present publication intended to provide a full account of the estimation methodology and underlying data for the ILO 2012 Global Estimate of Child Labour.

In what follows the methodology of the ILO global estimation of child labour trends 2008-2012 is described along the six main sections: Main results (Section 2); Measurement framework (Section 3); National datasets (Section 4); Harmonization of national datasets (Section 5); Regional and global estimation (Section 6); and Evaluation of results (Section 7).

# Main results 2

## 2.1 Trends with regard to children in employment

The terms "working children", "children in economic activity", and "children in employment" are used interchangeably in this publication.[6] All denote a broader concept than child labour. It comprises all persons of either sex who furnish the supply of labour for the production of goods and services defined by the System of National Accounts (SNA) during a specified reference period.

This notion encompasses most activities undertaken by children involving production of goods and services, whether:

- for the market or not;
- paid or unpaid;
- part time or full time;
- performed on a casual or a regular basis;
- in the formal or informal sector;
- the activities are legal or illegal.

It excludes:

- chores undertaken in the child's own household (unpaid household services);
- activities that are part of schooling;
- children seeking work for which they are available if it is offered.

### *2.1.1 Children in employment by age group*

In 2012, an estimated population of 144.1 million children aged 5-14 years were in employment in the world. This represents 11.8 per cent of all children in this age group. In the age group 5 to 17 years, the total child population in employment was estimated at 264.4 million (16.7 per cent).

As Table 3 shows, globally incidence of employment among children declined in both absolute and relative terms. The trend is consistent across all major groups.

[6] The 19th ICLS standards of labour force and work statistics may affect these concepts and definitions.

**Table 3. Global trend (2008-2012) in the number of children in employment, 5-17 years old**

| Year | Population ('000) | | Children in employment ('000) | | Activity rate (%) | | % point difference of activity rate |
|---|---|---|---|---|---|---|---|
| | 2008 | 2012 | 2008 | 2012 | 2008 | 2012 | |
| World | 1,586,288 | 1,585,566 | 305,669 | 264,427 | 19.3 | 16.7 | -2.6 |
| Boys | 819,891 | 819,877 | 175,777 | 148,327 | 21.4 | 18.1 | -3.3 |
| Girls | 766,397 | 765,690 | 129,892 | 116,100 | 16.9 | 15.2 | -1.7 |
| 5-14 | 1,216,854 | 1,221,071 | 176,452 | 144,066 | 14.5 | 11.8 | -2.7 |
| 15-17 | 369,433 | 364,495 | 129,217 | 120,362 | 35.0 | 33.0 | -2 |

Between 2008 and 2012, employment in the 5-to 14-year core age group declined by 2.7 percentage points, from 176.5 million (14.5 per cent) to 144.1 million (11.8 per cent), a decrease of 32 million. Over the same period, employment among children aged 15-17 years decreased almost by 9 million, or from 129.2 million (35.0 per cent) to 120.4 million (33.0 per cent). It is interesting to note that the younger the age group, the more pronounced was the downward change of incidence rate. Table 3 shows that incidence rates declined by 2.7 percentage points among the 5-to 14-year-olds versus 2 percentage points among those aged 15-17 years, respectively.

### *2.1.2 Children in employment by sex*

The 2012 estimates reveal some differences by sex in terms of overall magnitude of children in employment and its relative incidence. Boys tend to be more involved in employment than are girls (148.3 million versus 116.1 million for girls). The employment rate was 18.1 per cent for boys compared to 15.2 per cent for girls (Table 3).

The number of children in employment decreased among both sexes over the last four years. It is noteworthy that in relative terms employment rates seem to have declined somewhat faster among boys than among girls (a decrease of 3.3 percentage points among boys compared to a decrease of 1.7 percentage points among girls).

### *2.1.3 Children in employment by region*

Concentrated on the 5- to 14-year age group, Charts 1 and 2 depict the number and incidence of children in employment by region, respectively.

To ensure comparability with the previous rounds of the global and regional estimation of child labour, the number and structure of the regions were maintained, and all countries and territories were grouped into four regions: Asia and the Pacific; Latin America and the Caribbean; Sub-Saharan Africa; and a compound category of "Other regions" which comprises the Middle East and North Africa,[7] the developed countries and the former transition economies of Eastern Europe and Asia.

The data in Chart 1 show that the Asia-Pacific region has the largest number of children in employment (64.4 million) in 2012, followed by Sub-Saharan Africa (57.6 million), Other regions (13 million, of which 7.1 million for the Middle East and North Africa) and Latin America and the Caribbean (9 million). Reliable survey data were too limited to provide number for the group of industrialized countries.

This picture changes when examining the regional distribution in relative terms (see Chart 2). As in the previous global estimates, the incidence is highest in Sub-Saharan Africa. About 1 in 4 children younger than 15 years were in employment in the region (26.2 per cent) compared to 1 in 10 in the Asia-Pacific region (10.1 per cent), 1 in 12 in the Latin and the Caribbean (8.2 per cent) and 1 in 20 in Other regions (5.1 per cent), of which 1 in 12 in the Middle East and North Africa.

[7] Data available in this exercise allow us to produce child labour statistics for the Middle East and North Africa.

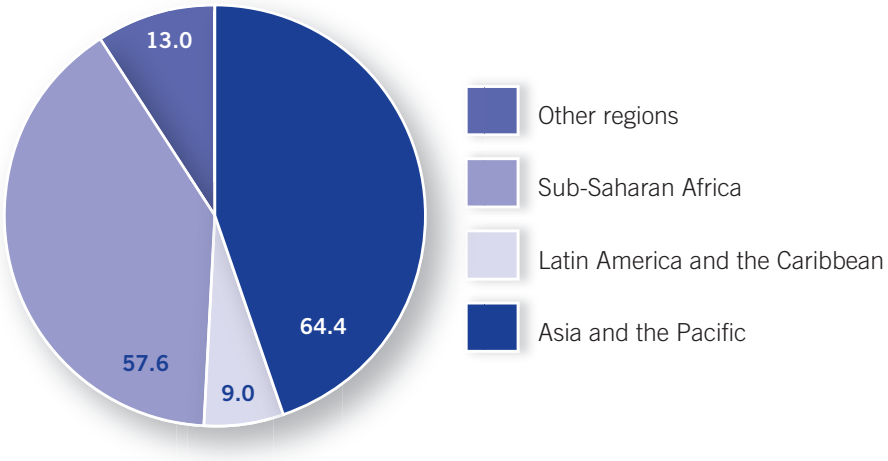



**Chart 1.**
**Children in employment by region (million), 5-14 years old, 2012**

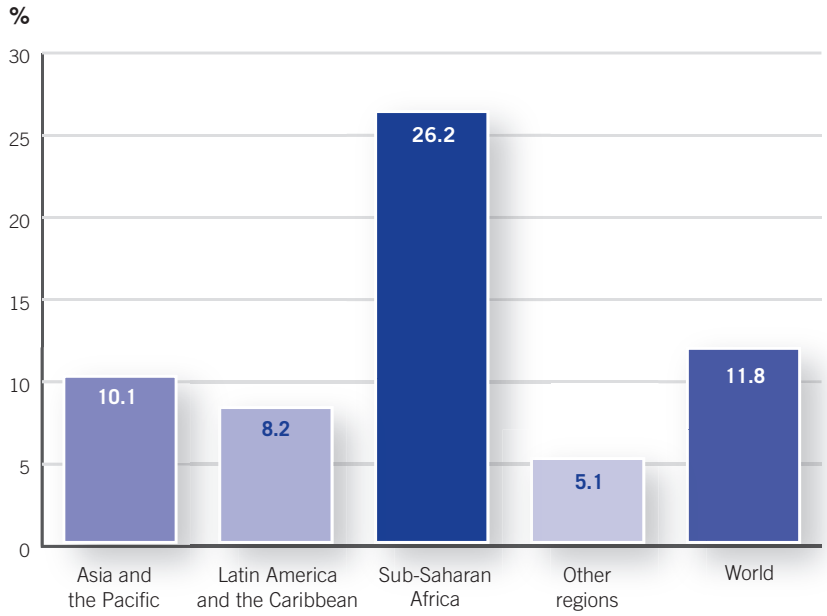



**Chart 2.**
**Children's activity rate (percentage) by region, 5-14 years old, 2012**

Table 4 and Charts 3 and 4 present regional trends from 2008 to 2012.

In Latin and the Caribbean, the situation among children in employment continued its decline albeit at a slower rate, both in absolute and relative terms. The incidence decreased slightly from 9.0 to 8.2 per cent. The absolute number of children in employment dropped by 1 million to a total of 9 million.

In the Middle East and North Africa, there were 7 million children in employment. This accounts for 1 in 12 children younger than 15 years. We are not in a position to present a trend for this region since there was no estimate for Middle East and North Africa in the previous exercise (2008).

In Sub-Saharan Africa, we discern a slight reduction for the first time, both in absolute and relative terms. The incidence rate declined by 2.2 percentage points to 26.2 per cent and the absolute number is more or less stable about 58 million. Asia and the Pacific, with the largest population of children in employment, made the biggest progress in the last four years. The incidence was reduced by 4.7 percentage points to 10.1 per cent, and the absolute number of children in employment aged 5-14 years dropped to 64.4 million.

**Table 4. Global trend in children's economic activity by region, 5-14 years, 2008 and 2012**

| Year | Child population ('000) | | Children in employment ('000) | | Activity rate (%) | | % point difference of activity rate |
|---|---|---|---|---|---|---|---|
| | 2008 | 2012 | 2008 | 2012 | 2008 | 2012 | |
| World | 1,216,854 | 1,221,071 | 176,452 | 144,066 | 14.5 | 11.8 | -2.7 |
| Asia and the Pacific | 651,815 | 637,579 | 96,397 | 64,419 | 14.8 | 10.1 | -4.7 |
| Latin America and the Caribbean | 110,566 | 110,035 | 10,002 | 8,986 | 9.0 | 8.2 | -0.8 |
| Sub-Saharan Africa | 205,319 | 220,077 | 58,212 | 57,623 | 28.4 | 26.2 | -2.2 |
| Other regions | 249,154 | 253,380 | 10,700 | 13,038 | 4.3 | 5.1 | 0.8 |
| of which MENA 2012 | - | 86,117 | - | 7,076 | - | 8.2 | - |

**Chart 3. Global trends in children's economic activity by region (million), 5-14 years old, 2008-2012**

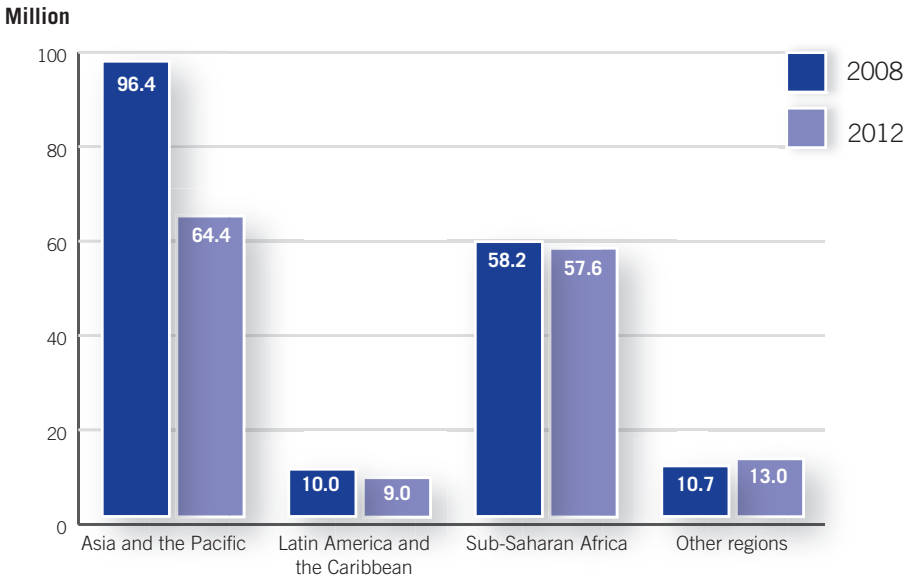
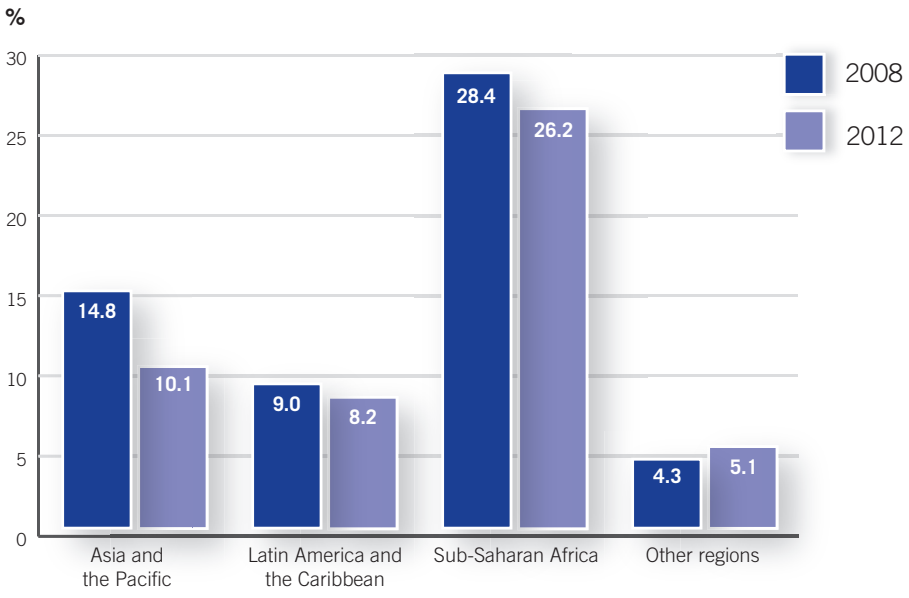



**Chart 4. Global trends in children's economic activity rate by region (percentage), 5-14 years old, 2008-2012**



## 2.2 Trends in child labour

The term "child labour" is a subset of "children in employment" under the SNA production boundary. It includes all children in employment 5-11 years of age; excludes those in the 12-14 year age group engaged in "permissible light work"; and, from among the 15-17-year-olds, includes only those in hazardous work or other worst forms of child labour.

### *2.2.1 Child labour by age group*

In 2012, there were about 168 million child labourers in the world, of whom more than two thirds (120 million) were in the age group 5 to 14 years old. Child labour is by no means only a problem among older children. In fact, about 4 in 10 child labourers were younger than 12 years (73 million) in 2012 (Table 5).

**Table 5. Global estimates of child labour by major age group, 2008 and 2012**

| Major age group | Child labour ('000) | Child labour ('000) |
|---|---|---|
| | 2008 | 2012 |
| 5-11 | 91,024 | 73,072 |
| 12-14 | 61,826 | 47,381 |
| Total 5-14 | 152,850 | 120,453 |
| Total 15-17 | 62,419 | 47,503 |
| Total 5-17 | 215,269 | 167,956 |

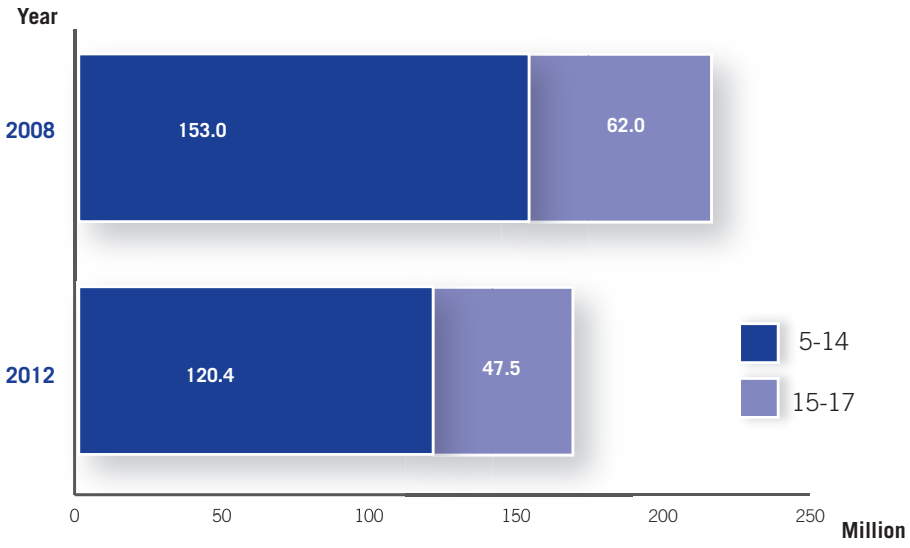
Child labour declined sharply during the period 2008 to 2012, reflecting trends in children in employment. The results indicate that globally the number of child labourers decreased by 47 million from 215 to 168 million. This corresponds to 22 per cent decrease over the four years. The drop was slightly pronounced among older children compared to children less than 15 years (23.9 per cent among 15-17 year age cohort against 21.2 per cent among children aged 5 to 14 years). In relative terms, the worldwide incidence of child labour also dropped from a rate of 13.6 per cent to 10.6 per cent (Table 6).

However, in absolute terms, Chart 5 presents a more positive trend in the age group of younger children than the one of older children (15-17 years). Among 5-14 year olds, the number of child labourers declined by 32 million between 2008 and 2012. In the case of older children, 15-17 years old, there was a reduction by 15 million.

**Table 6. Estimates of number of children in child labour and hazardous work, 2008 and 2012**

| Age group | | Child population | | Child labour | | Hazardous work | |
|---|---|---|---|---|---|---|---|
| | | 2008 | 2012 | 2008 | 2012 | 2008 | 2012 |
| 5-17 | Number ('000) | 1,586,288 | 1,585,566 | 215,269 | 167,956 | 115,314 | 85,344 |
| | Incidence (% of age group) | 100.0 | 100.0 | 13.6 | 10.6 | 7.3 | 5.4 |
| | % change (2004 to 2008) | **1.3** | - | **-3.2** | - | **-10.2** | - |
| | % change (2008 to 2012) | - | **0.0** | - | **-22.0** | - | **-26.0** |
| 5-14 | Number ('000) | 1,216,854 | 1,221,071 | 152,850 | 120,453 | 52,895 | 37,841 |
| | Incidence (% of age group) | 100.0 | 100.0 | 12.6 | 9.9 | 4.3 | 3.1 |
| | % change (2004 to 2008) | **0.9** | - | **-10.3** | - | **-30.8** | - |
| | % change (2008 to 2012) | - | **0.3** | - | **-21.2** | - | **-28.5** |
| 15-17 | Number ('000) | 369,433 | 364,495 | 62,419 | 47,503 | 62,419 | 47,503 |
| | Incidence (% of age group) | 100.0 | 100.0 | 16.9 | 13.0 | 16.9 | 13.0 |
| | % change (2004 to 2008) | **2.7** | - | **20.2** | - | **20.2** | - |
| | % change (2008 to 2012) | - | **-1.3** | - | **-23.9** | - | **-23.9** |

**Chart 5. Global trends in child labour by age group and year (million)**




### *2.2.2 Child labour by sex*

Earlier findings over the last ten years have shown the gender differentials with regard to the work children do increase both with age and with dangers children face in the workplace. The new estimates are in line with these previous findings.

Both in absolute and in relative terms, the results indicate that far more boys than girls were engaged in child labour in 2012 (Table 7). Globally, the difference by sex is about 31.6 million (99.8 million boys compared to 68.2 million girls).

Between 2008 and 2012, data revealed a declining trend in child labour among boys and girls. There were 22 per cent fewer child labourers in 2012 among both sexes.

**Table 7. Global trends of child labour by sex, 5-17 years old, 2008-2012**

| Sex | | Child population | | Children in employment | | Child labour | | Hazardous work | |
|---|---|---|---|---|---|---|---|---|---|
| | | 2008 | 2012 | 2008 | 2012 | 2008 | 2012 | 2008 | 2012 |
| **World** | Number ('000) | 1,586,288 | 1,585,566 | 305,669 | 264,427 | 215,269 | 167,956 | 115,314 | 85,344 |
| | Incidence (% of age group) | 100.0 | 100.0 | 19.3 | 16.7 | 13.6 | 10.6 | 7.3 | 5.4 |
| | % change (2008 to 2012) | - | **0.0** | - | **-13.5** | - | **-22.0** | - | **-26.0** |
| **Boys** | Number ('000) | 819,891 | 819,877 | 175,777 | 148,327 | 127,761 | 99,766 | 74,019 | 55,048 |
| | Incidence (% of age group) | 100.0 | 100.0 | 21.3 | 18.1 | 14.9 | 12.2 | 9.3 | 6.7 |
| | % change (2008 to 2012) | | **0.0** | | **-15.6** | | **-21.9** | | **-25.6** |
| **Girls** | Number ('000) | 766,397 | 765,690 | 129,892 | 116,100 | 87,508 | 68,190 | 41,296 | 30,296 |
| | Incidence (% of age group) | 100.0 | 100.0 | 16.9 | 15.2 | 11.4 | 8.9 | 5.4 | 4.0 |
| | % change (2008 to 2012) | - | **-0.1** | - | **-10.6** | - | **-22.1** | - | **-26.6** |

As Table 8 shows, there was no gender differential with regard to child labour among those aged 5-11 years. The gap widens, however, among those aged 12-14 years – about 52.3 per cent of child labourers in this category are boys. The difference becomes most pronounced among youth aged 15-17 years. In this age group, boys clearly dominate and girls constitute only 19 per cent of child labourers.

**Table 8. Child labour and its sex distribution, 2012**

| Sex and age group | Number of child labourers ('000) | Distribution by sex (%) |
|---|---|---|
| **5-11** | **73,072** | **100.0** |
| Boys | 36,317 | 49.7 |
| Girls | 36,755 | 50.3 |
| **12-14** | **47,381** | **100.0** |
| Boys | 24,780 | 52.3 |
| Girls | 22,601 | 47.7 |
| **Total 5-14** | **120,453** | **100.0** |
| Boys | 61,097 | 50.7 |
| Girls | 59,356 | 49.3 |
| **Total 15-17** | **47,503** | **100.0** |
| Boys | 38,669 | 81.4 |
| Girls | 8,834 | 18.6 |
| **Total 5-17** | **167,956** | **100.0** |
| Boys | 99,766 | 59.4 |
| Girls | 68,190 | 40.6 |

### 2.2.3 Child labour by region

In 2012, the largest child labourers was in Asia and the Pacific (77.7 million), followed by Sub-Saharan Africa with 59.0 million, Latin America and the Caribbean with 12.5 million and MENA with 9.2 million. In relative terms, Sub-Saharan Africa ranks highest. About 1 in 5 children was in child labour in the region (Table 9).

**Table 9. Regional estimates of child labour, 5-17 years old, 2012**

| Year | Child population ('000) | | Child labour ('000) | | Activity rate (%) | | % point difference of activity rate |
|---|---|---|---|---|---|---|---|
| | 2008 | 2012 | 2008 | 2012 | 2008 | 2012 | |
| World | 1,586,288 | 1,585,566 | 215,269 | 167,956 | 13.6 | 10.6 | -3.0 |
| Asia and the Pacific | 853,895 | 835,334 | 113,607 | 77,723 | 13.3 | 9.3 | -4.0 |
| Latin America and the Caribbean | 141,043 | 142,693 | 14,125 | 12,505 | 10.0 | 8.8 | -1.2 |
| Sub-Saharan Africa | 257,108 | 275,397 | 65,064 | 59,031 | 25.3 | 21.4 | -3.9 |
| Other regions | 334,242 | 332,143 | 22,473 | 18,697 | 6.7 | 5.6 | -1.1 |
| of which MENA 2012 | - | 110,411 | - | 9,244 | - | 8.4 | - |

For the first time, the available data permit a regional trend analysis of child labour over the four-year period under observation. The Asia and the Pacific region experienced a remarkable decline in child labour. The absolute number of child labourers declined by 36 million to a total of 77.7 million. In relative terms, the number of child labourers shrunk by 4 percentage point. In fact, most of the observed declined in total child labour is in the number of child labourers in the Asia and the Pacific region.

Latin America and the Pacific made a modest progress over the last four years. The number of child labourers dropped by 1.6 million between 2008 and 2012, corresponding to a decline of 1.2 percentage point.

In Sub-Saharan Africa, it is interesting to note that the number of child labourers decreased slightly from 65 million to 59 million. In relative terms, the incidence fell by 4 percentage points.

## 2.3 Trends in hazardous work by children

*Hazardous work by children* is defined as any activity or occupation that, by its nature or type, has or leads to adverse effects on the child's safety, health and moral development. It is a subcategory of child labour.

### 2.3.1 Hazardous work by age group

In 2012, 85.3 million children were in hazardous work. They constituted almost half of those in child labour (50.8 per cent) and about one-third of children in employment (32.3 per cent).

In terms of age groups, Table 10 shows that the incidence of hazardous work increases with age; it is 2.2 per cent among children 5 to 11 years old (18.5 million), 5.3 per cent among teenagers 12 to 14 years old (19.3 million) and 13.0 per cent among adolescents 15 to 17 years old (47.5 million).

**Table 10. Global estimates of child labour and hazardous work by age and sex, 2012**

| Sex and age | Total children | Child labour | | Hazardous work | |
|---|---|---|---|---|---|
| | ('000) | ('000) | % | ('000) | % |
| **World** | **1,585,566** | **167,956** | **10.6** | **85,344** | **5.4** |
| Boys | 819,877 | 99,766 | 12.2 | 55,048 | 6.7 |
| Girls | 765,690 | 68,190 | 8.9 | 30,296 | 4.0 |
| 5-11 years | 858,925 | 73,072 | 8.5 | 18,499 | 2.2 |
| 12-14 years | 362,146 | 47,381 | 13.1 | 19,342 | 5.3 |
| (5-14 years) | 1,221,071 | 120,453 | 9.9 | 37,841 | 3.1 |
| 15-17 years | 364,495 | 47,503 | 13.0 | 47,503 | 13.0 |

Chart 6 indicates that from 2008 to 2012, the number of children in hazardous work declined by 30 million based on a decrease of 15.1 million among children in the 5-14 year age group and a decrease of 14.9 million among children in the 15-17 year age group. In absolute terms, this shows a similar decrease in hazardous work among the younger and older children.

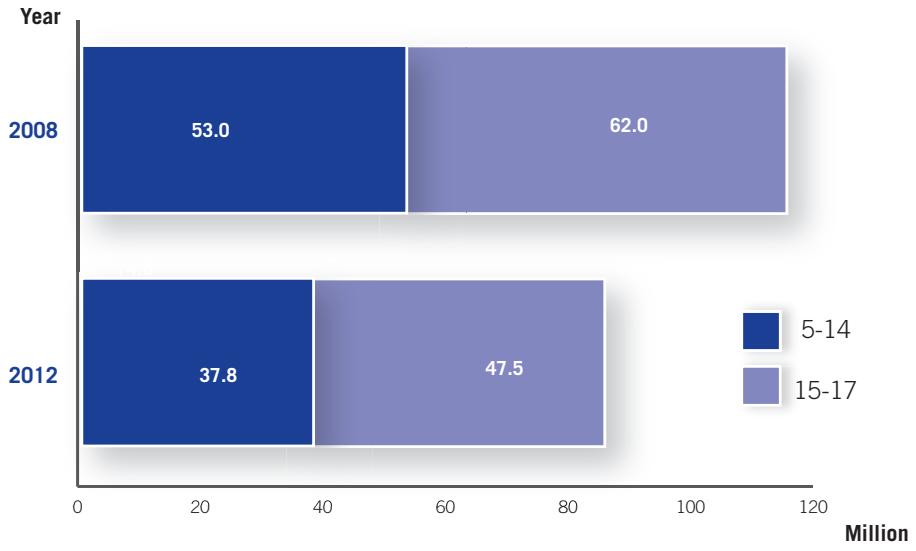
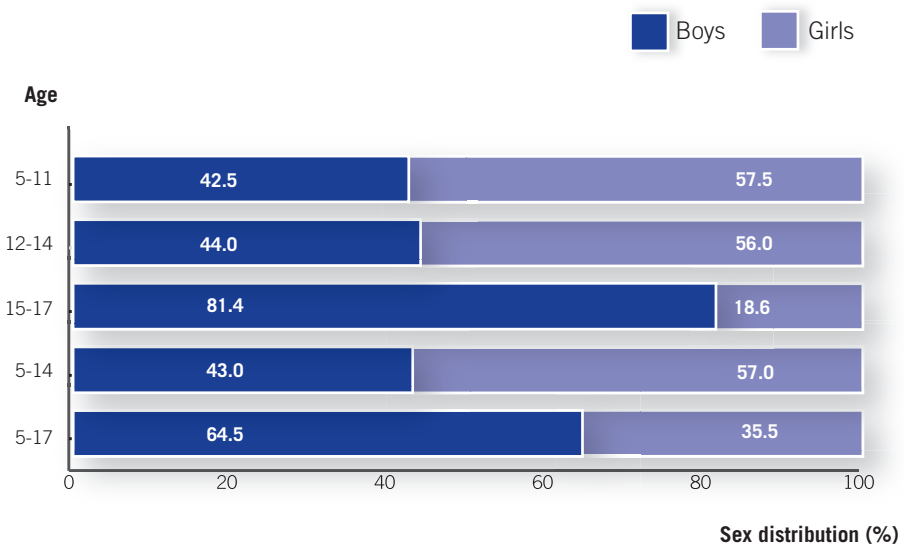



**Chart 6. Global trends in hazardous work by age group and year (million)**

### *2.3.2 Hazardous work by sex*

In contrast to previous estimates, girls tend to be involved in more dangerous jobs than are boys, except for the age group 15 to 17 years. The data shows that girls outnumber boys in hazardous work across all age groups from 5 to 14 years old (Chart 7).

**Chart 7. Children in hazardous work by sex and age group, 2012**




Compared to four years earlier (Table 7), the number of boys and girls in hazardous declined by 26 per cent (from 74 to 55 million among boys and from 41 to 30 million among girls).

### *2.3.3 Hazardous work by region*

The largest number of children in hazardous work is found in the Asia-Pacific (33.9 million) and Sub-Saharan Africa (28.8 million) regions. There are 9.6 million children in hazardous work in Latin America and the Caribbean and 5.2 million in Middle East and North Africa regions (Table 11). In relative terms, Sub-Saharan Africa region has the highest incidence of children in hazardous work, with one in ten children involved, followed by Latin America and the Caribbean (7 per cent), Middle East and North Africa (5 per cent) and Asia-Pacific (4 per cent).

**Table 11. Regional estimates of children in hazardous work, 5-17 years old, 2012**

| Region | Total children ('000) | Hazardous work ('000) | Incidence rate (%) |
|---|---|---|---|
| World | 1,585,566 | 85,344 | 5.4 |
| Asia and the Pacific | 835,334 | 33,860 | 4.1 |
| Latin America and the Caribbean | 142,693 | 9,638 | 6.8 |
| Sub-Saharan Africa | 275,397 | 28,767 | 10.4 |
| Other regions | 332,143 | 13,078 | 3.9 |
| of which MENA | 110,411 | 5,224 | 4.7 |

## 2.4 Comparative trends in different categories of work by children

Previous sections have indicated that, from 2008 to 2012, all forms of children's involvement in work – employment, child labour, and hazardous work – were undergoing significant changes in absolute terms. At the same time, global and regional incidence rates were decreasing, albeit at varying degrees. Table 7 and Chart 8 suggest the following: the decline seems to accelerate with the degree of harm associated with the form of work. In fact, from 2008 to 2012, the child labour decline was 13.5, 22 and 26 per cent respectively in children in employment, child labour and hazardous work. In other words, the more harmful the work, the faster the decline.

Among the core group, 5-14 years, the number of children in employment declined by 18.4 per cent, from 176 to 144 million. For the same age group, the drop was 21.2 and 28.5 per cent among child labourers and children in hazardous work, respectively. In absolute terms, the number of child labourers decreased from 153 to 120.4 million and the one for hazardous work from 53 to 38 million (Table 6 and Chart 8).

While the number of boys in employment declined by 23.4 per cent (from 99.2 to 76 million), the drop was 11.9 per cent among girls in the age group 5 to 14 years (from 77.3 to 68.1 million).

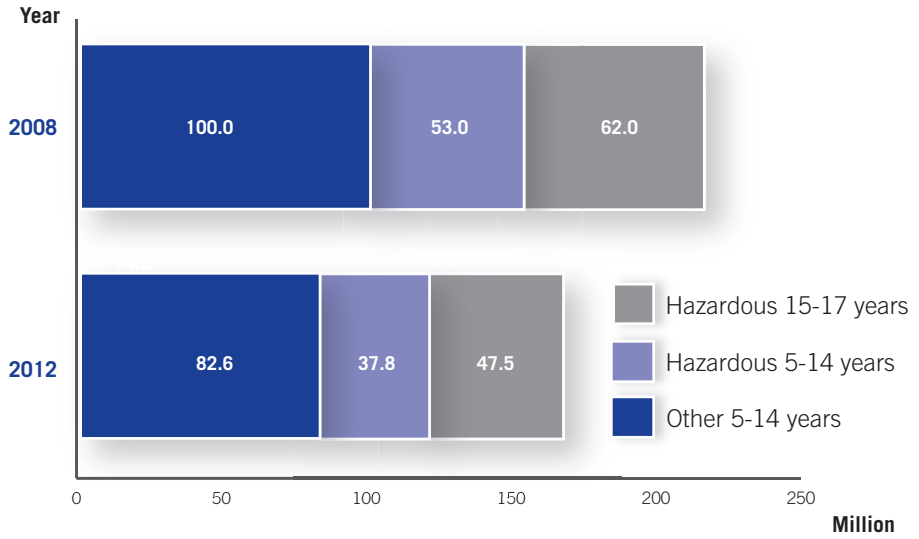



**Chart 8.**
**Global trends in child labour by form of work, age group and year (million)**

**Table 12. Children in employment, child labour and hazardous work by sex and age, 2012**

| Sex and age group | Children in employment CE ('000) | Child labour CL ('000) | Child labour as % of CE | Hazardous work HW ('000) | HW as % of CE | HW as % CL |
|---|---|---|---|---|---|---|
| **5-11** | **73,072** | **73,072** | **100.0** | **18,500** | **25.3** | **25.3** |
| Boys | 36,317 | 36,317 | 100.0 | 7,865 | 21.7 | 21.7 |
| Girls | 36,755 | 36,755 | 100.0 | 10,635 | 28.9 | 28.9 |
| **12-14** | **70,994** | **47,381** | **66.7** | **19,341** | **27.2** | **40.8** |
| Boys | 39,621 | 24,780 | 62.5 | 8,514 | 21.5 | 34.4 |
| Girls | 31,373 | 22,601 | 72.0 | 10,827 | 34.5 | 47.9 |
| **Total 5-14** | **144,066** | **120,453** | **83.6** | **37,841** | **26.3** | **31.4** |
| Boys | 75,959 | 61,097 | 80.4 | 16,379 | 21.6 | 26.8 |
| Girls | 68,107 | 59,356 | 87.2 | 21,462 | 31.5 | 36.2 |
| **Total 15-17** | **120,362** | **47,503** | **39.5** | **47,503** | **39.5** | **100.0** |
| Boys | 72,368 | 38,669 | 53.4 | 38,669 | 53.4 | 100.0 |
| Girls | 47,994 | 8,834 | 18.4 | 8,834 | 18.4 | 100.0 |
| **Total** | **264,427** | **167,956** | **63.5** | **85,344** | **32.3** | **50.8** |
| Boys | 148,306 | 99,766 | 67.3 | 55,048 | 37.1 | 55.2 |
| Girls | 116,120 | 68,190 | 58.7 | 30,296 | 26.1 | 44.4 |

## 2.5 Child labour by branch of economic activities

Child labour is primarily concentrated in agriculture (58.6 per cent). While almost one in-third of child labourers is in services sector, industry accounts for only 7.2 per cent of child labourers. The results concerning agriculture and industry are similar to those obtained in 2008 (60 per cent in agriculture and 7 per cent in industry). In relative terms, there is a net increase of child labour in services sector over the last four years, from 25.6 to 32.3 per cent. However, some of this increase could be due in part to the fact that fewer child labourers are in "not classified" category in 2012, pointing to a better measurement of children in services sector.

In absolute terms, boys outnumber girls in all sectors as follows: agriculture (60.7 for boys versus 39.3 per cent for girls), industry (69 per cent versus 31 per cent) and services (55.4 per cent versus 44.6 per cent). According to the new estimates, there were some 11.5 million child labourers in domestic in 2012 (4 million among boys and 7.5 million among girls).

**Chart 9.**
**Child labour, distribution by branch of economic activity (percentage), 5-17 years old, 2012**

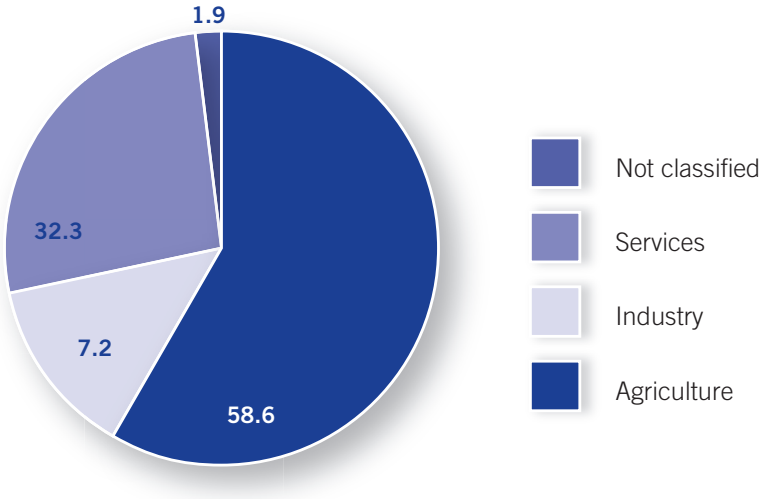
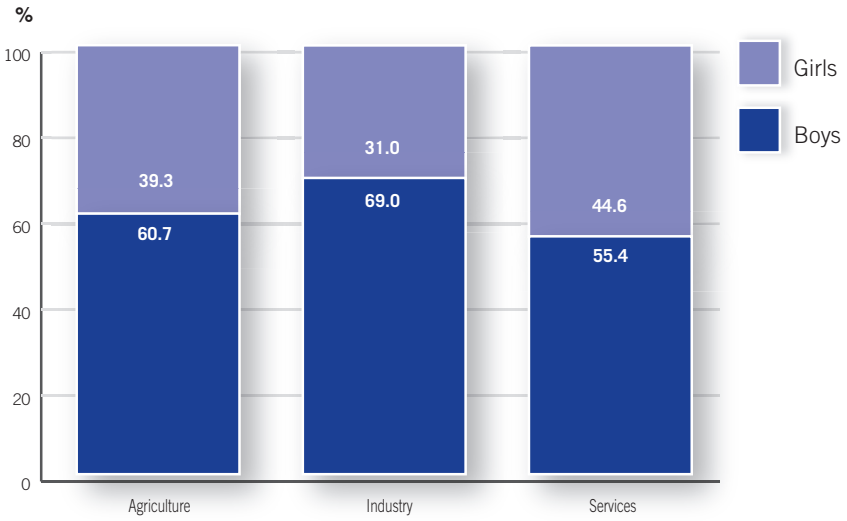



**Chart 10.**
**Child labour distribution by economic sector and sex (percentage), 5-17 year old**




## 2.6 Child labour by status in employment

The bulk of child labour remains mainly in the form of contributing family workers (64 per cent for boys versus 75 per cent for girls). Paid employment and self-employment account respectively for 23 and 8 per cent of all child labourers. In 2008, the results on

the status in employment of child labourers were 68 per cent among contributing family workers, 21 per cent in paid employment and 5 per cent in self-employment.

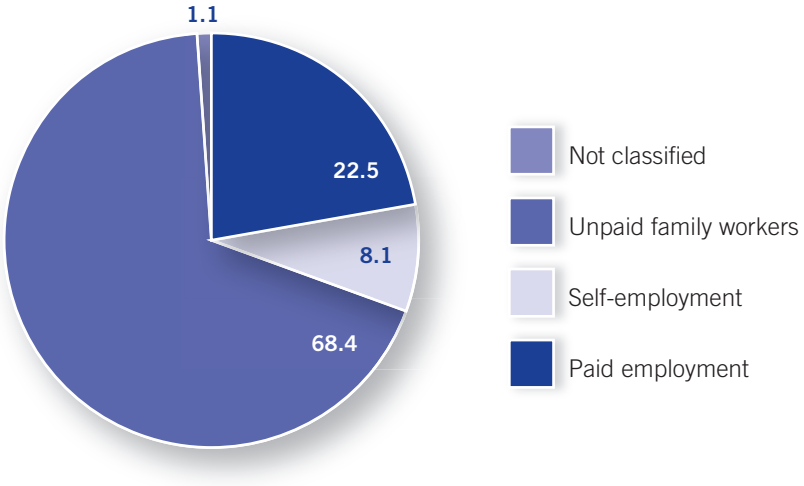



**Chart 11.**
**Child labour, distribution by status in employment (percentage), 5-17 years old, 2012**

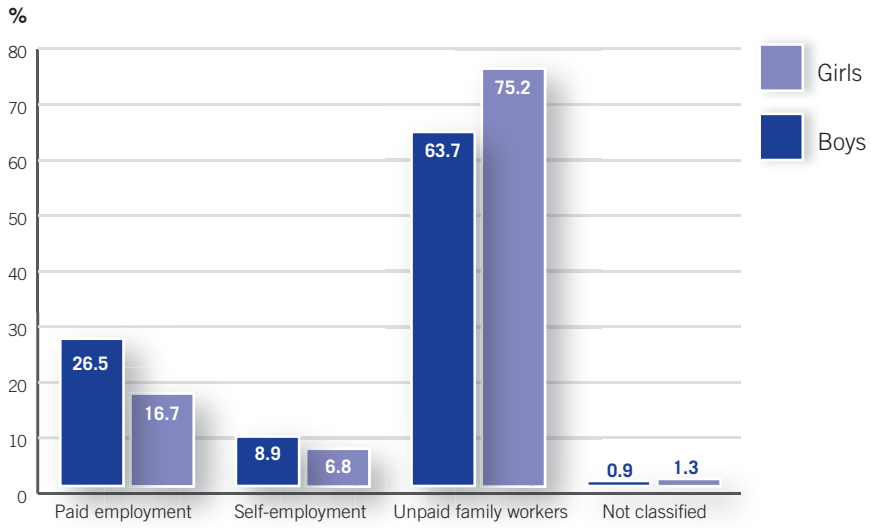



**Chart 12.**
**Child labour, status in employment by sex (percentage), 5-17 years old**

## 2.7 Child labour by level of national income

For the first time, the global estimate of child labour is presented for different levels of national income. The countries are grouped into four categories, according to their gross national income (GNI) per capita in 2011: low income, lower middle income, upper middle income and high income. The results are shown in the following table.

**Table 13. Global child labour by level of national income, 2012**

| National income | Total number of children ('000) | Child labour ('000) | % |
|---|---|---|---|
| **Total** | **1,585,566** | **167,956** | **10.6** |
| Low income | 330,257 | 74,394 | 22.5 |
| Lower middle income | 902,174 | 81,306 | 9.0 |
| Upper middle income | 197,977 | 12,256 | 6.2 |
| High income | 155,159 | n.a | n.a |

It can be observed that the incidence of child labour decreases with level of national income. The incidence of child labour in low income countries is 22.5 per cent, against 9 per cent in countries with lower middle income and 6.2 per cent in countries with upper middle income.

# Measurement framework 3

## 3.1 Concepts and definitions

The international standards define the target population for measuring child labour as "all persons in the age group from 5 to 17 years, where age is measured as the number of completed years at the child's last birthday" (para 9 of the *Resolution concerning Statistics of Child Labour*).

The measurement of child labour is schematically presented in the graphic below. It starts with the concept of children in productive activities: children, 5 to 17 years old engaged in any activity falling with the general production boundary as defined by the System of National Accounts (SNA).[8] Children in productive activities are then divided into those in employment and those in other productive activities.

*Child labour* under the SNA production boundary is a subset of children in employment. It includes those in worst forms of child labour and children in employment below the minimum age.

The international standards include provisions for a broader definition of child labour under the SNA general production boundary. Under this definition, child labour also includes *hazardous unpaid household* services, i.e., unpaid household services performed (a) for long hours, (b) in an unhealthy environment, involving unsafe equipment or heavy loads, (c) in dangerous locations, and so on.

The new international standards provide a sound general framework for measuring child labour, within which details such as the choice between the SNA production boundary or the general production boundary, the age limit below which employment should be regarded as child labour, the number of hours of work that determines long hours for children can be specified in light of particular measurement objectives and national circumstances.

[8] United Nations, *System of National Accounts 1993*, http://unstats.un.org/unsd/nationalaccount/.

**Graphic 1. International standards on child labour statistics**

<table>
<tr><th colspan="4">Children (5-17 years old) in productive activities</th></tr>
<tr><th colspan="3">Children in employment</th><td rowspan="3">Children in other productive activities<br>of which included as child labour under the general production boundary<br>Hazardous unpaid household services</td></tr>
<tr><th colspan="2">CHILD LABOUR</th><td rowspan="2">Permissible light work<br>(12-14 years old)<br>–<br>Work not designated as worst forms<br>(15-17 years old)</td></tr>
<tr><th colspan="2">Worst forms of child labour</th><th>Employment below minimum age</th></tr>
<tr><th>Hazardous work by children</th><th>Other worst forms of child labour</th><td></td><td></td></tr>
<tr><td>Exposure to physical, psychological or sexual abuse.<br>Underground, under water, dangerous heights, confined spaces.<br>Dangerous machinery, equipment or tools, heavy loads.<br>Unhealthy environment, hazardous substances, temperatures, noise levels or vibrations damaging to health.<br>Long hours, night work, other particularly difficult conditions.</td><td>All forms of slavery or similar practices, traffiking, debt dondage, serfdom, forced or compulsory labour, forced or compulsory recruitment in armed conflict.<br>Child prostitution pornography.<br>Illicit activities, produvtion and trafficking of drugs, etc.</td><td colspan="3"></td></tr>
</table>

Source: 18th International Conference of Labour Statisticians (ICLS). Resolution concerning statistics of child labour (ILO, Geneva, 2008).

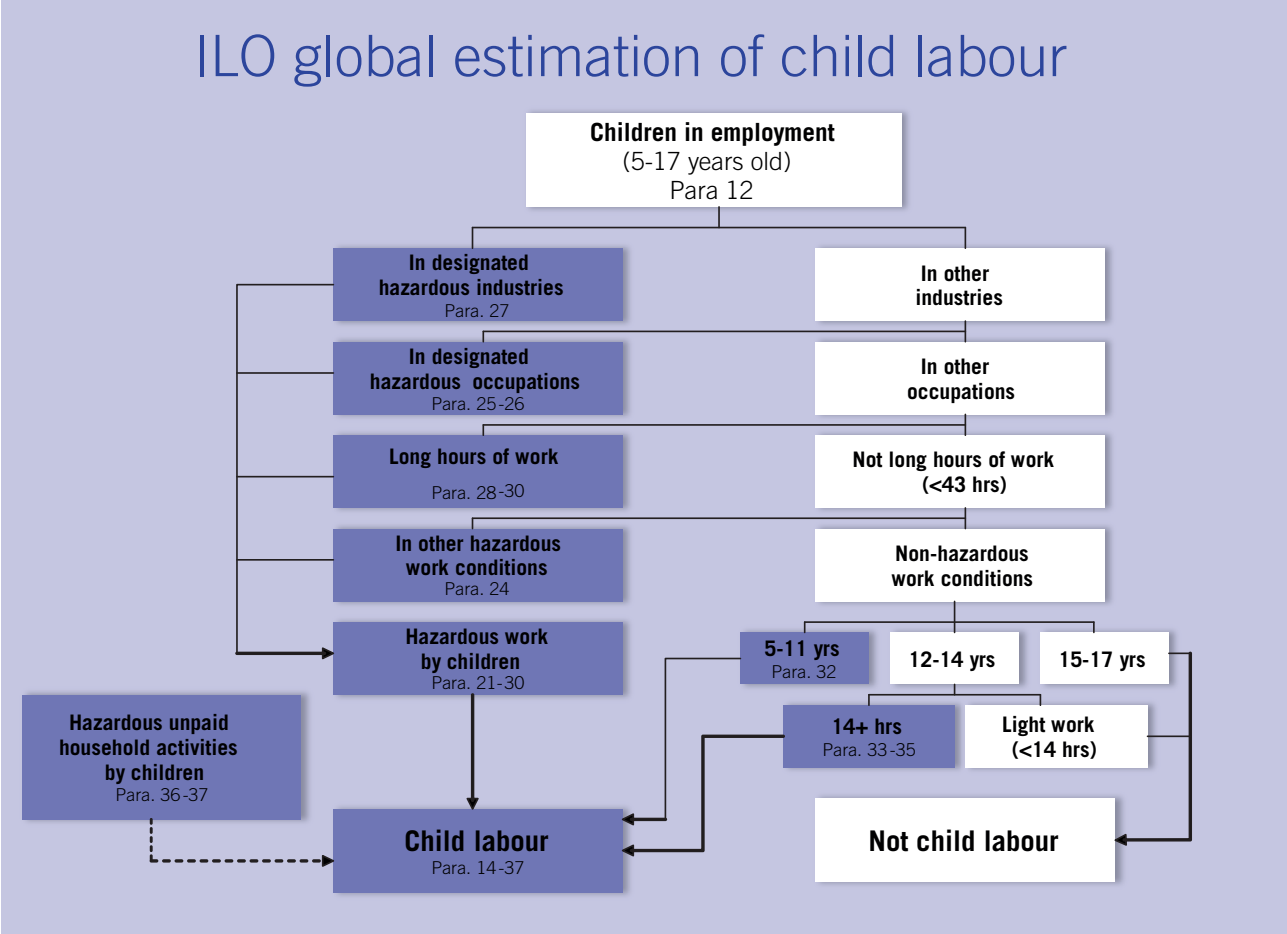
## 3.2 ILO Global estimation

For the purpose of global estimation, a specific sequential procedure for measuring child labour has been adopted within the framework of the international standards as schematically represented in the graphic below.

To maintain comparability with the earlier ILO global estimates, it was decided to continue to measure child labour on the basis of the SNA production boundary, and not on the general production boundary. This decision was also motivated by the fact that only a few countries provided the necessary data on unpaid household services (household chores) carried out by children at home. Some technical issues regarding thresholds and combined economic activities and unpaid household services need to be settled before full measurement of child labour on the basis on the general production boundary can be adequately carried out.

The starting point of the measurement of child labour for the purpose of global estimation is therefore the population of children in employment. These are children (5 to 17 years old) who were engaged in any economic activity during the reference period of the survey, where economic activity includes essentially all production of goods whether intended for sale on the market or not, and all paid services.

**Graphic 2. Conceptual framework of the ILO global estimation of child labour**




Source: 18th International Conference of Labour Statisticians (ICLS). Resolution concerning statistics of child labour (ILO, Geneva, 2008).

Not all children in employment are considered as child labour. Among children in employment, all engaged in designated hazardous industries are first sorted out. Designated hazardous industries, referred to in paragraph 27 of the international standards, are for the purpose of ILO global estimation the following two branches of economic activity:[9]

- ➔ mining and quarrying (ISIC Rev 3 codes 10-14);
- ➔ construction (ISIC Rev 3 code 45).

Among the children engaged in other branches of economic activity, those employed in designated hazardous occupations are then identified. Designated hazardous occupations (paragraphs 25-26 of the international standards) are defined for the purpose of global estimation by the following ISCO-88 codes:[10]

[9] United Nations, *International Standard Industrial Classification of All Economic Activities, ISIC-88, Rev. 3*, http://unstats.un.org/unsd.

[10] ILO, *International Standard Classification of Occupations, ISCO-88*, http://laborsta.ilo.org. The occupational codes listed here correspond to the hazardous occupations and processes found in national legislations reported in previous *ILO Global child labour trends*. The correspondence table between ISCO-88 and the new occupational classification (ISCO-08) can be found at the ILO website cited above. The present study uses the earlier version of the classification because essentially most of country data available for the study were based on this earlier classification (ISCO-88).

**Table 14. Designated hazardous occupations used in the ILO global estimation of child labour**

| Designated hazardous occupations used in the ILO global estimation of child labour | |
|---|---|
| **ISCO-88 313** | 313 Optical and electronic equipment operators |
| **ISCO-88 322-323** | 322 Modern health associate professionals (except nursing); 323 Nursing and midwifery associate professionals |
| **ISCO-88 516** | 516 Protective service workers |
| **ISCO-88 614-615** | 614 Forestry and related workers; 615 Fishery workers, hunters and trappers |
| **ISCO-88 711-713** | 711 Miners, shot-firers, stone cutters and carvers; 712 Building frame and related trades workers; 713 Building finishers and related trades workers |
| **ISCO-88 721-724** | 721 Metal moulders, welders, sheet-metal workers, structural-metal preparers, and related trades workers; 722 Blacksmiths, tool-makers and related trades workers; 723 Machinery mechanics and fitters; 724 Electrical and electronic equipment mechanics and fitters |
| **ISCO-88 731-732** | 731 Precision workers in metal and related materials; 732 Potters, glass-makers and related trades workers |
| **ISCO-88 811-816** | 811 Mining and mineral processing plant operators; 812 Metal processing plant operators; 813 Glass, ceramics and related plant operators; 814 Wood processing & papermaking plant operators; 815 Chemical processing plant operators; 816 Power-production and related plant operators |
| **ISCO-88 821-823** | 821 Metal-and mineral-products machine operators; 822 Chemical-products machine operators; 823 Rubber- and plastic-products machine operators |
| **ISCO-88 825-829** | 825 Wood products machine operators; 826 Textile-, fur- and leather-products machine operators 827 Food and related products machine operators; 828 Assemblers; 829 Other machine operators |
| **ISCO-88 832-834** | 832 Motor-vehicle drivers; 833 Agricultural and other mobile-plant operators; 834 Ships' deck crews and related workers |
| **ISCO-88 911-912** | 911 Street vendors and related workers; 912 Shoe cleaning and other street services elementary occupations |
| **ISCO-88 915-931** | 915 Messengers, porters, doorkeepers and related workers; 916 Garbage collectors and related labourers; 921 Agricultural, fishery and related labourers; 931 Mining and construction labourers |
| **ISCO-88 933** | 933 Transport labourers and freight handlers |

Next, among the children not engaged in either hazardous industries or hazardous occupations, those who worked long hours during the reference week are then sorted out. Long hours (paragraphs 28-29 of the international standards) are defined for the present purpose as 43 or more hours of work during the reference week. The 43-hour threshold was also used in earlier ILO global estimations. It corresponds to about the mid-point of normal hours of work stipulated in national legislations, mostly in the range of 40 to 44.

The next step involves separating among the children not engaged in hazardous industries or occupations, nor in long hours of work, those who were exposed nevertheless to some hazardous work conditions not captured by the designated hazardous industries or occupations, or by long hours of work.

In general, hazardous work conditions include night work and long hours of work, exposure to physical, psychological or sexual abuse; work underground, under water, at dangerous heights or in confined spaces; work with dangerous machinery, equipment and tools, or which involves the manual handling or transport of heavy loads; and work in an unhealthy environment which may, for example, expose children to hazardous substances, agents or processes, or to temperatures, noise levels, or vibrations damaging their health (paragraph 20 of the international standard).[11]

As indicated in the graphic, the total of children in designated hazardous industries, children in designated hazardous occupations, children with long hours of work and children working in other hazardous work conditions make up in aggregate the

[11] The measurement of children in these hazardous work conditions depends on the extent to which the appropriate elements are covered by the national survey. Full comparability of national datasets has therefore not always been possible in this respect.

total number of children in hazardous work. For the purposes of calculating the global and regional estimates, hazardous unpaid household activities by children are excluded from the methodology.

The final estimate of child labour is then obtained by adding to the total number of children in hazardous work, the number of other children aged 5 to 11 years who were engaged in any economic activity during the reference period (employment below minimum age), and the number of other children 12 to 14 years old who were engaged in an economic activity that could not be considered as permissible light work during the reference period.

Permissible light work is defined in the present context as any non-hazardous work by children (12 to 14 years) of less than 14 hours during the reference week. The 14-hour threshold was also used in earlier ILO global estimations. The choice was based on provisions in the ILO Convention No. 33, the Minimum Age (Non-Industrial Employment), 1932, which sets two hours per day, on either school days or holidays, as the maximum for light work from the age of 12 years.[12]

In this process, children in *worst forms of child labour other than hazardous work by children* are not measured directly. They are included in the global estimate to the extent that they also form part of the measurement of employment below minimum age and hazardous work by children. Children in worst forms of child labour other than hazardous work were measured in the second edition using qualitative methods, as part of the 2000 round of the ILO global estimates. The results showed that they form about 5 per cent of worst forms of child labour. It is hoped that with improved methodology this category of child labour can be measured directly in future ILO global estimates.

[12] Article 3 (para. 1) of the Convention states that "Children over twelve years of age may, outside the hours fixed for school attendance, be employed on light work (a) which is not harmful to their health or normal development; (b) which is not such as to prejudice their attendance at school or their capacity to benefit from the instruction there given; and (c) the duration of which *does not exceed two hours per day on either school days or holidays*, the total number of hours spent at school and on light work in no case to exceed seven per day" (emphasis added).

# National datasets 4

The ILO surveys on child labour (SIMPOC) provide the main source of data for the present study. Other data sources are the UNICEF's Multiple Indicator Cluster Surveys (MICS), certain national labour force surveys and other relevant household surveys.

## 4.1 ILO Child labour surveys (SIMPOC)

In 1998, the ILO established the Statistical Information and Monitoring Programme on Child Labour (SIMPOC). The programme is intended to assist countries in the collection, documentation, processing and analysis of child labour relevant data in line with the international standards on the topic. Since its inception, more than 70 SIMPOC child labour surveys have been conducted in 60 countries, 20 of which during the last four years (2008-2012).

The main objectives of SIMPOC assisted child labour surveys are two-fold: to estimate the prevalence of child labour in the country under study, and to identify the causes and consequences of child labour in terms of socio-economic factors. A typical questionnaire of a SIMPOC child labour survey comprises three parts. Parts I and II (Adult Questionnaire) are addressed to the most knowledgeable adult household member, and Part III (Child Questionnaire) is addressed directly to children.

The first part collects data on household composition and characteristics of household members, including educational attainment, current and usual economic activity status of household members age 5 and above, household tasks performed by children ages 5-17, parents' or guardians' perceptions/observations about their working children age. The second part gathers information on the socio- economic characteristics of the household and any recent changes in it. The third part covers data on educational attainment of children ages 5-17 years in the household, their labour market outcomes, household tasks and health and safety issues. Like part one, the child questionnaire includes questions on education, current economic activity status and household chores. Some questions are included in both the adult and child questionnaires because of the possibility that, intentionally or not, parents and children may provide different answers. In addition, the child questionnaire includes detailed questions on children's health and safety. These questions are asked to children and not to adults because children should be able to provide more accurate information about their working conditions than adults.

As in previous rounds, the current round of the ILO Global estimation of child labour uses data derived from the adult questionnaire except for conditions of work where the information from the child questionnaire is deemed to be more reliable.

## 4.2 UNICEF Multiple Indicator Cluster Surveys (MICS)

UNICEF assists countries in collecting and analyzing data in order to fill data gaps for monitoring the situation of children and women through its international household survey initiative the Multiple Indicator Cluster Surveys (MICS). MICS surveys were

originally developed in response to the World Summit for Children to measure progress towards an internationally agreed set of mid-decade goals. The first round of MICS was conducted in more than 60 countries in the mid-1990s.

MICS surveys have since broadened in scope and now cover a range of indicators in the areas of health, education, child protection and HIV/AIDS. The fourth round of MICS, undertaken in the period 2009-2011, included questions on child labour to estimate in particular the number of children age 5-14 years engaged in child labour, distinguishing between those currently attending school and those not.

## 4.3 National labour force surveys (LFS)

National labour force surveys are generally designed to collect data on the employment and unemployment situation of the country as well as the characteristics of the working age population, often defined as the civilian non-institutional population 15 years of age or older. In a number of national labour force surveys, the minimum age limit for collecting data on labour force characteristics is set at a lower age such as 7 or 10 years old. For certain countries, these surveys are used for estimating child labour either directly or by extrapolation for the missing age groups.

## 4.4 Other national household surveys

Certain other national household data collection instruments such as population censuses, demographic surveys, living standard surveys collect data on the economic characteristics of children and are used for estimating the size and characteristics of child labour in the country.

### *4.4.1 Coverage*

In all, some 75 datasets from 53 countries have been compiled for the 2008-2012 round of the ILO Global estimation of child labour. Twenty-two datasets are based on SIMPOC surveys, ten on MICS, thirteen on national labour force surveys, and the rest on a variety of other sources. For fifteen countries, there are more than one dataset. The 75 datasets are more or less evenly spread over the study period: 13 datasets for 2008, 16 for 2009, 25 for 2010, 15 for 2011 and 5 for 2012. In one case, Nigeria, the dataset is for 2007 and does not fall within the study period, but because of the weight of the country in its region, it has been retained. The full list of the datasets is given in Annex 1 with information on the type of survey and its reference year.

### *4.4.2 Full-sample*

The latest datasets of the 53 countries with available data are compiled as a group and form the ‘full-sample’. The data are used to derive a direct estimate of child labour for 2012 using the methodology described in Section 6 below. The following table shows the coverage of the full sample. The available datasets cover 842 million children 5-17 years old, corresponding to about 53.1 per cent of the global population of children in that age group. The coverage rate is significantly higher than the rate in the previous round of global estimation (44.4 per cent).

**Table 15. Coverage of national datasets used to measure child labour by region, 2008-2012 (full-sample)**

| Region | | Children 5-17 years old | | |
|---|---|---|---|---|
| | | Total (in million) | National datasets (in million) | Rate (%) |
| 1. | Asia and the Pacific | 835 | 495 | 59.3 |
| 2. | Latin America and the Caribbean | 143 | 114 | 79.8 |
| 3. | Sub-Saharan Africa | 275 | 182 | 66.2 |
| 4. | Middle East and North Africa | 110 | 49 | 44.6 |
| 5. | CIS and Non European Union | 64 | 2 | 3.1 |
| 6. | Other | 157 | 0 | 0.0 |
| | **World** | **1,586** | **842** | **53.1** |

Note: The regional grouping of countries is based on the classification used in the ILO Key Labour Market Information (Annex 1). According to this classification, developed economies and countries in the European Union are first classified, and then the remaining countries are classified according to their geographical location. Thus, the region "Asia and the Pacific" does not cover Australia, Japan, and New Zealand, already classified among the region "developed economies and countries of the European Union".

The highest coverage is for Latin America and the Caribbean (79.8 per cent) followed by Sub-Saharan Africa (66.2 per cent), Asia and the Pacific (59.3 per cent) and Middle East and North Africa (44.6 per cent). The lowest coverage rates are for the Commonwealth of Independent States and the European countries outside the European Union (3.1 per cent) and other countries including the developed economies and the countries of the European Union (0 per cent) for which no dataset could be found for the present round of global estimation of child labour.[13]

### *4.4.3 Matched sample*

Twenty-five countries covered in the present round are also in the previous round of global estimation of child labour. Thus, there is almost 50 per cent overlap of countries between the two rounds. The latest datasets of these countries together with those of countries with multiple datasets in the current round form the matched sample and are used to obtain an indirect estimate of global child labour based on an improved estimate of trend between the two rounds (2008 and 2012).

There are altogether 29 countries in the matched sample. The coverage of the matched sample is shown in the following table. The use of countries with multiple datasets during 2008-2012 as part of the matched sample should further control the variability of the final estimates and therefore improve the accuracy of the resulting trends. As described in Section 6, a new methodology is used for estimation based on the matched sample, thus providing a common approach for the two types of matched sample units.

### *4.4.4 China*

China and India, together with Brazil and Nigeria are four countries with the largest populations in Asia, Latin America and Sub-Saharan Africa, respectively. India, Brazil and for the first time Nigeria are part of the national datasets used for the global estimation of child labour in 2012, but China remains unrepresented. The number of children, 5-17 years old, in China in 2012 is estimated at 231 million, corresponding to more than a quarter of the total in the Asia and the Pacific region (about 28 per cent).

[13] There has been some changes in the KILM regional classification of countries and therefore the regional groupings of the present round of global estimation of child labour is not strictly comparable to the one used in the previous round.

Omitting China in the calculations of the global and regional estimates is equivalent to assuming that its incidence of child labour is equal to the corresponding regional average. This assumption is of course subject to debate and should be verified. To check whether China were at or below or above the child labour incidence rate of its regional average, we use a proxy indicator (school non-enrolment). Data for this indicator were available for most countries of the world and the analysis showed the indicator to be significantly correlated with child labour.

Based on this analysis, it was found that the net non-enrolment rate in China was somewhat below the corresponding Asian median, indicating that had child labour data existed for China, the incidence rate would have been lower than the Asian median. If this result could be confirmed, it would suggest that omitting China from the calculations has the effect of overestimating the global and regional child labour by a certain extent. However, in order to maintain comparability with the results of the previous rounds of global estimation and to ensure adequate estimate of trends, it was decided to treat China like in previous rounds as the median of its region.

**Table 16. Coverage of national datasets used to measure child labour trend by region, 2008-2012 (matched-sample)**

| Region | Children 5-17 years old | | |
|---|---|---|---|
| | Total (in million) | National datasets (in million) | Rate (%) |
| 1. Asia and the Pacific | 835 | 451 | 55.0 |
| 2. Latin America and the Caribbean | 143 | 113 | 79.3 |
| 3. Sub-Saharan Africa | 275 | 46 | 16.9 |
| 4. Middle East and North Africa | 110 | 12 | 10.7 |
| 5. CIS and Non European Union | 64 | 0 | 0.0 |
| 6. Other | 157 | 0 | 0.0 |
| **World** | **1,586** | **622** | **39.3** |

Note: The regional grouping of countries is based on the classification used in the ILO Key Labour Market Information (Annex 1). According to this classification, developed economies and countries in the European Union are first classified, and then the remaining countries are classified according to their geographical location. Thus, the region "Asia and the Pacific" does not cover Australia, Japan, and New Zealand, already classified among the region "developed economies and countries of the European Union".

# Harmonization of national datasets 5

Like in the previous rounds, the available national datasets for the present round of global estimation differ from each other with respect to a number of critical elements. These are differences in age groups, types of questions and response categories used in the survey questionnaire, and the extent to which missing values are present in the raw data. For these reasons, the national datasets need to be harmonized with respect to the key elements before being processed further for global estimation.

## 5.1 Child labour status (CLS)

The first step in the harmonization process is the construction of a single variable called Child Labour Status (CLS). The variable is composed of five mutually exclusive and exhaustive categories into which each child must be categorized. The structure of the child labour status variable is shown in Table 17 below.

In practice because of missing values in the national datasets, the construction of harmonized child labour status variables require imputation for missing values.

**Table 17. Child labour status**

| Structure of the harmonization variable CLS | |
|---|---|
| 1 Child labour, hazardous work | CLS = 1 |
| 2 Other child labour | CLS = 2 |
| 3 Permissible light work | CLS = 3 |
| 4 Other employment, not child labour | CLS = 4 |
| 5 Not in employment | CLS = 5 |
| Total number of children (5-17 years old) | CLS = 1-5 |
| Children in employment | CLS = 1-4 |
| Child labour | CLS = 1-2 |

## 5.2 Templates

The available national datasets for the present round of global estimation were analyzed following the templates below.

**Table 18. Child labour status by sex and age group**

| Child labour status by sex and age group<br>Region<br>Date<br>Survey | | Sex | Boys | | | Girls | | |
|---|---|---|---|---|---|---|---|---|
| Code | | Age group | 5-11 | 12-14 | 15-17 | 5-11 | 12-14 | 15-17 |
| 0 | Total number of children | | | | | | | |
| 1 | In employment | | | | | | | |
| 2 | Not in employment | | | | | | | |
| 31 | By industry group | Non hazardous | | | | | | |
| 32 | | Hazardous | | | | | | |
| 41 | By occupation group | Non hazardous | | | | | | |
| 42 | | Hazardous | | | | | | |
| 51 | By hours of work | < 14 hrs | | | | | | |
| 52 | | 14 to 42 hrs | | | | | | |
| 53 | | >= 43 hrs | | | | | | |
| 70 | # with full information | | | | | | | |
| 71 | 31 and 41 and 51 | | | | | | | |
| 72 | 31 and 41 and 52 | | | | | | | |
| 81 | 31 and 41 | | | | | | | |
| 81b | # with information | | | | | | | |
| 82 | 31 and (51 or 52) | | | | | | | |
| 82b | # with information | | | | | | | |

The codes above were defined as follows:

**Table 19. Code description**

| Code | Description |
|---|---|
| 0 | Total number of children aged 5 to 17 years old |
| 1 | Number of children in employment (working children or children in economic activity) |
| 2 | Number of children not in employment |
| | (0) = (1) + (2) + (children with missing information on employment) |
| 31 | Number of working children in non hazardous industries |
| 32 | Number of working children in hazardous industries |
| | (1) = (31) + (32) + (children in employment without information on industry) |
| 41 | Number of working children in non hazardous occupations |
| 42 | Number of working children in hazardous occupations |
| | (1) = (41) + (42) + (Children in employment without information on occupation) |

| Code | Description |
|---|---|
| **51** | Number of children working less than 14 hours a week |
| **52** | Number of children working between 14 and 42 hours a week |
| **53** | Number of children working 43 hours or more a week |
| | (1) = (51) + (52) + (53) + (Children in employment without information on working hours) |
| **70** | Number of children in employment with information on industry, occupation and working hours |
| **71** | Number of children in non hazardous industries, non hazardous occupations and working less than 14 hours per week |
| **72** | Number of children in non hazardous industries, non hazardous occupations and working 14 to 42 hours per week |
| **81** | Number of working children in non hazardous industries and non hazardous occupations |
| **81b** | Number of working children with information on industry and occupation |
| **82** | Number of children in non hazardous industries and working less than 43 hours per week |
| **82b** | Number of children in employment with information on industry and working hours |

In case all the relevant data were available (i.e. if the number of children under code 1 is equal to the number of children under code 70), "child labour status" was computed without any imputation of missing values as follows:

**Table 20. Determination of child labour status**

| Child Labour Status | Description | Age group | | |
|---|---|---|---|---|
| | | 5-11 | 12-14 | 15-17 |
| CLS=1 | Hazardous work | - | code1 - code71 - code72 | - |
| CLS=2 | Other child labour | code71 + code72 | code72 | - |
| CLS =3 | Permissible light work | - | code71 | - |
| CLS=4 | Other employment, not child labour | - | - | code71 + code72 |
| CLS=5 | Not in employment | Code2 | Code2 | Code2 |

Otherwise, it was necessary to harmonize data. The harmonization process consisted of the standardization of the age groups if they differed from those indicated in the templates; imputing missing variables if the national datasets did not include the relevant variable for assigning the children in any of the CLS categories; and finally correcting for any missing values that may have existed for some of the underlying variables used to classify children in one or other CLS categories. The harmonization steps are in turn described below.

## 5.3 Standardization of age groups

Age selection from the national surveys may differ from the range adopted for the present study in any one of three situations:

- ➔ the full age category 15-17 years is missing;
- ➔ the full age category 5-11 years is missing;
- ➔ the lower age bound is higher, e.g. 5-7 year olds are missing.

In the first two circumstances, it means that no data at all are available for the required age group.

The missing data were imputed with the help of three logistic regression models: one for the percentage of children in employment, the other two for the percentage of children in hazardous and non hazardous work.

**Method:** For each missing value, a logistic regression model[14] was fitted with the available data on countries of the region for each sex separately:

$$log\left(\frac{p}{1-p}\right) = \beta_0 + \beta_1 \cdot age + \beta_2\ country + \beta_3 \cdot year$$

where $p$ is the percentage of children in employment or the percentage of children in a child labour status category; Age is the mid-point of the missing age group; Country is a dummy variable corresponding to the countries with available data in the region and year is the year of the survey data collection. After estimating the logistic regression, the factor $\beta_1$ was applied to the closest available information in order to deduce the percentage of the missing ages. Finally the percentage was applied to the full population of the missing ages.

This method assumes that the logarithm of the odds is linear and has a similar slope over the countries of the same region for the children of the same sex. A logistic model has been used in order to ensure that the estimated percentages are within 0 and 100 per cent as required. Of course, the standardisation of age groups must take place after the standardisation of child labour status so that the data between countries are comparable when fitting the model.

**Numerical example:** In the present study, the percentage of girls in age group 15-17 years in employment was missing for Burundi. Fitting the logistic regression on the girls in employment in Sub-Saharan countries, an age factor was obtained. The closest available information was the proportion of 12-14 year old Burundian girls in employment: . For this result, the percentage of 15-17 year old Burundian girls was obtained by solving:

$$\log\left(\frac{p_{15-17}}{1-p_{15-17}}\right) = \log\left(\frac{p_{12-14}}{1-p_{12-14}}\right) + \beta_1 \cdot d_{age},$$

with an age difference $d_{age}$= 3 years between the mean of the two age groups. Therefore, the imputed proportion of Burundian girls in employment was 0.539 or in percentage terms $p_{15\text{-}17}$= 53.9%.

## 5.4 Standardization of child labour status

Data on variables used to determine the child labour status were missing in some cases from national survey data. The missing data were imputed with the average of the observations in countries of the same region.

**Method:** Wherever data were available, the following percentages were computed:

- percentage of children in non hazardous industries;
- percentage of children in non hazardous occupations;
- percentage of children in each working hours category;
- percentage of children in non hazardous industries and non hazardous occupations;
- percentage of children in non hazardous industries and working less than 43 hours per week.

When an indicator was missing in national data, the average of the percentages measured from the countries of the same region was imputed. Then this was combined with the information available from the country to compute the child labour status.

[14] Dobson, A., and A. Barnett, *An Introduction to Generalized Linear Models*, Boca Raton, CRC Press, 2008.

**Numerical example:** In the present study, the Gambia data did not include relevant information on industries and occupations concerning working children. The average percentage of children in non hazardous industries and occupations of sub-Saharan Africa was imputed: for example 90.8 per cent for boys aged 12 to 14. The measured percentage of Gambian boys working 43 hours or more per week was 30.7 per cent. That of those working between 12 and 42 hours per week was 57 per cent; and the one for those working less than 14 hours per week was 12.3 per cent.

In this process, the percentage of Gambian boys aged 12 to 14 in CLS=1 was then the percentage in hazardous industries or occupations (100 – 90.8 = 9.2 per cent) plus the percentage in non hazardous industries and occupations, but working 43 hours or more a week (estimated at 0.307*0.908 = 0.279 or 27.9 per cent). That is 9.2 + 27.9 = 37.1 per cent. A percentage of 0.908*0.57 = 0.517 or 51.7 per cent were in CLS=2. The remaining working children 100 – 37.1 – 51.7 = 0.908 per cent*0.123 per cent = 0.112 or 11.2 per cent were in permissible light work CLS=3. By definition, none was in CLS=4.

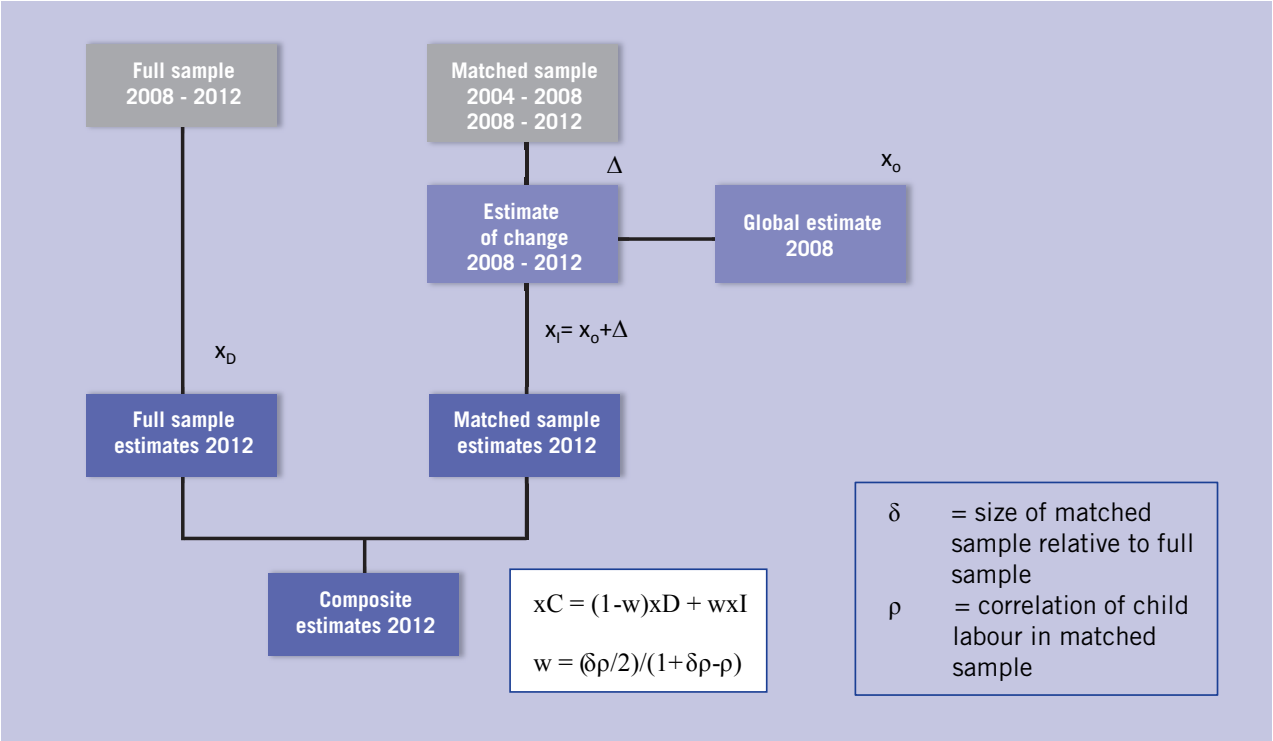
# Regional and global estimation 6

The regional and global estimates of child labour are derived by extrapolations of national data using a composite estimation method. It consists of calculating two initial estimates of child labour in each region and computing an average of the two estimates. One of the estimates uses the full sample of countries in each region and the other only the matched sample (i.e., those countries which were also part of the sample of the previous round of global estimation and those for which child labour data exist for more than one year).

The rationale of using such a composite method of estimation is to improve the accuracy of the estimates both in terms of levels and trends. The full sample estimates have maximum coverage as they include all countries in the sample, while the matched sample has minimum variability as they cover the same countries in their sample and therefore avoid the variability of sample differences. In this sense, the composite estimate is optimum as it uses maximum information with minimum variability.

The following graphic shows schematically the composite estimation procedure. The input into the process is the harmonized national data sets. The output is the global and regional estimates of child labour for the reference year 2012. The composite estimates are weighted averages of the full-sample and matched sample estimates for each region separately. The calculation of the weights is based on the degree of overlap of the matched and full samples and the value of the correlation between the 2008 and 2012 child labour data.

**Graphic 3. Composite estimation**



## 6.1 Full sample estimation

The full-sample estimation consists of extrapolating the full sample of harmonized national datasets to regional and global values by weighting each country according to its relative share of children among the total in the region. The weighting factors are calculated for each sex and each age group separately, and are calibrated to conform to the 2012 UN population estimates and projections which form the benchmark for all estimation procedures in this report.

Specifically, the weight for a given country i, and specific sex and age categories, j and k, with survey date t, is calculated as the product of three terms as follows:

$$w = w1 * w2 * w3,$$

where

$$w1 = ( \sum_i xijk2012 )/ n*xijk2012,$$
$$w2 = xijk2012 / xijkt,$$
$$w3 = xijkt / x'ijkt,$$

where n is the number of countries covered by the full-sample for the given region, $\sum_i$ refers to the sum over all countries in the region, and xijkt denotes the number of children in country i for sex and age categories j and k at time t according to the UN population benchmark data, and x'ijkt the corresponding national survey estimate.

In this system, w1 is the initial extrapolation factor, corresponding to the inverse of the assumed probability of selection of the country, w2 is an adjustment for the year of the national dataset in case it is different than 2012, and w3 is a further adjustment for any difference between the estimate of the child population for the given sex and age category against the UN benchmark estimate and projection.

The adjustment factors w2 and w3 should generally be close to one. Any great deviation from one would be an indication of a possible bias in the coverage or the execution of the national survey, or an error in the UN benchmark data.

## 6.2 Matched sample estimation

Altogether there are 29 matched sample datasets from as many countries. Twenty-five are matched sample countries, appearing both in the current round (2008-2012) and the previous round (2004-2008) of global estimation. The other four datasets correspond to countries with multiple datasets in the current round of global estimation but not the previous round. Some eleven countries from the previous round of global estimation have multiple datasets in the current round.

The matched sample data are used to improve the estimates of trends of child labour. Compared with the previous round of global estimation, the current round covers more matched sample datasets (25 versus 21), mainly because of the new statistical treatment of countries with multiple year datasets as matched sample.

Matched sample estimation involves three main steps:[15] (a) Standardization of the national survey years to the reference years 2008 and 2012; (b) estimation of trends from 2008 to 2012; and (c) derivation of the matched-sample estimates for 2012. These steps are briefly described below.

### *6.2.1 Standardization of reference years*

The available national datasets for a given matched-sample country may not include the two reference years 2008 and 2012 for which estimates of trend are sought. Thus it is necessary to standardize the matched sample datasets to the required reference years. The adopted procedure is as follows. For each country, we consider two datasets

[15] Matching was done irrespective of type of surveys even if they may differ in sample design. In this study, harmonization process covers the main variables of child labour measurement such as age group, industry, occupation, status in employment and conditions of work. Harmonization of types of survey design goes beyond the scope of this study.

for matched sample estimation, one with survey reference year closest to 2008 and the other with survey reference year closest to 2012. If a survey reference year matches either 2008 or 2012, the datasets would of course not be standardized.

In the previous rounds of global estimation, the reference year was standardized implicitly as part of the calculation of the weights used for extrapolating the sample data to the regional and global aggregates. One of the three components of the extrapolation weight was an adjustment factor for the year of the national dataset in case it was different than the reference year for the global estimate.

This procedure had the effect of assuming an unchanged structure of the child labour status variable of the country, adjusting only the level in function of the changes in the total number of children (by sex and age group) between the year of the dataset and the reference year of the global estimate.[16]

In general, let $t_1$ be the closest year to 2008 for a given matched sample country and let $t_2$ the closest year to the 2012. The data on the child labour status of that country are then interpolated or extrapolated to 2008 and 2012 after a log-ratio transformation that preserves the structure of the data. The log-ratio transformation is a generalization of the logistic function applicable when the variable has more than two categories.[17]

Let $p_t$ represent the vector of percentage distribution of the CLS categories of a given country at time t,

$$p_t = (p_{1t}, p_{2t}, ..., p_{5t})$$

where $p_{it}$ is the percentage for CLS=1, $p_{2t}$, for CLS=2, and so on for CLS =3,4,5. The elements, $p_{1t}$, $p_{2t}$, …, $p_{5t}$, are all non-negative and sum to 1,

$$\sum_{i=1}^{5} p_{it} = 1.$$

The log-ratio transformation of $p_t$ is expressed with the vector

$$L_t = (l_{1t}, l_{2t}, ..., l_{5t})$$

where

$$l_{it} = \ln\left(\frac{p_{it}}{\Pi_j p_{jt}^{1/5}}\right).$$

The log-ratio transformation has the property of being symmetrical with respect to the percentage $p_{it}$, and summing to zero for any vector of percentages $p_t$,

$$\sum_{i=1}^{5} l_{it} = 0.$$

Applying the log-ratio transformation for standardization of the reference year, two cases are distinguished. First, for countries with multiple datasets, none of which at the reference year, the extrapolation or interpolation is carried out assuming a linear trend for the transformed elements,

$$l_{it} = a_i + b_i(t - t_o)$$

where $t_o$ is the reference year, and $a_i$ and $b_i$ are the regression parameters with

$$\sum_i a_i = 0 \text{ and } \sum_i b_i = 0.$$

Using the resulting regression estimates, $\hat{a}_i$ and $\hat{b}_i$, we obtain the extrapolated or interpolated values for the reference year by

$$\hat{l}_{it} = \hat{a}_i + \hat{b}_i(t_o - t_o) = \hat{a}_i \qquad i = 1,2,...,5.$$

Finally, transforming back the l-values, we obtain the estimated p-values,

$$\hat{p}_{it_o} = c \times \exp(\hat{l}_{it_o})$$

[16] In future rounds, it is proposed to consider an explicit procedure for standardization of the reference year, taking into account changes both in level and structure of the child labour status variable.

[17] Aitchison, J. 1986. The Statistical Analysis of Compositional Data, London, Chapman-Hall.

where

$$c = \Pi_j \hat{p}_{it_o}^{\,1/5}.$$

A numerical illustration is presented below. The left panel shows the structure of the CLS variable in percentage form of a given country for a particular sex and age group. The national data are for 2007 and 2010. Data for 2008 and 2012 are missing. The corresponding log-ratio transformed values are shown in the right panel. It can be verified that except for rounding errors for each column, the row values add to zero.

**Table 21. Percentage distribution of CLS with missing data for 2008 and 2012**

| CLS | 2007 | 2008 | 2010 | 2012 |
|---|---|---|---|---|
| 1 | 7.4 % | ? | 3.4 % | ? |
| 2 | 22.9 % | ? | 23.9 % | ? |
| 3 | 0.0 % | ? | 0.0 % | ? |
| 4 | 0.0 % | ? | 0.0 % | ? |
| 5 | 69.7 % | ? | 72.7 % | ? |
| | 100 % | 100 % | 100 % | 100 % |

**Table 22. Log-ratio transformation**

| CLS | 2007 | 2008 | 2010 | 2012 |
|---|---|---|---|---|
| 1 | 1.127 | ? | -1.671 | ? |
| 2 | -0.007 | ? | 0.279 | ? |
| 3 | 0.000 | ? | 0.000 | ? |
| 4 | 0.000 | ? | 0.000 | ? |
| 5 | -1.119 | ? | 1.392 | ? |
| | 0.000 | 0.000 | 0.000 | 0.000 |

The calculation continues in the following tables. It shows the extrapolation of the available data to the reference year 2012. The left panel gives the regression parameters of fitting the log-ratio values to a linear time-trend for each CLS category. It can be verified that the intercepts ($a_i$) as well as the slopes ($b_i$) add up to zero as expected except for rounding errors. The right panel shows the extrapolation to 2012. Standardization to 2008 is derived similarly. Time is measured in relation to the reference year, so the year 2007 is represented by -1 (2007-2008), the year 2010 by 2 (2010-2008), the year 2012 by 4 (2012-2008) and so on.

Harmonization of the reference period is limited to the CLS variable. For the other variables, harmonization is carried out implicitly using proportions.

**Table 23. Estimated parameters of linear regression of log-ratio values**

| CLS | ai | bi |
|---|---|---|
| 1 | -0.1811 | -1.308 |
| 2 | 0.091 | 0.098 |
| 3 | 0.000 | 0.000 |
| 4 | 0.000 | 0.000 |
| 5 | 0.091 | 1.210 |
| | 0.000 | 0.000 |

**Table 24. Extrapolated value of percentages CLS for 2012**

| CLS | exp(ai+4bi) | p2012 |
|---|---|---|
| 1 | 0.131 | 2.0 % |
| 2 | 1.585 | 24.2 % |
| 3 | 0.000 | 0.0 % |
| 4 | 0.000 | 0.0 % |
| 5 | 4.823 | 73.9 % |
| | 6.539 | 100.0 % |

### *6.2.2 Estimation of trends, 2008 to 2012*

After harmonization of the reference period, the matched sample estimates of trends are obtained by simply calculating the change in the number of working children from 2008 to 2012 for the matched sample countries. For a given country i, the estimate of trend in the child labour category j for a particular sex and age group is calculated by

$$\Delta_{ij} = \hat{X}_{ij\,2012} - \hat{X}_{ij\,2008}$$

where $\hat{X}_{ij\,2008}$ and $\hat{X}_{ij\,2012}$ are the standardized estimates for 2008 and 2012, respectively, derived in the preceding step,

$$\hat{X}_{ij\,2008} = p_{ij\,2008} \times UNPOP_{i2008}$$

and

$$\hat{X}_{ij\,2012} = p_{ij\,2012} \times UNPOP_{i2012}\,.$$

The corresponding regional and global estimates of trend, 2008 to 2012 are then obtained by multiplying the estimated national trends $\Delta_{ij}$ with the weight of country i in its respective region,

$$\Delta_j = \Sigma_i w_i \times \Delta_{ij}$$

where the weights wi are calculated as in the case of the full-sample estimates except that now there are a reduced number of matched sample countries. Also the calculation of the weights naturally does not involve adjustment factors for differences of reference years and UN population estimates and projections, as these adjustments are performed as part of the standardization of reference years.

The results are then extrapolated to regional and global aggregates using extrapolation weights as in the case of the full-sample estimates of levels. In the case of estimates of trends, however, the extrapolation weights have generally larger values as

the number of matched sample countries is fewer and therefore each matched sample country represents a larger number of countries in its respective region.

### 6.2.3 Matched sample estimation for 2012

Based on the matched sample estimates of trend derived in the step b, the matched sample estimates of levels for 2012 are obtained by simply adding to the matched sample estimates of trend 2008-2012 the 2008 estimates of level obtained from the previous round of global estimation (2004-2008). Thus,

Matched sample estimate of child labour 2012
= Estimate in 2008 + Matched sample estimate of change 2008-2012

The calculations are carried out for each category of the CLS variable, and for each sex and age group, separately.

## 6.3 Composite estimation

Composite estimation calculates a weighted average of the full-sample and matched sample estimates, with weights derived such that they minimize the variance of the final composite estimate on the assumption that the full sample and the matched sample represent both random samples of countries in their regions. Composite estimation attempts to maximize the advantages and minimize the drawbacks of the full-sample and matched-sample estimates.

Mathematically, the composite estimate for a given region k and CLS category j is expressed for each sex and age group as follows,

$$Y_{kj\ 2012}^{composite} = (1-\omega) \times Y_{kj\ 2012}^{full-sample} + \omega \times Y_{kj\ 2012}^{match-sample}$$

where the weight ω is given by

$$\omega = \frac{\delta\rho/2}{1+\delta\rho-\rho}$$

where δ is the overlap of the matched sample with the full sample expressed in percentage of number of children 5-17 years old, and ρ is the correlation between the matched values of child labour status in 2008 and 2012. Thus, if the correlation between the 2008 and 2012 values is perfect, then ρ =1 and ω = 0.5. In this case, the composite estimate is simply the arithmetic average of the full-sample and matched-sample estimates. In the other extreme case, if the correlation between the 2008 and 2012 values is zero, then ρ = 0 and ω = 0, which means that the matched-sample estimate has no role and the composite estimate is just equal to the full-sample estimate.

The values of δ and ρ calculated for the present study and the resulting composite estimation weights w are shown below.

**Table 25. Composite estimation weights**

| Region | Overlap δ | Correlation ρ | Weight ω |
|---|---|---|---|
| 1. Asia and the Pacific | 0.910682 | 0.986169 | 0.492417 |
| 2. Latin America and the Caribbean | 0.994190 | 0.747951 | 0.373425 |
| 3. Sub-Saharan Africa | 0.255791 | 0.775778 | 0.234748 |
| 4. Other | 0.231863 | 0.796133 | 0.237596 |
| World | 0.739107 | 0.933424 | 0.455996 |

Note: The regional grouping of countries is based on the classification used in the ILO Key Labour Market Information (Annex 1). According to this classification, developed economies and countries in the European Union are first classified, and then the remaining countries are classified according to their geographical location. Thus, the region "Asia and the Pacific" does not cover Australia, Japan, and New Zealand, already classified among the region "developed economies and countries of the European Union".

## 6.4 Estimation for non-CLS variables

The global estimate of child labour is broken down by branch of economic activity (agriculture, industry, and services) and by status in employment (paid employment and self-employment, which is further broken down by contributing family workers). The breakdown by branch of economic activity also distinguishes child domestic workers from other children engaged in services.

With regard to the statistical measurement of domestic work, the industry-based approach was used to identify this subcategory of services sector. This draws on a common characteristic of domestic workers – that they work in or for a household – and captures quite well the common understanding of what a domestic worker is. The International Standard Industrial Classification of all Economic Activities (ISIC, Revision 3.1) groups "Activities of households as employers of domestic staff" in Division 95.[18]

A simple methodology is then used for the breakdown. The composite estimate of global child labour is distributed in proportion to the available data on branch of economic activity and status in employment. Data were available on these variables for 21 countries: Albania, Brazil, Costa Rica, Dominican Republic, Egypt, Guinea, India, Indonesia, Laos, Madagascar, Mexico, Moldova, Nepal, Niger, Panama, Sri Lanka, Togo, Uganda, Uruguay, Vietnam and Zambia.

Moreover, for the first time, the global estimate of child labour is presented for different levels of national income. The countries are grouped into four categories according to their gross national income (GNI) per capita in 2011: low income, lower middle income; upper middle income and high income.

[18] The task-based approach was used in the 2008 estimates. A drawback of this approach is that it requires very detailed occupational data (at the four-digit level), which are not available in many datasets. Moreover, the industry-based approach seems to be best suited as a basis for global and regional estimates. See ILO: *Domestic Workers Across the World: Global and regional statistics and the extent of legal protection*. Geneva, 2013.

# Evaluation of results 7

The global estimates of child labour are evaluated in terms of their standard errors as well as four types of comparison: comparison of national raw and processed data; comparison of full-sample and matched sample estimates; comparison with ILO Labour force estimates and projections for 15-19 years old; and comparison with UNICEF Child labour estimates for 5-14 years old published in 2013.[19]

## 7.1 Standard errors 2012

When a sample, rather than the entire population, is used to measure population values in a study, the resulting estimates differ from the true population values that they represent. This difference, or sampling error, occurs by chance and its variability may be measured by the standard error of the estimate if the sample was drawn based on known probabilities of selection.

On this basis, the standard errors of the global and regional estimates for 2012 were calculated to assess the sampling variability. The calculation assumes that the datasets used for estimating the child labour categories have themselves negligible variability relative to the variability due to differences that would occur had the sample included different countries than the ones used here. The calculation also assumes that the countries covered in the study form a random sample of the countries in the world. Although both of these assumptions are not fully satisfied, the results may still be indicative of the margin of error of the estimates that can be attributed to the selection variability of the countries in the sample.

The results are shown in Table below. It can be observed that the standard errors of the global estimates are generally the lowest, as they are based on the maximum amount of information. The largest relative standard error is for MENA countries reflecting the lower coverage and the greater heterogeneity of the countries in this region. Compared with the results of 2008, the standard errors in 2012 have greatly decreased indicating improvement in the precision of the estimates. Standard errors for hazardous work by children as well as different sex and age categories of children have been calculated and are available upon request.

[19] UNICEF. The State of the World's Children 2013. Children with Disabilities, 2013.

**Table 26. Standard errors of estimates, 5-17 years old, 2012**

| | Children in employment ('000) | | | Child labour ('000) | | |
|---|---|---|---|---|---|---|
| | Estimate | Standard error | Relative error (%) | Estimate | Standard error | Relative error (%) |
| **World** | **264,427** | **697** | **0.3** | **167,956** | **461** | **0.3** |
| Asia and the Pacific | 129,358 | 990 | 0.8 | 77,723 | 711 | 0.9 |
| Latin America and the Caribbean | 17,843 | 85 | 0.5 | 12,505 | 68 | 0.5 |
| Sub-Saharan Africa | 83,570 | 167 | 0.2 | 59,031 | 216 | 0.4 |
| Other regions | 33,656 | 947 | 2.8 | 18,697 | 309 | 1.7 |
| of which MENA | 13,307 | 278 | 2.1 | 9,244 | 213 | 2.3 |

The values of the standard error can be used to construct approximate confidence intervals for the estimates. Thus, for the global estimate of child labour, one may establish that in a sense the true number lies around 167,956,000 plus or minus 461,000 with 67 per cent percent probability which corresponds to a deviation of one standard error. This means that if the process of selecting sample countries were possible and it had been repeated many times, the resulting estimates would be 67 per cent of the times between 167,495,000 and 168,417,000. Similar calculations may be done to obtain confidence intervals with 95 per cent probability, corresponding roughly to a deviation of two standard errors.

## 7.2 Raw data versus adjusted estimates 2012

A method of evaluating the overall effect of the estimation methodology is to compare the estimated incidence rates of child labour with the corresponding rates calculated on the basis of the raw data with no adjustment for reference dates, missing variables and survey methodologies and no extrapolation to regional and global totals. The results are shown in Table below.

**Table 27. Comparison of incidence rates: raw versus estimated, 2012**

| Region | Children in employment | | | Child labour | | |
|---|---|---|---|---|---|---|
| | Estimated | Raw | Diff | Estimated | Raw | Diff |
| **World** | **16.7 %** | **20.4 %** | **-3.7 %** | **10.6 %** | **13.2 %** | **-2.6 %** |
| Asia and the Pacific | 15.5 % | 15.6 % | -0.2 % | 9.3 % | 10.2 % | -0.9 % |
| Latin America and the Caribbean | 12.5 % | 12.6 % | -0.1 % | 8.8 % | 9.0 % | -0.2 % |
| Sub Saharan Africa | 30.3 % | 29.3 % | 1.0 % | 21.4 % | 18.3 % | 3.1 % |
| Other regions | 10.1 % | 13.7 % | -3.5 % | 5.6 % | 9.8 % | -4.2 % |
| of which MENA | 12.1 % | 12.0 % | 0.1 % | 8.4 % | 9.0 % | -0.6 % |

Note: The values of the Diff column may not always correspond to the difference between the estimated and raw percentages due to rounding errors.

## 7.3 Comparison of full-sample and matched-sample estimates

Another method of evaluating the accuracy of the results is to compare the full-sample estimate of child labour with the corresponding matched sample estimate. One is based on the full sample of countries and the other on only those countries for which data on repeated years were available. A close relationship between the two estimates provides an indication of the stability of the results. Table below compares the two estimates for global child labour and its regional breakdown.

The results show that the full-sample estimate is consistently lower than the matched sample estimate. The biggest difference is for Sub-Saharan Africa (-16.1 million) and the lowest for Latin America and the Caribbean. In fact, for Latin America and the Caribbean the matched sample estimate has not been used, but replaced by the full-sample estimate. Because of the retrospective adjustment made in 2008 for Latin America and the Caribbean, the matched sample estimate has not been considered appropriate for this region.

**Table 28. Comparison of full-sample and matched-sample estimates of child labour, 2012**

| | Full-sample estimate | Matched sample estimate | Difference |
|---|---|---|---|
| **World** | **155,590** | **192,573** | **-36,983** |
| Asia and the Pacific | 76,085 | 79,411 | -3,326 |
| Latin America and the Caribbean | 12,505 | 12,505 | 0 |
| Sub Saharan Africa | 50,171 | 66,279 | -16,108 |
| Other regions | 16,828 | 24,694 | -7,866 |

In general, the matched sample estimate is to be considered as providing a more reliable estimate of trend while the full-sample estimate giving a more reliable estimate of level. The composite estimate published in this report is a compromise between these two estimates and is meant to draw on their advantages and minimize their disadvantages.

## 7.4 Comparison with ILO Labour force estimates and projections

The ILO produces estimates and projections of the labour force for five-year age groups starting with 15-19 years old. The projections made for 2012 provide a basis for comparison of the global estimates of children in employment made in the present report. Table 28 compares the results.

**Table 29. ILO labour force estimates and projections versus global and regional estimates of children in employment**

| | ILO Labour force estimates and projections (15-19 yrs) | Global estimate of children in employment (15-17 yrs) |
|---|---|---|
| **World** | **197,115** | **120,362** |
| Asia and the Pacific | 105,547 | 64,939 |
| Latin America and the Caribbean | 20,629 | 8,857 |
| Sub Saharan Africa | 40,663 | 25,947 |
| Other regions | 30,276 | 20,618 |
| Of which Middle East and North Africa | 8,237 | 6,231 |

As expected, the ILO labour force estimates and projections are higher than the global estimates of child in employment because the former refers to broader age group (15-19 years) than the latter (15-17 years). The relative positions of the regions are however the same in both bodies of statistics.

## 7.5 Comparison with UNICEF global and regional estimates of child labour

Based on DHS, MICS and other national surveys conducted from 2002 to 2011, UNICEF has produced global and regional child labour estimates for children aged 5 to 14 years old. UNICEF databases included 91 countries covering 71 per cent of the population of children aged 5-14 in the world.

According to UNICEF definition, the following children are considered to be engaged in child labour: children 5-11 years in economic activity, or in household chores for 28 hours or more during the reference week; children 12-14 years in economic activity (excluding those in light work for fewer than 14 hours per week) or household chores for 28 hours or more during the reference week.

These global and regional child labour estimates provide a basis for comparison of the ones produced in this report for the following regions: Sub-Saharan Africa, Middle East and North Africa and Latin America and Caribbean (Table 30). Regarding Asia and the Pacific, UNICEF statistics are broken down between South Asia and East Asia and Pacific. This situation hampers any direct comparison with the regional estimates for Asia and Pacific from this study.

**Table 30. UNICEF global and regional estimates of child labour (general production boundary) versus ILO global and regional estimates of child labour (SNA production boundary), 5-14 years**

| | UNICEF Child labour estimates, 2011 (%) | ILO Child labour estimates, 2012 (%) |
|---|---|---|
| **World** | **15*** | **10** |
| Latin America and the Caribbean | 9 | 7 |
| Middle East and North Africa | 9 | 7 |
| Sub-Saharan Africa | 27 | 21 |

*Excludes China.

The UNICEF global and regional estimates of child labour for children aged 5 to 14 years are higher than the ones produced in this report since UNICEF methodology is based on a broader definition of child labour, including unpaid household services (household chores undertaken in the child's own household). Despite of this difference in the child labour estimation methodology, the relative positions of the regions are the same in both bodies of statistics. In addition, there are relatively marginal gaps between the two findings on global and regional estimates of child labour for children aged 5 to 14 years old.

In summary, the evaluation of the results indicates:

- a certain degree of consistency in the global and regional estimates, in the sense that the order of magnitude of the incidence rates by age group and region are essentially in line with expected values compared to worldwide trends of related phenomena; the sampling variability of the estimates, as measured by the standard errors, are generally within acceptable levels, in most cases below 1 per cent of the point estimate;
- the overall effect of adjustments for differences in reference dates, missing variables, survey methodologies and extrapolations to regional and global totals is not drastic, remaining at most within 4.2 percentage points of the underlying raw data.

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# Annexes

## Annex 1. National datasets for global child labour estimation 2008-2012

| National datasets for global child labour estimation 2008-2012 | | |
|---|---|---|
| **Asia and the Pacific – 19 national datasets** | | |
| **Datasets** | **Year** | **Survey** |
| Bhutan | 2010 | Multiple Indicator Cluster Survey (MICS 4) |
| Cambodia*+ | 2012 | Labour Force & Child Labour Survey |
| | 2009 | Socio-Economic Survey |
| India* | 2010 | National Sample Survey Round 66 |
| Indonesia+ | 2008 | Labour Force Survey (Sakernas) |
| | 2009 | SIMPOC |
| | 2010 | Labour Force Survey (Sakernas) |
| Lao PDR | 2010 | Labour Force & Child Labour Survey |
| Maldives | 2009 | Demographic and Health Survey (DHS) |
| Mongolia* | 2012 | SIMPOC |
| Nepal | 2008 | Labour Force Survey |
| Pakistan+ | 2008 | Labour Force Survey |
| | 2009 | Labour Force Survey |
| | 2010 | Labour Force Survey |
| | 2011 | Labour Force Survey |
| Philippines | 2011 | Survey On Children (SOC) |
| Sri Lanka | 2008 | Child Activity Survey (CAS) |
| Vietnam*+ | 2011 | Multiple Indicator Cluster Survey (MICS 4) |
| | 2012 | Labour Force & Child Labour Survey |
| **Latin America and the Caribbean - 23 national datasets** | | |
| **Datasets** | **Year** | **Survey** |
| Bolivia*+ | 2009 | Encuesta de Hogares |
| | 2008 | Encuesta de trabajo infantil |
| Brazil*+ | 2011 | Pesquisa Nacional por Amostra de Domicílios (PNAD) |
| | 2009 | Pesquisa Nacional por Amostra de Domicílios (PNAD) |
| | 2008 | Pesquisa Nacional por Amostra de Domicílios (PNAD) |
| Colombia*+ | 2011 | Encuesta Nacional de Trabajo Infantil (ENNA) |
| | 2009 | Encuesta trabajo infantil (ETI) |
| Costa Rica* | 2011 | Encuesta Nacional de Hogares (ENAHO) |

| | | |
|---|---|---|
| Dominican Republic* | 2009 | SIMPOC |
| El Salvador*+ | 2010 | Encuesta de Hogares de Propositis Multiples |
| | 2009 | Encuesta de Hogares de Propositis Multiples |
| Guatemala* | 2011 | Encuesta Nacional de Condicione de Vida (ENCOVI) |
| Mexico*+ | 2011 | Encuesta Nacional de Ocupación y Empleo, Modulo Trabajo Infantil (ENOE-MTI) |
| | 2009 | Encuesta Nacional de Ocupación y Empleo (ENOE) |
| Panama+ | 2010 | Encuesta de Trabajo Infantil (ETI) |
| | 2008 | Encuesta de Trabajo Infantil (ETI) |
| Peru*+ | 2011 | Encuesta Nacional de Hogares (ENAHO) |
| | 2010 | Encuesta Nacional de Hogares (ENAHO) |
| | 2009 | Encuesta Nacional de Hogares (ENAHO) |
| Uruguay | 2009 | Encuesta Nacional de Trabajo Infantil (ENTI) |
| Venezuela*+ | 2010 | Encuesta de Hogares por Muestreo (EHM), 2010 |
| | 2009 | Encuesta de Hogares por Muestreo (EHM), 2009 |
| | 2008 | Encuesta de Hogares por Muestreo (EHM) |
| **Sub-Saharan Africa - 26 national datasets** | | |
| **Datasets** | **Year** | **Survey** |
| Benin* | 2011 | Enquête Modulaire Intégrée sur les Conditions de Vie au Bénin (EMICoV) |
| Burundi | 2010 | Demographic and Health Survey (DHS) |
| Cameroon* | 2010 | Enquête sur l'Emploi et le Secteur Informel (EESI) |
| Congo DRC | 2010 | Multiple Indicator Cluster Survey (MICS 4) |
| Ethiopia* | 2011 | Demographic and Health Survey (DHS) |
| Gambia | 2012 | Labour Force Survey |
| Guinea | 2010 | SIMPOC |
| Liberia | 2010 | LFS |
| Madagascar* | 2010 | Enquête Permanente Auprès des Ménages (EPAM) |
| Malawi | 2011 | Integrated Household Survey |
| Mozambique | 2008 | Multiple Indicator Cluster Survey (MICS 3) |
| Niger | 2009 | SIMPOC |
| Nigeria | 2007 | Multiple Indicator Cluster Survey (MICS 3) |
| Rwanda* | 2010 | Demographic and Health Survey (DHS) |
| Senegal* | 2011 | Demographic and Health Survey (DHS) |
| Sierra Leone+ | 2010 | Multiple Indicator Cluster Survey (MICS 4) |
| | 2008 | Demographic and Health Survey (DHS) |
| Sudan | 2008 | Housing and Population Census |
| Sudan South | 2008 | Housing and Population Census |
| Swaziland | 2010 | Multiple Indicator Cluster Survey (MICS 4) |

| | | |
|---|---|---|
| Togo*+ | 2011 | Questionnaire unifié des indicateurs de base du bien-être (QUIBB) |
| | 2010 | SIMPOC |
| Uganda*+ | 2012 | Child Labour & Labour Force Survey |
| | 2010 | Uganda National Panel Survey (UNPS) |
| | 2009 | Uganda National Panel Survey (UNPS) |
| Zambia* | 2008 | Labour Force Survey |
| **Other regions – 7 national datasets** | | |
| **Datasets** | **Year** | **Survey** |
| Albania | 2010 | SIMPOC |
| Armenia | 2010 | Demographic and Health Survey (DHS) |
| Egypt | 2010 | SIMPOC |
| Iraq* | 2010 | Multiple Indicator Cluster Survey (MICS 4) |
| Moldova | 2009 | SIMPOC |
| Morocco | 2011 | Enquête emploi auprès des ménages |
| Yemen* | 2010 | SIMPOC |

* Twenty-five countries appeared in the previous Global Child Labour Trends 2004 to 2008 (matched samples).

+ Fifteen countries have multiple datasets in the current round of global estimation.

## Annex 2. Countries by gross national income in 2011

The World Bank's main criterion for classifying economies is gross national income (GNI) per capita. Each economy is classified as low income, middle income (subdivided into lower-middle-income and upper-middle-income), or high income.

Low-and middle-income economies are sometimes referred to as developing economies.

Definitions used are as follows:

- low-income economies are those with a gross national income per capita of $ 1,025 or less in 2011;
- lower-middle-income economies are those with a gross national income per capita more than $ 1,026 but less than $ 4,036 in 2011;
- upper-middle-income economies are those with a gross national income per capita of $ 4,036 but less than $12,476;
- high-income economies are those with a gross national income per capita of $12,476 or more.

| Countries by gross national income in 2011 | |
|---|---|
| **Asia and the Pacific – 19 national datasets** | |
| Bhutan | Lower-middle-income |
| Cambodia | Low income |
| India | Lower-middle-income |
| Indonesia | Lower-middle-income |
| Lao PDR | Lower-middle-income |
| Maldives | Upper-middle-income |
| Mongolia | Lower-middle-income |
| Nepal | Low income |
| Pakistan | Lower-middle-income |
| Philippines | Lower-middle-income |
| Sri Lanka | Lower-middle-income |
| Vietnam | Lower-middle-income |
| **Latin America and the Caribbean-23 national datasets** | |
| Bolivia | Lower-middle-income |
| Brazil | Upper-middle-income |
| Colombia | Upper-middle-income |
| Costa Rica | Upper-middle-income |
| Dominican Republic | Upper-middle-income |
| El Salvador | Lower-middle-income |
| Guatemala | Lower-middle-income |
| Mexico | Upper-middle-income |
| Panama | Upper-middle-income |
| Peru | Upper-middle-income |
| Uruguay | Upper-middle-income |
| Venezuela | Upper-middle-income |

| Sub-Saharan Africa - 26 national datasets | |
|---|---|
| Benin | Low income |
| Burundi | Low income |
| Cameroon | Lower-middle-income |
| Congo DRC | Low income |
| Ethiopia | Low income |
| Gambia | Low income |
| Guinea | Low income |
| Liberia | Low income |
| Madagascar | Low income |
| Malawi | Low income |
| Mozambique | Low income |
| Niger | Low income |
| Nigeria | Lower-middle-income |
| Rwanda | Low income |
| Senegal | Lower-middle-income |
| Sierra Leone | Low income |
| Sudan North | Lower-middle-income |
| Sudan South | Lower-middle-income |
| Swaziland | Lower-middle-income |
| Togo | Low income |
| Uganda | Low income |
| Zambia | Lower-middle-income |
| **Other regions - 7 national datasets** | |
| Albania | Upper-middle-income |
| Armenia | Lower-middle-income |
| Egypt | Lower-middle-income |
| Iraq | Lower-middle-income |
| Moldova | Lower-middle-income |
| Morocco | Lower-middle-income |
| Yemen | Lower-middle-income |

Source: http://data.worldbank.org/about/country-classifications.

## Annex 3. Selected key indicators on child labour, 2000-2012

### *Global estimates of child labour, 5-17 years old, 2012*

| Sex and age group | Total children | Children in employment | | Child labour | | Hazardous work | |
|---|---|---|---|---|---|---|---|
| | ('000) | ('000) | % | ('000) | % | ('000) | % |
| **World** | 1,585,566 | 264,427 | 16.7 | 167,956 | 10.6 | 85,344 | 5.4 |
| **Boys** | 819,877 | 148,327 | 18.1 | 99,766 | 12.2 | 55,048 | 6.7 |
| **Girls** | 765,690 | 116,100 | 15.2 | 68,190 | 8.9 | 30,296 | 4.0 |
| **5-11 years** | 858,925 | 73,072 | 8.5 | 73,072 | 8.5 | 18,499 | 2.2 |
| **12-14 years** | 362,146 | 70,994 | 19.6 | 47,381 | 13.1 | 19,342 | 5.3 |
| **(5-14 years)** | 1,221,071 | 144,066 | 11.8 | 120,453 | 9.9 | 37,841 | 3.1 |
| **15-17 years** | 364,495 | 120,362 | 33.0 | 47,503 | 13.0 | 47,503 | 13.0 |

### *Regional estimates of child labour, 5-17 years old, 2012*

| Region | Total children | Children in employment | | Child labour | | Hazardous work | |
|---|---|---|---|---|---|---|---|
| | ('000) | ('000) | % | ('000) | % | ('000) | % |
| **World** | 1,585,566 | 264,427 | 16.7 | 167,956 | 10.6 | 85,344 | 5.4 |
| **Asia and the Pacific** | 835,334 | 129,358 | 15.5 | 77,723 | 9.3 | 33,860 | 4.1 |
| **Latin America and the Caribbean** | 142,693 | 17,843 | 12.5 | 12,505 | 8.8 | 9,638 | 6.8 |
| **Sub Saharan Africa** | 275,397 | 83,570 | 30.3 | 59,031 | 21.4 | 28,767 | 10.4 |
| **Other regions** | 332,143 | 33,656 | 10.1 | 18,697 | 5.6 | 13,078 | 3.9 |
| of which MENA | 110,411 | 13,307 | 12.1 | 9,244 | 8.4 | 5,224 | 4.7 |

### *Global trends of child labour, 5-17 years old, 2000-2012*

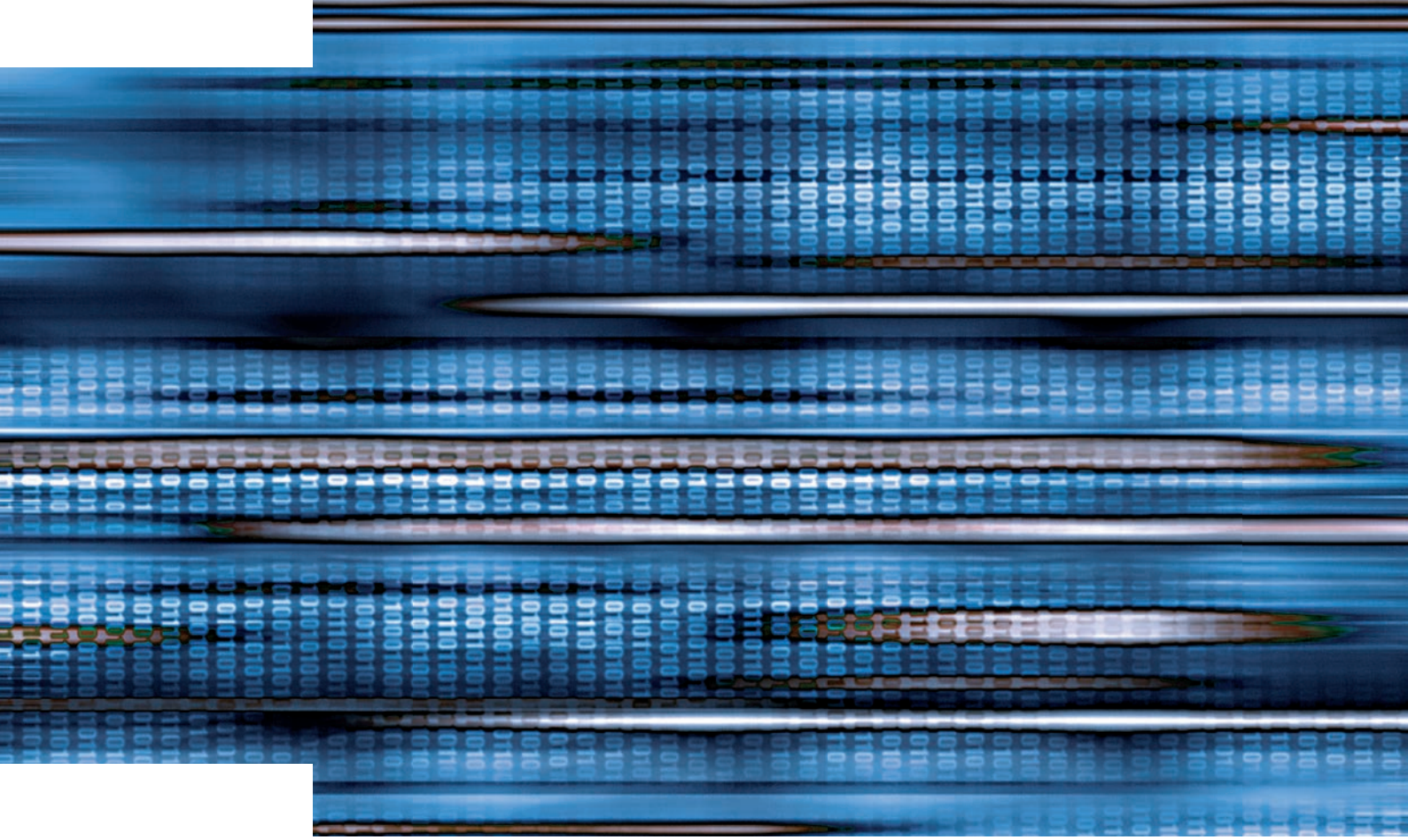
| Sex and age group | Total children | Children in employment | | Child labour | | Hazardous work | |
|---|---|---|---|---|---|---|---|
| | ('000) | ('000) | % | ('000) | % | ('000) | % |
| **World** | | | | | | | |
| 2000 | 1,531,400 | 351,900 | 23.0 | 245,500 | 16.0 | 170,500 | 11.1 |
| 2004 | 1,566,300 | 322,729 | 20.6 | 222,294 | 14.2 | 128,381 | 8.2 |
| 2008 | 1,586,288 | 305,669 | 19.3 | 215,209 | 13.6 | 115,314 | 7.3 |
| 2012 | 1,585,566 | 264,427 | 16.7 | 167,956 | 10.6 | 85,344 | 5.4 |

| Sex and age group | Total children | Children in employment | | Child labour | | Hazardous work | |
|---|---|---|---|---|---|---|---|
| | ('000) | ('000) | % | ('000) | % | ('000) | % |
| **Boys** | | | | | | | |
| 2000 | 786,500 | 184,200 | 23.4 | 132,200 | 16.8 | 95,700 | 12.2 |
| 2004 | 804,000 | 171,150 | 21.3 | 119,575 | 14.9 | 74,414 | 9.3 |
| 2008 | 819,891 | 175,777 | 21.4 | 127,761 | 15.6 | 74,019 | 9.0 |
| 2012 | 819,877 | 148,327 | 18.1 | 99,766 | 12.2 | 55,048 | 6.7 |
| **Girls** | | | | | | | |
| 2000 | 744,900 | 167,700 | 22.5 | 113,300 | 15.2 | 74,800 | 10.0 |
| 2004 | 762,300 | 151,579 | 19.9 | 102,720 | 13.5 | 53,966 | 7.1 |
| 2008 | 766,397 | 129,892 | 16.9 | 87,508 | 11.4 | 41,296 | 5.4 |
| 2012 | 765,690 | 116,100 | 15.2 | 68,190 | 8.9 | 30,296 | 4.0 |
| **5-14 years** | | | | | | | |
| 2000 | 1,199,400 | 211,000 | 17.6 | 186,300 | 15.5 | 111,300 | 9.3 |
| 2004 | 1,206,500 | 196,047 | 16.2 | 170,383 | 14.1 | 76,470 | 6.3 |
| 2008 | 1,216,854 | 176,452 | 14.5 | 152,850 | 12.6 | 52,895 | 4.3 |
| 2012 | 1,221,071 | 144,066 | 11.8 | 120,453 | 9.9 | 37,841 | 3.1 |
| **15-17 years** | | | | | | | |
| 2000 | 332,000 | 140,900 | 42.4 | 59,200 | 17.8 | 59,200 | 17.8 |
| 2004 | 359,800 | 126,682 | 35.2 | 51,911 | 14.4 | 51,911 | 14.4 |
| 2008 | 369,433 | 129,217 | 35.0 | 62,419 | 16.9 | 62,419 | 16.9 |
| 2012 | 364,495 | 120,362 | 33.0 | 47,503 | 13.0 | 47,503 | 13.0 |

*Regional trends of children in employment, child labour and hazardous work, 5-14 years old, 2000-2012*

| Region | Total children | Children in employment | | Child labour | | Hazardous work | |
|---|---|---|---|---|---|---|---|
| | ('000) | ('000) | % | ('000) | % | ('000) | % |
| **World** | | | | | | | |
| 2000 | 1,199,400 | 211,000 | 17.6 | 186,300 | 15.5 | 111,300 | 9.3 |
| 2004 | 1,206,500 | 196,047 | 16.2 | 170,383 | 14.1 | 76,470 | 6.3 |
| 2008 | 1,216,854 | 176,452 | 14.5 | 152,850 | 12.6 | 52,895 | 4.3 |
| 2012 | 1,221,071 | 144,066 | 11.8 | 120,453 | 9.9 | 37,841 | 3.1 |
| **Asia and the Pacific** | | | | | | | |
| 2000 | 665,100 | 127,300 | 19.1 | - | - | - | - |
| 2004 | 650,000 | 122,300 | 18.8 | - | - | - | - |
| 2008 | 651,815 | 96,397 | 14.8 | 81,609 | 12.5 | 16,332 | 2.5 |
| 2012 | 637,579 | 64,419 | 10.1 | 52,702 | 8.3 | - | - |

| Region | Total children | Children in employment | | Child labour | | Hazardous work | |
|---|---|---|---|---|---|---|---|
| | ('000) | ('000) | % | ('000) | % | ('000) | % |
| **Latin America and the Caribbean** | | | | | | | |
| 2000 | 108,100 | 17,400 | 16.1 | - | - | - | - |
| 2004 | 111,000 | 11,047 | 10.0 | - | - | - | - |
| 2008 | 110,566 | 10,002 | 9.0 | 9,470 | 8.6 | 4,529 | 4.1 |
| 2012 | 110,035 | 8,986 | 8.2 | 7,924 | 7.2 | - | - |
| **Sub-Saharan Africa** | | | | | | | |
| 2000 | 166,800 | 48,000 | 28.8 | - | - | - | - |
| 2004 | 186,800 | 49,300 | 26.4 | - | - | - | - |
| 2008 | 205,319 | 58,212 | 28.4 | 52,301 | 25.5 | 26,045 | 12.7 |
| 2012 | 220,077 | 57,623 | 26.2 | 47,735 | 21.7 | - | - |
| **Other regions** | | | | | | | |
| 2000 | 269,300 | 18,300 | 6.8 | - | - | - | - |
| 2004 | 258,800 | 13,400 | 5.2 | - | - | - | - |
| 2008 | 249,154 | 10,700 | 4.3 | 9,470 | 3.8 | 5,989 | 2.4 |
| 2012 | 253,380 | 13,038 | 5.1 | 12,091 | 4.8 | - | - |
| **of which MENA** | | | | | | | |
| 2012 | 86,117 | 7,076 | 8.2 | 6,396 | 7.4 | - | - |



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