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Child Labour: Analysis and Implementation of a Model Multinomial Logit, Considering the Different Choices between Work and Study

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Abstract: Since ancient times there is a record of children acting in the labor market, but this time child labor was seen as a craft and vocational learning. Currently, such work is condemned because of their negative effects on people current and future life. For many researchers, poverty is identified as being the main reason for the occurrence of child labor. Therefore, this study aims to investigate what is the probability of the choice for a child: work or study. To achieve the proposed objective was used as methodology statistical and econometric analysis from the database of the National Household Sample Survey of 2012. We selected a population aged between 10 and 17 years and the main conclusions are that: the older the child, the greater the probability of this work and study in relation to her/him only to study. It was also observed that males children, living in the northern region of Brazil, are more likely to work and study in relation to only study. In addition, black and mulatto children are more likely to work and study when compared with children of white color. Finally, it is understood that the reality of child labor mainly involves discussing the urgency of economic policies that redistribute income more fairly, providing the necessary structural reforms and implementing specific programs to meet families living in extreme poverty.

Key words: child labor; children and teens; Brazil
JEL codes: C01, C10

1. Introduction

Define what is meant by “child labor” is not an easy task, because the very definition of “child” can differ from country to country. In some countries, childhood is related to chronological age, but in others, social and cultural factors also are considered for the setting. For the International Labour Organization is considered child all people under the age of 15 years. Already the Statute of Children and Adolescents-ECA, in Brazil, provides that all persons who have not completed 12 years are crianças. According to The United Nations Convention of 1990, child is defined as every human being under 18 years except in legal terms of the law applicable to him, coming of age earlier (Convention ONU, Art. 1).

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Since ancient times and the average age has registration of children doing some kind of economic activity but during that time, the work was considered as an important learning for vocational training. However, if the children are forced to work regularly and continuously in order to sustain their families, then let it be considered a learning to become a kind of exploration. The term “child labor” refers to any activity that harmfully explores the labor or child labor (Peres & Benedicto, 2003; Nicolella, 2006; Kassouf et al., 2004b). For the OIT (2001, p. 13) “Child labor is one performed by children and adolescents who are below the minimum age for entry into the labor market, according to the law of the country.” From the stand point of Kassouf et al. (2004b) the term “child labor” refers to the concept of exploitation of labor, work that has negative consequences for children.

Despite having record of working children since antiquity, its intensification occurred in the period of the Industrial Revolution. In this period was introduced the division of labor and led to the intense use of children to work in factories. With the rise of factories, the family economy system gave way to the new system, in which machines determined the conditions, discipline, schedules and the production rate (OIT, 2003; Iannone, 1992).

According to Iannone (1992) during the period of the Industrial Revolution there were increase in jobs in the factories, in response to expansion of industrial activity. Like many families in this period were in situation considered from a financial point of view, miserable, were forced to enter the children to factory work to supplement the family income. Within the factories was common forcing workers, including women and children to work for more than 15 hours a day, with no rights to benefits or assistance. Accidents were frequent, the food was often insufficient, errors or faults were severely punished.

In addition, the income generated from the work of children, almost did not give to supply the power of a single person. The situation of injustice, exploitation of human labor, the employment of children, the low wages paid to these, characterized in means used by large industrial to increase their profits (Cotrim, 1996).

Another problem found in the times of the Industrial Revolution happened to the children, when these were subject to remove residues of the machines. Due to the height and small children’s hands, these were used to make services for adults would be very difficult, as unfolding wires in the middle of the machines, mend those who broke in the factories of wiring. Of all the risks that these children ran, they were subjected to mutilation, physical and psychological harm. Worked up to 15 hours a day, between 6 and 14 years among the poor operating conditions, and in the absence of rules for works (Carceres E. Pedro, 1976; Pontili & Colavite, 2009).

In order to prevent the exploitation of child labor, emerged in the early nineteenth century in England, the first legislation aimed at protecting the working child. From this framework many other countries began to regulate child labor.

In Brazil, child labor is a social phenomenon present throughout its history. Its origins date back to Portuguese colonization in the sixteenth century and the implementation of the slave regime the first reports of child labor in Brazil occurred in the time of slavery that persisted for nearly four centuries in the country (Brazil, 2004; ILO, 2001). After the establishment of the current Brazilian Federal Constitution in 1988, the work to children under 14 years was expressly forbidden, except in the smallest apprentice between 14 and 16 years, ensuring in this way the permanence of adolescents in school (IPEC, 2003).

In this regard, Article 227 the Brazilian Constitution determine that:

> “It is the duty of the family, society and the State to ensure children and adolescents, with absolute priority, the right to life, health, food, education, leisure, professional training, culture, dignity, respect , freedom and family and community life, in addition to keeping them safe from all forms of negligence, discrimination, exploitation, violence, cruelty and oppression” (Brazil, 1988).

Many researchers have tried to find explanations for the inclusion of children and adolescents in the labor market. That is, what are the main causes that lead to employment of young people and children. Says the OIT (2006) “the knowledge about the causes of child labor becomes more sophisticated as different academic perspectives have been discussed about the theme” (OIT, 2006, p. 55). Thus, poverty, parental education, size of family and family structure, gender of the head, and age when parents began to work, place of residence, among others are the most analyzed determinants and the most important to explain the allocation of time the child to work.

In Brazil, this situation is closely related to the level of income concentration faced in the country, expressed by the low wages of the majority of the population, high unemployment, and low health indicators, education and high infant mortality.

After the promulgation of the Constitution, was also approved in 1990, the Statute of Children and Adolescents who happened to be one of the key references for guidance from government agency actions and non-governmental act in defense of the rights of children and adolescents in the country (IPEC, 2003).

According to Ferro (2003), child labor occurs most commonly in vulnerable families and more probability to be affected by economic cyclical shocks corresponds to spend all available family income for this, and thus, children become an alternative to survival of their families.

Regarding poverty, Silva et al. (2009) shows that:

> In the face of situations of poverty and lack of social inclusion policies, the family becomes the institution that seeks to facilitate the daily survival and create the minimum conditions of dignity. The removal of basic needs requires all family members collectively incorporate the work, to ease the precariousness imposed by low wages, instability in employment, by helplessness of disabled and the sick, by the abandonment of the old. Around the solidarity of family, men and women, adults, old people, teenagers and children build spaces of survival, of sociability and identity in an attempt to overcome an exclusive social order (Silva et al., 2009, p. 4).

Gonçalves (1997) apud Lopes, Pontili and Souza (2008), points out that, besides poverty, reasons as inefficient education system, traditions and social status, lack of legislation and supervision, labor market profile, types of living arrangements among others, lead to the inclusion of children in the labor market

There are two ways of thinking of Brazilian society about child labor. The Brazilian tradition worships the one hand, it is necessary to take the time children so that they are not left on the streets, at the mercy of delinquency and drugs, and that the sooner children start working sooner will learn about take responsibility, discipline and socialization, without even taking into account the negative impact on the life of that child. Not being enough, many children leave the education to a second plan, or leave school in order to work. This practice is highly harmful for the future of that child, because more and more the labor market requires skilled labor and this qualification is possible only through education (Souza & Pontili, 2008).

In Brazil there is a wide range of policies aimed at eradicating child labor, ranging from the legal prohibition of work by government programs that combine education with incentives for income transfer. Kassouf (2002) argues that to reduce the problem of child labor, the simple compliance with minimum wage legislation would be a valuable contribution, therefore the demand for child labor (which is considered less productive than that of an adult) would be reduced and replaced by adult labor, increasing in this way the income of families. As for Basu (1999) the best way to end child labor would become compulsory school attendance, because this way it would be easier to control the children’s school attendance, than the frequency at work.

Although there are several tools in Brazil focused on regulation and guidance of actions as the prohibition of

child labor, the country set up the list of the countries with the highest child labor rates. This situation is closely related to the level of income concentration faced in the country, expressed by the low wages of the majority of the population, high unemployment, and low health indicators, education, high infant mortality, etc. Many studies indicate that the low quality of education in Brazil is one of the main factors that favor child labor (IPEC, 2003).

Lopes, Souza and Pontili (2008) argue that children and adolescents suffer influences of the environment and living conditions in which they live, because they are still in the development stage, and that these influences are responsible for reflecting on income and level of education of that individual. Thus, the reality of child labor makes these children are harmed in the future and prevent these are able to reverse this advertised destination.

In addition, child labor causes profound consequences in the personal and psychological development of children, and adds to this the fact that there are still negative impacts on the distribution of opportunities in the regional space. That is, children leave to study in order to work, and in the future, will not be eligible for good jobs, which may result in stagnation in the development levels of the age of the people (Pontili & Lopes, 2010).

Moreover, child labor can affect the development of children in many ways: as in the physical: they are subject to injuries, physical deformities and diseases that are often stronger than the self-defense capability of their bodies; emotional: they may have difficulty in establishing relationships because of the condition of exploration or mistreatment; social: social because they are away from social life of their age, and often require maturity that does not fit your life experience (Silva et al., 2009).

Lima (2002) agreed that most working children perform activities that cause damage to health, are unhealthy activities, dangerous, painful and morally harmful. In addition, these activities bring risk of accidents, with considerable cases of mutilations and burns.

Kassouf (2000) also says that even if the child has to work makes this child miss their childhood and reduces the chance of a good education. In turn, the low level of education limits employment opportunities and income, since they lack qualified to do so. Thus, these individuals as adults are forced to take jobs that do not require qualification, but that in turn offer low wages. In other words, it is a vicious circle that prevents these individuals to change their reality.

Also in this sense, Ferro and Kassouf (2003) say that the academic performance of a child who has to work will inevitably be less than the income of a child who does not work with it, the end of the first level of education will be less than the second. This situation reflects the child's adult life and causes to perpetuate the cycle of poverty that both trying to solve child labor.

In this regard, Souza and Pontilli (2008) say that there are several studies showing that child labor has many negative impacts on the lives of children, with damaging consequences for their future and the country as a whole. Most of them entered the labor market drops out or has irregular frequency and low educational level affect the future of the individual, including with regard to income.

Education is the main factor affected when children and teenagers go to work, because it is practically impossible for a child to work and study. So they are forced to choose, and the work is favored due to survival needs and income generation for the children.

Silva et al. (2009) said that truancy is present from the first grade of elementary school, however, abandoning the school usually occurs between 13 and 15 years old. This is due to school late, as in the case of the average student, even though seven or eight years of study, can only reach the 3rd or 4th grade. And this scenario is more common with children from poor families are more likely to abandon school due to having to work.

In a very comprehensive work on child labor, Guimarães and Asmus (2010) made important surveys which

give a broad overview of the Brazilian scenario between 1992 and 2006. The authors also found that during the period the child labor rate in Brazil fell by around 37%. The same decrease was also recorded for most states, with the exception of the Federal District, which fell by about 80% and states as Sergipe and Amazonas that presented falls to a lesser extent, around 12-15%. Other states such as Acre, Rondônia and Roraima showed, unlike the country, increase in child labor rate. This study also included the color of working children and found that most of them are black or brown. This finding reinforces the discussions about social contrast and existing inequalities in the country.

Many studies have pointed out, as shown above, decrease in the amount of children and adolescents working in the country. However, these numbers are far from ideal and show that there is still much to be done to change this reality.

In order to contribute to the theme "child labor" This study aims to investigate what is the probability of choosing a child between work and/or study. The methodology was chosen and econometric analysis from the National Household Survey database — National Survey of Households, in the year 2012. From the Brazilian children database, we selected only those aged 10 to 17 years.

To achieve the goal proposed in this study it was decided to divide it into 4 sections, including this introduction. Section 2 presents the methodology and the study database. The section 3 was intended for the presentation of results and discussion of the proposed econometric model, followed by concluding remarks in section 4 and bibliography.

2. Methodology and Database

2.1 Methodology: Statistical and Econometric Model

To make possible the analysis of the likelihood of children and adolescents work and/or study, was adopted as the method of estimation the logit model, which is commonly used when you have qualitative dependent variable.

To Gujarati (2006) models where Y is the qualitative goal is to find the probability that something will happen, when the signal is positive are more likely and when the signal is negative there is less likelihood, therefore, the regression models of choice qualitative are often called probability model.

There are three approaches to formulate a probabilistic model: Linear Probability Model, logit model and Probit Model (Gujarati, 2006). This study opted for the logit model, due to it being the most suitable for the proposed study.

Also according to Gujarati (2006) the estimation is based on the maximum likelihood method. Thus, the method in question estimates the parameters that maximize the best possible outcome, or, the coefficients that are closest to the true parameters of the equation. Since the function in question is not linear in the parameters, the model will require an interactive method for the solution. In estimating the parameters, the first result reports which the value of the coefficient, but not the marginal effect of this coefficient. To check the impact of a change in the probability in question Xi yi = 1 must carry out a second calculation, based on the following formula:

$$\frac{\partial E(Y)}{\partial X} = \phi(\boldsymbol{\beta}'\mathbf{x}) \cdot \beta \tag{1}$$

Note *that* $\partial E(Y_i)/\partial X$ is not β as in linear regression, but is the product of the parameter estimated by the density function of the normal distribution. It is noticed that the above expression is valid for the case of Xi

represent a continuous variable. If the explanatory variable is a binary, whose values are 0 or 1, the marginal effects are obtained by:

$$\text{Prob}\left(y=1\middle|\bar{\mathbf{x}}, d=1\right)-\text{Prob}\left(y=1\middle|\bar{\mathbf{x}}, d=0\right) \tag{2}$$

Where $\bar{\mathbf{x}}$ is the average of all other variables *d* is the binary explanatory variable.

To analyze the determinants of child labor among Brazilian children and adolescents adopted a logitmultinomial model. Each choice is associated with a probability P_i,, which is defined as P_1, P_2, ..., P_m, where P_m where P_m is the base class. Expressed in binary form we have that:

$$\frac{P_1}{P_1+P_m}=F\left(\beta_1^{'}.X\right),\frac{P_2}{P_2+P_m}=F\left(\beta_2^{'}.X\right),...,\frac{P_m}{P_{m-1}+P_m}=F\left(\beta_{m-1}^{'}.X\right) \tag{3}$$

Generically, a probability can be identified as:

$$\frac{P_j}{P_j+P_m}=F\left(\beta_j^{'}.X\right) \tag{4}$$

Dividing both the numerator and denominator by P_m, is obtained:

$$\frac{P_j}{P_m}=\frac{F\left(\beta_j^{'}.X\right)}{1-F\left(\beta_j^{'}.X\right)}=G\left(\beta_j^{'}.X\right) \tag{5}$$

As:

$$\sum_{j=1}^{m-1}\frac{P_j}{P_m}=\frac{1-P_m}{P_m}=\frac{1}{P_m}-1 \tag{6}$$

Then:

$$\sum_{j=1}^{m-1}\frac{P_j}{P_m}=\sum_{j=1}^{m-1}G\left(\beta_j^{'}.X\right)=\frac{1}{P_m}-1 \tag{7}$$

Therefore:

$$\frac{1}{P_m}=1+\sum_{j=1}^{m-1}G\left(\beta_j^{'}.X\right) \tag{8}$$

And

$$P_m=\left[1+\sum_{j=1}^{m-1}G\left(\beta_j^{'}.X\right)\right]^{-1} \tag{9}$$

From equation (5) we have that:

$$P_j=\frac{F\left(\beta_j^{'}.X\right)}{1-F\left(\beta_j^{'}.X\right)}.P_m=G\left(\beta_j^{'}.X\right).P_m \tag{10}$$

Substituting equation (9) into equation (10) we obtain:

$$P_j=G\left(\beta_j^{'}.X\right).\left[1+\sum_{j=1}^{m-1}G\left(\beta_j^{'}.X\right)\right]^{-1}=\frac{G\left(\beta_j^{'}.X\right)}{1+\sum_{j=1}^{m-1}G\left(\beta_j^{'}.X\right)} \tag{11}$$

$$G\left(\beta_j^{'}.X\right)=\frac{F}{1-F}=\frac{\dfrac{e^{\beta^{'}X}}{1+\sum_{j=1}^{m-1}e^{\beta^{'}X}}}{\dfrac{1}{1+\sum_{j=1}^{m-1}e^{\beta^{'}X}}}=e^{\beta^{'}X} \tag{12}$$

This model can be estimated by the method of maximum likelihood. Thus, the likelihood function for the model is lógitmultinomial:

$$L=\prod_{i=1}^{n}P_{i1}^{y_{i1}}.P_{i2}^{y_{i2}}...P_{im}^{y_{im}} \tag{13}$$

In logarithmic form we have:

$$\log L=\sum_{i=1}^{n}\sum_{j=1}^{m}y_{ij}\log P_{ij} \tag{14}$$

For the solution:

k = 1, 2, ..., m

$$\frac{\partial \ln L}{\partial \ln \beta_k}=\sum_{i=1}^{n}\left(y_{ik}-P_{ik}\right)xi=0 \tag{15}$$

It is noteworthy that P_{iK} has a nonlinear function in all β's, making it impossible to isolate β. Therefore, you must use an iterative method for the equation to be solved. In this case, there are many algorithms which allow to obtain maximum likelihood estimates, but the second derivative of the function for verifying whether a maximum point found. This derivative must be less than zero.

Once the maximum likelihood estimate and he has met the coefficient values, it is noteworthy that the estimated coefficients of the linear models do not allow to know the marginal effect through direct relationship with the β. To know the effect that a change in one variable X causes the probability of occurrence of a certain event you must do the following calculation:

$$\frac{\partial P_k}{\partial X_i}=P_k\left[\beta_k-\sum_{j=1}^{m}P_j\beta_j\right] \tag{16}$$

2.2 The Database

The database used for the variables up mentioned refers to the National Sample Survey (PNAD), conducted by the Brazilian Institute of Geography and Statistics (IBGE), in 2012. This household survey system was deployed from 1967 and aims to produce basic information, in order to study the socioeconomic development of Brazil. To achieve this purpose the PNAD investigates general characteristics of the population, such as education, work, income, housing migration, fertility, bridal age, health, nutrition and other topics that are included in accordance with the information needs system for the country. Since 1971 the PNAD are annual, with completion in the last quarter of each year. However, your search stops in the years when the Censuses are conducted. The surveys were undertaken in 1980, 1991, 2000 and 2010.

According to data from PNAD/2012, Brazil has a population of 196.877328 million inhabitants, of which 27.162660 correspond to children and adolescents aged 10 to 17 years, population focus of this research. To make the selection of database and statistical analysis of the data we used the Stata 10 software.

3. Results and Discussion

This chapter is intended to present the results and analysis of the econometric model *Lógit Multinomial*, where it was considered the different options of children and adolescents between work and study.

Brazil is composed of a population of 196.877328 milhões inhabitants, of which 27.162660 corresponds children and adolescents aged between 10 and 17 years, i.e., 13.80% of the total population.

As the focus of the research are the Brazilian children and adolescents between 10 and 17 years old were selected this population according to the fact that these study and/or work, the data are shown in Figure 1. Thus, it can be seen that the children between 10 and 13 years, most, or only studies 95.9%. This same fact can be verified in the age group between 14 and 17 years, although the percentage is lower than in the previous category. For this age group, 71.77% of teenagers only study. However, one can see that in this age group is already more common for teenagers to work, and study, both that are registered 15.48% of teenagers in this situation.

In addition, it is noticed that in the age group between 10 and 13 years 2.99% of the children work and study representing 393.908 children, a significant number considering that this child is very young. Also in this category has been 0.08% only work, this represents 10.728 children.

As for the age group 14-17 years has, for children who study and work a percentage of 15.48%, a value well above the one found in the previous age group. These children and adolescents represent 2.167687 million, a very high amount, while children and adolescents who work are only 4.84%.

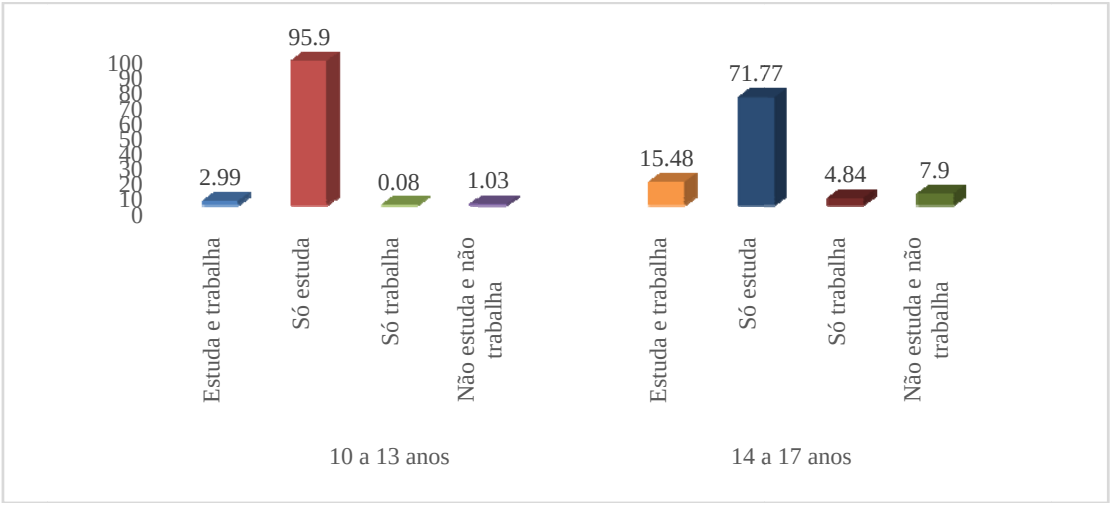

Figure 1 Population of Children and Adolescents Aged 10 to 17, According to the Fact They Work and/or Study

Source: Prepared from the PNAD 2012

These figures show that much remains to be fought child labor in the country. Although there has been much progress over the years, this sad reality is far from over.

Of the total population of children and adolescents is 27,162,660 people, 2,561,595 stated that study and work at the same time, this total 1,612, 816 are boys, which represents a percentage of 11.67% and 7.11% are girls. Regarding the “just work”, 3.58%, 1.45% are boys and girls. A critical situation to be considered is in relation to children and adolescents who say they do not work nor study, these represent 3.79% of boys and 5.38% of girls in this population.

Important information is with respect to area of residence of these children and adolescents. In all regions of

Brazil research was noted significant percentage of children and adolescents who are only working and significant percentage of children and adolescents who do not work nor study. It is found that the Northeast and South regions are the most have children and adolescents who only work are 2.51% and 3.38%, respectively. Have the Southeast and Midwest of the country are those with larger amounts of children who study only, representing 86.32% and 82.41%, respectively. It was also observed that there are many teenage children who are neither studying nor working, especially the northeastern region with 5.22% of this population is not doing absolutely nothing.

Following, is presented in Table 1 the results of *lógit multinomial model* for the probability of a child to work or study. The category that identifies the child "studies and does not work" was not "excluded" from the table to represent the comparison class. Have the categories of "study and work", "not study and work", and "do not study and do not work" were considered for analysis.

The child's age was defined as a continuous variable. The positive sign of the age variable coefficients indicates that the likelihood of her "study and work", "not study and work", and "does not study and not work" is higher when compared to her only chance "to study and not work" Note that the probability of a child or adolescent "not study and work" had a higher ratio compared to the other two categories considered, i.e., the coefficient of the category "not study and work" was 1.1562 while the other categories was 0.5375 and 0.6318 for the categories "study and work", "do not study and do not work", respectively. This means that, although the odds are greater for the three categories in relation to the category of comparison, in respect of this possibility (not study and work), the probability is even higher.

The probability of a child who "study and work" with respect to the study only increases if it is male compared to female children. However, the negative coefficient in the category "do not study and do not work" indicates that the probability decreases if this child or adolescent is male. In short, being male increases the probability of a child or adolescent "study and work", "not study and work", and "does not study and not work" is higher when compared to her only chance to "study and not work".

Regarding the area of residence, it is observed that for all categories considered, the probability of a child or adolescent "study and work", "not study and work", and "does not study and not work" decreases relative to only study, teen drop if this child lives in urban areas compared to residents in rural areas.

As for race or color, the likelihood of the child "study and work" increases if it is the brown race, yellow, black and indigenous, compared to whites. Also in this category, the negative signs of the coefficients of the colors and/or yellow and indigenous races in the category "not study and work" indicates that the probability of the children of these races, not study and work is less than the other categories presented.

For regions of the country, the probability of a child who studies and works for study only, increases if the child lives in the south, north and center-west, compared to children living in the North East. But if the child lived in the Southeast this probability decreases. Note that the probability of a child or adolescent "not study and work" had a higher ratio compared to the other two categories considered, in the South, that is, the coefficient of the category "not study and work" was 0.6570 this region, while the other categories was 0.3640 and 0.1161 for the categories "study and work", "do not study and do not work", respectively. As for the North region the incidence rate was highest category "study and work" with 0.1694 while the categories of "not study and work" and "do not study and do not work" were 0.0827 and 0.0066, respectively.

Table 1 Model Results lógitmultinomial for the Probability of A Child Work or Study–2012

	estimated coefficient	Test z	estimated coefficient	Test z	estimated coefficient	Test z
Constant	-9.5438	-59.12*	-21.4067	-40.65*	-12.0235	-46.22*
Age	0.5375	54.36*	1.1562	35.77*	0.6318	39.55*
Sex (Male = 1)	0.6256	16.87*	1.0667	14.51*	-0.2186	-4.50*
Area (1 = urban)	-1.0346	-24.99*	-0.8354	-10.36*	-0.1484	-2.21**
Color ou race (white was deleted)						
Brown	0.0945	2.29**	0.3342	4.25*	0.3852	6.70*
Yellow	0.1266	0.39	-0.9018	-0.87	0.2041	0.47
Black	0. 0465	0.62	0.4871	3.88*	0.470	4.92*
Indian	0. 3316	1.23**	-1.1839	-1.56	0.6783	1.82***
Region of residence (Northeast deleted)						
South	Variables	Estudy and Work	Not estudy and work	Not estudy and not work	0.1161	1.48
North	0.1694	3.27*	0. 0827	0.83	0.0066	0.10
Southeast	-0.1208	-2.48*	0. 0329	0.36	-0. 2913	-4.50*
Midwest	0.2362	3.96*	0. 1840	1.60***	-0. 0655	-0.80
Number of observations: 50.921						
Likelihood ratio test: -25444.21*						
Category of comparison: “estudy e not work”						

Note: * denotes significance at the 1% level, ** indicates significance at the 5% level, *** indicates significance at 10%.
Source: PNAD 2012 (Results of search)

4. Conclusions

Poverty is the main reason that leads a child to be in the job market. Many are forced to work as a way to provide their family’s survival, and thus, fail to develop properly, to go to school and have a better future.

Most of these working children belong to vulnerable families, who are more prone to economic shocks because spending on family provision commits all available income, children become an alternative family survival.

In addition to poverty, reasons as inefficient education system, traditions and social status, lack of legislation and supervision, labor market profile, types of living arrangements, among others, lead to the inclusion of children in the labor market. And although Brazil has many child protection mechanisms and adolescents, the exploitation of labor is still very present, especially in rural areas of the country.

Still, child labor may affect the development of children in many ways: as in the physical: they are subject to injuries, physical deformities and diseases that are often stronger than the self-defense capability of their bodies; emotional: they may have difficulty in establishing relationships because of the conditions of exploration or mistreatment; social: because away from social life of their age, and often require maturity that does not match your experience of life, i.e., has no positives.

Selecting only Brazilian children and adolescents between 10 and 17 years, Brazil this study defined as objective to analyze the probability of a child to work or study, there was an econometric analysis of these children and the main results of this study are the following:

(1) The male children are more likely to work and study in relation to only study;

(2) The probability of a child who studies and works for study only, increases if the child lives in the south,

north and midwest, compared to children living in the Northeast;

(3) Regarding the rural and urban areas, the likelihood of children who study and work in respect of which only study, is lower for residents of urban areas, when compared to residents of rural areas;

(4) For category of "do not study and work", it was found that the probability of a child that category, compared to only study, increases if the child is male and if the brown or black race;

(5) The probability of a child who "does not study and work" also increases with age in relation to the category of "only studies".

Finally, it is noteworthy that child labor, although it decreased in the country, is still very present in the reality of Brazil. Thus, it is believed that it is necessary to the provision of public policies to fight it. Because in addition to not be favorable to the individual, child labor brings economic implications for society as a whole, since it can affect the growth rate of the economy in the long run.

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