

# Child labour in Bolivia: a comparison of estimates from MECOVI and MICS survey instruments

L. Guarcello S. Lyon

January 2004

# Child labour in Bolivia:a comparison of estimates from MECOVI and MICS survey instruments

L. Guarcello\*

S. Lyon\*

Working Paper January 2004

Understanding Children's Work (UCW) Project
University of Rome "Tor Vergata"
Faculty of Economics
V. Columbia 2
00133 Rome Tor Vergata

Tel: +39 06.7259.5618 Fax: +39 06.2020.687 Email: info@ucw-project.org

As part of broader efforts toward durable solutions to child labor, the International Labour Organization (ILO), the United Nations Children's Fund (UNICEF), and the World Bank initiated the interagency Understanding Children's Work (UCW) project in December 2000. The project is guided by the Oslo Agenda for Action, which laid out the priorities for the international community in the fight against child labor. Through a variety of data collection, research, and assessment activities, the UCW project is broadly directed toward improving understanding of child labor, its causes and effects, how it can be measured, and effective policies for addressing it. For further information, see the project website at www.ucw-project.org.

This paper is part of the research carried out within UCW (Understanding Children's Work), a joint ILO, World Bank and UNICEF project. The views expressed here are those of the authors' and should not be attributed to the ILO, the World Bank, UNICEF or any of these agencies' member countries.

\_

<sup>\*</sup> UCW-Project and University of Rome "Tor Vergata"

# Child labour in Bolivia:a comparison of estimates from MECOVI and MICS survey instruments

Working Paper January 2004

#### **ABSTRACT**

Child labour in Bolivia is analysed applying two recent surveys, MECOVI 2000 (World Bank) and MICS 2000 (UNICEF). The analysis aims at contrasting and comparing the survey findings relating to the incidence and characteristics of children's work. The extent to which the findings are survey-dependent is assessed and implications for the design and implementation for future surveys for the analysis of child labour is discussed.

# Child labour in Bolivia:a comparison of estimates from MECOVI and MICS survey instruments

Working Paper January 2004

#### **CONTENTS**

1.	Introduction	1
2.	Survey characteristics	3
3.	Measurement of children's activities	5
4.	Characteristics of children's work	9
5.	Effects of involvement in economic activity	13
6.	Factors associated with children's work	15
7.	Conclusion	19
	References	
Annex	A: Descriptive tables	21

#### 1. INTRODUCTION

- 1. World Bank multipurpose household surveys, UNICEF MICS surveys, and ILO SIMPOC surveys are particularly important instruments for generating information on child labour in developing countries. Datasets from these surveys, based on comprehensive interviews with a stratified sample of households, provide information on the incidence and key characteristics of children's work, as well as the links between children's work, child age and sex, household income levels, mothers' education and a range of other factors (see Table 1).
- 2. How do the results generated by these survey instruments compare? And to what extent are child labour estimates survey-dependent? This paper compares the results of a World Bank multi-purpose survey and a UNICEF MICS survey in Bolivia in an attempt to address these questions. It builds on a previous comparison of World Bank and ILO survey results in Zambia, and constitutes part of a broader effort to improve the quality and consistency of child labour data collected through the agencies main survey instruments.
- 3. Bolivia provides a good opportunity for this survey comparison because a World Bank Living Standards Measurement Study<sup>5</sup> and a UNICEF MICS survey were both conducted there during 2000, meaning that discrepancies in the survey findings are likely due to methodological differences rather than to longitudinal changes in the actual child labour situation.
- 4. This paper looks specifically at the degree to which the findings on child labour are consistent across the two Bolivia surveys, and therefore have similar implications for policy. The paper focuses on the 7-14 years age group. The upper bound of 14 years is consistent with the ILO Convention No. 138 on Minimum Age,<sup>6</sup> which states that the minimum age for admission to employment or work should not be less than 15 years (Art. 2.3), and is the age at which compulsory schooling ends in Bolivia.<sup>7</sup> The lower bound of seven years was that used in the employment module of the MECOVI survey.<sup>8</sup>
- 5. The paper is structured as follows. Section 2 provides background information on the two surveys and the sampling methodology employed for each. Sections 3, 4 and 5 then examine survey findings relating to the

<sup>&</sup>lt;sup>1</sup> Principally, the Living Standards Measurement Study/Integrated Survey series and the Priority Survey series.

<sup>&</sup>lt;sup>2</sup> Multiple Indicator Cluster Surveys.

<sup>&</sup>lt;sup>3</sup> Statistical Information and Monitoring Programme on Child Labour.

<sup>&</sup>lt;sup>4</sup> Blunch N.H., Dar A., Guarcello L., Lyon S., Ritualo A.R. and Rosati F.C., *Children's Work in Zambia: A Comparative Study of Survey Instruments, UCW Project working paper, September 2002.* 

<sup>&</sup>lt;sup>5</sup> Entitled: 'Encuesta continua de hogares (programa MECOVI)', referred to hereafter as MECOVI 2000.

<sup>&</sup>lt;sup>6</sup> In countries where the economy and educational facilities are insufficiently developed the Convention sets a minimum age of not less than 14 years for general work, and 12 years for light work, for an initial period. In Bolivia, the minimum working age is 14 years, with the exception of apprentices. Children less than 18 years of age are prohibited from work that could retard their physical growth, that requires great strength, or that is dangerous (*Ley General del Trabajo, del 8 de dicembre de 1942, Decreto Supremo del 4 de agosto de 1940*).

<sup>&</sup>lt;sup>7</sup> It should be noted that the stipulations contained in ILO Conventions Nos. 138 and 182 relating to hazardous work, excessively long work hours and unconditional worst forms, also extend to children aged 15-17 years. The two surveys, however, do not collect information on these issues.

<sup>&</sup>lt;sup>8</sup> MICS, on the other hand, collected information on child labour for the 5-14 years age group.

2

incidence, characteristics and impact of children's work. For each, the two surveys are compared in terms of how key variables are constructed and in terms of results generated. Section 6 looks at key correlates children's work, and their consistency across the two surveys. Section 7 concludes.

#### 2. SURVEY CHARACTERISTICS

- 6. The Bolivia Living Conditions Survey (*Encuesta continua de hogares*), referred to hereafter as MECOVI, was carried out in 2000 by the National Statistical Office. The survey, part of the regional MECOVI programme, <sup>9</sup> was aimed at improving and extending information on household living conditions, information needed for the effective formulation and evaluation of poverty reduction programmes. The survey questionnaire covered a wide range of socio-economic and demographic variables in an effort to capture the various dimensions of poverty and living conditions.
- 7. The MECOVI survey sample comprised 4,875 households and 20,815 persons, representing 1,906,668 households and an expanded population of 8,274,803 individuals. The survey was addressed to all households, excluding people living in collective housing (hospitals, etc.). A stratified sample design was used, based on the Probability Proportional to Size method for the PSU (primary sample unit) and for the households in the second stage, building a sample representative at the national as well as regional, urban and rural levels. Questions relating to children aged seven years and older were addressed directly to the children.
- 8. The Bolivia Multiple Indicator Cluster Survey, referred to hereafter as MICS, was also carried out in 2000 by the National Statistical Office. The survey was undertaken as part of the UNICEF global MICS programme<sup>10</sup>, and was designed to assess progress on the end-decade goals set at the 1990 United Nations World Summit for Children. These goals related to nutrition, health and education, as well as to birth registration, family environment, knowledge of HIV/AIDS, and child labour.
- 9. The Bolivia MICS survey followed the design, planning and implementation methodologies of the global MICS survey programme. A stratified sample design was employed, building a national probabilistic sample, stratified by geographic area, department and residence (urban-rural). The survey sample comprised 4,312 households. The survey questionnaire targeted male and female children under 17 years of age (household questionnaire module), women of child-bearing age (women questionnaire module), and children aged less than five years (child questionnaire). Questions in the household module relating to children were addressed to caretakers rather than to children themselves.

<sup>&</sup>lt;sup>9</sup> A regional programme of technical assistance for statistical capacity building to improve household surveys to measure living conditions and poverty in Latin America and the Caribbean region. a joint initiative of IDB, World Bank and UN-ECLAC.

<sup>&</sup>lt;sup>10</sup> With in mind the purpose of obtaining comparable information at international level, the division of Evaluation, Policy and Planning of UNICEF, in cooperation with UNESCO, USAID, OMS and DHS, has developed the Multiple Indicator Cluster Survey (MICS) programme, for implementation in a wide numbers of countries

<sup>&</sup>lt;sup>11</sup> Due to inaccessibility were excluded from the sample the rural areas of the departments of Beny and Pando, accounting for 1.5 percent of the National population.

10. As illustrated in Table 1, the two surveys differed somewhat in terms of scope and variables examined. While both surveys collected information children at work in economic activity, only MICS looked at child involvement in household chores. Although international labour standards provide for exceptions for household chores performed in a child's own household, household chores can pose risks to children's health, and can affect children's ability to attend and benefit from schooling, in the same ways as work in economic activity. Consideration household chores is there also important to a general understanding of child labour.

Table 1.- Availability of data relating to child labour

Indicator area	MICS	MECOVI
Work in economic activity	✓	4
School attendance	1	1
Work in household chores	<b>✓</b>	х
Hazardous work	х	х
Unconditional worst forms	х	х
Work modality	✓	✓
Work sector	х	<b>✓</b>
Work intensity (hrs. worked)	<b>✓</b>	<b>*</b>
Learning achievement	х	х
Reported illness/injury	х	<b>*</b>
Mothers' education	<b>✓</b>	✓
Schooling expenditures	х	<b>*</b>
Household income/wealth	✓	✓
Water availability	✓	✓
Electricity availability	Х	<b>✓</b>
Exposure to shock	х	х
Access to credit	х	х
Access to land	х	х

11. Both surveys provided

information on the intensity and modality of work, but only MECOVI looked in detail at the type (i.e., sector and sub-sector) of work performed by children, and children's specific work functions. MECOVI was also unique in collecting information on illness and injury among the 7-14 years age group. These variables are all critical to assessing the hazardousness of work, and the extent to which children's work constitutes child labour for elimination. Neither survey offered information concerning children's involvement in unconditional worst forms of work, an area for which large-scale household surveys are ill-suited. 12

12. MECOVI provided a much wider range of background household and community variables for use in analysing the determinants of child labour. In addition to the background variables provided by MICS (i.e., mothers' education, water availability and household wealth), MECOVI collected information on electricity access, schooling costs, electricity availability, household expenditures and employment of household head, all of which are potentially important to understanding household decisions concerning children's work.

<sup>&</sup>lt;sup>12</sup> It is very unlikely, for example, that unconditional worst forms of work would be reported by a household member to a survey interviewer, even if the child in question were still part of the household. And frequently the concerned children do not belong to a household, having either run away or been abandoned, orphaned, displaced or even sold. Alternative survey tools and methodologies are needed for generating statistical information on these children.

#### MEASUREMENT OF CHILDREN'S ACTIVITIES

13. How common is children's work Bolivia? The estimates generated by the MICS and MECOVI surveys offer somewhat different answers. As illustrated in Figure 1, the MICS survey results suggest a much higher rate of children's work than those of the MECOVI survey. Indeed, for the 7-14 age group as a whole, the MICS-based estimate of children's involvement in economic activity is almost one-third higher than the MECOVI-based estimate. This gap in the estimates across the two surveys holds for all ages and for both sexes. The MICS results also indicate a higher proportion of children attending school, again across all ages and for both sexes, than the MECOVI results, although the gap in attendance estimates across the two surveys is less large (Figure 2).

Figure 1. - Proportion of children involved in economic activity, by age and data source

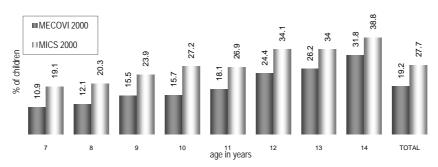
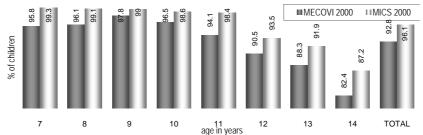


Figure 2. - Proportion of children attending school, by age and data source



Not all child economic activity constitutes child labour for elimination, <sup>14</sup> and it is therefore also important to compare survey estimates of child labour. <sup>15</sup> In the absence of detailed information on work characteristics and work hazards,

<sup>&</sup>lt;sup>13</sup> As noted above, only MICS collected information on household chores. The survey indicated the five percent of 7-14 years put in at least 28 hours on household chores per week, with the proportion of girls performing household chores for at least this amount of time twice that of boys.

<sup>&</sup>lt;sup>14</sup> Child labour is the subset of children's work that is injurious, negative or undesirable to children and that should be targeted for elimination in accordance with international child labour norms. The UN Convention on the Rights of the Child (CRC) recognises the children's right to be protected from forms of work that are likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral or social development. In order to achieve this goal, the CRC calls on States Parties to set minimum ages for admission to employment, having regard to other international instruments. ILO Conventions No. 138 (Minimum Age) and No. 182 (Worst Forms) target as child labour 1) all forms of work carried out by children below a minimum cut-off age (at least 14 years in less developed countries), with an exemption for children in "light work" carried out by children above a second lower cut-off age (at least 12 years in less developed countries); and 2) all 'worst forms' of child labour carried out by children of any age under 18 years, where worst forms include any activity or occupation which, by its nature or type has, or leads to, adverse effects on the child's safety, health, or moral development.

<sup>&</sup>lt;sup>15</sup> Determining where, and how, to draw the statistical line between benign forms of work, on one side, and child labour for elimination, on the other, is complicated. For a discussion of the measurement challenges associated with estimating rates of child labour, see UCW Project, *Towards an inter-agency consensus on child labour indicators: A discussion note*, draft project working paper, October 2003.

minimum working age as defined by ILO Convention No. 138 must be used as the main criterion for estimating child labour. Bolivia, upon ratifying ILO Convention No. 138 in 1997, set the general minimum working age at 14 years. Therefore, all economically active children below the age of 14, with the exception of 12- and 13-year-olds in "light work", may be thought of as being in child labour. 18

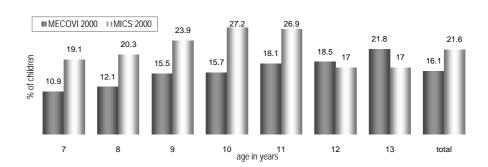


Figure 3. - Proportion of children involved in child labour, by age and data source

14. Figure 3 presents the estimates of the proportion of children in child labour according to this criterion. The MICS estimate is again higher that the MECOVI estimate, for both sexes and all ages. The difference in the child labour estimates across the two surveys, however, is smaller than that for economic activity, because MICS indicates a much higher proportion than MECOVI of 12-13 year-old working children in light work (and therefore not in child labour). Fifty-nine percent of 12-13 year-old working children are in light work according to MICS, but only 22 percent are in light work according to MECOVI (see discussion below on estimates of hours worked).

15. Breaking children down into four non-overlapping activity categories – those that work, those that attend school, those that do both, and those that do neither – is another way of comparing the results across the two surveys. This breakdown shows that the higher economic activity and school attendance estimates yielded by the MICS survey stem entirely from the group of children that both work and attend school. The MICS estimate puts this group at 25 percent of total children aged 7-14 years, and the MECOVI estimate at only 15 percent.

MECOVI, on the other hand, generated higher estimates of children working exclusively, children attending school exclusively, and children neither attending school nor working (Table 2). This last group, reportedly "idle"

 $<sup>^{16}</sup>$  ILO Convention No. 138 (or Minimum Age Convention) stipulates that ratifying states must establish a general minimum working age (at least 14 years in less developed countries). .

<sup>&</sup>lt;sup>17</sup> ILO Convention No. 138 provides an exemption for younger children (at least 12 years in less developed countries) performing only "light work". Following the approach of ILO in its revised global estimates of child labour, "light work" is defined as work that is carried out for less than 14 hours per week. The concept of "light work", however, in reality extends beyond hours worked to include the type and hazardousness of work.

<sup>&</sup>lt;sup>18</sup> This estimate does not take into account children working in non-economic activities, i.e., household chores, as information on this group of children was not collected by MECOVI.

Table 2. - Child activity status, by sex and data source

			% children aged 7-14 year					
Activity status		MICS 2000			MECOVI 2000			
	Male	Female	Total	Male	Female	Total		
Working <sup>(1)</sup>	30.1	25.1	27.6	20.4	18.0	19.2		
Attending school	96.7	95.4	96.1	94.4	91.2	92.8		
Working, not attending school	2.1	2.4	2.2	3.0	4.6	3.8		
Attending school, not working	68.7	72.7	70.7	77.0	77.8	77.4		
Working and attending school	28.0	22.7	25.4	17.4	13.4	15.4		
Not working, not attending school	1.3	2.2	1.7	2.6	4.2	3.4		

Notes: (1) refers to work in economic activity

children also constitute an important policy concern – they not only do not go to school but are also the category of children most at-risk of entering work when households are exposed to individual or collective shocks.<sup>19</sup>

- 16. What might account for these differences in estimates across the two surveys, and in particular the higher estimate for child economic activity generated by the MICS survey?
- 17. Differences in the design of the survey questionnaires might provide at least part of the answer (Table 3). The fact that the MICS questionnaire, unlike that for MECOVI, specifically targeted children's work, might have helped focus respondents' attention on the *children* in the household at work, leading to less under-reporting of children's involvement in work.<sup>20</sup> On the other hand, the absence of follow-up questions in the MICS questionnaire to control for factors such as temporary absence from work due to vacation or illness meant that some economically-active children were likely missed in the MICS survey.
- 18. Survey respondents were different in the two surveys, also possibly influencing the survey results. As noted above, the survey respondent in the MICS survey was the caretaker, while MECOVI was administered directly to children aged seven years and older. But any bias in responses would presumably be in the same direction for these two groups, i.e., towards overstating school attendance and understating work involvement.

<sup>&</sup>lt;sup>19</sup> See, for example, UCW Project, *Understanding Children's Work in Guatemala*, Guatemala, April 2003.

<sup>&</sup>lt;sup>20</sup> But a Zambia study comparing the results of another survey specifically targeting child labour (SIMPOC) with those of a more general living conditions survey (LSMS), did not show a similar difference in estimates of child economic activity. For further details, see Blunch N.H., Dar A., Guarcello L., Lyon S., Ritualo A.R. and Rosati F.C., *Children's Work in Zambia: A Comparative Study of Survey Instruments*, UCW Project working paper, September 2002.

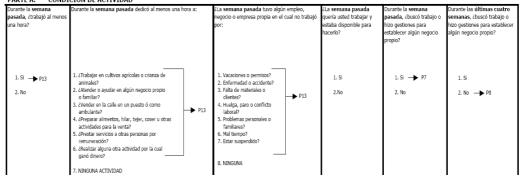
Table 3. - Questions used to determine work status of children

#### a. MICS

CHILD L	ABOUR MODULE								
To be admi	nistered to caretaker of each c	hild resident in the ho	usehold age 5 through	14 years. ** Country	-specific adaptation i	may change age rang	ge through to age 17.		
Copy line n	number of each eligible child fr	om household listing.							
Now I wou	Now I Would Like to ask about any work children in this household may do.								
1.	2.	3.	4.	5.	6.	7.	8.	9.	
Line	Name	DURING THE PAST	If yes:	AT ANY TIME	DURING THE PAST	If yes:	DURING THE	If yes:	
no.		WEEK, DID (name)	SINCE LAST	DURING THE	WEEK, DID (name)	SINCE LAST	PAST WEEK,	SINCE LAST	
		DO ANY KIND	(day of the week),	PAST YEAR,	HELP WITH	(day of the week),	DID (name) DO	(day of the week),	
		OF WORK FOR	ABOUT HOW MANY	DID (name)	HOUSEKEEPING	ABOUT HOW MANY	ANY OTHER	ABOUT HOW MANY	
		SOMEONE WHO	HOURS DID HE/SHE	DO ANY KIND	CHORES	HOURS DID	FAMILY WORK	HOURS DID	
		IS NOT A MEMBER	DO THIS WORK	OF WORK FOR	SUCH AS	HE/SHE SPEND	(ON THE FARM	HE/SHE DO	
		OF THIS	FOR SOMEONE	SOMEONE WHO	COOKING,	DOING THESE	OR IN A	THIS WORK?	
		HOUSEHOLD?	WHO IS NOT A	IS NOT A MEMBER	SHOPPING,	CHORES?	BUSINESS)?		
			MEMBER OF THIS	OF THIS	CLEANING,				
		If yes: FOR PAY?	HOUSEHOLD?	HOUSEHOLD?	WASHING		1 YES		
					CLOTHES,		2 NO %		
		1 YES, FOR PAY	If more than	If yes: FOR PAY?	FETCHING		NEXT LINE		
		(CASH OR KIND)	one job, include		WATER, OR				
		2 YES, UNPAID	all hours at	1 YES, FOR PAY	CARING FOR				
		3 NO ⇔TO Q.5	all jobs.	(CASH OR KIND)	CHILDREN?				
				2 YES, UNPAID					
			Record response	3 NO	1 YES				
			then		2 No   □ To Q.8				

#### b. MECOVI

SECCIÓN 5 EMPLEO (PERSONAS DE 7 AÑOS Y MÁS)
PARTE A: CONDICIÓN DE ACTIVIDAD



19. Seasonality likely played the largest role in explaining the differences in the survey estimates. Field work for the MICS survey took place from mid-August to mid-September, a period overlapping with the sugar cane harvest. Other studies indicate that children are frequently used in this harvest. Field work for MECOVI took place in November and December, outside the harvest season for sugar cane and other crops. The fact that the MICS survey was conducted earlier in the school year also may at least partially account for the different school attendance estimates generated by the two surveys.

\_

<sup>&</sup>lt;sup>21</sup> See, for example, Dávalos G., Child Labour in Sugarcane: A Rapid Assessment, International Labour Organization, International Programme on the Elimination of Child Labour (IPEC), Bolivia, May 2002, Geneva.

<sup>&</sup>lt;sup>22</sup> However, neither survey overlapped with harvest seasons for other major crops. Wheat, barley, maize, rice, soybeans and potatoes are harvested from March to May, and sweet potatoes from mid-May to mid-August (FAO, 1999). The brazil nut harvest, also reportedly involving children, begins in January.

<sup>&</sup>lt;sup>23</sup> The school year runs from March to December in Bolivia.

#### 4. CHARACTERISTICS OF CHILDREN'S WORK

20. Both surveys collected data on work modality an important indicator of the nature of children's work. MICS data permitted a breakdown of child workers by those in paid work, those in non-paid work and those that work for their family. MECOVI provided greater detail, distinguishing between children that are in wage work, self-employed, employers (paid and unpaid), part of a cooperative, and working within the family unit (Table 4). Both MICS and MECOVI indicated

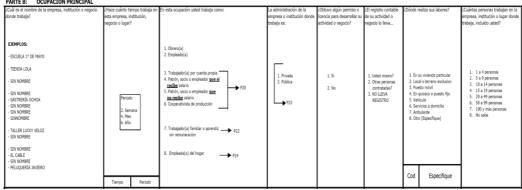
Table 4. - Questions used to determine modality of work

#### a. MICS

CHILD L	CHILD LABOUR MODULE									
To be admi	nistered to caretaker of each c	hild resident in the ho	usehold age 5 through	14 years. ** Country	-specific adaptation	may change age rang	ge through to age 17.			
Copy line n	Copy line number of each eligible child from household listing.									
Now I wou	Now I Would LIKE TO ASK ABOUT ANY WORK CHILDREN IN THIS HOUSEHOLD MAY DO.									
1.	2.	3.	4.	5.	6.	7.	8.	9.		
Line	Name	DURING THE PAST	If yes:	AT ANY TIME	DURING THE PAST	If yes:	DURING THE	If yes:		
no.		WEEK, DID (name)	SINCE LAST	DURING THE	WEEK, DID (name)	SINCE LAST	PAST WEEK,	SINCE LAST		
		DO ANY KIND	(day of the week),	PAST YEAR,	HELP WITH	(day of the week),	DID (name) DO	(day of the week),		
		OF WORK FOR	ABOUT HOW MANY	DID (name)	HOUSEKEEPING	ABOUT HOW MANY	ANY OTHER	ABOUT HOW MANY		
		SOMEONE WHO	HOURS DID HE/SHE	DO ANY KIND	CHORES	HOURS DID	FAMILY WORK	HOURS DID		
		IS NOT A MEMBER	DO THIS WORK	OF WORK FOR	SUCH AS	HE/SHE SPEND	(ON THE FARM	HE/SHE DO		
		OF THIS	FOR SOMEONE	SOMEONE WHO	COOKING,	DOING THESE	OR IN A	THIS WORK?		
		HOUSEHOLD?	WHO IS NOT A	IS NOT A MEMBER	SHOPPING,	CHORES?	BUSINESS)?			
			MEMBER OF THIS	OF THIS	CLEANING,					
		If yes: FOR PAY?	HOUSEHOLD?	HOUSEHOLD?	WASHING		1 YES			
					CLOTHES,		2 № %			
		1 YES, FOR PAY	If more than	If yes: FOR PAY?	FETCHING		NEXT LINE			
		(CASH OR KIND)	one job, include		WATER, OR					
		2 YES, UNPAID	all hours at	1 YES, FOR PAY	CARING FOR					
		3 NO ⇔TO Q.5	all jobs.	(CASH OR KIND)	CHILDREN?					
				2 YES, UNPAID						
			Record response	3 NO	1 YES					
			then		2 NO					

#### b. MECOVI

SECCIÓN 5 EMPLEO (PERSONAS DE 7 AÑOS Y MÁS)
PARTE B: OCUPACIÓN PRINCIPAL



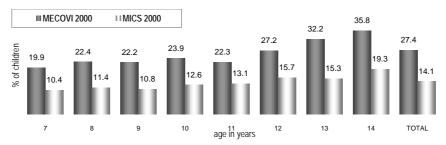
that by far the largest proportion of working children – nine out of 10 – work for their families (Table A23).

21. Data on children's total labour supply (i.e., average total hours worked) were also collected by both surveys. These data are critical to determining how much children's labour contributes to household income and welfare. They are also very important to determining the intensity of work, and offer insight into its possible health and developmental consequences. A limited amount of time spend on light work is not necessarily bad for a child's health, and need not interfere with formal education. Long working hours, on the

other hand, are likely to have more serious health and developmental consequences on the child.

- 22. Both surveys indicate that older children work longer hours than younger children (Figure 4), and that working hours differ little by sex (Table A13).
- 23. Both also indicate, not surprisingly, that children combining school and work put in fewer hours than those working exclusively, though the hours logged by the former group are by no means insignificant (Table A12).
- 24. The two surveys, however, generate dramatically different estimates of total hours worked. According to MICS, working children put in an average of only about 14 hours per week, while according to MECOVI, by contrast, they put in an average of over 27 hours per week. Estimates of hours worked differ both for children that work exclusively (38 hours per week according to MECOVI and 25 hours per week according to MICS), and for children that combine school and work (23 hours per week according to MECOVI and 13 hours per week according to MICS). This has important implications for

Figure 4. - Average weekly hours of work in economic activity, by age and data source



estimates of child labour for elimination (see previous section), for which hours worked is an important criterion (Tables A3B).

The reasons for this large discrepancy are not clear and require further investigation. But again, at least part of the explanation likely lies in the way the survey questions were formulated (Table 5). MICS asked only about the number of hours worked during the reference week in family and non-family work, while MECOVI asked more specifically about the number of days worked in the reference week, and hours worked for each. These formulations, though similar, could nonetheless have led to different interpretations on the part of respondents. The frequency distribution for hours worked for the two surveys is shown in Figure 5.

 $\textit{Table 5.} \cdot \textbf{Questions used to determine the working hours of children}$ 

#### a. MICS

CHILD LA	ABOUR MODULE									
To be admi	nistered to caretaker of each ci	hild resident in the ho	usehold age 5 through	14 years. ** Country	-specific adaptation	may change age rang	ge through to age 17.			
Copy line n	number of each eligible child fr	om household listing.								
Now I wou	NOW I WOULD LIKE TO ASK ABOUT ANY WORK CHILDREN IN THIS HOUSEHOLD MAY DO.									
1.	2.	3.	4.	5.	6.	7.	8.	9.		
Line	Name	DURING THE PAST	If yes:	AT ANY TIME	DURING THE PAST	If yes:	DURING THE	If yes:		
no.		WEEK, DID (name)	SINCE LAST	DURING THE	WEEK, DID (name)	SINCE LAST	PAST WEEK,	SINCE LAST		
		DO ANY KIND	(day of the week),	PAST YEAR,	HELP WITH	(day of the week),	DID (name) DO	(day of the week),		
		OF WORK FOR	ABOUT HOW MANY	DID (name)	HOUSEKEEPING	ABOUT HOW MANY	ANY OTHER	ABOUT HOW MANY		
		SOMEONE WHO	HOURS DID HE/SHE	DO ANY KIND	CHORES	HOURS DID	FAMILY WORK	HOURS DID		
		IS NOT A MEMBER	DO THIS WORK	OF WORK FOR	SUCH AS	HE/SHE SPEND	(ON THE FARM	HE/SHE DO		
		OF THIS	FOR SOMEONE	SOMEONE WHO	COOKING,	DOING THESE	OR IN A	THIS WORK?		
		HOUSEHOLD?	WHO IS NOT A	IS NOT A MEMBER	SHOPPING,	CHORES?	BUSINESS)?			
			MEMBER OF THIS	OF THIS	CLEANING,					
		If yes: FOR PAY?	HOUSEHOLD?	HOUSEHOLD?	WASHING		1 YES			
					CLOTHES,		2 NO ⅓			
		1 YES, FOR PAY	If more than	If yes: FOR PAY?	FETCHING		NEXT LINE			
		(CASH OR KIND)	one job, include		WATER, OR					
		2 YES, UNPAID	all hours at	1 YES, FOR PAY	CARING FOR					
		3 NO ⇒TO Q.5	all jobs.	(CASH OR KIND)	CHILDREN?					
				2 YES, UNPAID						
			Record response	3 NO	1 YES					
			then		2 NO ⇒ TO Q.8					

#### b. MECOVI

### SECCIÓN 5 EMPLEO (PERSONAS DE 7 AÑOS Y MÁS) PARTE B: OCUPACIÓN PRINCIPAL

## 

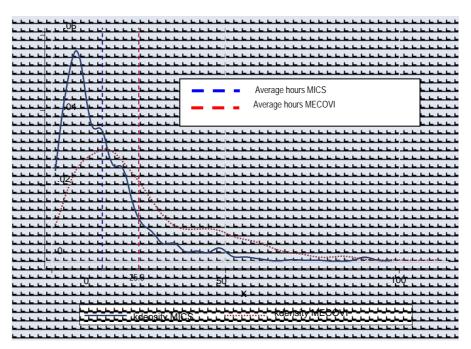


Figure 5. - Distribution of working hours, MICS and MECOVI

25. Only MECOVI goes beyond work modality and intensity to provide detailed data on work sector, as well as occupation (primary and secondary), work functions, previous activity status, and level of remuneration. Neither questionnaire collected information concerning the strenuousness of work, exposure to potential risks such as machinery and chemicals, relationship with employer, workplace abuses, and work benefits, all critical for a more complete picture of the nature and characteristics of children's work, and for assessing its harmfulness.

#### 5. EFFECTS OF INVOLVEMENT IN ECONOMIC ACTIVITY

- 26. The effect of work on children's health and education are an important consideration in determining whether work constitutes child labour for elimination.
- 27. Looking first at health, only MECOVI provides information on reported illness and injury among children in the 7-14 years age group. The MECOVI results do not provide clear evidence that working children are worse off health-wise than other groups of children (Table A22). Children working exclusively have a lower rate of reported illness/injury than children that are reportedly idle. But this is a finding that comes up frequently in household surveys, and likely stems in large part from difficulties in measuring the workhealth link.<sup>24</sup>
- 28. Turning to education, the two surveys offer somewhat different pictures of the ability of working children to attend school. MICS results indicate that 92 percent of working children attend school, while MECOVI indicates that the attendance rate of working children is only 80 percent (Figure 6). The MICS school attendance estimates for working children are higher across the entire

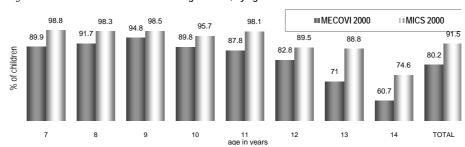


Figure 6. - School attendance rate of working children, by age and data source

- 7-14 age spectrum, but the gap in estimates is largest for working children aged 12-14 years.
- 29. Again, the reasons for these discrepancies in school attendance estimates are not immediately apparent and merit further investigation. As shown in Table 6, both estimates are based on similar survey questions, and both surveys control for the possibility that the survey subject is on holiday. The surveys did, however, take place at different times during the school year, as noted above. Only MICS looked at the regularity of attendance (Table 6), relevant because children reported as currently attending school may actually be frequently absent from class. This indicator was not, however, considered in the calculation of the school attendance rate.

<sup>&</sup>lt;sup>24</sup> The health consequences of work, for example, may be obscured by the selection of the healthiest children for work, or by the fact these health consequences may not become apparent until a later stage in a child's life. Different levels of reported health problems may also be a reflection of different health perceptions rather than of differences in actual health status. It may also be that it is not child work per se that is damaging to health but rather certain kinds of work, a fact that is concealed when looking at prevalence of health problems averaged across all categories of child workers.For a more detailed discussion, see O'Donnell O., Rosati F.C., and van Doorslaer E., *Child Labour and Health: Evidence and Research Issues*, Understanding Children's Work (UCW) Project, 12 December 2001.

Table 6. - Questions used to determine the school attendance status of children

#### a. MICS

EDUC	ATION MODULE							
If inter	view takes place betv	veen two school years, use altern	ative wording foun	d in Appendix 1.				
For pe	ersons <b>age 5 or ove</b>	r ask Qs. 15 and 16		For chi	ldren <b>age 5 tl</b>	arough 17 years, continue of	n, asking Qs. 17	7-22
14. Line no.	15. HAS (name) EVER ATTENDED SCHOOL?  1 YES   Q.16 2 NO  NEXT LINE	16. WHAT IS THE HIGHEST LEVEL OF SCHOOL (name) ATTENDED? WHAT IS THE HIGHEST GRADE (name) COMPLETED AT THIS LEVEL? LEVEL: 1 PRIMARY 2 SECONDARY 3 HIGHER 4 NON-STANDARD CURRICULUM 9 DK GRADE: 99 DK	17. Is (name) CURRENTLY ATTENDING SCHOOL?  1 YES   Q.19 2 NO	18. DURING THE CURRENT SCHOOL YEAR, DID (name) ATTEND SCHOOL AT ANY TIME?  1 YES 2 NO   Q.21	19. SINCE LAST (day of the week), HOW MANY DAYS DID (name) ATTEND SCHOOL?  Insert number of days in space	20. WHICH LEVEL AND GRADE IS/WAS (name) ATTENDING?  LEVEL: 1 PRESCHOOL 2 PRIMARY 3 SECONDARY 4 NON-STANDARD CURRICULUM 9 DK  GRADE: 99 DK	21. DID (name) ATTEND SCHOOL LAST YEAR?  1 YES 2 NO & NEXT LINE 9 DK &	22. WHICH LEVEL AND GRADE DID (name) ATTEND LAST YEAR?  LEVEL: 1 PRESCHOOL 2 PRIMARY 3 SECONDARY 4 NON-STANDARD CURRICULUM 9 DK  GRADE: 99 DK
		If less than 1 grade, enter 00.			below.		NEXT LINE	

#### b. MECOVI

### SECCION 4 EDUCACION (PERSONAS DE 5 ANOS Y MAS) PARTE A: FORMACION EDUCATIVA

¿Sabe leer y	¿Cuál fue el nivel y curso más alto de instrucción que aprobó?			¿A qué nivel y curso de instrucción se matriculó este año,	El establecimiento en e
Esabe leer y escribit? 1. Si 2. No	ACLUÁI fue el nivel y curso más alto de instrucción que aprobó?  11. NINGINO  12. CIRSO DE ALFABETIZACIÓN  13. EDUCACIÓN PRE-ESCOLAR  SISTEMA ANTERIOR  14. BASCO (1 A S AÑOS)  15. INTERNEDIO (1 A 3 AÑOS)  16. MEDIO (1 A 4 AÑOS)  SISTEMA ACTUAL  17. PRIMARLI (1 A 4 AÑOS)  18. SECURDARIA (1 A 4 AÑOS)  19. EDUCACIÓN BÁSICA DE ADULTOS (EBA)  20. CENTRO DE EDUCACIÓN MEDIA DE ADULTOS (CEMA)  21. INSTITUTO BÁSICO BOLIVIANO DE APRENDIZAJE (IBA)  EDUCACIÓN SUPERIOR  22. NORMAL  23. ILINISTIDIO DE CHINISTIDIA  24. POST-GRADO O MESTITIA  25. TÉCNICO DE ININISTIDAD	Para ingresar a este nivel, ¿culaí fue el nivel y curso de educación que aprobó?  11. NUNGUNO SISTEMA ANTERIOR 14. BáSECO (1.45 AÑOS) 15. METRIORIO (1.45 AÑOS) 15. MEDIO (1.44 AÑOS) 15. SERIONAGIA (1.44 AÑOS) 15. SERIONAGIA (1.44 AÑOS) 15. SERIONAGIA (1.44 AÑOS) 16. SERIONAGIA (1.44 AÑOS) 16. SERIONAGIA (1.44 AÑOS) 16. SERIONAGIA (1.44 AÑOS) 16. DELOCACIÓN MEDIA DE ADULTOS (EBA) 20. CENTRO DE EDUCACIÓN MEDIA DE APRIDIZAJE (IBA) 17. INSTITUTO ISAGIO O BOLIVIANO DE APRIDIZAJE (IBA) 21. UNIVERSIDAJO (Utenciatura)	Æste ánő se inscribió o matriculó en algún curso o grado de educación escolar o superior?  1. S  2. No → P9		El establesimiento en que se matriculó es:  1. Particular/ privado 2. Fiscal/ público 3. Convenio
	EDUCACTÓN SUPERIOR  22. NORMAL  23. UNIVERSIDAD (Licenciatura)  24. POST-GRADO O MAESTRÍA	21. INSTITUTO BÁSICO O BOLIVIANO DE APRENDIZAJE (IBA) EDUCACIÓN SUPERIOR		24. POST-GRADO O MAESTRÍA 25. TÉCNICO DE UNIVERSIDAD 26. TÉCNICO DE INSTITUTO 27. INSTITUTOS DE FORMACION MILITAR Y POLICIAL	3. Conve

30. The impact of work on schooling of course extends beyond attendance. The data from both surveys suggest that working children who attend school must nonetheless cope with long working hours (Table A12), leaving little time or energy for studies, and undoubtedly affecting their ability to derive educational benefit from schooling. MICS indicated that children combining school and work put in an average of 13 hours of work per week, and MECOVI indicated that this group works 23 hours per week. Data on links between work and learning achievement, however, were not collected for either survey.

#### 6. FACTORS ASSOCIATED WITH CHILDREN'S WORK

- 31. The results from the two surveys point to similar broad correlates of child work and schooling. Both surveys indicate that children's work prevalence rises steadily with age, reflecting the higher opportunity costs of school in terms of earnings forgone as the child gets older (Figure 1). For school attendance, on the other hand, the surveys indicate that attendance rates remain relatively constant for the 7-11 age group but fall off thereafter (Figure 2), as students reach the end of the second cycle of the eight-year compulsory education stage.<sup>25</sup>
- 32. Both surveys also show that boys work in economic activity in greater proportion than girls, though for MECOVI the gap by sex is narrower and not

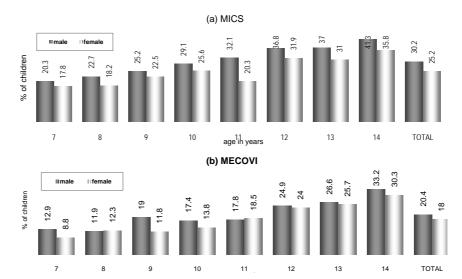


Figure 7. Proportion of children at work in economic activity, by sex, age and data source

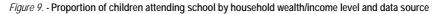
consistent across all ages (Figure 7.b). It is worth noting, however, that girls are much more likely than boys to perform household chores. Indeed, according to MICS (MECOVI did not collect data on household chores), the proportion of girls carrying out household chores for at least 28 hours per week is twice that of boys (Table A9).

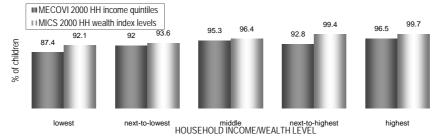
33. The two surveys indicate that children's work is closely related to place of residence (i.e., urban or rural). According to MICS, 47 percent of rural children are at work in economic activity, against only 11 percent of urban children. MECOVI indicates that 38 percent of rural children are economically active, compared to just seven percent of urban children. The survey results thus underscore the fact that children's work in Bolivia, as in most South American countries, is primarily a rural phenomenon.

<sup>&</sup>lt;sup>25</sup> As part of the education reform of 1994, compulsory education was defined as eight years and was divided into three cycles: three years of basic learning; three years of essential skills; and two years of applied learning.

34. A strong relationship between household wealth, on the one hand, and children's work and school attendance, on the other, is also apparent from the two surveys. The survey results indicate that children who mainly work come from low-wealth households, whereas children who mainly attend school come from households with higher levels of wealth, evidence for the oft-cited role of poverty in the decision to make children work. The results show child work decreasing, and schooling increasing, as household wealth rises (Figures 8 and 9).

Figure 8. - Proportion of children in economic activity by household wealth/income level and data source





MICS data, however, permit only construction of a wealth index based on housing characteristics, while MECOVI data also permit the measure of household wealth based on household expenditures.<sup>26</sup>

-

<sup>&</sup>lt;sup>26</sup> Several studies call into question the relevance of an asset index as a proxy for living standards and poverty. For further information on the construction of the wealth index, see: Filmer D. and Pritchett L., Estimating wealth effects without expenditure data -- or tears: An application to educational enrolments in States of India, World Bank Policy Research Working Paper No. 1994, Washington, 1998; Filmer D. and Pritchett L., The effect of household wealth on educational attainment: Evidence from 35 countries, Population and Development Review, vol.25, no.1, pages 85-120, March 1999; and Filmer D. and Pritchett L., The effect of household wealth on educational attainment around the world: Demographic and Health Survey evidence, World Bank Policy Research Working Paper No. 1980, Washington, 1998.

43.6
35
32.2

IMECOVI 2000

IMICS 2000

18.7

9.6

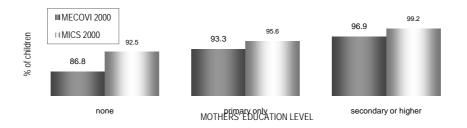
1.7

primary only
MOTHERS' EDUCATION LEVEL

secondary or higher

Figure 10. - Proportion of children involved in economic activity, by mothers' education level and data source

Figure 11. - Proportion of children attending school, by mothers' education level and data source



35. The education level of mothers appears to be another important correlate of children's work prevalence and school attendance. Both surveys indicate that children's work is most common in households in which the mother has no schooling, and least common in households in which the mother has at least a secondary education (Figure 10). The surveys indicate that the relationship between school attendance and education of the mother is the reverse, i.e., attendance is highest in households in which the mother is educated, and lowest in households in which the mother is not educated (Figure 11). This pattern is likely in part the result of a disguised income effect.<sup>27</sup> It is also possible that education confers on the mother greater weight (moral authority or, if education translates into income, bargaining power) in family decisions, or that mother's time is an input into the education (production of human capital) of their children, and that the mother's own level of education raises the productivity of this input.<sup>28</sup>

<sup>&</sup>lt;sup>27</sup> I.e., mothers with higher levels of education are also likely to have higher levels of income, and therefore less need to involve their children in work.

<sup>&</sup>lt;sup>28</sup> For a more complete discussion of the role of mothers' education in decisions concerning children's work, see Cigno A., Rosati F.C., and Tzannatos Z., *Child Labor Handook*, World Bank SP Discussion Paper No. 0206, May 2002.

36. Finally, the two surveys suggest a close relationship between involvement in work, school attendance and household water access. The results from both surveys indicate that the rate of children's work is much higher, and the rate of school attendance slightly lower, in households without ready water access (Figure 10). This undoubtedly reflects the fact that a lack of water access can raise the value of children's time in non-schooling activities, as children are needed to undertake responsibility for water collection or to help cover the

994.4 89.2 97.4 92 HH with water access 46.3 46.3 46.3 school attendance work prevalence MECOVI

Figure 10. - School attendance and economic activity rates, by household water access and data source

cost of purchasing water.<sup>29</sup>

<sup>&</sup>lt;sup>29</sup> For a more detailed discussion of the role of basic infrastructure availability in household decisions concerning children's work, see Guarcello L., Mealli F. and Rosati F.C., *Child labour and access to basic services: Evidence from five countries*, Understanding Child Work Project, unpublished draft, November 2003

#### 7. CONCLUSION

- 37. This study compared and contrasted the World Bank MECOVI 2000 survey and the UNICEF MICS 2000 survey, and assessed the extent to which findings relating to child labour were consistent across the two surveys.
- 38. The study uncovered large differences in the estimates of several key variables relating to children's work across the two surveys, with concomitant differences in implications for policy. In particular, the MICS-based estimate of children's work prevalence was almost one-third higher than that based on MECOVI, while the MICS-based estimate of weekly hours worked was just half of the estimate yielded by MECOVI. The MICS survey also generated significantly higher estimates of school attendance than the MECOVI survey, both for 7-14 year-old working children and for the overall 7-14 years age group. As the surveys were conducted in the same year, these differences cannot be explained by longitudinal changes in actual work and school attendance rates between the survey dates.
- 39. The study found that the correlations between children's work and key background variables (i.e., child age and sex, residence, house socio-economic level, mothers' education and household water access) were consistent across the two surveys. The study did not, however, include a bivariate estimation of child labour and schooling, owing to the limited number of variables in the MICS dataset for inclusion in such an estimation. Causal links between children's work and various background variables, and the relative strength of these links across the two surveys, were therefore not examined.
- 40. The reasons for the large differences in estimates of children's work, school attendance and hours worked across the two surveys are not immediately clear and merit further investigation. There is also a need to examine whether these differences in the World Bank and UNICEF survey estimates are unique to Bolivia or also occur elsewhere, in which case they would likely reflect underlying differences in the survey instruments. The fact that World Bank multi-purpose household surveys and UNICEF MICS surveys are the two most common sources of information on child labour makes understanding the differences in their results especially important.

#### REFERENCES

Blunch N.H., Dar A., Guarcello L., Lyon S., Ritualo A.R. and Rosati F.C., "Children's Work in Zambia: A Comparative Study of Survey Instruments", World Bank, SP Discussion Paper, No, (December 2002).

Cigno A., Rosati F.C., and Tzannatos Z., "Child Labor Handbook", World Bank SP Discussion Paper No. 0206, (May 2002).

Dávalos G., "Child Labour in Sugarcane: A Rapid Assessment", International Labour Organization, International Programme on the Elimination of Child Labour (IPEC), Bolivia, (May 2002), Geneva.

Filmer D. and Pritchett L., "The effect of household wealth on educational attainment: Evidence from 35 countries", Population and Development Review, vol.25, no.1, pages 85-120, (March 1999).

Filmer D. and Pritchett L., "Estimating wealth effects without expenditure data -- or tears: An application to educational enrolments in States of India", World Bank Policy Research Working Paper No. 1994, Washington, (1998).

Filmer D. and Pritchett L., "The effect of household wealth on educational attainment around the world: Demographic and Health Survey evidence", World Bank Policy Research Working Paper No. 1980, Washington, (1998).

Guarcello L., S.Lyon and Rosati F.C., "Child labour and access to basic services: Evidence from five countries", Understanding Child Work Project, unpublished draft, (November 2003).

O'Donnell O., Rosati F.C., and van Doorslaer E., "Child Labour and Health: Evidence and Research Issues", Understanding Children's Work (UCW) Project, (12 December 2001).

### ANNEX A: DESCRIPTIVE TABLES

TABLE 1. - TOTAL NUMBER OF CHILDREN IN THE SAMPLE

Λαο		MICS			MECOVI	
Age	Male	Female	Total	Male	Female	Total
7	267	269	536	261	271	532
8	285	298	583	263	267	530
9	247	220	467	277	257	534
10	266	299	565	314	301	615
11	242	199	441	268	270	538
12	239	256	495	267	252	519
13	220	254	474	265	242	507
14	230	221	451	247	249	496
Total	1,996	2,016	4,012	2,162	2,109	4,271

#### TABLE 2. - PERCENTAGE OF CHILDREN ATTENDING SCHOOL (REGARDLESS OF WORK STATUS)

Λαο		MICS			MECOVI	
Age	Male	Female	Total	Male	Female	Total
7	99.1	99.6	99.3	96.6	94.9	95.8
8	98.7	99.5	99.1	95.1	97.0	96.1
9	98.8	99.1	99	96.7	98.9	97.8
10	99.8	97.4	98.6	97.1	95.7	96.5
11	98.4	98.5	98.4	94.4	93.9	94.1
12	95.1	92.1	93.5	93.5	87.5	90.5
13	93.1	90.7	91.9	92.9	83.2	88.3
14	89.3	84.8	87.2	87.9	76.8	82.4
Total	96.7	95.4	96.1	94.4	91.2	92.8

#### TABLE 3A. - PERCENTAGE OF CHILDREN ECONOMICALLY ACTIVE (REGARDLESS OF SCHOOL ATTENDANCE STATUS)

Ago		MICS		MECOVI			
Age	Male	Female	Total	Male	Female	Total	
7	20.3	17.8	19.1	12.9	8.8	10.9	
8	22.7	18.2	20.3	11.9	12.3	12.1	
9	25.2	22.5	23.9	19.0	11.8	15.5	
10	29.1	25.6	27.2	17.4	13.8	15.7	
11	32.1	20.3	26.9	17.8	18.5	18.1	
12	36.8	31.9	34.1	24.9	24.0	24.4	
13	37.0	31.0	34.0	26.6	25.7	26.2	
14	41.3	35.8	38.8	33.2	30.3	31.8	
Total	30.2	25.2	27.7	20.4	18.0	19.2	

TABLE 3B. - PERCENTAGE OF CHILDREN ECONOMICALLY ACTIVE (REGARDLESS OF SCHOOL ATTENDANCE STATUS), EXCLUDING LIGHT WORK(1)

Age		MICS		MECOVI				
rige	Male	Female	Total	Male	Female	Total		
7	20.3	17.8	19.1	8.2	6.9	7.6		
8	22.7	18.2	20.3	7.7	7.1	7.4		
9	25.2	22.5	23.9	10.9	9.2	10.1		
10	29.1	25.6	27.2	12	8.2	10.2		
11	32.1	20.3	26.9	11.6	11.7	11.7		
12	18.1	16.1	17.0	20	16.1	18.1		
13	19.3	14.8	17.0	22.1	20.5	21.3		
14	20.8	22.4	21.5	26.6	25.9	26.2		
Total	23.5	19.7	21.6	14.8	13	13.9		

Note: "Light" work is defined as economic activity not exceeding 14 hours per week and is applied only to children aged 12-14

TABLE 4. - PERCENTAGE OF CHILDREN ECONOMICALLY ACTIVE AND NOT ATTENDING SCHOOL

Ago		MICS		MECOVI			
Age	Male	Female	Total	Male	Female	Total	
7	0.0	0.4	0.2	1.7	0.4	1.0	
8	0.5	0.0	0.2	0.5	1.6	1.0	
9	0.7	0.5	0.6	1.0	0.7	0.8	
10	0.2	1.7	1.0	1.5	1.7	1.6	
11	0.9	0.3	0.6	0.8	3.8	2.3	
12	4.1	3.1	3.6	2.8	5.8	4.2	
13	3.3	3.5	3.4	5.8	9.5	7.6	
14	7.4	10.7	8.9	10.5	14.4	12.4	
Total	2.1	2.4	2.2	3.0	4.6	3.8	

TABLE 5. - PERCENTAGE OF CHILDREN ATTENDING SCHOOL AND NOT ECONOMICALLY ACTIVE

Ago		MICS		MECOVI			
Age	Male	Female	Total	Male	Female	Total	
7	79.0	82.0	80.5	85.4	86.6	86.0	
8	76.5	81.6	79.1	83.7	86.2	85.0	
9	74.2	76.6	75.4	78.7	87.7	83.0	
10	71.3	73.6	72.5	81.3	83.6	82.4	
11	67.1	78.3	72.1	77.3	79.2	78.3	
12	62.2	63.6	63.0	71.4	69.3	70.4	
13	59.6	63.8	61.7	72.1	67.1	69.7	
14	56.5	60.4	58.3	65.2	60.9	63.1	
Total	68.6	72.7	70.7	77.0	77.8	77.4	

TABLE 6. - PERCENTAGE OF CHILDREN BOTH ECONOMICALLY ACTIVE AND ATTENDING SCHOOL

Age		MICS		MECOVI			
/ igc	Male	Female	Total	Male	Female	Total	
7	20.1	17.6	18.9	11.2	8.4	9.8	
8	22.2	17.9	20.0	11.4	10.8	11.1	
9	24.6	22.5	23.6	18.1	11.1	14.7	
10	28.5	23.9	26.1	15.8	12.1	14.1	
11	31.2	20.2	26.3	17.0	14.7	15.9	
12	32.9	28.5	30.5	22.1	18.2	20.2	
13	33.6	26.8	30.2	20.8	16.2	18.6	
14	32.8	24.4	28.9	22.7	15.9	19.3	
Total	28.0	22.7	25.3	17.4	13.4	15.4	

TABLE 7. - PERCENTAGE OF CHILDREN NEITHER ECONOMICALLY ACTIVE NOR ATTENDING SCHOOL

Age		MICS		MECOVI			
//gc	Male	Female	Total	Male	Female	Total	
7	0.9	0.0	0.5	1.7	4.7	3.2	
8	0.8	0.5	0.6	4.4	1.4	2.9	
9	0.5	0.4	0.5	2.3	0.5	1.4	
10	0.0	0.8	0.4	1.3	2.6	1.9	
11	0.7	1.2	0.9	4.8	2.3	3.6	
12	0.7	4.8	3.0	3.8	6.8	5.2	
13	3.5	5.8	4.7	1.3	7.2	4.1	
14	3.3	4.5	3.9	1.5	8.8	5.2	
Total	1.3	2.2	1.7	2.6	4.2	3.4	

TABLE 8. - PERCENTAGE OF CHILDREN CARRYING OUT HOUSEHOLD CHORES

		MICS			MECOVI			
Age	Male	Female	Total	Male	Female	Total		
7	76.8	81.0	78.9					
8	78.4	85.4	82.0					
9	86.4	92.0	89.1					
10	86.5	87.7	87.1					
11	89.7	92.0	90.7					
12	89.7	91.4	90.6					
13	80.9	93.3	87.2					
14	82.3	93.2	87.4					
Total	83.6	89.1	86.4					

 $\it TABLE~9.$  - PERCENTAGE OF CHILDREN CARRYING OUT HOUSEHOLD CHORES FOR MORE THEN 28 HOURS PER WEEK

age		MICS		MECOVI			
age	Male	Female	Total	Male	Female	Total	
7	0.5	2.0	1.3				
8	1.5	2.7	2.1				
9	1.8	5.4	3.6				
10	3.7	4.7	4.2				
11	4.4	5.3	4.8				
12	3.5	10.2	7.2				
13	5.8	9.2	7.5				
14	5.1	13.7	9.1				
Total	3.2	6.4	4.8				

TABLE 10. - DISTRIBUTION OF CHILDREN AGED 7-14 YEARS, BY SEX AND ACTIVITY

		MICS			MECOVI	
	Male	Female	Total	Male	Female	Total
Working, not attending school	2.1	2.4	2.2	3.00	4.61	3.79
Attending school, not working	68.7	72.7	70.7	76.98	77.80	77.38
Working and attending school	28.0	22.7	25.4	17.40	13.38	15.43
Not working, not attending school	1.3	2.2	1.7	2.61	4.21	3.40
Total	100	100	100	100	100	100

TABLE 11. - CHILDREN ECONOMICALLY ACTIVE AND NOT ATTENDING SCHOOL: WEEKLY HOURS WORKED, BY SEX AND AGE

		MICS		MECOVI			
Age	Male	Female	Total	Male	Female	Total	
7		14.0	14.0	18.6	30.4	20.7	
8	11.3		11.3	34.7	48.2	45.3	
9	11.6	8.0	10.2	42.1	41.1	41.7	
10	3.0	26.4	23.8	52.4	48.5	50.4	
11	21.0	9.0	18.3	30.9	41.2	39.4	
12	28.9	29.2	29.1	38	55.4	49.5	
13	19.6	29.5	24.7	41.3	37.4	38.9	
14	19.2	28.8	24.6	46.6	46.2	46.3	
Total	20.8	27.7	24.5	42	44.9	43.7	

TABLE 12. - CHILDREN ECONOMICALLY ACTIVE AND ATTENDING SCHOOL: WEEKLY HOURS WORKED, BY SEX AND AGE

		MICS			MECOVI		
Age	Male	Female	Total	N	Vlale	Female	Total
7	12.8	7.1	10.1	:	21.1	18.1	19.8
8	12.0	9.6	10.9	- :	21.1	19.3	20.2
9	10.2	11.7	10.9	,	18.6	25.4	21.1
10	12.5	11.6	12.1	:	21.9	19.3	20.9
11	13.9	11.3	13.0	- :	21.5	17.8	19.8
12	14.0	14.5	14.3	1	25.7	18.3	22.5
13	15.3	11.5	13.7		30	28.8	29.5
14	14.6	21.5	17.3	- :	28.4	29.7	28.9
Total	13.3	12.5	13.0		24.1	22.3	23.3

TABLE 13. - CHILDREN ECONOMICALLY ACTIVE (REGARDLESS OF SCHOOL ATTENDANCE STATUS): WEEKLY HOURS WORKED, BY SEX AND AGE

		MICS			MECOVI	
Age	Male	Female	Total	Male	Female	Total
7	13.1	7.3	10.4	20.8	18.6	19.9
8	12.3	10.5	11.4	21.7	23	22.4
9	10.2	11.6	10.8	19.8	26.3	22.2
10	12.5	12.6	12.6	24.6	22.9	23.9
11	14.1	11.3	13.1	21.9	22.6	22.3
12	15.7	15.8	15.7	27.1	27.3	27.2
13	15.7	14.8	15.3	32.5	32	32.2
14	15.9	23.7	19.3	34.2	37.5	35.8
Total	14.0	14.2	14.1	26.7	28.1	27.4

TABLE 14. - DISTRIBUTION OF CHILDREN CARRYING OUT HOUSEHOLD CHORES FOR MORE THEN 4/HRS. PER DAY, BY SEX AND ACTIVTY

		MICS			MECOVI	
	Male	Female	Total	Male	Female	Total
Working, not attending school	12.8	21.3	17.4			
Attending school, not working	2.4	5.2	3.8			
Working and attending school	3.5	4.6	4.0			
Not working, not attending school	27.6	43.3	37.5			
Total	3.2	6.3	4.8			

TABLE 15. - TIME SPENT BY CHILDREN CARRYING OUT HOUSEHOLD CHORES: WEEKLY HOURS

		MICS			MECOVI	
	Male	Female	Total	Male	Female	Total
Working, not attending school	17.0	18.7	18.0			
Attending school, not working	8.3	10.1	9.3			
Working and attending school	10.3	11.5	10.9			
Not working, not attending school	18.6	26.2	23.4			
Total	9.2	11.1	10.2			

TABLE 16. - DISTRIBUTION OF CHILDREN AGED 7-14 BY AREA, SEX AND ACTIVITY

			MICS			MECOVI	
		Male	Female	Total	Male	Female	Total
	Working, not attending school	0.7	0.4	0.6	1.0	0.9	0.9
urban	Attending school, not working	86.7	89.0	87.9	89.8	88.5	89.1
dibaii	Working and attending school	12.1	9.6	10.8	6.2	5.9	6.1
	Not working, not attending school	0.5	1.0	0.7	3.0	4.7	3.8
	Working, not attending school	4.0	5.2	4.6	6.1	10.2	8.1
rural	Attending school, not working	42.0	49.2	45.6	57.5	61.5	59.5
Turui	Working and attending school	51.5	41.7	46.6	34.4	24.8	29.7
	Not working, not attending school	2.5	4.0	3.2	2.0	3.5	2.7
	Working, not attending school	2.1	2.4	2.2	3.0	4.6	3.8
Total	Attending school, not working	68.6	72.7	70.7	77.0	77.8	77.4
Total	Working and attending school	28.0	22.7	25.3	17.4	13.4	15.4
	Not working, not attending school	1.3	2.2	1.7	2.6	4.2	3.4

 $\textit{TABLE 17.} \cdot \textbf{DISTRIBUTION OF CHILDREN BY HOUSEHOLD INCOME LEVEL, ACTIVITY STATUS AND SEX}$ 

			MICS	S (Weath in	ndex)			MECOVI (	Expenditure	e quintiles)	
		1	2	3	4	5	1	2	3	4	5
	Working, not attending school	0.0	0.0	2.9	2.5	4.0	7.2	4.2	3.5	0.4	0.1
Male	Attending school, not working	2.1	88.2	88.2	73.7	54.8	3.0	52.8	73.7	82.1	85.6
1	Working and attending school	44.1	68.6	11.8	11.7	22.7	89.4	77.0	39.1	19.1	11.7
	Not working, not attending school	39.5	49.7	28.0	0.0	0.1	10.0	8.3	17.4	0.9	3.0
	Working, not attending school	0.7	3.2	2.2	1.3	0.4	2.7	3.9	2.3	2.6	14.4
Female	Attending school, not working	0.0	2.0	3.3	5.8	2.4	3.9	1.5	1.7	2.8	4.6
, sinais	Working and attending school	88.1	89.9	78.7	61.6	48.3	54.6	76.1	87.0	81.6	87.6
	Not working, not attending school	72.7	11.2	9.0	17.6	31.2	77.8	27.7	15.3	10.0	8.3
	Working, not attending school	42.1	22.7	0.3	1.0	1.6	7.7	13.4	3.3	4.7	1.4
Total	Attending school, not working	3.9	3.9	2.2	0.2	0.0	8.3	1.8	4.2	10.5	4.1
	Working and attending school	2.5	2.9	4.9	2.2	88.2	2.6	1.1	1.4	3.8	53.6
	Not working, not attending school	89.1	76.1	58.4	46.1	70.7	74.9	84.4	83.6	88.5	77.4

TABLE 18. - DISTRIBUTION OF CHILDREN BY MOTHERS' EDUCATION LEVEL, AREA, SEX AND ACTIVITY STATUS

			MICS			MECOVI	
		None	Primary	Secondary+	None	Primary	Secondary+
	Working, not attending school	1.1	0.9	0.0	1.4	0.9	0
urban	Attending school, not working	82.8	85.4	91.3	82.7	88.7	95.6
urbari	Working and attending school	14.6	12.8	8.2	11.5	6.5	0.9
;	Not working, not attending school	1.4	0.9	0.5	4.4	4	3.4
	Working, not attending school	5.5	4.4	1.3	13.4	5	0
rural	Attending school, not working	44.3	44.6	66.7	49.4	64	100
Turai	Working and attending school	46.6	48.0	27.5	34.2	28.7	0
	Not working, not attending school	3.5	3.0	4.5	3	2.3	0
	Working, not attending school	4.5	2.6	0.1	10.1	2.3	0
Total	Attending school, not working	53.4	66.0	89.7	58.4	80.2	95.9
10131	Working and attending school	39.1	29.6	9.5	28	14.1	0.9
	Not working, not attending school	3.0	1.9	0.8	3.4	3.4	3.2

TABLE 19. - DISTRIBUTION OF CHILDREN BY HOUSEHOLD WATER ACCESS<sup>(1)</sup>, AREA, SEX AND ACTIVITY STATUS

			MICS			MECOVI	
		Access	No access	Total	Access	No access	Total
	Working <sup>(2)</sup> , not attending school	0.4	1.5	0.6	1.0	0.9	0.9
Urban	Attending school, not working	88.5	82.6	87.9	88.8	91.6	89.1
Olban	Working and attending school	10.4	14.2	10.8	6.3	4.3	6.1
	Not working, not attending school	0.6	1.7	0.7	3.9	3.3	3.8
	Working, not attending school	4.2	5.1	4.6	6.0	9.4	8.1
Rural	Attending school, not working	51.9	38.4	45.6	66.2	55.4	59.5
Kurai	Working and attending school	41.9	52.0	46.6	25.8	32.1	29.7
	Not working, not attending school	2.1	4.5	3.2	2.1	3.1	2.7
	Working, not attending school	1.5	4.2	2.2	2.1	7.6	3.8
Total	Attending school, not working	77.8	49.9	70.7	83.8	63.2	77.4
Total	Working and attending school	19.6	42.1	25.3	10.6	26.0	15.4
	Not working, not attending school	1.0	3.8	1.7	3.5	3.2	3.4

Notes: (1) 'Water access' is defined as households with water either pumped into home or into yard/plot. (2) 'Working' refers to economic activity

TABLE 20. - DISTRIBUTION OF ECONOMICALLY ACTIVE CHILDREN BY WORK MODALITY

			MICS			MECOVI	
		Paid	Unpaid	Family worker	Wage	Self employed	Family worker
	Male	33.8	2.1	64.1	44.2	11.4	44.4
Urban	Female	16.4	2.5	81.1	11.7	10.9	77.4
	Total	26.2	2.2	71.5	28.7	11.2	60.1
	Male	7.4	1.8	90.8	1.4	0.9	97.8
Rural	Female	3.5	0.4	96.1	0.5	0.5	99.0
	Total	5.6	1.2	93.2	1.0	0.7	98.3
	Male	14.1	1.9	84.0	10.5	3.1	86.4
Total	Female	6.5	0.9	92.5	3.1	2.9	94.0
	Total	10.6	1.4	87.9	7.1	3.0	89.9

TABLE 21. - DISTRIBUTION OF HOUSEHOLDS BY TYPE OF WATER CONNECTION

		MICS			MECOVI		
	Urban	Rural	Total		Urban	Rural	Total
Piped into dwelling	44.49	11.3	33.22	Public network	90.01	35.59	70.17
Piped into yard or plot	46.58	40.75	44.6	Public basin	2.83	7.7	4.6
Public tap	1.37	6.96	3.27	Water tank	2.1	0.12	1.38
Tubewell, borehole with pump	0.67	5.29	2.24	Well with pump	1.3	3.91	2.25
Protected dug well	1.49	5.65	2.91	Well without pump	1.99	16.94	7.44
Protected spring	0.05	0.62	0.25	River	0.45	32.54	12.15
Unprotected dug well	0.78	7.45	3.04	Lake	0	1.14	0.42
Unprotected spring	0.06	3.55	1.24	Other	1.32	2.06	1.59
Pond, river or stream	0.05	10.67	3.66				
Tanker-truck, vendor	1.76	0.13	1.21				
Other	2.69	7.63	4.37				
Total	100	100	100	Total	100	100	100

TABLE 22. - RATE OF REPORTED INJURY/ILLNESS, BY SEX AND ACTIVITY STATUS

		MICS					
	Male	Female	Total		Male	Female	total
Working <sup>(2)</sup> , not attending school					20.1	8.7	13.3
Attending school, not working					9.5	10.4	10.0
Working and attending school					15.3	20.1	17.4
Not working, not attending school					22.1	9.8	14.6

TABLE 23. - DISTRIBUTION OF ECONOMICALLY-ACTIVE CHILDREN BY MODALITY OF EMPLOYMENT AND SEX

	MICS			N			
	Male	Female	Total		Male	Female	Total
Paid	14.07	6.55	10.64	Wage employ	10.5	3.1	7.1
Unpaid	1.89	0.91	1.45	Self Employ	3.1	2.9	3.0
Family	84.04	92.54	87.92	Family employ	86.4	94.0	89.9
Total	100	100	100	Total	100	100	100