Counting Cinderellas

Child Domestic Servants – Numbers and Trends

by

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Now began a bad time for the poor step-child....They took her pretty clothes away from her, put an old grey bedgown on her, and gave her wooden shoes....and led her into the kitchen. There she had to do hard work from morning til night, get up before daybreak, carry water, light fires, cook and wash. Besides this, the [step]sisters did her every imaginable injury....

- The Grimm Brothers, Cinderella

I. Introduction

Counting child domestic servants seems a commonplace task. In fact, it is both complex and important. Child domestic servants are among the most vulnerable of child workers, and the most invisible. They may be treated kindly and allowed to attend school, or they may be secluded in their employers' home, beaten, overworked, and unable to leave or report their difficulties to kin. To start to ensure that children in domestic service are well-treated, this article aims to call attention to their numbers. We also summarize trends in the use of child domestics in a number of Latin American countries.

We have been told that it is not possible to count child domestic servants. Too many of them are "invisible": they are engaged in informal work, hidden away in separate households, and sometimes identified to census and survey enumerators as relatives rather than servants. They themselves may prefer to be identified as relatives rather than servants. (The Cinderella story recounts a tale of a step-daughter who served as a maid.) There are many reasons why counting and identifying trends in the use of child domestics may be difficult; we discuss these below. Still, under some conditions, we assert that we can make reasonable estimates of child domestic servants.

In the PAA 2009 version of this paper, we will present estimates, time trends, and descriptive information about child domestics for seven countries: Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico, and Venezuela. This proposal, however, includes estimates and time trends only for Argentina, Brazil, Colombia, and Costa Rica. Since we have established a methodology and programs for the data analysis, getting results for the remaining countries will be much faster than it was for the first few. This long abstract will include some italicized sections indicating information that will be filled in before the PAA meetings.

In this paper we will use the term "child" as it is used in the United Nation's (UN) Convention on the Rights of the Child: to indicate that a person is under 18 years of age. Although we recognize that many adolescents in poor countries are effectively adults in their mid-teenage years, we will use the term "child" to refer to both younger children and adolescents. Because very few children can be useful before approximately the age of five, in this paper we focus on five to seventeen year-olds (inclusive).

II. The Vulnerability of Child Domestic Servants

While many differences exist in the conditions under which children perform domestic work, child domestic servants are vulnerable to several characteristic threats. For one, they may not be allowed to take breaks or may be required to work long hours (Oyaide, 2000). Child domestic workers may also suffer from a lack of access to education, which can contribute to social isolation and a lack of future opportunity for the child (Oyaide, 2000). UNICEF considers domestic work to be among the lowest status, least regulated, and most poorly remunerated of all occupations, for either adults or children, and reports that most child domestics are live-in workers and under the round-the-clock control of their employer, likely leading to their vulnerability (The Innocenti Digest, 1998).

When exploitation of the child worker is extreme, or conditions are akin to slavery, the ILO considers domestic service to be a "worst form" of child labor (Black, 2005). Stories of beatings and sexual abuse are not uncommon among qualitative studies of child domestic servants. Due to the fact that they frequently live with their employers out of others' view, child domestic workers may be particularly vulnerable to this type of exploitation.

Observers are careful to note, though, that one should not automatically assume that child domestic work is exploitative or worse than what a child would experience if he or she were not a domestic worker. For many families, placing a child in a stable household that has a higher standard of living than the parents' household may be seen as beneficial (The Innocenti Digest, 1998). In addition, light housework done by children in their own homes is not considered child labor, but a positive learning experience (Black, 2005).

III. Defining Domestic Servant

Most authors writing about child domestic servants do not bother to include a definition of what, exactly, they mean by "domestic servant." After all, it seems obvious: a domestic servant is someone who does domestic work in someone else's home, for pay or in-kind remuneration.

But what is domestic work, and how much does one need to do it (for someone else) in order to be classified as a domestic servant? In some parts of Africa, for example, young girls labor from morning to nightfall under the direction of their mothers and female kin, yet this work is not counted as domestic service (Reynolds 1991). Girls who are fostered

into the same family may, similarly, spend their days in various types of domestic labor; are they servants? What about, in Brazil, when country cousins want to escape the stagnation of their rural towns and move in with distant kin in the city, in exchange for domestic services – are they servants? What about if they only do domestic work during part of each day and attend school for part of the day – do they count?

In other situation, people who are not related take care of their "patrons," doing whatever work needs to be done, including much domestic work. The rewards for doing this may be undefined and depend on the good will, resources, and networks of the patron.

The point here is that some people are not called servants by the people for whom they are performing services, and yet they may be performing exactly the same tasks as others who *are* called servants.

Another difficulty is with respect to the tasks performed. Typical tasks performed by domestic servants include cleaning the home; shopping for food; preparing food for cooking; cooking meals; serving meals; washing dishes; carrying water, washing clothing and linens; drying and ironing the laundry; putting away groceries, clean dishes, laundry, and anything else needing tidying; child care, including dressing, diapering, feeding, taking to and from school, and watching children; care for ill or disabled or elderly, including the most intimate types of care; and so forth. This is a long list, but it is by no means all-inclusive. Some domestic servants sweep the yard, water plants, care for kitchen gardens, or even spend time working in their employers' fields. Others care for poultry, goats, pigs, or other farm animals. How can we tell whether someone is more of a domestic servant or more of a farm hand?

Clearly there is a continuum, with one end denoting people who are very clearly domestic servants, and the other end denoting people who are very clearly not domestic servants. In between, it gets fuzzier. Yet, we have to draw an arbitrary line if we are to count child domestic servants, since we have to define each child in our census samples as either a domestic servant or not one. To a great extent, the location of this line is determined by the data that was collected in the censuses of the countries we study.

IV. Changes over Time in Child Domestic Servitude

To the extent possible with census microdata (described below), we examine trends in the usage of child domestic servants over time. Our earliest data is from 1960, but this varies by country; in some cases we can follow trends over five decades, in other cases only three decades. We expect to see changes over time for a variety of reasons, as Latin American countries have experienced a number of large-scale social and economic changes over the relevant time period. Some of the reasons imply decreases in child domestic servitude; other imply increases. Since many of the social changes we describe have happened (or are happening) more or less simultaneously, we do not attempt to attribute particular causes to the observed patterns.

Demographic Transition. In Latin America, demographic transition had begun by early in the 20th century with declines in mortality. Population growth due to natural increase (rather than migration) peaked for Latin America overall in the early 1960s at 2.8 percent. In 1965, the percentage of the population under age 15 was extremely high, at 43 percent overall. In Argentina it was 30 percent, but in Brazil, Colombia and Costa Rica it was 44, 47, and 48 percent, respectively. This can be compared to the percentages of the population under age 15 in the year 2000, after fertility decline had been underway for some decades: Argentina 28 percent, Brazil 29 percent, Colombia 33 percent, and Costa Rica 32 percent (Brea 2003).

Demographic transition led first to an increase, then later a decrease, in the percentage of the population who were children. Correspondingly, the supply of potential child domestics first increased then decreased. (We plan to construct figures for various countries showing the percent of the population under age 18 – or ages 5 to 18 – for 1950 to 2000.)

Education. In the second half of the 20th century, access to education expanded in most parts of Latin America, and young people spent a greater number of years with some connection to the educational system. This probably did not affect the supply of child workers (of all kinds) as much as one might expect, because many children attended (and still attend) school in shifts, for a relatively small number of hours per day (3 to 5 hours). Domestic servitude, however, may be more incompatible with school than many other jobs available to children. As norms changed, and parents desired more schooling for their children, the supply of potential child domestic workers is likely to have fallen. (A planned figure showing the percentage of 5-18 year olds not enrolled in school, over time, may be instructive.)

Women's Labor Force Participation. As families have become smaller and more nuclear, there are fewer people available to do essential household chores: marketing, cooking, cleaning, washing, child care, elder care, and so forth. Women's increasing presence in the paid labor force has exacerbated this shortage, likely increasing the demand for domestic services. We would expect total demand for domestic services – by family members or servants – to be relatively inelastic. Duryea and Székely (1998) document substantial increases in adult female labor force participation rates between the 1970s and the 1990s for every Latin American country except Haiti. In 1950, women made up only 18 percent of Brazil's labor force, but by 2000 they comprised 29 percent of it (Brea 2003).

Sectors of employment. With changes in agricultural production in the mid-20th century, the share of employment in agriculture began to decline. Industrial production increased, but so did employment in the service sector. By 2000, the service sector employed the majority of the labor force in most Latin American countries. For example, 74 percent of Argentina's labor force was employed in the service sector in 2000 (Brea 2003). How child domestic service may have been affected by these sectoral shifts is not clear.

Human Rights. Toward the end of the 20th century, there was a substantial increase in campaigns to inform children about their human rights. Following the ratification of the Convention of the Rights of the Child by the UN Humans Rights Commission in 1989, several international NGOs have worked with the UN and country governments to promote children's human rights within their countries (PLAN, 2007). It is difficult to assess, however, the extent of these campaigns and the degree of their impact on children.

Economic Trends. Child work has been observed to be pro-cyclical: when there are more jobs for everyone, children are more likely to be working (e.g., Barros and Mendonca 1990, Guarcello et al 2006, and Parikh and Sadoulet 2005). This pattern seems contrary to the idea that children work out of "dire necessity" – unless, of course, even good labor market conditions do not reduce the poverty of such children's families very much.

Manacorda and Rosati (2007) argue that previous studies have inappropriately aggregated different types of child workers with different responses to labor demand. In their study of Brazil, they find that children aged 10-12 decrease their labor force work when local labor demand is strong; older children, in contrast, behave more like adults and increase their labor force activity when local demand is strong. Children from better-off households reduce their work, while rural and poorer children increase it.

If Manacorda and Rosati's results hold more widely, then the supply of child domestic servants could be affected in off-setting ways. Younger children may be less likely to start work as domestics in good economic times, while older children may be more likely to undertake such work. If child domestics are generally drawn from the poorest households, then their employment seems likely to increase overall.

The relative cost of servants may also be changing over time. In particular, if absolute poverty falls, thereby reducing the supply of potential live-in servants, then we would expect to see the cost of live-in servants rising relative to other household expenses.

V. The IPUMS-International Data

The availability of integrated public use samples of census microdata makes it possible for us to investigate the presence of child domestic servants in a number of Third World countries. The IPUMS-International data is freely available to researchers at www.ipums.org, and additional samples are added regularly. We have chosen to investigate child domestics in countries for which samples are available via IPUMS-International, and for which particular information was collected that helps us to identify domestic servants. In this paper, we focus on Latin American countries: Argentina, Portuguese-speaking Brazil, Chile, Colombia and Venezuela in South America; Costa Rica in Central America; and Mexico in North America.

At this time we have prepared results from Argentina, Brazil, Colombia, and Costa Rica. By PAA 2009, we will have added the remaining countries to the study.

Data from multiple years was used for each country. While the years available differed depending on the country, data was in general from between 1960 and 2001. Data was used from multiple censuses per country in order to examine trends over time. Table 1 describes the years in which these censuses were conducted, as well as other characteristics of the samples.

Samples. We studied individuals between the ages of five and 17, excluding individuals in group quarters. Group quarters children and youth were excluded, in part because they are frequently in boarding schools and in part because they are typically not asked the labor force questions. In general, they are unlikely to be available for domestic service. In any case, they comprise a small portion of the population in our age range (in general, less than one percent).

Table 1 shows the size of the samples used in the analysis. Samples include five to 17-year olds; sample sizes for the four countries range between 28,242 and 2,749,116. Table 1 also shows the total number of child domestic servants in each country, as well as the number of female and male servants in each.

Defining Child Domestics. The measures of child domestic servitude used here are based on information from two sources within Latin American census data: employment-related information, especially the child's occupation and industry, and relationship to head of household or family (that is, to the reference person). Samples must include these two sources of information on domestic servants in order to be included in this analysis.

Occupation and industry data are collected for individuals who are recognized as members of the labor force. In most Latin American censuses, it has been standard for some decades to recognize domestic service as a distinct occupational category or set of categories.

The second source of information comes from a description of how an individual is related either to the head of the household or the head of a subfamily. In Latin America, it is standard to include "domestic servant" as one possible relationship to the reference person.

In some ways, both of these sources are inadequate, insofar as the respondent may not be well-informed about the activities of the child in question or may wish to mislead the enumerator. While all the censuses in our study are based on questions posed to respondents by enumerators (rather than mail-in questionnaires), census procedures almost always rely upon a principal respondent for each household or family. Adults home at the time of the enumerator's visit typically respond on behalf of children, especially younger children. (Older adolescents, if present, may or may not be allowed to self-report.) Responding adults may not be well-informed about, for example, the number of hours worked in a week by any particular child. They may wish to stretch the truth: a distant relative living-in and doing the household's domestic work may be

described as a relative rather than a servant, for example. This is especially likely for younger children. The stigma of domestic service leads to part of the invisibility of child domestics. Publicity campaigns about child labor will increase misreporting, as respondents learn to be fearful of repercussions for the use of child servants.

Using the first source of information, industry and occupation data, we created a dummy variable that identified whether or not an individual was reported as being included in domestic service industries and/or occupations. Industries and occupations that appeared to be mainly comprised of domestic servants were cross-tabulated. In some cases industry and occupation variables provided identical information, in which case only industry data was used to define domestic servants. In cases where this was not the case, occupation data was also used (e.g. in some cases, individuals were identified as domestic servants if they were labeled as being in the "Other service activities" industry and the "Workers in domestic services, non-specialized" occupation (Argentina 1991)).

One issue that arose with the use of labor force data was whether or not to include domestic workers who were unemployed at the time of the census. Because children tend to move in and out of employment more frequently than do adults, on any particular census day we would expect to find unemployed child domestics who had been employed the previous month and who would be employed again shortly (Levison et al, 2007). Since our policy goal is to count the numbers of children who usually work as domestics, we decided to include the unemployed in our counts of child domestics. In any case, they make up a very small fraction of all domestics.

Using the second source of information, we created a dummy variable that identified whether or not an individual was categorized as a domestic servant by her household relationship. This variable was created by selecting only those individuals who were categorized as "servant" by the household relationship variable. In a substantial number of cases, individuals recognized as being servants of the household or family head were not reported to be members of the labor force.

1 Future analysis will identify the extent of such mis-reporting.

V. Results

Several patterns emerge thus far, but we state them tentatively, since further analysis that includes more countries may reveal more variation or different patterns.

Table 2 shows the percentage of individuals who are employed, by age group and gender. Columns (1) through (4) provide evidence that a higher share of boys than girls are employed, in both age groups and in every country and sample. In many cases, about twice as many boys as girls work in the labor force. In most countries, the percentages of girls and boys who work in the labor force have been declining since the 1960s. In Argentina, declines have been monotonic since the first available sample for 1970. In

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¹ When we compute employment trends, we count such individuals as employed members of the labor force.

Brazil, the same can be said for boys (since 1960), but for girls declines have been steady only since 1980. In Costa Rica, declines are monotonic since 1963, with the exception of an increased employment level for 10-14 year old boys in 1984. Colombia's patterns are more complicated. The employment percentages do not vary substantially between 1964 and 1993 for three of the four age-sex groups. For 15-17 year-old boys, however, employment percentages declined from 57.1 percent in 1964 to about 37 percent in the 1980s and 1990s.

In every country, sample, and both age groups, boys who are working in the labor force are substantially less likely than girls to be employed as domestic servants (not shown). In fact, less than five percent of employed boys are typically domestics. Thus, columns (5) through (8) of Table 2 focus on girls. Comparing columns (5) and (6), which show the percentages of younger and older employed girls who are domestics, we find that in almost every case, a higher percentage of the older girls are domestics. This could, in part, be due to parents moving girls out of work on the street as they reach puberty. Madsian (2004: 130) writes about Brazilian children who work as peanut vendors:

Parents, above all, are concerned that their daughters maintain their virginity and live up to the image of the ideal woman. The street is a constant source of danger, and may even lure girls to prostitution. Regularly the girls, and occasionally also the boys, are solicited for sexual services [as they sell peanuts]. Hence, around the age of 15, girls tend to stop working on the street.

Again examining columns (5) and (6), we can examine changes over time in the percentage of employed girls who are domestic servants. In Argentina and Colombia, there are monotonic declines in this percentage between the mid-1960s and the end of the century. In Brazil and Costa Rica, the percentage of employed girls who are domestics first increases – until 1991 for Brazil and 1973 for Costa Rica – then declines. A similar pattern can be seen when examining the absolute numbers of children who are employed as domestics in Figures 2, 3, and 4 for Brazil, Colombia, and Costa Rica. It should be noted that data for the 1960s is not available for Argentina; perhaps we would find a similar pattern if we had that data.

We hypothesize that as social norms changed in Latin America, the demand for child domestics was less elastic than the demand for other kinds of child workers. That is, as more and more children began to spend more and more time in school, the reduced availability of a family's own children for domestic work combined with the increase in women's labor force participation meant that many households must have felt an increased need for help in accomplishing essential household tasks and caring labor. Thus, even while the total rate of labor force participation was falling for children, the demand for child domestics was strong enough to cause increases in employment in both absolute numbers and as a percentage of all employed children. Eventually, however, a combination of other social factors – including the normative understandings that children should be in school and should not be full-time workers, smaller numbers of available children due to fertility decline, and increased labor-saving devices among the middle class – led to declines in both absolute numbers of children who are domestics

(Figures 1-4) and percentages of employed girls working as domestics (Table 2, columns 5 and 6).

Columns (7) and (8) of Table 2 are provided to give readers an understanding of the size of the issue. For example, in the majority of samples, about 10 percent of all girls ages 15-17 work as domestic servants. This percentage is smaller in the more recent censuses, ranging from 1.6 percent in Argentina in 2001 to 6 percent in Brazil in 2000. While these percentages for recent years sound small, Figures 1-4 show that the absolute numbers of child domestics are substantial in Brazil and Colombia.

We expect to be able to summarize trends in the use of live-in vs. live-out child domestics at the PAA. We will also analyze educational attainment of domestics, among other things. We will also compare results like those presented here with another measure of child domestics, designed to capture some of the invisible Cinderellas.

VI. Methodological Implications

Other studies of child domestic workers may have to rely only on household status information or only on labor force information. In either case, the result will be an undercount of child domestic workers.

Child domestic servants not counted by labor force measures. A comparison of domestic servants captured using household status to those captured using labor force information allows us to identify areas where labor force measures did not catch some domestic servants:

Age. Since labor force questions are only asked of those above the age of 10, any domestic servants under 10 are not captured by labor force measures. We will compute the percentage of children younger than age 10 who were classified as domestics by the household measure.

"NIU," "unknown," and "no response" categories. The labor force measures used in the paper were based on certain industries and occupations that described domestic service. Therefore, individuals who were not in the universe ("NIU") for the employment questions – that is, who were not identified as being labor force members and therefore were not asked the detailed employment questions – are not captured. If the respondent was unable or unwilling ("No Response") to answer the employment questions with respect to the child in question, again, he/she was not captured by the industry or occupation questions. We will compute the percentage of children, by various characterics, who were identified as domestics by the household measure but were missed by the labor force measures.

Agricultural industries. Some individuals indentified as domestic workers by household measures are categorized as being employed in agricultural industries (Brazil). In these

cases, the individuals were kept in the count of domestic servants, but the rest of the individuals in that agricultural industry were not added.

Child domestic servants not counted by household relationship measures. Household relationship measures also did not catch some domestic servants that labor force measures did. We will compute the percentages of child domestics that we captured under the labor force measures but not the household relationship measures, by various characteristics.

Family or household status. Some individuals who are identified as domestic workers by labor force definitions are categorized as "child" in the household relationship variable (Argentina). This makes sense, because not all child domestics live in the homes of their employers. Some children live with their own families.

Imputed domestic servant status. To count at least some of the "Cinderellas" who are not identified as domestics by the household relationship measures, we create an additional "best guess" measure of the number of domestic servants. We do this by, first, identifying people in the household who do not have a clearly-identified relationship to the head. Thus, "other relatives," "agregados" (in Brazil), and "non-relatives" have Cinderella potential. We then assume that an arbitrary percentage of them – currently 25 percent – are in fact domestic servants. (We continue to search for qualitative evidence on which to base this percentage.) We then determine the extent to which these Cinderellas affect the overall counts and percentages (by age and sex) of child domestics. These results will be presented at the PAA.

VII. Conclusion

Stay tuned!

Bibliography

Barros, Ricardo Paes de, and Rosane Mendonça (1990) "Determinantes da Participação de Menories na Força de Trabalho," Working Paper No. 200, Rio de Janeiro: Instituto de Pesquisa Econômica Aplicada—IPEA.

Black, Maggie (2005) *Child Domestic Workers: A Handbook on Good Practice in Programme Interventions*, London: Anti-Slavery International.

Brea, Jorge A. (2003) "Population Dynamics in Latin America," *Population Bulletin* 58(1): 3-36, March.

Duryea, Suzanne and Miguel Székely (1998) "Labor Markets in Latin America: A Supply-Side Story," Office of the Chief Economist, Working Paper 374, Washington, D.C.: Inter-American Development Bank.

Guarcello, Lorenzo, Marco Manacorda, Furio Rosati, Jean Fares, Scott Lyon and Cristina Valdivia (2005) "School-to-Work Transitions in Sub-Saharan Africa: An Overview," Understanding Children's Work (UCW) Working Paper, No.15.

Levison, Deborah, Jasper Hoek, David Lam and Suzanne Duryea (2007) "Intermittent Child Employment and Its Implications for Child Labour Estimates," *International Labour Review* 146 (3-4): 217-251.

Madsian, Carla (2004) "Not for Bread Alone: Peanut Vendors in Brazil," in G.K. Lieten, ed., Working Children Around the World: Child Rights and Child Reality, New Delhi: Institute for Human Development, pp. 128-139.

Manacorda, Marco and Furio Rosati (2007) "Local Labor Demand and Child Labor," Understanding Children's Work (UCW) Working Paper, No.187.

Oyaide, Omolara (2000) "Child Domestic Labour in Lusaka: A Gender Perspective," UNICEF.

Parikh, Anokhi and Elisabeth Sadoulet (2005) "The Effect of Parents' Occupation on Child Labor and School Attendance in Brazil", University of California at Berkeley, February.

PLAN International (2007) "Workshop on the final recommendations of the Committee on Child Rights for francophone countries in West Africa," Retrieved September 20, 2008, from PLAN International, Website: http://www.plan-international.org/wherewework/westafrica/burkinafaso/ouagadougouconference/.

Reynolds, Pamela (1991) Dance Civet Cat: Child Labour in the Zambezi Valley, Athens OH: Ohio University Press.

UNICEF (1999) *Child Domestic Work: Innocenti Digest No. 5.* Florence: UNICEF International Child Development Centre.

Table 1. Characteristics of census samples included in the analysis (unweighted)

Sample			Total Ages	Domestics	Female	Male
Country/Year	Density (%)	Enumeration Rule	5-17	Ages 5-17	Domestics	Domestics
Argentina						
1970	2.0	de facto	114,779	2,683	2,499	184
1980	10.0	de facto	707,460	9,151	8,908	243
1991	10.0	de facto	1,098,126	7,714	7,065	649
2001	10.0	de facto	881,849 2,192		1,752	440
Brazil						
1960	5.0	de jure and de facto	984,107	11,117	10,381	736
1970	5.0	de jure and de facto	1,649,827	25,035	24,137	898
1980	5.0	de jure and de facto	1,780,090	34,146	32,692	1,454
1991	5.8	de jure	2,593,410	39,840	37,997	1,843
2000	6.0	de jure	2,749,116	28,010	28,010	1,500
Colombia						
1964	2.0	de facto	123,198	2,979	2,396	583
1973	10.0	de facto	745,896	12,429	11,502	927
1985	10.0	de jure	806,568	14,466	12,460	2,006
1993	10.0	de jure	938,581	9,441	8,498	943
Costa Rica						
1963	6.0	de jure	28,242	414	367	47
1973	10.0	de jure	69,905	993	948	45
1984	10.0	de jure	72,607	678	658	20
2000	10.0	de jure	108,280	425	382	43

Table 2. Selected Employment Characteristics of Samples (weighted)

Country & Year		% Employed				% of Employed Girls who are Domestics		% of All Girls who are Domestics	
	10-	10-14		15-17		15-17	10-14	15-17	
	F	M	F	M	10-14	13-17	10-14	13-17	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
Argentina									
1970	8.2	11.8	26.8	50.2	47.9	47.7	3.9	12.8	
1980	3.9	5.3	23.0	44.5	27.4	42.8	1.1	9.9	
1991	2.7	3.7	19.1	33.2	22.5	29.5	0.6	5.6	
2001	1.0	1.4	5.2	10.3	12.3	30.3	0.1	1.6	
Brazil									
1960	12.1	26.0	28.5	68.7	28.1	32.1	3.4	9.1	
1970	9.5	20.5	24.8	53.6	25.5	39.7	2.4	9.9	
1980	10.3	19.7	29.0	55.5	32.9	35.0	3.4	10.2	
1991	6.7	12.8	26.1	48.5	35.6	37.4	2.4	9.8	
2000	5.2	9.3	20.1	33.9	21.2	30.0	1.1	6.0	
Colombia									
1964	5.6	16.1	19.2	57.1	75.1	56.1	4.2	10.8	
1973	7.2	14.1	20.0	43.2	39.7	28.8	2.9	5.8	
1985	8.5	13.5	20.6	36.6	27.9	44.5	2.4	9.2	
1993	6.1	13.1	16.2	37.6	20.6	38.0	1.3	6.2	
Costa Rica									
1963	5.3	15.1	19.3	61.6	38.2	55.4	2.0	10.7	
1973	2.4	8.9	17.1	48.8	66.2	61.9	1.6	10.6	
1984	3.2	11.1	13.4	45.8	33.8	45.8	1.1	6.1	
2000	1.7	4.5	8.8	26.9	18.8	29.3	0.3	2.6	







