



**STATE STATISTICAL COMMITTEE
OF THE REPUBLIC OF AZERBAIJAN**



INTERNATIONAL LABOUR OFFICE

Working Children In Azerbaijan: The Analysis of Child Labor and Laboring Children Surveys



2005

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WORKING CHILDREN IN AZERBAIJAN:

AN ANALYSIS OF THE 2005 CHILD LABOUR

AND LABOURING CHILDREN SURVEYS

Meltem Dayıoğlu
Department of Economics
Middle East Technical University
Ankara, Turkey
dmeltem@metu.edu.tr

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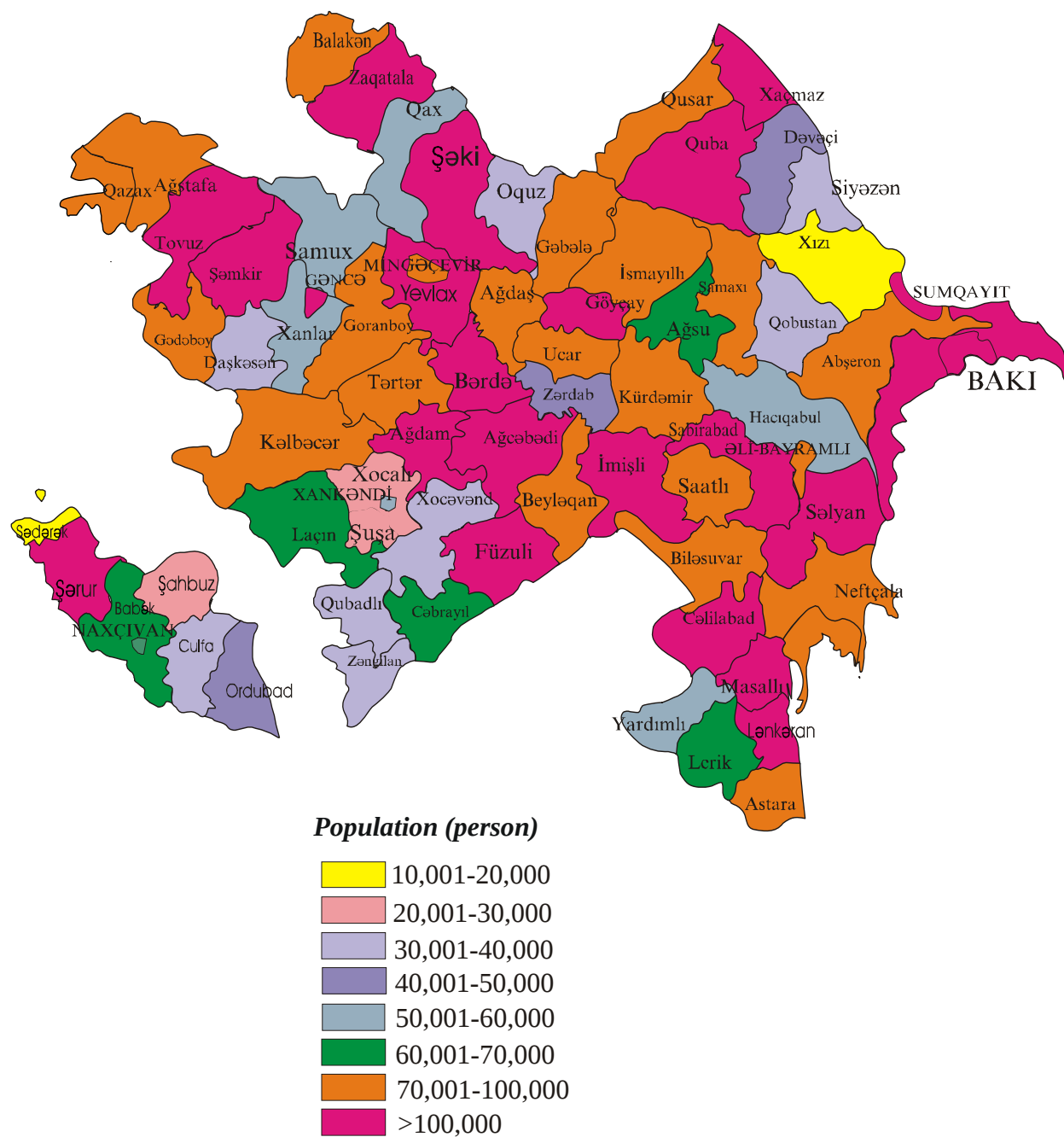
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MAP OF AZERBAIJAN AND THE DISTRIBUTION OF POPULATION



Executive Summary

The aim of this report is to analyze the incidence and nature of child labor in Azerbaijan as well as its determinants and its consequences on child well-being with regard to schooling and health. Although work and schooling are not necessarily mutually exclusive activities, one or the other must be chosen in situations where part-time work or work in the vicinity of the home is impossible. Therefore, this report also aims to look at the determinants of school enrollment, without which any analysis of the determinants of child labor would be incomplete.

The data used in this study come from two household-based surveys, both conducted by the State Statistical Committee of Azerbaijan (SSC) in cooperation with ILO-IPEC. The first of these surveys, the Child Labor Survey (CLS), was launched in March 2005 and was conducted as a module of the Labor Force Survey (LFS). The main aim of the CLS was to estimate the overall incidence of child labor in Azerbaijan and in its regions. The survey also gathered information on the basic characteristics of working children and their households in order to shed light on the main determinants of child labor. Conducting the CLS as a module of the LFS represented a cost-effective method of identifying working children's households and their basic characteristics; however, it also meant that the child questionnaire had to be kept brief. Therefore, a second survey, the Laboring Children Survey (LCS), was conducted in November 2005 as a continuation of the CLS. In the LCS, households of working children identified in the CLS were re-visited in order to gather more detailed information on working children with regard to their schooling, health status, work-related injuries, perceptions about work and intentions for the future. Whereas the CLS collected information on 16,482 children between the ages of 5 and 17 from 8,785 households across the country, the smaller LCS covered 10,543 children from 5,355 households.

The CLS revealed that of the 2,099,000 children in Azerbaijan between the ages of 5 and 17, 156,000 were estimated to be employed at the time of the survey (Table E1). In other words, working children constitute 4.0 percent of all working individuals in Azerbaijan. The incidence of working children increases with age, from 4.5 percent of children aged 5-14 to 15.6 percent of children aged 15-17, and it is highest (22.8%) among children aged 17. Overall, male children work at greater rates (8.5%) than female children (6.2%); interestingly, however, this differentiation in employment rates by sex only becomes statistically significant after children reach the age of 13.

Table E1. Distribution of population by age group and labor force participation (in thousands)						
	Total	Age 5-14	Age 15-17	Age 5-17	Age 15 +	Age 18 +
Total Population	8,347	1,545	554	2,099	6,227	5,673
Population aged 0-4	575	-	-	-	-	-
LF (E + U)*	4,366	70	95	165	4,296	4,201
Employed E	4,002	70	86	156	3,932	3,846
Unemployed U*	364	-	9	9	364	355
Child Labor	-	66	61	128	-	-
LFPR	56.2%	4.5%	17.2%	7.9%	69.0%	74.1%
Unemployment Rate	4.7%	0.0%	1.6%	0.4%	5.8%	6.3%
Note: Labor force figures in the "Total" column include employed and unemployed children aged 5 and older. However, children under 15 are not included in unemployment figures, as unemployment status is not relevant for children under age 15.						

When a distinction is made between working children and child laborers – i.e., children who undertake work that is unsuitable for their capacities – the incidence of child labor is found to be on the order of 128,000 or 6.1 percent of all children aged 5-17. This figure represents over 80 percent of all working children and is due primarily to the national definition of hazardous work, which includes the vast majority of agricultural activities carried out by children. There is also a gender gap in the incidence of child labor: 7.0 percent of male children, as compared to 5.1 percent of female children, are considered to be child laborers.

Despite the high incidence of child labor, school attendance is also very high (92.6%). Although non-attendance is prevalent among six- and seven-year-olds, literacy is almost 100 percent among older age groups. This fact, combined with the finding that non-attendance decreases after age seven, indicates that late entry into the schooling system is common and effectively reduces the average rate of attendance. In fact, disregarding children aged 6-7, near universal attendance rates are recorded for children aged 15 and younger. A decline in attendance rates can be seen after age 15, which corresponds to the end of basic education, and is due in part to the different ages at which children may complete their compulsory schooling. There are no differences in the school attendance rates of male and female children.

Almost three-quarters of children surveyed were engaged in some type of household chores for at least one hour during the reference week (Table E2). The likelihood of carrying out household chores increases with age and is higher for female children. While 76.4 percent of female children perform household chores, this figure is only 71.3 percent for male children. On average, children spend 7.6 hours per week performing chores. This figure is slightly higher for female children than male children.

Table E2. Distribution of children by age group and activity (work, school, chores) (in thousands)						
	Age 6-14		Age 15-17		Age 6-17	
	N	%	N	%	N	%
Total Population	1,430	100.0%	554	100.0%	1,984	100.0%
Work only (a)	4	0.3%	34	6.2%	38	1.9%
School only (b)	1,284	89.8%	437	78.9%	1,721	86.7%
Work + School (c)	65	4.6%	52	9.4%	118	5.9%
Total Work (*)	70	4.9%	86	15.6%	156	7.9%
Total School (**)	1,349	94.3%	489	88.3%	1,838	92.6%
Child Labor	66	4.6%	61	11.1%	127	6.4%
Household Chores	1,023	71.5%	481	86.9%	1,505	75.8%
Inactive(***)	35	2.5%	3	0.6%	38	1.9%
Note: * “Total work” refers to the sum of children engaged in work only and children combining school with work (a+c). ** “Total school” refers to the sum of children going to school only and children combining school with work (b+c). *** “Inactive” refers to children who neither work, nor go to school nor perform household chores						

Children are also found to work an average of 21.4 hours per week. While a sizeable portion of children (36.9%) are employed less than 14 hours per week, 9.2 percent of children have an excessively long work week.

For the purposes of this study, children’s activities are divided into three categories: School attendance, work and household chores. Over three-quarters of working children above age five are also enrolled in school (Table E2). The proportion of children who are engaged solely in market work is limited to 1.9 percent, most of whom are older and who may have completed secondary schooling. Over 93 percent of children who perform household chores are also enrolled in school.

The majority of working children (59.3%) are employed as unpaid family workers. Another one-third are self-employed, and 10.2 percent work as hired employees. The vast majority are concentrated in the agricultural sector, which accounts for 85.7 percent of female and 80.7 percent of male working children.

The incidence of work among children varies by their region of residence. Regions in which agriculture constitutes the main economic activity tend to have higher incidences of child labor. For instance, the largely rural Aran region accounts for 25 percent of Azerbaijan’s child population as well as nearly one-quarter of the nation’s working children, whereas Baku, an urban center, is home to 22.8 percent of Azerbaijan’s child population, but only 7.8 percent of the nation’s working children.

Multivariate analysis confirms the greater likelihood of finding working children in rural areas than in urban areas. However, this is not the only factor shown to have an influence on the incidence of child labor. Children in households with a large number of dependents are more likely to work, as are refugee children and internally displaced persons

(IDP). In urban areas, low household income increases the risk of children working. Finally, incidences of working children are higher in some regions than in others.

Multivariate analysis also indicates that children's school attendance is affected by a number of different factors. Although not as great as its effect on employment, region of residence has a significant effect on attendance, with rates in Ganca-Qazax slightly lower than in Baku and rates in Saki-Zaqafala, Daglik-Sirvan and Naxivan slightly higher. Interestingly, school attendance rates in Yuxari-Qarabag are not significantly lower than in other areas, despite the very high child employment rates in the region. In urban areas, school attendance rates increase in line with household income, whereas migration slightly lowers a child's likelihood of attending school.

More detailed information on working children gathered from the LCS indicates that working children suffer from illnesses at higher rates than non-working children. While 19.4 percent of working children reported suffering from a range of work-related illnesses, including skin and respiratory-related problems, allergies, diarrhea and fatigue, only 7.6 percent of non-working children registered similar complaints. Even when specifically work-related illnesses are disregarded, working children are still found to have higher rates of illness (30.2%) than non-working children (23.7%). Incidences of injuries have also been found to be more than twice as high among working children (15.6%) than among non-working children (7.5%). In spite of this, only 5.2 percent of working children said they operated machinery or equipment as part of their work and only 3.0 percent said they were often required to carry heavy loads; however, approximately one-third said they were sometimes required to lift and carry heavy loads. The majority of parents and/or guardians of children do not see a connection between their children's illnesses or injuries and their work. On the contrary, the majority of parents/guardians associate children's illnesses with poor household living conditions or outbreaks of disease in their neighborhoods/regions and children's injuries mainly with games or sports activity (less than 10 percent of injuries to working children were considered work-related). Very few children (less than 1%) were found to be permanently disabled as a result of an illness or injury, and even fewer were found to have permanently stopped working or attending school.

At younger ages (6-14 years), school attendance rates of working children are not necessarily lower those of non-working children. In fact, although the CLS reported slightly lower rates for working children, the LCS reported slightly higher rates. In either case, the difference does not exceed one percentage point. Moreover, the less-than-universal rate of school attendance among this age group is related to late entry into the schooling system rather than to drop-out rates, which are estimated not to exceed 0.5 percent. Grade

repetition is also rather uncommon among children aged 6-14, and school attendance is regular among both working and non-working children.

Among older children (15-17 years), attendance rates are also less than universal; however, this is due mainly to the choice of schooling tracks that enable many children to graduate from secondary school before they reach age 17. The school drop-out rate for children aged 15-17 is estimated to be no more than two percent, although the rate is slightly higher (near five percent) for working children than for non-working children. Grade repetition is uncommon, and school attendance is rather regular among children in this age group, although attendance rates are slightly lower for working children than for non-working children.

The demand for vocational training remains very limited, possibly due to the high enrollment rates in formal education. In total, only 1.5 percent of children were found to have benefited from some form of vocational training.

Section One: Introduction

Child labor may be pervasive throughout the world, but it is the sheer scale of the problem and the difficult conditions faced by children in the developing world that attract most of the attention. According to the most recent International Labour Organization (ILO) statistics, an estimated 191 million children between the ages of five and 14 – and 317 million between the ages of five and 17 – work (Hagemann et al., 2006). Almost 90 percent of these working children are found either in Asia or Africa. Child employment is the result of a number of factors, including poverty, the availability of work that can be carried out by children, lack of or limited access to school and poor quality schooling, and tradition. Children in transition countries also stand at a high risk of going to work and/or dropping out of school as a result of an increased incidence of poverty and income inequality in the wake of regime change, reduced expenditures on public services, increased unemployment and higher prices of commodities, including food. All these developments demand that close attention be paid to changes in the welfare of children in transition countries.

Azerbaijan's economy relies heavily on oil and gas exports. Consequently, the country's GDP is comprised mainly of industry (47.5%), followed by services (43.3%) and agriculture (9.2%). Despite a wealth of oil and gas resources, per capita GNP is only around \$3,400 (measured in terms of purchasing power parity). Moreover, a Gini coefficient of 0.36 highlights the consumption inequality among households in Azerbaijan (UNDP, 2006), where 20.8 percent of the population are estimated to live below the national poverty line. Compounding the relatively low household income and unequal distribution of income, the heavy reliance on the primary products of oil and gas makes the Azerbaijan economy susceptible to the adverse effects of fluctuations in world oil and gas prices.

Fortunately, a number of underlying characteristics help to balance unfavorable developments and promise to play a role in uplifting the welfare of children in Azerbaijan, notably, a high average level of schooling among adults (11 years), low inequality in educational attainment (Gini=0.15), an almost universal literacy rate (99% among adults), high birth registration (97% among those under five years of age), a low fertility rate (2.1 births per woman) and a low annual population growth (0.7%).¹ These elements, as well as a relatively well-established education infrastructure and recent developments on the legal front, constitute an important background against which policy initiatives to reduce child labor and improve children's health and education can be formulated. The fact that more than half the total population (estimated at 8.4 million in 2006) live in urban areas is also

¹ Information is taken from UNDP (2006) and UNICEF (2000).

likely to reduce the incidence of child labor, since the demand for child labor is concentrated in rural areas in small family-run agricultural establishments.

On the legislative front, Azerbaijan has signed and ratified all major international conventions aimed at improving the welfare of children and protecting them from economic exploitation and work unsuited to their capacities. In 1992, the Azerbaijan National Assembly ratified the Convention on the Rights of the Child (CRC). The government has also signed and ratified ILO Convention 138 on Minimum Age and designated 15 as the minimum age for employment. The national labor law has established maximum weekly working hours based on age, with children under 16 permitted to work not more than 24 hours per week and those aged 16-18 limited to 36 hours per week (US-DS, 2006). With the ratification of ILO Convention 182 on Worst Forms of Child Labor, employment of children under 18 in hazardous work has been outlawed.

The aim of this report is to analyze the incidence and nature of child labor in Azerbaijan, its determinants, and its consequences on child well-being in terms of schooling and health. Although work and schooling are not necessarily mutually exclusive activities, in those situations where part-time work or work in the vicinity of the home is impossible, one must be chosen at the expense of the other. Therefore, this report also aims to look at the determinants of school attendance, without which any analysis of the determinants of child labor would be incomplete.

Following this brief introduction, Section Two provides a basic description of the survey methodology and data sets from the March 2005 Child Labor Survey (CLS) and the November 2005 Laboring Children Survey (LCS) that form the basis of this analysis. Section Three offers descriptive statistics on the work and schooling outcomes of children and discusses the extent, intensity and nature of work carried out by children, as well as the socio-economic characteristics of working children and their households. Section Four looks at the determinants of child work and schooling, and Section Five analyzes the effects of work on children's schooling and health. Finally, Section Six concludes the report with a summary and a brief discussion of a number of policy initiatives that could reduce child labor and increase child schooling.

Section Two: Survey Methodology and Data Set

The data used in this study come from two household-based surveys, both conducted by the State Statistical Committee of Azerbaijan (SSC) in cooperation with ILO-IPEC, the International Programme on the Elimination of Child Labour. The first of these surveys, the Child Labor Survey, was launched in March 2005 and was conducted as a module of the Labor Force Survey. The main aim of the CLS was to estimate the overall incidence of child labor in Azerbaijan and in its different regions. Moreover, data on the basic characteristics of working children and their households obtained from this survey could be used to shed light on the main determinants of child labor in Azerbaijan. Conducting the CLS as a module of the LFS represented a cost-effective method of identifying working children's households and their basic characteristics; however, it also meant that the child questionnaire had to be kept brief. Therefore, a second survey, the Laboring Children Survey, was conducted in November 2005 as a continuation of the CLS. In the LCS, households of working children identified in the CLS were re-visited, and more detailed information was gathered on working children with regard to their schooling, health status, work-related injuries, perceptions about work and intentions for the future.

The CLS collected information in nine sections, as follows:

Section I: Household address;

Section II: Household member enumeration and basic socio-demographic information about household members;

Section III: Current economic activity of all household members aged five and above. An individual was considered to be economically active if s/he had performed at least one hour of paid or unpaid work during the reference week (28 February-6 March 2005). In order to ensure that children understood this question correctly, interviewers listed various economic activities that children might not consider to be work, such as grazing animals, preparing food for sale, working with relatives and friends, and washing and ironing for someone else;

Section IV: Unemployment;

Section V: Last job held (information on individual work histories was not collected);

Section VI: Economic activity of children during the 12 months preceding the survey (asked of children aged 6-17). This section allowed the survey to capture information on all working children, regardless of their time of

employment, which, in the case of those children not regularly employed, might fall outside the reference week;

Section VII: Children's housekeeping activities (domestic chores);

Section VIII: Dwelling characteristics/facilities; and

Section IX: Household socio-economic status. (A rough estimate of household income and expenditures could be derived using the survey data.)

The LCS questionnaire shared certain common features with that of the CLS, as follows:

Sections I through IV: Similar to that of the CLS (with the week of 7-13 November 2005 used as the reference week);

Section V: Housekeeping activities (corresponding to Section VII of the CLS, addressed to parents/guardians);

Section VI: Health status of children (asked of each child's mother or most knowledgeable household member);

Section VII: Parental perceptions regarding children's work activities (asked of each child's parents/guardians);

Section VIII: Children's school attendance, including frequency of attendance and reasons for non-attendance (addressed to children aged 5-17 years);

Section IX: Work status of children and their reasons for work (addressed to children aged 5-17 years);

Section X: Children's earnings and mode of payment (addressed to children aged 5-17 years);

Section XI: Health and safety of working children (addressed to children aged 5-17 years);

Section XII: Housekeeping activities (addressed to children aged 5-17 years); and

Section XIII: Future intentions of children (addressed to children aged 5-17 years).

The CLS collected information on 16,482 children between the ages of five and 17 from 8,785 households across the country. Of these, 82.2 percent lived in the household of their biological parents and 16.2 percent in the household headed by their grandparents (either with or without their parents. Only 0.1 percent (n=14) were household heads themselves, and only 0.2 percent (n=27) were married to heads of households. Adopted children were found to constitute only 0.2 percent of the sample.

The LCS covered 10,543 children between the ages of five and 17 from 5,355 households. While the main aim of the LCS was to gather additional information on working children, all children in the households covered by the survey were interviewed, thus producing another data set (in addition to the CLS data set) that included both working and non-working children.

Because the non-working children in the LCS sample share the same household characteristics of working children – and can thus be considered to be at higher risk of employment than non-working children in general – it is likely that the non-working children in the CLS sample are more representative of the non-working child population as a whole. For this reason, this study relied primarily on the results of the CLS in analyzing the main characteristics of working children and the determinants of child labor (Section Three), as well as the determinants of schooling (Section Four), whereas the LCS results were used to evaluate the possible effects of work on health and schooling (Section Five). Where references are made to non-working children (in Section Five), the above-mentioned drawback of the LCS sample needs to be kept in mind.

Section Three: Descriptive Statistics on Working Children

This section provides descriptive statistics on working children in four parts. The first part begins with a succinct discussion of work patterns of adults in Azerbaijan in order to paint a general picture of the labor market against which the work patterns of children can be assessed. Information on employment is provided on the basis of broad age groups in order to distinguish differences in employment patterns between younger and older individuals and to allow for international comparisons. The second part of this section examines children's activities, including work, school and household chores, and the third part provides more detailed information on children's work. Finally, the fourth part looks at the household characteristics of working children as well as the regional aspect of child labor.

3.1 General labor market characteristics

The total population of Azerbaijan is estimated to be close to 8,347,000 (Table 1). Children age four and under constitute 6.9 percent of the population, and children aged 5-14 and 15-17 constitute approximately 18.5 percent and 6.6 percent, respectively.

Table 1. Distribution of population by age group and labor force participation (in thousands)						
	Total	Age 15+	Age 15-19	Age 20-24	Age 25-64	Age 65 +
Total Population	8,347	6,227	915	784	3,948	580
Population aged 0-4	575					
Population aged 5-14	1,545					
LF (E + U)*	4,366	4,296	309	590	3,292	105
Employed (E)	4,002	3,932	253	484	3,091	105
Unemployed (U)*	364	364	56	106	202	-
LFPR	56.2%	69.0%	33.8%	75.2%	83.4%	18.1%
Unemployment Rate	4.7%	5.8%	6.1%	13.5%	5.1%	-
Note: Labor force figures in "Total" column include employed and unemployed children aged 5 and older. However, children under 15 are not included in unemployment figures, as unemployment status is not relevant for children under age 15.						

The labor force participation rate (LFPR) for individuals aged 15 and above is estimated to be 69 percent. With the exception of the eldest group (individuals over 65 years of age), the LFPR increases with age, from 33.8 percent for individuals aged 15-19 to 75.2 percent for those aged 20-24 ("young adults") and 83.4 percent for those age 25-64 ("prime-age adults"). The overall unemployment rate is close to 5.8 percent. While the unemployment rate among adults aged 25-64 is around 5.1 percent, this rate climbs to 13.5 percent among young adults aged 20-24.

On the whole, labor force participation is higher among men than women. Although this difference is not pronounced among younger individuals, among those in the 20-24 and 25-64 age groups, the difference comes close to 20 percent (Table 2). Overall

unemployment rates for men and women are similar, although higher rates are recorded for males in the 20-24 age group and females in the 25-64 age group.

Table 2. Labor force participation and unemployment rates, by age group and sex (%)

	Age 15+		Age 15-19		Age 20-24		Age 25-64		Age 65 +	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
LFPR	77.07	61.72	33.43	34.17	85.15	66.26	93.40	74.38	23.73	13.23
Unemployment Rate	5.85	5.84	5.22	6.98	15.29	11.94	4.96	5.24	-	-

The majority of employed individuals in Azerbaijan work in the agricultural sector (Table 3). Agriculture accounts for over 40 percent of employed adults aged 25-64 and 76.2 percent of individuals aged 15-19. Agriculture is followed by the wholesale and retail trade sector, which accounts for 15.2 percent of employed adults aged 25-64 and 10.8 percent of individuals aged 15-19, and manufacturing, which accounts for only 5.7 percent of employed adults aged 25-64 and only 2.6 percent of individuals aged 15-19.

Table 3. Age distribution of working population by sector of economic activity (%)

Sector	Age 15+	Age 15-19	Age 20-24	Age 25-64	Age 65+
Agriculture & fishing	45.34	76.17	54.00	40.80	64.79
Mining	1.70	0.54	1.19	1.88	1.82
Manufacturing	5.27	2.64	4.19	5.70	3.92
Electricity, gas, water	1.15	0.15	0.63	1.32	0.90
Construction	4.76	1.53	3.95	5.27	1.30
Wholesale and retail trade	14.61	10.83	14.90	15.20	4.88
Hotels and restaurants	1.06	0.73	1.48	1.05	0.33
Transport, storage	4.57	1.14	2.44	5.28	1.77
Financial	0.64	0.08	0.64	0.69	0.25
Real estate	1.15	0.23	1.15	1.22	1.19
Public administration	2.66	0.24	1.87	3.04	0.90
Education	8.55	0.89	6.19	9.52	9.14
Health	3.77	0.90	2.37	4.21	3.94
Other personal and community services	3.05	2.17	3.65	3.06	2.15
Household services	1.70	1.77	1.36	1.71	2.72
Extraterritorial org.	0.03	0.00	0.00	0.04	0.00

In line with the significance of agriculture within the labor market, a sizeable portion of working individuals are self-employed. Among prime-age adults aged 25-64, the rate of self-employment is 40.5 percent, and this rate increases to 47.6 percent among individuals aged 15-19. The second-most common form of employment among working individuals aged 15-19 is unpaid family work (35.7%), whereas wage work is more common among prime-age adults aged 25-64 (44.7%).

Table 4. Age distribution of working population by employment status (%)					
	Age 15+	Age 15-19	Age 20-24	Age 25-64	Age 65+
Wage worker	40.84	14.57	32.97	44.72	26.31
Employer	2.64	1.62	1.9	2.9	0.85
Member of producer's coop	0.35	0.52	0.46	0.33	0.11
Unpaid family worker	14.24	35.7	20.3	11.59	12.57
Self-employed	41.92	47.6	44.37	40.45	60.17

Clues as to the work patterns of children can be found by looking carefully at general patterns of employment. An overall high rate of employment in agriculture in Azerbaijan, often in the form of self-employment and unpaid work, implies high rates of employment among children as well. However, a low overall rate of employment in the manufacturing sector, where international data shows high incidences of child employment, implies a lower incidence of work among children in Azerbaijan.

3.2 General patterns of children's activities

Children's activities can be divided into three categories: school, work (economic activity)², and household chores. Children may often be involved in more than one of these activities, or, more rarely (and usually only in the cases of very young children), in none of them.

3.2.1 Work

Slightly more than 156,000 children aged 5-17 are estimated to be engaged in some form of economic activity. In other words, working children represent 7.5 percent³ of all children in this age group in Azerbaijan and approximately 4.0 percent of all working individuals in Azerbaijan. The likelihood of child employment increases with age. While less than 5 percent of 10-year-olds are employed, more than 22.8 percent of 17-year-olds are employed (see Table 5). There are more working male children than female children, and while the gender gap in the incidence of work is not huge, it is statistically significant. Among children aged 5-17, 95,707 male children (8.5%) are engaged in economic activity, compared to 60,702 female children (6.2%). Upon close examination, the gender gap in employment rates is found to be meaningful (in a statistical sense) only for children over age 13, whereas male and female children of younger ages stand at equal risk of employment. The differences between male and female employment rates observed among

² An individual is considered to be economically active if s/he has worked for at least one hour during the reference week. Work includes activities for pay, profit, or family gain; therefore, unpaid family workers are also considered to be economically active.

³ When children who have completed their compulsory schooling are excluded, this rate decreases to 6.5%.

older children may be attributable to social norms and practices that attribute the role of “breadwinner” to males while expecting females to perform domestic duties.

Table 5. Children engaged in economic activity in the week preceding the survey, by age and sex							
	All children		Male children		Female children		p-value for difference in % by sex
Age	Number	%	Number	%	Number	%	
5	437	0.38	162	0.26	274	0.53	0.48
6	1,389	1.22	634	1.02	754	1.46	0.59
7	3,098	2.49	1,804	2.75	1,294	2.20	0.57
8	3,987	2.80	2,437	3.15	1,550	2.39	0.51
9	6,353	4.20	3,713	4.47	2,640	3.88	0.62
10	8,099	4.79	4,793	5.20	3,307	4.29	0.46
11	8,030	4.70	4,933	5.49	3,097	3.82	0.18
12	9,924	5.67	5,911	6.29	4,013	4.95	0.37
13	14,601	7.47	8,083	7.99	6,519	6.92	0.52
14	14,115	7.54	8,926	9.19	5,189	5.76	0.02
15	23,107	11.30	14,291	13.00	8,816	9.32	0.01
16	24,650	13.67	15,245	15.94	9,405	11.10	0.01
17	38,619	22.84	24,776	27.79	13,842	17.31	0.00
All	156,409	7.45	95,707	8.54	60,702	6.21	0.00

Note: The information in this table is intended to provide a general idea regarding employment patterns by age. Due to the nature of sampling, figures provided for single ages may not be exact.

The above data on child employment is based on an analysis of the responses to questions that referenced the week preceding the CLS survey, which is the standard typically used in gathering data about the labor supply. However, this definition might be considered overly restrictive in the case of children, who may work irregularly or during the summer months only. For this reason, incidence of work was re-calculated using the year preceding the survey as the reference period (Table 6). Whereas a one-week reference period found 7.9 percent of children aged 6-17 to be engaged in economic activity, a one-year reference period yielded a rate of 12.0 percent. Regardless of whether the reference period is one week or one year, participation in the labor market at very young ages was found to be a rare event, whereas older male children were found to be at the greatest risk of employment.

Table 6. Children engaged in economic activity in the year preceding the survey, by age and sex							
	All children		Male children		Female children		p-value for difference in % by sex
Age	Number	%	Number	%	Number	%	
6	2,447	2.14	1,558	2.50	890	1.72	0.35
7	4,756	3.82	2,436	3.71	2,320	3.94	0.78
8	6,679	4.69	4,116	5.32	2,563	3.95	0.38
9	8,757	5.79	5,137	6.18	3,621	5.32	0.51
10	12,842	7.59	6,751	7.32	6,091	7.91	0.76
11	14,315	8.37	8,291	9.23	6,024	7.43	0.23
12	17,654	10.08	10,236	10.89	7,417	9.14	0.36
13	26,208	13.42	15,975	15.80	10,233	10.86	0.02
14	26,902	14.37	17,194	17.69	9,708	10.78	0.00
15	35,049	17.14	21,761	19.79	13,288	14.05	0.00
16	35,342	19.60	21,797	22.79	13,545	15.99	0.00
17	47,931	28.34	30,508	34.22	17,423	21.79	0.00
All	238,883	12.04	145,759	13.78	93,124	10.05	0.00

Note: The information in this table is intended to provide a general idea regarding employment patterns by age. Due to the nature of sampling, figures provided for single ages may not be exact.

On average, working children engage in economic activity between five and six months each year. This is a considerable figure and indicates that children's work is not limited to the summer months when schools are closed. Nonetheless, the proportion of children who work year-round is limited to 7.6 percent (Table 7), and child employment increases dramatically during the summer months (Table 8). For example, whereas 50.9 percent of employed children worked during the month of March, 80.6 percent worked during the month of July.

Table 7. Distribution of working children by months during which they worked (%)	
Number of months	Distribution of employed children
1	4.39
2	6.55
3	16.47
4	12.54
5	19.38
6	6.16
7	4.82
8	4.86
9	14.24
10	1.86
11	1.15
12	7.59

Table 8. Children's employment propensity, by month	
Month	% of working children employed
March	50.88
April	38.39
May	50.55
June	77.38
July	80.63
August	76.85
September	50.16
October	28.44
November	21.40
December	19.32
January	28.99
February	48.17

On average, children work for 17 days per month, with the vast majority (90%) working more than seven days per month (Table 9). Looked at on a weekly basis, children work an average of 21.4 hours per week. While the majority (53.9%) work between 15-43 hours per week, a good proportion (36.9%) work for 14 hours per week or less; however, 9.2 percent work an excessively long work week of 44 hours or more (Table 10).

Table 9. Distribution of working children by days worked per month (%)	
Days worked per month	Distribution of employed children
7 days and less	10.42
8-15 days	38.26
15-22 days	23.36
23-31 days	27.96
Note: Figures are based on reported days worked during the month prior to the survey.	

Table 10. Distribution of working children by hours worked per week (%)	
Hours worked per week	Distribution of employed children
14 hrs or less	36.88
15-43 hrs	53.90
44 hrs and more	9.22
Note: Figures are based on reported hours worked during the week prior to the survey.	

3.2.2 School

Following independence, the education system in Azerbaijan went through various reforms, including a change in alphabet from Cyrillic to Latin. Pre-school education is not compulsory, and as a result, roughly 20 percent of children aged 3-5 attend pre-school (UNESCO, 2005). Compulsory education covers four years of primary (ages 6-9), five

years of basic education (ages 10-14) and two years of secondary education (ages 15-16). Students who successfully complete their basic education receive a *Certificate of Main Education*. Following this, students have the option of enrolling in either a two-year general, three-year vocational or four-year specialized secondary education program, from which, respectively, most children graduate at ages 16, 17, or 18. Students who graduate from a general secondary school receive a *Certificate of General Education* and are eligible to take a centralized university entrance exam, whereas graduates of vocational and specialized secondary schools may enter a state examination and receive the title of “Minor Specialist”. Although compulsory schooling is provided by the state free of charge, families are expected to meet various school-related costs, including those of school supplies, books and transportation.⁴

Table 11. School attendance and literacy rates of children by age and sex						
	All children		Male children		Female children	
Age	School attendance (%)	Literacy rate (%)	School attendance (%)	Literacy rate (%)	School attendance (%)	Literacy rate (%)
6	60.42	63.53	59.03	62.83	62.10	64.38
7	90.57	92.22	91.35	92.75	89.70	91.63
8	96.75	97.69	96.25	97.32	97.36	98.13
9	98.01	98.92	97.65	98.76	98.45	99.11
10	98.05	99.66	97.94	99.83	98.18	99.45
11	97.82	99.52	97.60	99.37	98.07	99.68
12	98.70	99.91	98.52	99.83	98.92	100.00
13	98.26	99.93	98.40	100.00	98.12	99.85
14	97.96	99.72	98.09	99.85	97.82	99.59
15	96.45	99.94	96.61	100.00	96.26	99.86
16	92.80	99.90	91.70	99.80	94.04	100.00
17	73.62	99.82	74.09	100.00	73.09	99.63
All	92.64	97.02	92.45	96.95	92.86	97.10
Note: The information in this table is intended to provide a general idea regarding school attendance patterns by age. Due to the nature of sampling, figures provided for single ages may not be exact.						

Based on the 2005 CLS data, there are an estimated 1.98 million children between the ages of 6-17 in Azerbaijan, 1.84 million of whom (92.6%) are enrolled in school. Non-attendance is prevalent among children aged six (39.6%) and seven (9.4%), but is most likely due to late entry into the school system, which has the effect of reducing average school attendance rates for all children. Attendance among older children (ages 8-15) is near universal, as are literacy rates.

Male and female children have similar schooling outcomes, i.e. late entry is common for both groups, although literacy is almost universal at older ages, and there are no significant differences in school attendance rates between the two groups (Table 11).

⁴ According to recently enacted reforms, all children in compulsory education will be provided with free textbooks, which is expected to increase school enrollment by lowering schooling costs.

School attendance starts to decline once children reach the age of 15, which corresponds to the end of basic education. While 98.0 percent of children age 14 attend school, the attendance rate for children age 17 is only 73.6 percent. The decline in rates is due in part to the different ages at which children complete their compulsory education. Among children aged 16 who no longer attend school, 48.0 percent have completed their basic education and 41.6 percent have completed secondary school, compared to 6.3 percent who dropped out before completing their basic education and 4.1 percent who had no formal education whatsoever. Among children aged 17 who no longer attend school, 18.5 percent have completed their basic education and 78.6 percent have completed their secondary education, compared to 2.3 percent who dropped out before completing their basic education and 0.3 percent who had no formal education whatsoever.

3.2.3 Household chores

Almost three-quarters of children surveyed had performed some type of household chore for at least one hour during the reference week (Table 12).

Table 12. Children engaged in domestic chores during the reference week							
	All children		Male children		Female children		p-value for difference in % by sex
Age	Number	%	Number	%	Number	%	
5	42,217	36.63	23,247	36.64	18,970	36.61	0.96
6	53,090	46.47	29,274	46.89	23,816	45.96	0.95
7	68,873	55.32	34,544	52.62	34,329	58.33	0.04
8	88,196	61.98	47,577	61.45	40,619	62.62	0.46
9	99,469	65.78	53,583	64.47	45,886	67.37	0.31
10	121,462	71.78	64,336	69.78	57,127	74.16	0.03
11	130,009	76.06	65,852	73.31	64,157	79.10	0.01
12	137,735	78.66	70,552	75.09	67,183	82.79	0.00
13	166,116	85.04	83,769	82.84	82,347	87.40	0.00
14	158,160	84.48	79,873	82.20	78,287	86.93	0.00
15	178,806	87.42	93,399	84.95	85,407	90.29	0.00
16	157,005	87.05	80,822	84.50	76,184	89.94	0.00
17	145,656	86.13	72,719	81.58	72,937	91.22	0.00
All	1,546,793	73.68	799,546	71.32	747,247	76.39	0.00
Note: The information in this table is intended to provide a general idea regarding domestic chore patterns by age. Due to the nature of sampling, figures provided for single ages may not be exact.							

Children perform chores at higher rates as they get older – 55.3 percent for children aged seven, 71.8 percent for those aged 10 and 87.1 percent for those aged 16. As expected, female children perform household chores at higher rates than male children (76.4% and 71.3%, respectively); however, this gender gap is insignificant until children reach the age of 10. The gap observed between older male and female children can be explained by the greater likelihood of male children being engaging in market activity at these ages.

It is interesting to note that while male and female children engage in economic activity at similar rates up until age 13 or 14, sex-based differences in terms of household activities begins several years earlier. The influence of gender roles can also be observed in the different types of domestic chores performed by male and female children (Table 13). While most female children are involved in chores such as cooking, cleaning and washing that are typically associated with women, male children tend to perform outdoor activities such as fetching wood or water and shopping. Caring for other children, elderly or sick family members were found to be infrequent activities for both male and female children; this finding is significant, in that it has often been suggested that such activities prevent children from attending school because of the inflexibility of the time commitments involved.

Table 13. Distribution of children by types of domestic chores carried out (%)				
Activity	All	Male	Female	p-value for difference in % by sex
Cooking	5.53	0.91	10.82	0.00
Shopping for household	12.92	20.19	4.59	0.00
Cleaning	17.63	2.48	34.99	0.00
Washing	9.70	1.87	18.67	0.00
Minor activities	55.79	55.15	56.54	0.03
Fetching water/wood	16.32	21.28	10.64	0.00
Caring for children	0.83	0.48	1.22	0.00
Caring for old/sick	0.61	0.54	0.68	0.23
Other	1.17	1.46	0.84	0.00
Note: Respondents were allowed to provide more than one response; for this reason, column totals may exceed 100%.				

Two other findings further indicate that household chores do not constitute a major burden for the majority of children. First, the hours spend on chores are limited. Children spend an average of 7.6 hours per week spread over five days per week performing household chores, with an average child spending no more than 2 hours per day on chores. Figures for female children are slightly higher (8.0 hours, 5.1 days) than for male children (7.2 hours, 4.8 days). Overall, 62.6 percent of children perform household chores during five or more days per week (Table 14). Second, the great majority (73.4%) of children perform household chores after, rather than during, school hours (Table 15).

Table 14. Distribution of chores across the reference week			
Number of days chores were performed	All	Male	Female
1	1.5	1.73	1.27
2	8.0	9.11	6.81
3	13.32	14.28	12.29
4	14.62	15.3	13.9
5	23.56	24.37	22.7
6	8.97	7.81	10.22
7	30.02	27.41	32.82

Table 15. Time chores were performed during the reference week			
Time chores were performed	All	Male	Female
Before school	3.77	4.07	3.45
After school	73.39	72.98	73.82
In the evening	3.83	3.58	4.09
Whole day	18.42	18.82	18.0
Other	0.59	0.54	0.65

Of the approximately one-quarter of children aged 5-17 who do not perform chores, the majority (72%) say that school is the primary reason, compared to only 4.2 percent who say they are unable to perform chores due to illness. Of the remaining 23.7 percent who give other reasons for not performing household chores, 71.8 percent are children aged 5-6, over 90.0 percent of whom do not attend school. Moreover, of those children who do not perform chores, 79.5 percent are young children aged 5-7.

3.2.4 Inactivity

A small number of children aged 5-17 (5.3%; N=111,500) are estimated to be inactive, i.e., engaged in neither economic activity, nor school attendance, nor household chores. The majority of inactive children are young children aged five or six, who may be considered too young to attend school and perform chores, let alone work. Inactivity rates for these ages are 63.4 percent and 21.6 percent, respectively, whereas the inactivity rates for older children are much lower – 3.8 percent for children aged seven, and below 1.0 percent for children aged 8-17.

3.2.5 Children in multiple activities

As the above-mentioned findings indicate, the majority of children are engaged in domestic chores for a few hours each day, and a smaller number of children are engaged in economic activity for a moderate number of hours per week; therefore, it is entirely possible that some children may be able to combine economic and household work with school. Indeed, over three quarters of working children above age five are estimated to attend school, whereas the percent of children who work but do not attend school is limited to only 1.9 percent (Table 16). Most of the latter are older children – 62 percent are aged 17, and 17.8 percent are aged 16 – who may have already completed their secondary education. In fact, on closer examination, 76.8 percent of children aged 17 who work and do not attend school are found to have already completed their secondary education, however, only 36.7 percent of children aged 16 who work and do not attend school have completed their secondary education, and only 17.5 percent of children aged 15 who work and do not attend school have completed their secondary education. Significantly, despite the general

understanding that market work is incompatible with school, this is not necessarily the case in Azerbaijan. This finding can be explained by the fact that only a small proportion of children work substantially long hours that preclude them from going to school.

Table 16. Proportion of children (ages 6-17) engaged in multiple activities			
Activity	All	Male	Female
Work, no school	1.93	2.35	1.46
School, no work	86.72	85.77	87.80
Work and school	5.93	6.69	5.06
Total work	7.86	9.03	6.52
Total school	92.64	92.45	92.86

Household chores do not seem to deter school attendance, either. Over 93 percent of children engaged in domestic chores also attend school, and most of those who do not are either aged 6-7 (26.8%) or aged 15-17 (50.0%). Again, most younger children eventually enter the school system, and given the very few hours they spend performing household chores (on average 5.5 hours per week), it is quite unlikely that this is the cause of their delayed entry into the school system. Among older children who do not attend school, as noted above (Section 3.2.2), many may have already completed their secondary education.

3.3. Nature of Children's Employment

In order to gain a better understanding of the situation of working children in Azerbaijan, it is important to take a close look at the nature of their work. This section provides information on children's employment status, workplace, occupation, sector of economic activity and income earned. Estimates are also provided on the extent of children's involvement in hazardous work and those working children who, due to the nature or extent of their activities, are considered to be child laborers.

3.3.1 Employment status and form of employment

The majority of working children (59.3%) are employed as unpaid family workers, 28.9 percent are own-account workers and 10.2 percent are wage workers (Table 17). Employment status varies by sex, with male children more likely to be employed as wage workers and female children as unpaid family workers. Own-account work rates are similar for male and female children.

A significant proportion of children employed as wage workers are contracted, with a much greater incidence of contracted work among female children (60.7%) than male children (35%) (Table 18). In contrast, temporary work is more prevalent among male children employed as wage workers (41.8%) than among female children employed as wage workers (14.6%). These differences appear to indicate that although female children

are less likely to be employed as wage earners than male children, wage work entails a more permanent nature of employment for female children. In terms of casual or seasonal work, rates are roughly the same for both male and female children.

Table 17. Distribution of working children by employment status (%)			
Status	All	Male	Female
Wage worker	10.23	13.31	5.37
Employer	1.10	1.54	0.41
Member of producer's cooperative	0.50	0.51	0.47
Unpaid family worker	59.28	55.62	65.06
Own-account worker	28.89	29.02	28.69

Table 18. Distribution of wage workers by form of employment (%)			
Employment Form	All	Male	Female
Contracted	40.31	35.08	60.74
Seasonal	7.69	7.59	8.12
Temporary	36.28	41.82	14.59
Casual	15.72	15.50	16.55

3.3.2 Children's workplaces

Almost 70 percent of employed children work outdoors in a field or a farm, which is in line with the status of the majority of children as unpaid family workers (Table 19). Another 16.3 percent work within the premises of their own household either as unpaid family workers or on their own account. The higher likelihood of employment as unpaid family workers leads a higher proportion of female children to work within their own household. The likelihood of working in a field or farm is also higher among female children. Street work is rather uncommon, limited to 3.3 percent of male and 0.8 percent of female children, and work in a construction site or a mine is even less common, accounting for only 0.4 percent of working children. These latter findings can be considered favorable, since such activities are potentially hazardous for children.

Table 19. Distribution of working children, by place of work (%)			
Place	All	Male	Female
Own household	16.31	13.01	21.52
Employer's household	0.74	1.05	0.25
Enterprise, institution, organization	3.90	5.02	2.13
Field, farm, orchard, garden	69.81	68.25	72.26
Construction site, mine	0.41	0.49	0.29
Shop, fair, kiosk	3.72	5.16	1.45
Multiple place	2.8	3.74	1.32
Street	2.31	3.28	0.79

The average size of establishments that employ children is 2.8 individuals (including employer and child). The majority of working children (79.2%) are found in establishments employing less than five individuals and 17.9 percent in establishments employing 5-9

individuals. Very few working children are employed by medium- or large-scale establishments (Table 20). It is also interesting to note that 16 percent of male and 10.8 percent of female children work alone. As expected, these are usually older children, 75 percent of whom are aged 14-17.

Table 20. Distribution of working children, by establishment size (%)			
Establishment size	Total	Male	Female
1 person	14.05	16.09	10.83
2 persons	18.96	20.85	15.99
3-4 persons	46.23	45.70	47.06
5-9 persons	17.86	14.18	23.65
10-24 persons	1.11	1.14	1.05
25-49 persons	0.36	0.46	0.2
50-99 persons	0.86	1.03	0.61
100 and more persons	0.57	0.55	0.61
Note: The above figures include the child as well as the employer.			

3.3.3 Sector of economic activity and occupation held

The majority of economically active children are concentrated in the agricultural sector, which accounts for 85.7 percent of female working children and 80.7 percent of male working children (Table 21). Following agriculture, the trade sector employs the largest proportion of working male children (10.6%). These findings are consistent with general employment patterns of adults in Azerbaijan (See Table 3). In contrast, following agriculture, most female children are engaged in domestic work. This may be explained by the limited availability of work in industries that typically employ child workers, such as manufacturing. Indeed, only 3.0 percent of female working children and 2.3 percent of male working children are employed in the manufacturing sector. While agriculture employs the vast majority of working children in rural areas (92.6%), both agriculture (37.4%) and sales (32.4%) account for large numbers of working children in urban areas.

Table 21. Distribution of working children, by sector of economic activity (%)					
Sector	All	Male	Female	Urban	Rural
Agriculture	82.68	80.74	85.74	37.42	92.57
Manufacturing	2.58	2.30	3.0	5.45	1.95
Wholesale and retail trade	7.44	10.55	2.54	32.39	1.99
Transportation, storage	1.33	2.05	0.2	7.43	0
Domestic work	3.17	1.69	5.5	6.32	2.48
Others	2.80	2.67	3.02	11.0	1.01

In terms of broad occupational classifications, the majority of children (67.5%) are employed in elementary (unskilled) occupations (Table 22), and a sizeable proportion (21.6%) work as skilled agricultural workers.

Table 22. Distribution of working children, by occupation (%)			
Occupation	All	Male	Female
Service and sales workers	6.23	5.69	7.07
Skilled agricultural workers	21.63	21.43	21.95
Craft workers	2.24	1.99	2.63
Elementary (unskilled) occupations	67.52	68.43	66.08
Other	2.39	2.46	2.26

3.3.4 Earnings of working children

Of all working children, 35.1 percent work for pay, earning, on average, 150,100 (S.D.131,600) manats per month. There is no doubt that this is a significant figure; however, whereas children comprise 42.7 percent of working individuals in a household, children's earnings constitute only 31.9 percent of monthly household earnings. The difference between the two figures indicates that children earn less than adults and/or households with children who work for pay also contain children who are unpaid family workers.

3.3.5 Children in hazardous work

Following a detailed analysis of occupational groups, the Azerbaijan Ministry of Labor and Social Protection (MLSP) developed a list of occupations that represent potential hazards for children (See Appendix 1). According to the MLSP list, 67.6 percent of working children in Azerbaijan are estimated to be engaged in hazardous work.⁵ Although this rate is slightly higher for female children (68.8%) than male children, (66.9%), the difference is not statistically significant.

This rather high rate can be explained in part by the MLSP's designation of most agricultural activities as hazardous work. Not only are 90 percent of children who perform hazardous work engaged in the agricultural sector, approximately three-quarters of all children engaged in the agricultural sector are considered to be performing hazardous work.

3.3.6 Child labor

Whereas light work that equips children with life skills and acts as a socialization mechanism without interfering with their education may be considered beneficial, work that has a negative effect on a child's physical, social, educational, or psychological development represents a serious concern. This distinction is marked by the use of the term

⁵ Surprisingly, the MLSP list of hazardous work does not include street work. However, since street work among children in Azerbaijan is uncommon, its omission is not expected to affect the accuracy of estimates of hazardous work rates reported here.

“child laborers”, as opposed to that of “working children”, to describe those children who undertake work that is unsuitable for their capacities as children.

The ILO uses three basic criteria to identify child laborers: (1) the age of the child; (2) the number of working hours per week; and (3) the nature of the work being carried out. Accordingly, children under age 12 are considered to be too young to undertake any work; children aged 12-14 are permitted to undertake light work in limited occupations for not more than 14 hours per week; and children aged 15-17 are limited to work in the same occupations as younger children for not more than 43 hours per week. The Azerbaijan Labor Law defining child labor varies slightly from the ILO definition in its prohibitions: (1) children under age 15 may not undertake any work at all; (2) children under age 16 may work no more than 24 hours per week; (3) children aged 16-17 may work no more than 36 hours per week; and (4) children under age 18 years are prohibited from employment in hazardous work. Despite the differences in criteria, both the ILO and the national definition recognize that child labor can and must be eliminated through appropriate policy measures.

Using the ILO definition, the incidence of child labor in Azerbaijan is estimated to be 6.1 percent among all children and 81.6 percent among all working children. The former rate is slightly higher for male children (7%) than for female children (5.1%). Using the more restrictive national definition, the incidence of child labor in Azerbaijan is estimated to be 6.5 percent among all children and 87.2 percent among all working children. The rates for male and female children are estimated at 7.5 percent and 5.4 percent, respectively. As mentioned earlier, the designation of a wide variety of agricultural work as hazardous is the main factor contributing to the rather high estimates; when work hours (according to the ILO definition) are used as the sole criteria, the estimated incidence of child labor is limited to 3.0 percent.

The majority of child laborers (almost 65%) are employed as unpaid family workers (Table 23), an additional 25.1 percent are children who work on their own account, and less than 10 percent are wage workers. Again, these figures are the result of the designation of many agricultural activities as hazardous work. Indeed, 84.4 percent of child laborers can be found in the agricultural sector (Table 24). This figure is slightly higher among female working children (87.0%) than male working children (8.7%). In terms of occupation, the majority of child laborers are found in elementary (unskilled) occupations (Table 25).

Table 23. Distribution of child laborers by employment status (%)			
Status	All	Male	Female
Wage worker	9.87	12.83	5.20
Employer	0.76	1.10	0.23
Member of producer's cooperative	0.54	0.53	0.54
Unpaid family worker	63.72	59.97	69.63
Own-account worker (self-employed)	25.12	25.57	24.41

Note: Child laborers are identified using the national definition.

Table 24. Distribution of child laborers by economic sector (%)			
Sector	All	Male	Female
Agriculture	84.35	82.65	87.03
Manufacturing	2.68	2.49	2.97
Wholesale and retail trade	6.25	8.84	2.16
Transportation, storage	1.42	2.18	0.23
Household services	2.92	1.55	5.08
Other	2.38	2.29	2.53

Note: Child laborers are identified using the national definition.

Table 25. Distribution of child laborers by occupation (%)			
Occupation	All	Male	Female
Service and sales worker	4.51	3.93	5.42
Skilled agricultural worker	15.10	15.14	14.98
Craft worker	2.47	2.13	3.02
Elementary (unskilled) work	75.94	76.44	75.14
Other	1.98	2.36	1.44

Note: Child laborers are identified using the national definition.

3.4. Household characteristics of working children

Poverty has frequently been identified as the primary reason behind child labor.⁶ To better understand the economic dynamics behind the phenomenon of working children in Azerbaijan, this report examines a number of socio-economic and demographic characteristics of their households, namely, household size and composition, income and expenditure, and employment status of household heads and spouses. The report also looks at the migration status of the household, whether the household head is male or female, rural vs. urban location and geographical region in which the household is located in order to determine whether these factors have an effect on the work status of children.

⁶ See Behrman and Knowles (1997), Bhalotra (2001), Blunch and Verner (2000), Borooah (2000), Canagarajah and Coulombe (1997), Maitra and Ray (2002), Ray (2000), Ravallion and Wodon (2000) for the interplay between household income and child labor and schooling.

3.4.1 Household size and composition

The average household of the children surveyed consisted of 4.9 household members. Child laborers come from slightly larger households, on the order of 5.0 members. Although small, these differences are statistically significant. On average, children aged 5-17 constitute 47.3 percent of all household members and very young children aged 0-4 constitute 2.7 percent, whereas working-age adults aged 18-64 constitute 46.9 percent and older adults aged 65 and over constitute 3.1 percent. Households of working children and child laborers have a higher than average proportion of 5-17 year-olds, a similar proportion of working-age adults (Table 26), and a lower proportion of very young and older individuals.

Table 26. Household size and composition			
	All	Working children	Child laborers
Household size	4.85 (S.D. 1.49)	4.95 (S.D. 1.41)	4.98 (S.D. 1.43)
Household composition (%)			
Individuals 0-4 years	2.75	1.78	1.91
Individuals 5-17 years	47.26	49.55	49.99
Individuals 18-64 years	46.85	46.44	45.90
Individuals 65 years and over	3.14	2.22	2.19
Note: In this table, the national definition is used to identify child laborers.			

3.4.2 Household income and expenditures

Despite the fact that the earnings of working children may contribute to household income, CLS data shows that households with working children and child laborers have substantially lower incomes and expenditures than households in which children do not work (Table 27). This highlights the fact that in Azerbaijan, as in other countries, there is a connection between child labor and poverty. (However, a warning is in order here: Data on household income and expenditure is based solely on information provided by survey respondents; therefore, it is possible that due to recall errors, reported figures for both income and expenditure are below their actual levels).

Table 27. Annual household income and expenditures (,000 manats)			
	All	Working children	Child laborers
Household income per adult equivalent	4102.05 (2405.31)	3663.445 (1736.35)	3624.22 (1732.22)
Household expenditures per adult equivalent	3743.34 (2030.18)	3357.62 (1627.23)	3332.94 (1610.56)
N	16,482	1,167	1,003
Notes: Figures in parentheses are standard deviations. Income and expenditure figures in thousand manats refer to the old manat. This table uses the national definition to identify child laborers. Income and expenditures are corrected for household size and composition using a two-parameter adult equivalence scale, where the first adult in the household is counted as 1, each remaining adult as 0.5 and children under age 14 as 0.3 adults.			

Further analysis of household income and expenditure substantiates the relationship between child labor and poverty. As Table 28 shows, in general, children in lower income and expenditure brackets stand at a higher risk of employment than children in higher income and expenditure brackets. For instance, when looked at in terms of consumption expenditures, the incidence of working children is 8.9 percent and the incidence of child labor 7.9 percent among households in the bottom quintile, compared to 4.7 percent and 3.8 percent among those in the top quintile.⁷

Table 28. Incidence of work among children, by income and expenditure quintiles			
Ordering by expenditure	Incidence of work	Incidence of child labor	Distribution of children
Lowest 20%	8.92	7.93	18.72
Second 20%	7.91	6.89	19.97
Third 20%	9.23	8.23	20.32
Fourth 20%	6.74	5.88	20.05
Highest 20%	4.66	3.75	20.94
Ordering by income			
Lowest 20%	8.24	7.64	18.62
Second 20%	8.09	6.96	20.14
Third 20%	8.87	7.72	20.24
Fourth 20%	7.48	6.34	20.53
Highest 20%	4.67	3.95	20.47
Notes: Figures in parentheses are standard deviations. Income and expenditure figures in thousand manats refer to the old manat. This table uses the national definition to identify child laborers. Income and expenditures are corrected for household size and composition using a two-parameter adult equivalence scale, where the first adult in the household is counted as 1, each remaining adult as 0.5 and children under age 14 as 0.3 adults.			

However, it is important to note that while there is an overall decline in rates of working children and child labor with increases in household incomes and expenditures, this decline is not linear. In fact, there is an increase in the incidence of child labor among households in the third quintile compared to those in the second quintile. This increase may be related to the greater asset ownership of households in the third quintile, which would be in line with findings that have repeatedly shown home-based establishments lead to higher incidences of child labor, as children are put to work in the family enterprise. As Bhalotra and Heady (2003) have demonstrated, greater land ownership in rural areas may actually lead to higher incidences of child labor.

⁷ Income and expenditure brackets were constructed by assigning children and other household members a value for household income that was corrected for household size and composition using the modified OECD adult-equivalent scale. Adults and children were then ordered with respect to this income and divided into five equal groups. Ordering is individual- rather than household-based, as the two approaches produce different results due to the nature of the sampling weights used in the survey, which assigned each household member a different sampling weight.

3.4.3 Employment status of household head and spouse

The lower household income of working children raises the question of the employment status of the household head and his/her spouse, who are most often the parents, and whether or not children are working as substitutes for non-working or unemployed parents. In fact, according to survey data, 92.6 percent of the heads of households with working children are employed, compared to only 80.7 percent of households with non-working children.⁸ Moreover, spouses of heads of households with working children are employed at substantially greater rates (93.4%) than spouses of heads of households with non-working children (71.2%). Evidence from Turkey has indicated that mother's and children's work often goes hand-in-hand, so that a higher incidence of child labor often means a higher incidence of work among mothers as well (Dayıoğlu, forthcoming). In the case of Azerbaijan, where the majority of children are employed as unpaid family workers or on their own account, the relationship between the employment status of children and household heads/spouses may be related to the existence of home establishments, which typically rely on the work of unpaid family members, including children. However, high rates of employment in the homes of working children may not necessarily translate into high earnings, so that it is possible for households with low-dependency ratios to have high incidences of child labor.

3.4.4 Migrants and IDPs

In order to determine the migration status of the households surveyed, household heads were asked if they had migrated to their present location during the past 20 years. Findings showed that migrant households constitute 13.6 percent of all households in Azerbaijan and that almost 80 percent of migrant households are households of refugees or IDPs subjected to forced migration in the wake of the 1988-1993 Qarabag (Karabakh) conflict. In contrast, economic migration seems to have occurred on a much smaller scale.

Children of migrants and IDPs stand at a higher risk of employment than other children in Azerbaijan. While children of migrants account for 13.1 percent of all children in Azerbaijan, they account for 18.5 percent of working children and 19.5 percent of child laborers. Similarly, while IDP and refugee children account for 10.6 percent of all children in Azerbaijan, they account for 17.7 percent of working children and 18.7 percent of child laborers. When the migration status of children is examined more closely, it is found that whereas migrant children in general have lived an average of 9.8 years at their current locations, working children and child laborers among the migrant population have settled

⁸ Rates do not include household heads residing away from the household for more than six months.

somewhat more recently (8.4 and 8.3 years, respectively). This seems to indicate a greater likelihood in finding more working children among relatively recent migrants; therefore, it is possible to suggest that child labor may represent a coping strategy for migrant households.

3.4.5 Female-headed households

Of all households in Azerbaijan, roughly 19.7 percent are headed by women. Surprisingly, children of such households do not appear to be at any higher risk of employment than the child population in general. Children of female-headed households account for 18.8 percent of all children aged 5-17 in Azerbaijan and for 18.2 percent of working children and 18.0 percent of child laborers.

3.4.6 Urban-rural differentiation in child labor

Azerbaijan's child population is split almost equally between urban and rural areas; however, over 82.1 percent of working children and 84.5 percent of child laborers reside in rural areas. This finding is not unexpected, given the structure of Azerbaijan's economy. The oil and gas industry upon which the national economy depends does not offer employment opportunities for children. This is reflected in the low incidences of work (2.7%) and child labor (2.1%) in urban areas. In contrast, agricultural activities in rural areas offer numerous work opportunities for children. As a result, the incidences of both work (11.9%) and child labor (10.7%) in rural areas are rather high. In fact, as noted above (Table 21), agriculture accounts for the overwhelming majority (92.6%) of working children in rural areas, as well as a quite substantial proportion (37.4%) in urban areas.

The great majority (67.2%) of rural child workers are employed as unpaid family workers, and a sizeable proportion (29.2%) work on their own account. Hired workers constitute only 2.7 percent of working children in rural areas. In contrast, 44.8 percent of children in urban areas work as wage earners. The proportion working as unpaid family workers (22.9%) and on their own account (27.4%) are also considerable.

3.4.7 Regional aspects of child labor

The incidence of child labor varies widely among Azerbaijan's economic regions and the capital city, Baku (Table 29). The distribution of child labor is expected to be affected by both the distribution of the child population across regions and the incidence of working children within regions. Regions that are more rural in character are also expected to have higher rates of child labor when compared to urban regions.

Indeed, survey findings indicate that regions in which agriculture constitutes the main economic activity tend to have higher incidences of both working children and child labor than other areas in Azerbaijan. For instance, Baku, an urban center, is home to 22.8 percent of Azerbaijan's child population, but only 7.8 percent of the nation's working children, and it has a 2.0 percent incidence of child labor, whereas the largely rural Aran region accounts for 25.6 percent of Azerbaijan's child population as well as 27.2 percent of the nation's working children, and it has a 6.8 percent incidence of child labor. Yuxari-Qarabag, where 91.8 percent of children reside in rural areas, accounts for only 3.0 percent of the nation's children, but 11.2 percent of the nation's working children. Moreover, 28.2 percent of children in the Yuxari-Qarabag region work, and 28.0 percent are considered child laborers.

In addition to high rates of agricultural activity, regional disparities in child labor may be influenced by other factors, such as higher poverty rates, lower levels of education and local variations in agricultural practice.

Table 29. Distribution of working children, by region (%)					
Regions	Distribution of all children	Distribution of working children	Incidence of work	Incidence of child labor	Proportion of children in rural areas
Abseron	4.89	0.63	0.97	0.75	4.84
Ganca-Qazax	13.42	14.53	8.07	5.45	60.13
Saki-Zaqafala	6.54	1.89	2.15	1.97	80.0
Lankaran	10.57	19.80	13.95	13.13	77.50
Quba-Xacmaz	5.32	14.03	19.67	19.55	72.81
Aran	25.59	27.22	8.07	6.81	67.49
Yuxari-Qarabag	2.97	11.24	28.21	28.02	91.83
Kalbacar-Lacin	-	-	-	-	-
Dagliq-Sirvan	3.33	1.53	3.43	1.98	71.61
Naxcivan	4.53	0.86	1.41	1.29	71.59
Baku	22.84	7.76	2.53	2.07	0.0
Total	100	100	7.45	6.50	51.23
Notes: This table uses the national definition to identify child laborers. The Kalbacar-Lacin region is under occupation; therefore, no figures for this region are available.					

Section Four: Determinants of Child Work and Schooling

This section examines the independent effects of the factors found to play a role in children's work and school activities and is based on statistical analysis of data obtained from the 2005 CLS. In order to gain a better understanding of how household characteristics influence decisions regarding children's work and school attendance, data from married children and children from households with a household head under age 17 were excluded (1.0% of the original sample). Data from households headed by an unpaid family worker (3.5% of the original sample) were also excluded, since such status implies that the household head is not in a position to make decisions regarding the financial matters of the household.⁹ As a result, the original sample was reduced from 16,482 to a working sample of 15,734 children aged 5-17.

Three different statistical models were used in analyzing the determinants of child work and school. The first two models look, respectively, at children's work and schooling independently of one another, whereas the third model examines work and school simultaneously.¹⁰ Each of the three models examines the same factors that may influence decisions regarding children's work and schooling, namely:

- a. Age of child (including whether s/he is under/over age 15). Older children are expected to be at greater risk of employment, since the "opportunity cost" of not working – i.e., the forgone wage – increases with age.
- b. Sex of child. Evidence from developing countries indicates that in comparison to boys, girls are less likely to participate in the labor market, but are more likely to drop-out of school.
- c. Relationship of the child to the household head. Sons/daughters of the household head (82.1% of children surveyed) might receive more favorable treatment than other children in the household and thus may be less likely to work and more likely to attend school.
- d. Age of household head/spouse. Children of younger parents are expected to be at a higher risk of employment than children of older parents, since, to the extent that earnings increase with age, their household income is expected to be lower.

⁹ In cases where a household head has been absent for more than six months (4.2%), some information on the household head, such as education level, was missing. Rather than exclude such cases from the operational sample, an indicator dummy was used. An indicator dummy was also used in cases where the spouse of the household head was absent for more than six months (19.4%), with a distinction made between a permanently absent spouse ("no spouse" dummy) and a temporarily absent spouse ("spouse absent" dummy). In the majority of cases where the spouse is permanently absent, the head of the household turns out to be female. Descriptive statistics on the operational sample is provided in Appendix Table A4.

¹⁰ If the decisions regarding children's work and school are separate but related, a correlation should exist between the errors of the two outcome equations. In that case, bivariate analysis is more appropriate than simple probit analyses that analyze work and schooling outcomes of children separately. However, bivariate analysis carries with it a possible drawback in that it assumes the same correlation structure for all children.

- e. Educational status of household head/spouse. Children with less educated parents are also expected to face a higher risk of employment, due primarily to the positive association between education and earnings. Moreover, regardless of income level, it is likely that educated parents will demand more education for their children as well.
- f. Female head of household. Female headship often indicates that the male breadwinner is either absent from the household or unable to work. To the extent that female-headed households have lower household incomes (unless income is remitted by an absent male household member) children from such households are more likely to work.
- g. Age composition of household. This variable shows the number of dependents and working-age adults in the household.¹¹ The higher the number of dependents, the more likely that children will work and not attend school.
- h. Presence of a household establishment. Studies have repeatedly shown that children are more likely to work when a household establishment exists (see, for instance, Grootaert and Kanbur, 1995; Assaad et al, 2004; Dayıoğlu 2005, 2006).¹²
- i. Urban/rural residence. The incidence of child employment is likely to be higher in rural than urban areas, especially when agricultural activity takes place in small, household-based establishments.
- j. Economic region. Local labor markets may offer different employment opportunities for children; similarly, access to school and school quality may vary between regions. This study examined 10 regions, with Baku as the reference region. (The occupied region of Kalbacar-Lacin was excluded due to a lack of available information.)
- k. Migration status of household head and years at present location. Migration status may play a role in the prevalence of child labor. On the one hand, recent migrants may lack necessary resources and view child labor as a coping strategy. On the other hand, as new residents they may lack the networks required to find employment for themselves as well as their children.
- l. Ethnic background. The survey includes data about the nationality of the respondents. While a priori it is unclear whether Azeri children will have a higher or lower incidence of work and schooling than children of other nationalities, it is possible that cultural

¹¹ It is possible that household size is endogenous to the decision to send children to work and/or to school. Therefore, analysis was conducted both with and without the inclusion of the number of household members. Appreciable differences were not observed in the estimated coefficients between these two different specifications.

¹² Survey data does not contain information regarding the existence of a household establishment; therefore, existence of a household establishment was proxied by adult males working on their own account in agricultural or non-agricultural activities.

differences among ethnic groups may have a bearing on children's work and school attendance.¹³

- m. Household assets. The Asset Index is constructed based on household durable goods (television, refrigerator, etc.) and, as an indicator of household income, is used to examine the economic standing of the household. This variable is preferred over the consumption expenditure and income variables available in the survey data set for the primary reason that the latter variables might be tied to decisions regarding child employment since they include children's earnings. Moreover, in comparison to household income or expenditures, the Asset Index is more likely to provide a better representation of the economic standing of the household over the long term.¹⁴

Decisions related to the employment of the household head and spouse may be made in conjunction with decisions related to the employment and schooling of children. For example, in order to make it possible for a child to attend school, a child's father may work more hours or take up a second job, or a child's mother may enter the labor force. For this reason, parental employment status is not included among the above variables; rather, the role of household income is examined by looking at the household assets and the age and education of the household head/spouse.

4.1 Determinants of children's work

Results of statistical analysis conducted to identify the factors that play a role in determining whether or not a child enters work are provided in Table 30. As numerous studies have shown, the likelihood of employment was found to increase with a child's age. Children aged 5-14 years, who are subject to compulsory schooling, were found to be less likely to participate in the labor market than older children. This can be explained by the rising opportunity costs of not working with age, which for male children takes the form of forgone wages, and for female children, reduced hours spent on household chores. Female children were also found to be less likely to work than male children.

Children with older household heads were also found to be less likely to work. Interestingly, although the level of education of the household head was not shown to influence the likelihood of a child's employment, the level of education of the household

¹³ To control for any cultural differences in work and schooling outcomes among ethnic groups (proxied by nationality) independent of migration status, Azeri children are identified through the inclusion of a dummy variable that takes one for Azeri children and zero for non-Azeri children.

¹⁴ For further discussion on this issue, see, for example, Filmer and Pritchett (2001).

head's spouse was found to reduce it. Absence of the spouse for more than six months was also found to reduce the likelihood of a child's employment.¹⁵

Children from households with a large number of dependents were found to be more likely to work than children from households with fewer dependents. This may be explained by the fact that larger numbers of dependents decrease the per capita income, inducing children to go to work.

As the Asset Index shows, in urban areas, children from poorer households were more likely to work than children from wealthier households. By contrast, in rural areas, children from wealthier households were found to be more likely to work. This is in line with a study conducted in Ghana and Pakistan that found higher rates of child employment in land-rich households than land-poor households, which is probably related to the high correlation between land ownership and wealth in rural areas (Bhalotra and Heady, 2003). While the increase in household wealth that accompanies increased land ownership might be expected to decrease the likelihood of a child's employment,¹⁶ this effect is offset by the higher opportunity cost of not putting a child to work when a household establishment exists. Indeed, the existence of a household-based establishment in rural as well as in urban areas was found to increase the likelihood of child employment in Azerbaijan, however minimally.

Rural residence itself (as opposed to urban residence) was also found to increase the likelihood of child employment independent of any other socio-economic factors. The likelihood of employment for rural children in Azerbaijan is estimated to be 6.5 percent – a rate that is almost three times the average for the overall child population.

Region of residence was also found to be a particularly powerful factor in determining a child's employment status independent of the effects of regional variations in individual or household characteristics that are likely to increase child employment. In comparison to Baku, for instance, where the likelihood of employment is less than 1.0 percent for an average child, in Yuxari-Qarabag, this figure increases to 11.0 percent. The effect of region of residence on child employment may be related to demand-side variables such as the types of jobs available and the intensity of household production in a given region. It may also reflect community-level variables, such as the community's attitude towards working children.

Whereas Azeri children were found to be less likely to work than children of other nationalities, children of migrants (including IDP/refugees) were found to be more likely to work and children of "new migrants" (those at their present location for less than one year)

¹⁵ To the extent that the remittances of the absent household head are captured by the Asset Index, this variable might be picking up the effect of the educational level of the absent spouse.

¹⁶ Assuming that child leisure (or schooling) is considered a normal good for the household.

the most likely to work, with the effect of migration decreasing with years of residency and disappearing completely at around 14 years of residency. However, the higher probability of employment found among migrant children appears to be the result of the inclusion of IDPs/refugees among the migrant population. When IDP/refugee households are considered separately, the effect of migration was found to decrease substantially. While an average child was found to have a 2.3 percent likelihood of working, a child from a non-IDP/refugee migrant household with an average of 10 years of residency at their new location had only a 1.2 percent likelihood of working, whereas a child from an IDP/refugee household with an average of 10 years of residency at their new location had a 4.3 percent likelihood of working. When children from non-IDP/refugee households are excluded, even the rate of work among children of “new migrants” is estimated to be only 2.7 percent.

Table 30. Results of statistical analysis of the probability of children's employment

Dependent Variable	Child employment		Child labor	
	Coefficient	Marginal Effect	Coefficient	Marginal Effect
Age of child	0.155*** [0.011]	0.009*** [0.001]	0.156*** [0.011]	0.008*** [0.001]
Child between ages 5-14	-0.253*** [0.058]	-0.016*** [0.004]	-0.05 [0.060]	-0.003 [0.003]
Female child	-0.294*** [0.037]	-0.016*** [0.002]	-0.293*** [0.038]	-0.014*** [0.002]
Own child of household head	0.126 [0.118]	0.006 [0.005]	0.095 [0.125]	0.004 [0.005]
Age of household head	-0.010** [0.004]	-0.001** [0.000]	-0.010** [0.004]	-0.000** [0.000]
Education of household head	0.003 [0.012]	0 [0.001]	0.003 [0.012]	0 [0.001]
Household head absent	-0.097 [0.205]	-0.005 [0.009]	-0.092 [0.207]	-0.004 [0.009]
Female household head	0.072 [0.085]	0.004 [0.005]	0.099 [0.090]	0.005 [0.005]
Age of spouse	0 [0.004]	0 [0.000]	-0.002 [0.005]	0 [0.000]
Education of spouse	-0.056*** [0.016]	-0.003*** [0.001]	-0.057*** [0.016]	-0.003*** [0.001]
No spouse	-0.449 [0.293]	-0.019** [0.009]	-0.571* [0.305]	-0.020*** [0.008]
Spouse absent	-0.717** [0.322]	-0.020*** [0.004]	-0.988** [0.403]	-0.019*** [0.002]
Household establishment	0.176*** [0.055]	0.010*** [0.003]	0.203*** [0.058]	0.010*** [0.003]
No. of children between 0-4	0.126 [0.079]	0.007 [0.004]	0.132* [0.079]	0.006* [0.004]
No. of children between 5-17	0.113*** [0.027]	0.006*** [0.002]	0.121*** [0.028]	0.006*** [0.001]
No. of adults between 18-64	-0.023 [0.031]	-0.001 [0.002]	-0.029 [0.033]	-0.001 [0.002]
No. of adults 65 years and above	0.213** [0.096]	0.012** [0.005]	0.200* [0.102]	0.010* [0.005]
Abseron	-0.530*** [0.149]	-0.018*** [0.003]	-0.533*** [0.164]	-0.016*** [0.003]
Ganca-Qazax	0.332*** [0.093]	0.023*** [0.008]	0.131 [0.105]	0.007 [0.006]
Saki-Zaqafala	-0.942*** [0.175]	-0.025*** [0.002]	-0.968*** [0.182]	-0.022*** [0.002]
Lankaran	0.464*** [0.107]	0.037*** [0.012]	0.435*** [0.112]	0.031*** [0.011]
Quba-Xacmaz	0.504*** [0.110]	0.043*** [0.014]	0.490*** [0.114]	0.038*** [0.013]
Aran	0.131 [0.089]	0.008 [0.006]	0.04 [0.099]	0.002 [0.005]
Yuxari-Qarabag	0.802*** [0.128]	0.090*** [0.024]	0.794*** [0.133]	0.081*** [0.023]
Dagliq-Sirvan	-0.380*** [0.141]	-0.015*** [0.004]	-0.583*** [0.171]	-0.017*** [0.003]
Naxcivan	-0.858*** [0.167]	-0.023*** [0.002]	-0.853*** [0.176]	-0.020*** [0.002]
Rural area	0.293** [0.126]	0.016** [0.007]	0.357*** [0.131]	0.018*** [0.007]
Migrant	0.097 [0.212]	0.006 [0.013]	0.077 [0.213]	0.004 [0.012]
If migrant: years in present location	-0.032** [0.015]	-0.002** [0.001]	-0.024 [0.015]	-0.001 [0.001]
IDP or refugee	0.533*** [0.191]	0.044** [0.023]	0.489** [0.194]	0.036* [0.020]
Ethnic Azeri	-0.916*** [0.077]	-0.107*** [0.015]	-0.930*** [0.077]	-0.101*** [0.014]
Asset index	-0.057* [0.030]	-0.003* [0.002]	-0.046 [0.031]	-0.002 [0.002]
Asset index*rural areas	0.122*** [0.038]	0.007*** [0.002]	0.113*** [0.040]	0.006*** [0.002]
Constant	-2.199*** [0.392]		-2.323*** [0.406]	
Observed probability	7.14		6.23	
Predicted probability at mean	2.32		2.02	
Wald chi2(34)	1188.17		989.18	
Prob > chi2	0.000		0.000	
Pseudo R ²	0.2838		0.2801	
Observations	15,734		15,734	

Notes: Robust standard errors in brackets.

Covers children aged 5-17 years.

* significant at 10%;

** significant at 5%;

*** significant at 1%

4.2 Determinants of child labor

Considering that the majority of working children are classified (using the national definition) as child laborers, the determinants of both are likely to be the same. Indeed, as Table 30 shows, with the exception of younger children, IDP/refugee status, the region of Ganca-Qazax and the Asset Index in urban areas, almost all the variables that are found to be significant determinants of child employment were also found to be significant determinants of child labor. In other words, a young child (aged 7-14) is at equal risk of becoming a working child and a child laborer. Similarly, although children of IDPs/refugees, children from the Ganca-Qazax region and children from poorer families in urban areas are at greater risk of entering employment than the child population at large, they are not at greater risk of becoming child laborers. However, the presence of younger children in the household does increase the likelihood of child labor.

4.3 Determinants of schooling

The same factors that affect decisions regarding children's employment are also likely to affect decisions about their education. This section looks specifically at school attendance. As discussed before, children in Azerbaijan may complete their education at different ages according to the schooling track chosen. Considering that all children under age 15 are expected to be attending school regardless of their chosen track, separate analyses were conducted to determine whether or not the factors affecting the school attendance of all children aged 6-17 differ from those affecting only younger children aged 6-14.

As Table 31 shows, a child's age was found to be an important determinant of schooling for children aged 6-17 as well as for younger children aged 6-14. It should be emphasized that the finding that the probability of schooling increases with age is most likely due to the late entry of some children into the schooling system.

Another significant finding is that there is no difference in the probability of school attendance for male and female children. This contrast's with common reports in the literature that show female children in developing countries often lag behind males in terms of schooling. It is also interesting to note that a child of the household head was not found to have any greater likelihood of attending school than the child population in general.

In contrast to expectations, the school attendance of children aged 6-17 was found to decrease as the education level of the household head increased, although this decrease was of minimal statistical significance. However, the education level of the household head's spouse was found to have a significant positive effect on children's schooling: for each additional year of education, the probability that a child aged 6-17 would be enrolled in

school was found to increase by 0.4 percentage points. However, when younger children aged 6-14 were looked at specifically, neither the education level of the household head nor that of the household head's spouse was found to be significant in determining school attendance.

Among the demographic variables examined, an increase in the number of very young children (ages 5 and younger) in a household was found to decrease the probability of children's school attendance. This finding parallels the effect of large numbers of young children in increasing the likelihood of child labor.

Children from wealthier households (as reflected in the Asset Index) were found to be more likely to attend school than children in poorer households. In general, despite the higher likelihood of employment among children in rural areas compared to children in urban areas, rural vs urban residence did not have a significant affect on children's school attendance. Similarly, in spite of an increased likelihood of child employment with the presence of a household establishment, the presence of a household establishment was not found to affect the probability of children's school attendance, suggesting that children who work in household establishments are able to combine work and school.

Region of residence was found to be an important factor in determining the probability of children's school attendance, although its effect is less significant for schooling than for employment. Compared to the Baku area, children in Ganca-Qazax and Lankaran were found to have slightly lower rates of school attendance, whereas those in Daglik-Sirvan and Naxivan (and, among children aged 6-17, Saki-Zaqafala), were found to have slightly higher rates. Interestingly, despite the very high child employment rate in Yuxari-Qarabag, school attendance rates are not significantly lower among children in this region than among children in Baku.

Azeri children were found to have a slightly higher probability of school attendance than children of other nationalities. This is in line with the findings that Azeri children have a lower likelihood of working and of becoming child laborers. Migrant children, on the other hand, were found to have a slightly lower probability of school attendance. Whereas IDP/refugee status was found to have a strong effect on employment, its effect on children's schooling was found to be statistically insignificant.

Table 31. Results of statistical analysis of the probability of children's school attendance					
	Children aged 6-17		Children aged 6-14		
	Coefficient	Marginal Effect	Coefficient	Marginal Effect	
Age of the child	0.176*** [0.011]	0.018*** [0.001]	0.242*** [0.016]	0.015*** [0.001]	
Child between ages 6-14	1.578*** [0.082]	0.290*** [0.018]			
Female child	0.047 [0.034]	0.005 [0.003]	0.045 [0.047]	0.003 [0.003]	
Own child of household head	0.003 [0.094]	0.00 [0.010]	0.081 [0.139]	0.005 [0.009]	
Age of household head	0.005 [0.003]	0.001 [0.000]	0.00 [0.004]	0.00 [0.000]	
Education of household head	-0.016* [0.009]	-0.002* [0.001]	-0.02 [0.013]	-0.001 [0.001]	
Household head absent	-0.161 [0.155]	-0.019 [0.020]	-0.154 [0.225]	-0.011 [0.018]	
Female household head	0.007 [0.066]	0.001 [0.007]	0.132 [0.089]	0.008 [0.005]	
Age of spouse	-0.004 [0.003]	0.00 [0.000]	-0.001 [0.003]	0.00 [0.000]	
Education of spouse	0.036*** [0.013]	0.004*** [0.001]	0.026 [0.016]	0.002 [0.001]	
No spouse ^a	0.031 [0.233]	0.003 [0.023]	0.12 [0.265]	0.007 [0.014]	
Spouse absent	0.973*** [0.315]	0.046*** [0.005]			
Household establishment	0.035 [0.043]	0.004 [0.004]	0.039 [0.059]	0.002 [0.004]	
No of children between 0-4	-0.121*** [0.039]	-0.013*** [0.004]	-0.102** [0.043]	-0.006** [0.003]	
No of children between 5-17	0.021 [0.021]	0.002 [0.002]	0.035 [0.031]	0.002 [0.002]	
No of adults between 18-64	-0.043** [0.021]	-0.004** [0.002]	-0.034 [0.032]	-0.002 [0.002]	
No of adults 65 years and above	0.002 [0.069]	0.00 [0.007]	0.103 [0.092]	0.006 [0.006]	
Abseron	0.100 [0.088]	0.01 [0.008]	0.016 [0.116]	0.001 [0.007]	
Ganca-Qazax	-0.155** [0.068]	-0.017** [0.008]	-0.325*** [0.096]	-0.025*** [0.009]	
Saki-Zaqafala	0.260** [0.105]	0.022*** [0.007]	0.239 [0.156]	0.012* [0.006]	
Lankaran	-0.137* [0.083]	-0.015 [0.010]	-0.397*** [0.110]	-0.033*** [0.012]	
Quba-Xacmaz	0.184 [0.117]	0.016* [0.009]	0.187 [0.160]	0.01 [0.007]	
Aran	0.019 [0.065]	0.002 [0.007]	-0.014 [0.092]	-0.001 [0.006]	
Yuxari-Qarabag	0.017 [0.118]	0.002 [0.012]	0.025 [0.166]	0.001 [0.010]	
Dagliq-Sirvan	0.193** [0.099]	0.017** [0.008]	0.243* [0.146]	0.012** [0.006]	
Naxcivan	0.244** [0.100]	0.021*** [0.007]	0.308** [0.145]	0.015*** [0.005]	
Rural areas	0.049 [0.097]	0.005 [0.010]	0.027 [0.133]	0.002 [0.008]	
Migrant	-0.287* [0.161]	-0.035 [0.023]	-0.358* [0.204]	-0.029 [0.021]	
If migrant: years in present location	0.019 [0.013]	0.002 [0.001]	0.022 [0.018]	0.001 [0.001]	
IDP or refugee	0.023 [0.133]	0.002 [0.013]	-0.057 [0.187]	-0.004 [0.013]	
Ethnic background: Azeri	0.265*** [0.091]	0.033** [0.013]	0.436*** [0.121]	0.039*** [0.015]	
Asset index	0.113*** [0.021]	0.012*** [0.002]	0.111*** [0.031]	0.007*** [0.002]	
Asset index*rural areas	-0.049* [0.029]	-0.005* [0.003]	-0.015 [0.042]	-0.001 [0.003]	
Constant	-2.393*** [0.321]	14887	-1.410*** [0.397]		
Observed probability	92.72		94.23		
Predicted probability at mean	95.01		97.32		
Wald chi2(34)	548.84		391.63		
Prob > chi2	0.000		0.000		
Pseudo R ²	0.1124		0.2086		
Observations	14,887		10,570		

Notes: Robust standard errors in brackets.

^a Absent spouse and no spouse dummies are merged for 6-14 year-olds.

* significant at 10%;

** significant at 5%;

*** significant at 1%

4.4 Determinants of children's work and schooling - revisited

Table 32. Results of statistical analysis of the probability of children’s employment and school attendance								
	Children aged 6-17				Children aged 6-14			
	Employment		Schooling		Employment		Schooling	
Age of the child	0.123***	[0.011]	0.176***	[0.011]	0.142***	[0.013]	0.245***	[0.016]
Child between ages 6-14	-0.357***	[0.060]	1.559***	[0.083]				
Female child	-0.298***	[0.036]	0.04	[0.034]	-0.240***	[0.052]	0.045	[0.047]
Own child of household head	0.096	[0.113]	0.011	[0.095]	0.000	[0.163]	0.066	[0.140]
Age of household head	-0.010**	[0.004]	0.005	[0.003]	-0.010*	[0.006]	0.001	[0.004]
Education of household head	0.002	[0.012]	-0.017*	[0.009]	0.013	[0.018]	-0.019	[0.013]
Household head absent	-0.089	[0.205]	-0.19	[0.155]	0.112	[0.305]	-0.133	[0.227]
Female household head	0.057	[0.085]	0.019	[0.067]	-0.026	[0.124]	0.13	[0.090]
Age of spouse	0.000	[0.004]	-0.004	[0.003]	-0.001	[0.006]	-0.005	[0.004]
Education of spouse	-0.053***	[0.016]	0.037***	[0.013]	-0.081***	[0.024]	0.024	[0.016]
No spouse	-0.397	[0.286]	0.064	[0.235]	-0.812*	[0.427]	-0.119	[0.295]
Spouse absent	-0.661**	[0.326]	0.957***	[0.315]	-0.716	[0.561]	6.085***	[0.235]
Household establishment	0.186***	[0.055]	0.043	[0.043]	0.199**	[0.080]	0.04	[0.059]
No of children between 0-4	0.113	[0.079]	-0.119***	[0.039]	0.138	[0.090]	-0.108**	[0.043]
No of children between 5-17	0.111***	[0.027]	0.023	[0.021]	0.137***	[0.037]	0.035	[0.031]
No of adults between 18-64	-0.019	[0.031]	-0.046**	[0.021]	0.024	[0.051]	-0.028	[0.033]
No of adults 65 years and above	0.183*	[0.096]	0.009	[0.070]	0.151	[0.146]	0.131	[0.093]
Abseron	-0.493***	[0.142]	0.085	[0.088]	-0.186	[0.335]	0.023	[0.116]
Ganca-Qazax	0.398***	[0.092]	-0.171**	[0.068]	0.949***	[0.217]	-0.324***	[0.096]
Saki-Zaqafala	-0.948***	[0.179]	0.255**	[0.106]	-0.638*	[0.341]	0.236	[0.157]
Lankaran	0.530***	[0.104]	-0.160*	[0.083]	1.154***	[0.216]	-0.392***	[0.111]
Quba-Xacmaz	0.540***	[0.108]	0.133	[0.120]	1.276***	[0.213]	0.194	[0.162]
Aran	0.170*	[0.088]	0.007	[0.066]	0.620***	[0.206]	-0.008	[0.093]
Yuxari-Qarabag	0.830***	[0.128]	-0.04	[0.116]	1.303***	[0.227]	0.018	[0.166]
Dagliq-Sirvan	-0.344**	[0.143]	0.175*	[0.099]	0.064	[0.279]	0.248*	[0.146]
Naxcivan	-0.908***	[0.167]	0.244**	[0.101]	-5.162***	[0.227]	0.316**	[0.145]
Rural areas	0.275**	[0.124]	0.04	[0.098]	0.307	[0.221]	0.028	[0.133]
Migrant	0.074	[0.219]	-0.301*	[0.161]	-0.071	[0.346]	-0.357*	[0.205]
If migrant: years in present location	-0.032**	[0.015]	0.02	[0.013]	-0.026	[0.020]	0.022	[0.018]
IDP or refugee	0.588***	[0.193]	0.001	[0.135]	0.848***	[0.319]	-0.055	[0.188]
Ethnic background: Azeri	-0.929***	[0.077]	0.269***	[0.094]	-0.981***	[0.092]	0.433***	[0.123]
Asset index	-0.060**	[0.029]	0.116***	[0.022]	-0.084	[0.063]	0.109***	[0.031]
Asset index*rural areas	0.126***	[0.038]	-0.049	[0.030]	0.128*	[0.070]	-0.015	[0.042]
Constant	-1.750***	[0.386]	-2.382***	[0.323]	-2.677***	[0.566]	-1.307***	[0.403]
rho	-0.4823				-0.1118			
Wald test of rho=0 Chi2(1)	254.347				2.827			
Prob > chi2	0.000				0.0927			
Wald chi2(66)	1703.86				20428.91			
Prob > chi2	0.000				0.000			
Observations	14,887				10,570			
Notes: Robust standard errors in brackets. * significant at 10%; ** significant at 5%; *** significant at 1%								

Results of a simultaneous analysis of work and schooling (Table 32) yielded similar results to the separate analyses of work (Table 30) and schooling (Table 31) and are therefore not repeated here. As Table 32 shows, there is a significant negative correlation coefficient (rho) between the outcomes of the work and schooling equation, indicating that

factors other than those explicitly accounted for in the model have an effect on determining the likelihood of children's work and school attendance. For Differences in children's abilities might be one of these unobservable factors; for example, school may be less rewarding for children who are less able to succeed in their studies than other children, making work a more attractive and therefore more likely alternative. Separate bivariate analyses conducted for children aged 6-17 and younger children aged 6-14 indicate that regardless of what these unobservable factors may be, they play a greater role in the school attendance of older children than they do in the school attendance of younger children

Section Five: Health and Schooling Outcomes

This section of the report analyses the health and school outcomes of working and non-working children. It should be highlighted that due to the complex nature of the relationship between work and health and work and school, while comparisons may be provided, it is not possible to establish causal relationships. In other words, for example, the higher drop-out rate among working children in comparison to non-working children can be noted, but it cannot be unequivocally stated that work is the reason for this higher rate: while it might be the case that children are unable to combine work and school and thus drop out of school in order to work, it might also be the case that children quit school and start work because their school performance is poor or because the quality of available schooling is low. Similarly, it is possible that poor health may prevent a child from combining school and work, and that as a result, children who work and do not attend school are found to become ill less often than those who attend school and do not work; needless to say, however, it would be wrong, to conclude from this information that children's health declines as a result of school and improves as a result of work.

Whereas Sections Three and Four relied on data from the 2005 CLS, the following observations regarding the relationship between work and children's health and education are based on data gathered by the 2005 LCS; for this reason, certain differences between the two surveys should be reiterated. First of all, considering that the households surveyed in the LCS had previously been identified as containing working children, it is reasonable to expect the child employment rates reported by the LCS to be higher than average (and thus higher than those reported by the CLS). Indeed, based on LCS data,¹⁷ the rate of child employment is estimated at 9.2 percent, compared with 7.5 percent based on the CLS (see Section 3, Table 5). Similarly, based on the LCS, the proportion of children engaged in domestic chores is estimated at 77.7 percent, compared with 73.7 percent based on the CLS (see Section 3, Table 12). Interestingly, LCS estimates of school enrollment rates are also higher than those based on the CLS: whereas the LCS estimates that 95.0 percent of children aged 6-17 attend school, the CLS estimate for the same age group is only 92.6 percent (see Section 3, Table 11). This finding may be due to the fact that the two surveys were conducted at different times of year. It is likely that enrollment is higher at the beginning of the school year when the LCS was conducted (November 2005), but drops off towards the end of the school year when the CLS was conducted (March 2005).

¹⁷ A number of households (4.6%) were deleted from the operational sample because they were found to contain no children aged 5-17, possibly because child(ren) previously identified had changed residences.

With regard specifically to the LCS data, it is possible to derive slightly different estimates of child employment rates, depending on whether they are based on the survey responses of children or those of their parents/guardians. Children's responses yield an estimated rate slightly higher (9.9%) than that of parental responses (9.2%). Interestingly, the slightly lower rate based on parental response cannot be solely attributed to parents under-reporting of children's work. On the contrary, in the vast majority of cases, both parents and children provided the same information regarding a child's employment status: in only 1.5 percent of cases did parents state that their children did not work when the children themselves declared that they did, and in only 0.8 percent of cases did children state that they did not work when their parents declared that they did. The analysis below makes use of both estimates, as appropriate; i.e., in analyses of the information provided by parents, the employment status of the child as stated by the parents is used, whereas in analyses of the information provided by children, employment status as reported by the children themselves is used.

5.1 Health outcomes

Information related to children's health and safety was collected in two separate sections of the LCS: Section VI, in which information on illnesses and injuries experienced by both working and non-working children is provided by the child's mother or the person most knowledgeable about the child's health status, and Section XI, in which working children provide information about their working conditions. Due to the differences in reference periods (one year, for reporting on a child's health status, compared to one week, for establishing a child's work status), an analysis of this information must be approached with caution, since it is possible that children who no longer worked at the time of the survey had been injured at some time in the past during which they were employed.

Of 24,017 children ages 5-17 surveyed (corresponding to an estimated 1.9 million children nationwide), 8.7 percent reported experiencing at least one of five health conditions specified in the survey (skin-related problems, respiratory-related problems, allergies, diarrhea, or fatigue) at some time during the previous year, and an additional 24.3 percent reported suffering from other, non-specified illnesses. Altogether, a little more than one-third of children experienced an illness at some point during the 12-month period preceding the survey.

Table 33. Proportion of children suffering from an illness in the year preceding the survey (%)

Type of Illness	All children	Working children	Non-working children	p-value for difference in % between working and non-working children
Skin-related problems	1.52	4.14	1.25	0.000
Respiratory-related problems	0.46	0.16	0.49	0.103
Allergies	2.17	2.54	2.13	0.240
Diarrhea	2.66	9.48	1.97	0.000
Fatigue	1.87	3.10	1.74	0.000
Any one of the above	8.68	19.42	7.59	0.000
Other*	24.29	30.20	23.68	0.000
Any illness*	33.85	51.34	32.05	0.000

Note: * excludes children for whom no information was provided.

When compared to non-working children, a greater proportion of working children (7.6% and 19.4%, respectively) were found to have experienced one of the five specified illnesses (Table 33). The proportion of working children to have suffered from other, non-specified illnesses was also found to be higher than that of non-working children (30.2% and 23.7%, respectively).

Of those children who reported having fallen ill at some time during the previous year, 87.3 percent reported having done so only once or twice, 11.1 percent reported falling ill between 3-5 times in the previous year and 1.6 percent reported having been ill more than five times during the year. Overall, the frequency of illness did not appear to vary appreciably between working and non-working children; however, when only those children who reported suffering from one of the five specified illnesses are considered, significantly higher frequencies are found among working children in comparison to non-working children. Among non-working children reporting having suffered from one of these illnesses, 90.4 percent had done so only 1-2 times during the previous year, 8.0 percent between 3-5 times and 1.6 percent more than five times. In contrast, 76.9 percent of working children had suffered from one of the specified illnesses 1-2 times during the year, 16.8 percent between 3-5 times and 6.4 percent more than five times (Table 34). The differences in these findings are not surprising, considering that working children are more likely to face greater exposure to conditions that may contribute to these illnesses.

Table 34. Frequency of illness, by work status (%)

Illness frequency	Any illness			Skin or respiratory-related problems; allergies; diarrhea; fatigue		
	All	Working children	Non-working children	All	Working children	Non-working children
Once or twice	87.34	88.11	87.12	87.64	76.88	90.43
3-5 times	11.08	9.90	11.15	9.78	16.77	7.96
More than 5 times	1.58	2.0	1.72	2.59	6.35	1.61

When the consequences of children's illnesses are examined, 27.6 percent of children were reported to have temporarily or permanently stopped work or changed jobs and 88.9 percent to have missed school or stopped attending altogether. In fact, however, when analyzed in greater detail, very few children were found to be permanently disabled, and the proportion of those who permanently stopped working or going to school is rather small (Table 35). Among working children, 41.2 percent reported to have been temporarily unable to work, and a small number of non-working children also reported having stopped work temporarily as a result of illness. The latter finding can be explained by the differences in the reference periods for questions related to work (the previous year) and school (the previous week and indicates that some children that did not work at the time of the survey had in fact worked at some time during the previous year.

In terms of the effects of illness on children's education, there were actually fewer reports among working children than among non-working children of having missed school due to illness. This is most likely due to the fact that school attendance is lower among working children than among non-working children.

Table 35. Consequences of illness (%)			
Consequences	All	Working children	Non-working children
Permanently disabled	0.30	0.0	0.34
Quit work permanently	0.10	0.0	0.12
Stopped work temporarily	26.55	41.17	24.14
Changed jobs	0.91	3.0	0.57
Quit school temporarily	88.20	75.7	90.27
Quit school permanently	0.68	0.0	0.79

Note: Multiple responses are possible so that column total may exceed 100%.

The majority of parents/guardians did not report a relationship between their children's illnesses and work (Table 36). Most often, parents/guardians said they believed their children became ill as a result of either poor household living conditions or an outbreak of disease in their neighborhood.

Table 36. Parent's/guardian's opinions regarding causes of children's illnesses (%)						
	Any illness			Skin or respiratory-related problems; allergies; diarrhea; fatigue		
Cause of illness	All	Working children	Non-working children	All	Working children	Non-working children
Work	0.87	5.03	0.19	2.2	8.30	0.61
Living conditions	6.9	8.01	6.72	14.65	12.09	15.31
Travel under adverse conditions	0.86	0.43	0.93	0.87	0.52	0.96
Outbreak of disease	22.45	40.81	19.43	14.74	32.96	10.01
None	33.75	26.27	34.99	30.76	28.31	31.39
Don't know	35.16	19.44	37.75	36.8	17.82	41.72

Frequency and type of injury are other important indicators of a child's health status. According to LCS data (Table 37), 5.2 percent of children reported having had one of three specified injuries (back/muscle pain, wounds/deep cuts, broken bones) in the 12 months prior to the survey, and another 2.6 percent reported other non-specific injuries. While the overall rate of injury was 8.2 percent (disregarding children for whom no information was provided), working children reported a much higher injury rate (15.6%) than non-working children (7.5%).

Table 37. Proportion of children suffering from an injury in the year preceding the survey (%)				
Type of injury	All children	Working children	Non-working children	p-value for difference in % between working and non-working children
Back/muscle pain	2.56	5.19	2.29	0.000
Wounds/deep cuts	1.94	4.98	1.63	0.000
Broken bones	0.79	1.28	0.74	0.424
Other*	2.57	3.65	2.46	0.016
Any injury*	8.21	15.58	7.45	0.000

Note: *Excludes children for whom no information was provided.

Working children also reported being injured more frequently than non-working children (Table 38). Among non-working children who reported an injury, 91.5 percent had been injured 1-2 times during the previous year and 7.5 percent had been injured between 3-5 times. In contrast, 86.2 percent of working children had suffered from one of the specified injuries 1-2 times during the year and 13.3 percent between 3-5 times. Only a very small number of children (less than 1.0%) reported having been injured with greater frequency.

Table 38. Frequency of injury, by work status (%)						
	Any injury			Back/muscle pain; wounds/deep cuts; broken bones		
Injury frequency	All	Working children	Non-working children	All	Working children	Non-working children
1-2 times	90.57	86.17	91.53	92.83	89.75	93.59
3-5 times	8.56	13.33	7.53	6.56	9.59	5.82
More than 5 times	0.87	0.51	0.95	0.61	0.66	0.60

When children were asked about the effects of their injuries, only a very small proportion of children reported serious consequences (Table 39). Less than 1.0 percent of injured children were permanently disabled, and only 0.1 percent were forced to quit school permanently as a result of injury.

Table 39. Consequences of injury (%)			
Consequences	All	Working children	Non-working children
Permanently disabled	0.98	0.34	1.12
Quit work permanently	0.0	0.0	0.0
Stopped work temporarily	27.14	53.69	21.40
Changed jobs	0.41	0.81	0.32
Quit school temporarily	81.25	60.43	85.74
Quit school permanently	0.11	0.0	0.14

Note: Multiple responses are possible; as a result, column totals may exceed 100%.

While a significant number of parents of working children linked their child's injury to work (9.51%), an even greater proportion of children's injuries (36.4%) were linked to playing games or sports (Table 40). The fact that nearly one-fifth of parents/guardians did not know or did not recall the cause of their child's injury most likely indicates that the degree of injury was minor.

Table 40. Parent's/guardian's opinions regarding causes of children's injuries (%)						
	Any injury			Back/muscle pain; wounds/deep cuts; broken bones		
Cause of injury	All	Working children	Non-working children	All	Working children	Non-working children
Work	3.09	9.50	1.7	3.55	11.14	1.68
Living conditions	6.75	8.26	6.42	8.4	9.13	8.22
Playing/sports	37.12	36.39	37.27	41.82	42.42	41.67
Travel under adverse conditions	1.02	0.98	1.03	1.29	1.28	1.3
None	32.39	24.94	34.0	27.95	21.48	29.55
Don't know	19.64	19.93	19.57	16.99	14.55	17.59

Adverse working conditions may have a negative effect on children's health and safety. Of those working children surveyed, only 5.2 percent said they operated machinery or equipment as part of their work, and only 3.0 percent said they were frequently required to carry heavy loads, compared to the approximately one-third each who reported lifting and carrying heavy loads either sometimes, seldom, or never. Responses of both children and parents seem to indicate that the majority of working children are protected from potential work hazards; however, it should be noted that this analysis is based solely on the reported recollection of parents and children. Moreover, and perhaps more significantly, the

reported data is unable to capture incidences of occupational diseases whose effects are only apparent in the long-term.

5.2 School outcomes

Overall school attendance rates of children are estimated to be approximately 95.0 percent. There is very little discrepancy in the information provided by children and their parents. Of the 23,148 children aged 6-17 surveyed, only 290 (1.3%) said that they did not attend school although their parents/guardians reported that they did. The similarity in responses regarding school attendance, as opposed to the differences between children's and parents' responses regarding work, is likely due to the unambiguous definition of "school attendance" in comparison to that of "work".

As explained above in Section 3.2.2., the education system in Azerbaijan offers different secondary education tracks of varying lengths catering to the different needs and capacities of children. Because children may complete their compulsory education at different ages, depending on the track chosen, less than full enrollment is to be expected among older children. This selection mechanism must be kept in mind when making comparisons between working and non-working children in terms of schooling. In order to paint a clearer picture of the possible effects of work on school outcomes, this study focuses more on younger children aged 6-14, all of whom are expected to be enrolled in primary or basic education. Specific school outcomes examined here are school attendance, days actually attended during the reference week, grade repetition and school starting age.

Information on school attendance found in this section is based on children's responses to survey questions. The LCS offers a rich set of questions with which to assess children's school attendance. The primary question used to identify children who attend school is, "Are you currently attending school?" If the child's response is negative, s/he is asked, "Have you ever attended school?" Children who are not currently attending school, but who have done so in the past, are asked two additional questions on schooling: "During the current school year, did you attend school at any time?" and, "Did you attend school last year?"

5.2.1 Schooling of younger children (6-14 years)

The rate of school attendance among children aged 6-14 was 97.2 percent. This rate is above the attendance rate for children overall. Of those who did not attend school during the reference week, 96.8 percent had never attended school. Considering that the majority of these children are aged six (93.4%) or seven (4.7%), it is likely that they are "late starters". Indeed, when children who have never attended school were asked why they were not

currently attending, 95.4 percent said it was because they were “too young” to attend school.¹⁸ Other reasons – “school is too far”, “parents cannot afford school” or “family does not allow schooling” – constituted only about one percent of all answers given. It is interesting to note that none of the children said they did not attend school in order “to work for pay or family business or farm.” Moreover, of those children not attending school during the reference week but attending in the past, about one-third had attended school during the current school year.

The above discussion clearly shows that children who reported not attending school during the reference week cannot be designated as school drop-outs. Given that the majority of children not attending school were young children likely to begin school by age seven or eight, examining the school attendance of children over age six or seven is likely to provide a more realistic estimate of the drop-out rate from basic education. In fact, the school attendance rate of children aged 7-14 was found to be 99.7 percent.

Interestingly, a comparison of the school attendance rates of working and non-working children reveals higher attendance rates among working children (97.0% and 99.6%, respectively).¹⁹ Although small, the difference in rates is statistically significant ($p < 0.01$). While in some instances children’s earnings may help cover their school expenses, making it possible for them to attend school, and while there are studies in the literature that show the positive effects of work on children’s schooling (see for instance, Patrinos and Psacharopoulos, 1997; Myers, 1989; and Admassie, 2003), in the case of Azerbaijan, the higher attendance rates for working children when compared to non-working children is most likely due to the age differences between the two groups. On average, working children in Azerbaijan were found to be older than non-working children; therefore, late entry into the school system can be expected to have less of an impact on the school attendance rates of working children than on non-working children. Indeed, a comparison of school attendance rates of working and non-working children aged 8-14 indicates no appreciable differences between the two groups (99.9% and 99.8%, respectively).

In terms of days actually attended, little difference is observed between working and non-working children. While non-working children reported attending school for an average of 4.94 days during the reference week, the corresponding figure for working children was 4.90 days. This difference is of only minimal statistical significance. The difference is minimal and statistically significant only at the 10% level.

¹⁸ Children were allowed to give more than one reason for non-attendance, but percentages were calculated using the primary reason only. Since age was sometimes given as an additional reason, it is likely that the actual percent of children considered too young to attend school is higher than the figure reported.

¹⁹ CLS data results in slightly lower estimates for school enrollment: 94.4 percent for non-working children and 93.8 percent for working children.

The average age at which children reported starting school is 6.3 years. A small group (1.3%) begin at age five, whereas the majority (70%) enroll by age six and the remainder by age seven (Table 41). Non-working children enroll in school slightly later than working children (6.3 years and 6.1 years, respectively). As Table 41 shows, whereas 11.2 percent of working children start school at age five, only 0.6% of non-working children are enrolled at this age. Conversely, the proportion of working children delaying enrollment until age 6-7 is smaller in comparison to non-working children.

Grade repetition in primary and basic education is uncommon among both working and non-working children. Overall, only 0.1 percent of children aged 6-14 currently attending school reported having repeated a grade at any time in the past. To the extent that grade repetition is higher among drop-outs, the actual grade repetition rate among all children may be slightly higher as well; however, given that the pre-secondary education drop-out rate in Azerbaijan is rather low, the grade repetition estimates provided here can be expected to be fairly accurate.

Table 41. Distribution of school starting age of children aged 6-14 (%)			
School starting age	All	Working children	Non-working children
5	1.34	11.19	0.61
6	69.31	65.01	69.63
7	29.18	23.43	29.61
8	0.17	0.37	0.15
Note: School and work status are based on children's responses to survey questions. The information in this table covers children currently attending school as well as those attending school in the past.			

5.2.2 Schooling of older children (15-17 years)

According to survey data, school attendance tends to decrease among older children. Whereas 97.2 percent of children aged 6-14 were found to attend school, this rate drops to 90.4 percent for children aged 15-17. Importantly, however, 79.9 percent of children not currently enrolled in school but attending in the past reported having completed their general secondary education and an additional 19.1 percent reported having completed their basic education, whereas only 1.7 percent reported never having attended school. Based on this information, the actual drop-out rate of children aged 15-17 may be estimated to be somewhere between one and two percent, assuming that 80 percent of children aged 15-17 who are not currently attending school have already completed their compulsory education.

Among children aged 15-17, working children were found to have lower school attendance rates (78.6%) than non-working children (92.8%).²⁰ Two plausible reasons can

²⁰ CLS data results in different estimates for school attendance: 93.4 percent for non-working children aged 15-17 and 60.6 percent for working children aged 15-17.

suggested for this gap: (1) either the school drop-out rate is substantially higher for working children than for non-working children, or (2) work-oriented children choose schooling tracks that allow them to enter the labor market at earlier ages. By comparing the level of school completed by out-of-school children with the minimum grade level expected to have been completed for their age, it is possible to establish estimated drop-out rates of 5.5 percent among working children aged 15-17 and 2.0 percent among non-working children aged 15-17. While the difference in drop-out rates is significant, it does not account for the entire gap in school attendance rates between the two groups, making it possible to suggest that 16.5 percent of children aged 15-17 do not attend school because they have already completed their basic and secondary education. A shorter schooling track and earlier exit from the school system will naturally result in lower grade level completion among working children in comparison to non-working children.

In line with the findings for younger children, school attendance among non-working children aged 15-17 was found to be more regular than among working children aged 15-17. While the former attended school for 4.95 days during the week, the latter attended school for 4.90 days. Although the difference is small, it is statistically significant.

As with younger children, working children aged 15-17 were found to have started school earlier than non-working children in the same age group. On average, non-working children aged 15-17 were found to have started school at 6.4 years, compared to 6.2 years for working children in this age group (Table 42). To put it differently, higher rates of working children aged 15-17 were found to have started school earlier in comparison to non-working children in the same age group. For example, while 5.3 percent of working children aged 15-17 started school at age five, only 0.6 percent of non-working children aged 15-17 were enrolled at that age.

Table 42. Distribution of school starting age of older children (%)			
Age	All	Working children	Non-working children
5	1.46	5.34	0.64
6	62.97	66.53	62.22
7	35.35	27.52	37.0
8	0.18	0.61	0.09
10	0.04	0.0	0.05
Note: School and work status are based on children's responses to survey questions. The information in this table covers children currently attending school as well as those attending school in the past.			

Again, as with younger children, only a small number (0.5%) of children aged 15-17 currently enrolled in school reported having repeated a grade. This finding indicates that, as with younger children, the grade repetition rate among all children aged 15-17 is rather low.

However, as mentioned above with reference to younger children, information on grade repetition was collected only from children currently attending school; therefore, the actual rate may be higher than the estimate provided here (to the extent that the grade repetition rate is higher among school drop-outs).

5.2.3 Vocational Training

Only 1.5 percent of all children surveyed reported having received any type of vocational training. Vocational training only appears to become an option when children reach age 10, which corresponds to the end of primary schooling. Moreover, vocational training is uncommon before children reach age 15, which corresponds to the end of basic education (Table 43). Children aged 15-17 account for 80 percent of all children who have received vocational training; however, it should be noted that even among this age group, the proportion of children who have received vocational training is limited to 3.9 percent.

Table 43. Age distribution of children with vocational training (%)	
Age	Children in vocational training
7	0.62
10	1.42
11	2.01
12	3.89
13	3.64
14	8.1
15	17.48
16	32.37
17	30.47

Working children were found to be more likely to have had vocational training (5.1%) than non-working children (1.1%). The type of vocational training received also varies with children's employment status, with working children more likely to have taken literacy courses or on-the-job training than non-working children (Table 44).

Table 44. Distribution of children by type of training received (%)			
Type of training	All	Working children	Non-working children
On-the-job training	12.66	16.21	10.90
Adult literacy	22.64	29.57	19.19
Certificate after 1-2 yrs	14.09	9.90	16.17
Certificate after 2+ yrs	2.09	4.66	0.82
Formal apprenticeship	12.03	6.11	14.97
Informal apprenticeship	40.64	45.71	38.13
Other	1.43	0.0	2.14

Note: Children's responses to survey questions were used to determine training and work status.

As expected, vocational training was found to be more common among children who do not attend school. While 1.5 percent of children attending school have received vocational training in the past, this figure increases to 2.3 percent among children not currently attending school. This gap was found to be greater among older children aged 15-17: while 3.7 percent of older children who currently attend school have received vocational training, 5.4 percent of older children not attending school have received vocational training. Nevertheless, neither children nor their parents appear to consider vocational training as an alternative to formal schooling.

Section Six: Conclusion

In this report, we have examined the incidence of work and employment patterns among children in Azerbaijan, as well as their schooling and health outcomes, based on two nationwide surveys conducted in 2005.

Given that the official household poverty rate in Azerbaijan stands at 20.8 percent, and that cross-country evidence indicates that poverty very often leads to children's increased participation in the labor market and reduced school attendance, we expected to find a high incidence of work and low school attendance rates among children in Azerbaijan. However, this was not the case. Not only was the average school attendance rate among children aged 6-17 found to be 92.6 percent, this less-than-universal enrollment rate appears to be a result of late entry into the school system and early school completion rather than as a result of school drop-out, which occurs at a rate somewhere between only one and two percent.

Employment among children was also found to be lower than what might be expected. Depending on the reference period used (one week or one year), the incidence of work among children was found to vary between 7.5 percent and 12.0 percent. Moreover, using the shorter (one-week) reference period, and disregarding children who have completed their compulsory education, this rate drops to 6.5 percent. While these numbers are undeniably significant, other indicators reduce the severity of the risks children face due to work. Specifically,

- over three-quarters of working children also attend school;
- the majority work as unpaid family workers in family establishments;
- only a small proportion of children work for substantially long hours;
- participation in the labor market at very young ages is extremely low;
- child employment increases during the summer months;
- school indicators such as regular school attendance and grade repetition do not differ substantially between working and non-working children.

While school-related data does not appear to vary greatly between working and non-working children, health-related data does. Illness rates reported by working children were approximately 20 percent higher than those reported by non-working children, and injury rates were approximately eight percent higher. Given that some children who were not working at the time the surveys were conducted may have worked in the past, the actual differences in rates may be even larger than those reported. On the other hand, very few children mentioned being required to use machinery or carry heavy loads at work on a

regular basis, and the majority of parents/guardians did not consider work to be the main cause of their children's illnesses or injuries.

With regard to sex-based differences, in contrast to numerous other countries, there are minimal differences in school attendance and performance between male and female children in Azerbaijan; however, such differences do exist in the realm of market and household work.

In examining the relationship between work and school, multivariate analysis indicated that children with more dependents are more likely to work and less likely to attend school. In urban areas, low household income was also found to increase the likelihood of employment and decrease the likelihood of school attendance. These findings indicate that programs that aim to increase household income in urban areas may reduce child employment and increase school attendance.

Compared to children in urban areas, children in rural areas are more likely to work, but not necessarily less likely to attend school. Reducing child employment in rural areas poses a challenge, given that the majority of children are employed by household-based establishments engaged in agricultural activity and are able to combine school with work. In spite of this, the fact that the majority of working children in rural areas are considered to be child laborers (using the national definition of hazardous work) requires that this challenge be tackled. A more detailed analysis of the rural sector, especially in those regions where a high incidence of child labor has been observed, would be a logical first step in this direction.

References

- Admassie, A. (2003) "Child Labor and Schooling in the Context of a Subsistence Economy: Can They be Compatible?", *International Journal of Educational Development*, 23, pp. 167-185.
- Assaad, R., Levison, D. and Zibani, N. (2004) "The Effect of Child Work on Schooling: Evidence from Egypt", mimeographed, University of Minnesota.
- Behrman, J.R. and Knowles, J.C. (1997) "How Strongly is Child Schooling Associated with Household Income", PIER Working Paper 97-022, University of Pennsylvania.
- Bhalotra, S. (2001) "Is Child Work Necessary?" Social Protection Discussion Paper, World Bank, Human Development Department, Washington, D.C.
- Bhalotra, S. and C. Heady (2003), "Child Farm Labour: The Wealth Paradox", *World Bank Economic Review*, 17 (2), pp. 197-227.
- Binder, M. and Scrogin, D. (1999), "Labor Force Participation and Household Work of Urban School Children in Mexico: Characteristics and Consequences", *Economic Development and Cultural Change*, 48, pp.123-154.
- Blunch, N. and Verner, D. (2000) "Revisiting the Link between Poverty and Child Labor: the Ghanaian Experience", World Bank Policy Research Working Paper 2488.
- Borooah, V.K. (2000) "The Welfare of Children in Central India: Econometric Analysis and Policy Simulation", *Oxford Development Studies* 28 (3), pp. 263-287.
- Canagarajah, S. and Coulombe, H. (1997) "Child Labor and Schooling in Ghana", Policy Research Working Paper 1844, World Bank.
- Dayıoğlu, M. (forthcoming) "Mother's and Children's Employment in Turkey", *Journal of Developing Areas*, 41(2).
- _____ (2006) "The Impact of Household Income on Child Labor in Urban Turkey", *Journal of Development Studies*, 42 (6) (August), pp. 939-956.
- _____ (2005) "Patterns of Change in Child Labor and Schooling in Turkey: The Impact of Compulsory Schooling", *Oxford Development Studies*, 33 (2), pp.231-246.
- Filmer, D. and Pritchett, L. (2001) "Estimating Wealth Effects without Income or Expenditure Data –or Tears: Education Enrollment in India", *Demography*, 38(1), pp. 115-132.
- Grootaert, C. and Kanbur, R. (1995) "Child Labour: An Economic Perspective", *International Labour Review*, 134(2), pp. 187-203.
- Hagemann, F., Diallo, Y., Etienne, A. and Mehran, F. (2006) *Global Child Labor Trends 2004 to 2006*, SIMPOC-ILO, Geneva.

- Levison, D. (1997) "Household Composition and Early Human Capital Formation: Evidence from Brazil on Children's Labor Force Work and Schooling", University of Minnesota, mimeographed.
- Maitra, P. and Ray, R. (2002) "The Joint Estimation of Child Participation in Schooling and Employment: Comparative Evidence from Three Continents", *Oxford Development Studies*, 30 (1), pp. 41-62.
- Myers, W. (1989) "Urban Working Children: A Comparison of Four Surveys from South America", *International Labor Review*, 128 (3), pp. 321-35.
- Patrinos H. and Psacharopoulos G. (1997) "Family Size, Schooling and Child Labor in Peru: An Empirical Analysis", *Journal of Population Economics*, 10, pp. 387-405.
- Ravallion, M. and Wodon, Q. (2000) "Does Child Labor Displace Schooling? Evidence on Behavioral Responses to an Enrollment Subsidy", *Economic Journal*, 110, pp. C158-175.
- Ray R. (2000) "Analysis of Child Labor in Peru and Pakistan: A Comparative Study", *Journal of Population Economics*, 13 (1), pp. 3-19.
- Rosenzweig, M.R. and Evanson, R.E. (1977) "Fertility, Schooling, and Economic Contribution of Children in Rural India: An Econometric Analysis", *Econometrica*, 45, pp. 1065-79.
- State Statistical Committee of Azerbaijan (2006), *Statistical Yearbook of Azerbaijan*, Baku.
- UNESCO (2005), *Reform of the Education System in Azerbaijan for a Sustainable Future*, conference document, UNESCO, Paris.
- UNICEF and Ministry of Education of Azerbaijan Republic (2001), *Reaching the Last Few: Girl's Education in Azerbaijan*, Baku: UNICEF.
- UNICEF (2000), *Azerbaijan: Multiple Indicator Cluster Survey 2000*, Baku: UNICEF.
- UNDP (2005), *Human Development Report 2005*, Oxford University Press.
- UNDP (2006), *World Development Report 2006*, Oxford University Press.
- US Department of State (US-DS) (2006), *Azerbaijan: Country Reports on Human Rights Practices – 2004* <http://www.state.gov/g/drl/rls/hrrpt/2004/41670.htm>

Appendix 1: Concepts and Definitions

The following concepts and definitions were used in the CLS and LCS surveys and appear in this report:

Child: In line with the 1989 UN Convention on the Rights of the Child (CRC) and the 1999 ILO Convention (No. 182) on the Worst Forms of Child Labour (WFCL), a child is defined as an individual under the age of 18. Since it is commonly agreed that a child under age five is too young to engage in work or start school, the CLS and LCS consider children aged 5-17 years only.

Child Labour: The definition of child labour is based on ILO Convention No. 138 on Minimum Age (1973), which represents the most comprehensive and authoritative international definition of minimum age for admission to employment or work in the sense of “economic activity”. The CLS/LCS definition of child labour includes all economically active children under age 18, except (i) children under age five and (ii) children aged 12-14 who work less than 14 hours a week, unless their activities or occupations are hazardous by nature or circumstance. It includes children aged 15-17 engaged in WFCL (hazardous work and work for 43 hours or more per week).

Household: A household is defined as a person or group of persons who live together in the same house or compound, share the same housekeeping arrangements and are catered for as one unit. Members of a household are not necessarily related (by blood or marriage), and not all those related in the same house or compound are necessarily of the same household.

Industry: The classification of industries used in the surveys was adopted from the NACE and includes all types of establishments or businesses in which persons are engaged in the production and/or distribution of goods and services.

Occupation: An occupation is defined as a type of economic activity a person usually pursues to earn income in cash or in kind. If more than one occupation is held, the one in which the maximum working hours were spent during the reference period is regarded as the main occupation. If equal time is spent, the one providing the larger share of income is regarded as the main occupation. The ISCO 88 was used in the classification of occupations listed in the survey.

Reference Week: The reference week for the Child Labour Survey was 28 February-6 March 2005. The reference week for the Labouring Children Survey was 7-13 November 2006.

Work: Any activity that falls within the production boundary of the UN System of National Accounts (1993 SNA) is considered work. This boundary covers all market production and certain types of non-market production, including production and processing of primary products for own consumption, own-account construction and other production of fixed assets for own use. Whether the activity takes place in the formal or the informal sector, in urban or rural areas, or whether it is paid or not is of no significance; however, unpaid domestic services rendered within the household by and for household members are excluded from this definition of work.

Working Child: Children who have worked in the reference week for one or more hours for pay or profit or without pay in a family farm or enterprise or organisation, as well as those who did not work but had a job or business from which they were temporarily absent, are considered to be working. For the purposes of the CLS and LCS, “working children”, “economically active children” and “employed children” are synonymous.

Appendix 2: MLSS List of Hazardous Occupations

The table below lists the occupations considered hazardous according to the Ministry of Labor and Social Security of Azerbaijan. Classifications are in line with the International Standard Classification of Occupations (ISCO88). The definitions are taken from the website maintained by the University of Warwick, <http://www.warwick.ac.uk/ier/isco/brit/grplist.html>

Table A1. Ministry of Labor and Social Security List of Hazardous Occupations	
ISCO88 No.	Occupation
223	Nursing and midwifery professionals
32	Life science and health associate professionals (inclusive of all sub-groups)
612	Animal producers and related workers
712	Building frame and related trades workers
713	Building finishers and related trades workers
714	Painters, building structure cleaners and related trades workers
72	Metal, machinery and related trades workers (inclusive of all sub-groups)
741	Food processing and related trades workers
742	Wood treaters, cabinet-makers and related trades workers
743	Textile, garment and related trades workers
82	Machine operators and assemblers (inclusive of all sub-groups)
83	Drivers and mobile plant operators (inclusive of all sub-groups)
913	Domestic and related helpers, cleaners and launderers
916	Garbage collectors and related laborers
921	Agricultural, fishery and related laborers
93	Laborers in mining, construction, manufacturing and transport (inclusive of all sub-groups)

Appendix 3: Survey Methodology

Data was collected through two separate surveys. The first, the Child Labour Survey (CLS), consisted of child-labour related questions embedded into a Labour Force Survey (LFS). The second, the Labouring Children Survey (LCS), was linked to the CLS.

Child Labour Survey (CLS)

The main objective of the CLS was to estimate the number of working children and the extent of child labour in Azerbaijan. The sample design was structured based on rural, urban, regional and refugee strata. In order to make it possible to provide urban, rural, Baku-based and regional estimates, the target sample size of the LFS, in which the CLS was embedded, was increased to 17,600 households. The survey covered all of Azerbaijan, with the exception of the occupied district of Kalbacar-Lacin.

Sample Size. The overall sampling rate was applied by strata using the results of the 1999 Population Census. Table A2 shows the regional distribution of sample households by urban, rural and refugee strata, and Table A3 shows the regional distribution of enumeration areas by urban, rural and refugee strata. Due to difficulties in field implementation, the average cluster size was 25 households.

Overall sampling rate: $f = 0.01024$

Cluster size: 25 households ($b = 25$)

Table A2: Distribution of sample households by strata				
h	Region	Urban	Rural	Total
1	Abseron	809	34	843
2	Ganca-Qazax	1011	1268	2279
3	Saki-Zaqafala	313	814	1127
4	Lankaran	341	1028	1369
5	Quba-Xacmaz	266	614	880
6	Aran	1284	1811	3095
7	Yuxari-Qarabag	109	244	353
8	Kalbacar-Lacin	0	0	0
9	Dagliq-Sirvan	400	543	943
10	Naxcivan	342	605	947
11	Baku	3910	0	3910
12	Refugees/IDPs	928	926	1854
TOTAL		9713	7887	17000

Table A3: Distribution of enumeration areas by strata				
h	Region	Urban	Rural	Total
1	Abseron	43	2	45
2	Ganca-Qazax	56	46	101
3	Saki-Zaqafala	16	30	46
4	Lankaran	19	38	57
5	Quba-Xacmaz	16	23	39
6	Aran	69	74	144
7	Yuxari-Qarabag	11	24	35
8	Kalbacar-Lacin	0	0	0
9	Dagliq-Sirvan	20	19	39
10	Naxcivan	16	19	35
11	Baku	246	0	246
12	Refugees/IDPs	18	38	56
Total		530	313	843

Selection Procedures. A two-stage selection process was used. In the first stage, enumeration areas (EA) for urban, rural and refugee strata were selected using probability proportional to the number of households. Next, households within each selected EA were selected from up-to-date lists using probability inversely proportional to EA size in order to obtain the specified overall selection rate for the strata. The selection process was implemented using nested stratification by administrative structure, with PSUs ordered by region and size.

PSU Sampling. Practical considerations dictated that selection of PSUs be carried out separately by stratum. PSUs were selected using probability proportional to the number of households in the PSU. PSU sampling rate probabilities were calculated as follows:

$$f_h : \text{Sampling rate in the stratum}$$

$$f_{1hi} : \text{Sampling rate of PSU in } h^{th} \text{ stratum}$$

$$f_{1hi} = \frac{a_{1h} * p_{1hi}}{\sum_{i=1}^{N_h} p_{1hi}} = \frac{p_{1hi}}{I_{1h}}$$

Where

a_{1h} = Number of PSU areas selected for the h^{th} stratum,

p_{1hi} = Number of households in the selected PSU (i) for the h^{th} stratum, and

N_h = Total number of PSUs for the h^{th} stratum.

$$I_{1h} = \frac{\sum_{i=1}^{N_h} p_{1hi}}{a_{1h}}$$

Household Sampling. For each stratum, the probability of household selection was calculated as follows:

$$f_h = f_{1\ hi} * f_{2\ hi}$$

$$f_{2\ hi} = \frac{f_h}{f_{1\ hi}}$$

$f_{2\ hi}$: the household sampling rate for households in the i^{th} PSU in the h^{th} stratum

In order to determine the number of households selected for each PSU, the household sampling rate was multiplied by the total number of households in the PSU (taken from household listings updated prior to field implementation).

Sampling of Refugee Households. Refugees have settled throughout Azerbaijan; however, administrative records of refugee households are neither centralized nor computerized. When the updated PSU lists were examined, it was discovered that these lists excluded refugee households. Since the most detailed information on refugee households is maintained by local authorities (rayons), the rayon was used as the PSU for the refugee stratum.

Following PSU selection and calculation of the PSU and household sampling rate for refugee households (as above), the number of refugee households to be sampled was determined by multiplying the household sampling rate (for refugee households) by the total number of refugee households in the PSU (rayon). Refugee households were numbered sequentially and selected accordingly.

Weighting of LFS/CLS Data. Due to differences in non-response rates between strata, coverage error resulting from PSU boundary definitions and listings, under-coverage of some parts of the population (e.g., children and working children), as well as the fact that the design was not self-weighting, LFS/CLS data was weighted using the following procedures:

- Design weights were computed based on design domain.
- Non-response weights were computed based on design domain.
- External information was used.
- An overall inflation factor was applied.

Design Weights. Despite certain problems encountered during the listing process, it was possible to use probability sampling because of the known probabilities of selection of the first-and second-stage sampling units. Design weights are inversely proportional to the overall selection probabilities. Calculated design weights were normalized to obtain the average weights per sampling unit. Design weights were calculated as follows:

$$w_i = \left(\frac{\sum n_i}{\sum n_i / p_i} \right) * 1/p_i$$

$$\sum w_i n_i = \sum n_i$$

Where

p_i = overall sampling probability; and

n_i = number of persons successfully enumerated in the design domain sample.

Non-response weights. In order to reduce the effect of the different non-response rates in each stratum, a non-response adjustment was calculated and weighted according to design domain.

The weight is inversely proportional to the response rate R_j within the domain.

$$R_j = \frac{\text{number of completed interviews with persons aged 5+}}{\text{number of persons aged 5+ selected in sample}}$$

Response rate was calculated in two steps. In the first step, the household level response rate in each design domain was calculated, as follows:

$$H_j = \frac{\text{number of completed household interviews in class}}{\text{number of households selected in class}}$$

In the second step, the response rate at the individual level was calculated, as follows:

$$I_j = \frac{\text{number of completed interviews with persons aged 5}}{\text{number of persons aged 5+ in completed households in } j}$$

The response rate for individuals in design domain j was calculated as the product of the household-level response rate and the individual-level response rate for the domain, as follows:

$$R_j = H_j I_j$$

The non-response weight is inversely proportional to the response rate and was scaled to achieve an average value of 1.0.

$$w_j = \frac{\bar{R}}{R_j}$$

Where

$\bar{R}$ = the overall response rate, defined as

$$\bar{R} = \frac{\sum n_j}{\sum n_j / R_j}$$

Where

n_j = the number of interviewed cases in class j.

External Weights. Most national surveys require supplemental data to ensure both the representativeness of the sample and the quality of the estimates. In this instance, following the application of design and non-response weights, the distribution of sample cases was adjusted to conform to external information provided for projected population distribution by sex, age group and region (separately for urban and rural areas). External weights were calculated by projecting sex, age and region (separately for urban and rural populations) onto the LFS/CLS field application data using the following process:

Step One: Data was weighted as follows:

$$w_i^{(1)} = \frac{P_j}{P_j^1}, \dots, i \in j$$

Where

P_j = the distribution of region according to population projections for urban and rural areas, and

P_j^1 = the proportion in the sample already weighted at all preceding steps.

Step Two: Data was weighted as follows:

$$w_i^{(2)} = \frac{P_k}{P_k^1}, \dots, k \in j$$

Where

P_k = the distribution of population according to population projections for sex, and
 P^1_k = the proportion in sample already weighted at all preceding steps, including the application of $W^{(1)}_1$ described above.

Step Three: Data was weighted as follows:

$$w_i^{(3)} = \frac{P_t}{P^1_t}, \dots, t \in j$$

Where

P_t = the distribution of population according to population projections for age groups,
 and
 P^1_t = the proportion in sample already weighted at all preceding steps, including the application of $W^{(1)}_1$ and $W^{(2)}_1$ described above.

This process was repeated until the weights computed in each of the three steps approached 1.0, with Step 3 yielding the new input for the repetition of Step 1.

Overall Inflation Factor. In the final stage, the overall inflation factor was calculated by dividing the projected population by the sampled population.

Labouring Children Survey (LCS)

The main objective of the LCS was to identify the causes and consequence of child labour in terms of related socio-economic factors. For this reason, the population of interest was the population of working children rather than the general population of all children. Because population-based frames do not contain information on the size and distribution of the population of working children, the LCS sample was selected from among those households covered in the LFS/CLS, which had previously gathered the requisite information on the LCS target population.

The LCS sample design was based on the LFS/CLS sub-sample. The sub-sample selection procedure comprised two stages. In the first stage, the original aim was to select a sub-sample of PSUs (EAs) with relative probabilities proportional to the number of working children (c_i); however, the number of working children was insufficient for implementing this procedure. Instead, c_i was calculated using the number of working children as well as the number of children engaged in household chores, as follows:

$$c_i = \frac{5}{8} * cLabour + \frac{3}{8} * cChores$$

Where

$cLabour$ = the number of working children, and

$cChores$ = the number of children engaged in household chores.

However, this equation resulted in a figure for c_i that was less than the figure for $cLabour$. In order to obtain a c_i greater than $cLabour$, the following equation was introduced:

$$c_i = \max(cLabour, \frac{5}{8} * cLabour + \frac{3}{8} * cChores)$$

In order to exclude a very small area so that $f2=0$, c_i was modified as follows:

$$\text{mod } c_i = \begin{cases} 0 & c_i < 4 \\ c_i & \text{Otherwise} \end{cases}$$

The number of households in the PSU (p_i) was also modified using the $\bar{b}$ of the LFS/CLS sample design, and the PSU sub-sample selected using probability proportional to **mod** c_i / **mod** p_i . PSU sub-sample selection probabilities ($f1$) were computed. After defining the selected PSU, all households with working children and with children engaged in

household chores were selected, so that the selection probability of the second phase is equal to 1, the selection probabilities of subsampling is $f_1 \cdot f_2$ and the final selection probabilities are equal to $f = f_0 \cdot f_1 \cdot f_2 = f_0 \cdot f_1 \cdot 1$. (f_0 is the selection probabilities of LFS/CLS)

The inverse of the selection probabilities are used as the initial weights. In order to obtain a clearer picture of the range of variation in weights across the sample, after the initial weights were calculated, weights were normalized so that the average was equal to 1.

Extreme weights were trimmed, with the appropriate range guided by the range in normalized design weights. The actual weights to be calculated as the inverse of the actual selection probabilities are obtained by multiplying trimmed normalized design weights by the following constant factor:

$$\frac{\sum \text{weights}..phase..2}{\sum \text{Normalized}..trimmed..weights} * \frac{\sum c_i}{\sum \text{mod } c_i}$$

where the first term represents a scaling factor used to switch from relative to absolute weights, and the second term represents a weighting factor to compensate for the area excluded in $\text{mod } c_i$ (as explained above).

Appendix 4: Sample Means and Variances

Table A4 shows the sample means and variances of the variables used in statistical analysis of children's work and schooling.

Table A4: Sample means and variances		
	Mean	Standard deviation
Employed	0.071	0.257
Child labor	0.062	0.242
Enrolled	0.876	0.330
Age of the child	11.531	3.571
Child between ages 5-14	0.743	0.437
Female child	0.466	0.499
Own child of household head	0.820	0.384
Age of household head	46.242	12.111
Education of household head	11.230	3.655
No household head	0.043	0.204
Female household head	0.188	0.390
Age of spouse	32.668	17.696
Education of spouse	9.322	4.956
No spouse	0.186	0.389
Absent spouse	0.008	0.090
Family establishment	0.410	0.492
No of children between 0-4	0.155	0.424
No of children between 5-17	2.262	0.938
No of adults between 18-64	2.252	0.981
No of adults 65 years and above	0.183	0.464
Abseron	0.051	0.219
Ganca-Qazax	0.137	0.343
Saki-Zaqafala	0.063	0.244
Lankaran	0.097	0.297
Quba-Xacmaz	0.052	0.222
Aran	0.254	0.435
Yuxari-Qarabag	0.030	0.171
Dagliq-Sirvan	0.034	0.180
Naxcivan	0.045	0.208
Baku	0.237	0.425
Rural areas	0.498	0.500
Migrant	0.134	0.340
If migrant: years in present location	1.309	3.624
IDP or refugee	0.108	0.310
Ethnic background: Azeri	0.932	0.252
Asset index	3.143	1.367
Asset index*rural areas	1.367	1.616
No of observations	15,734	

