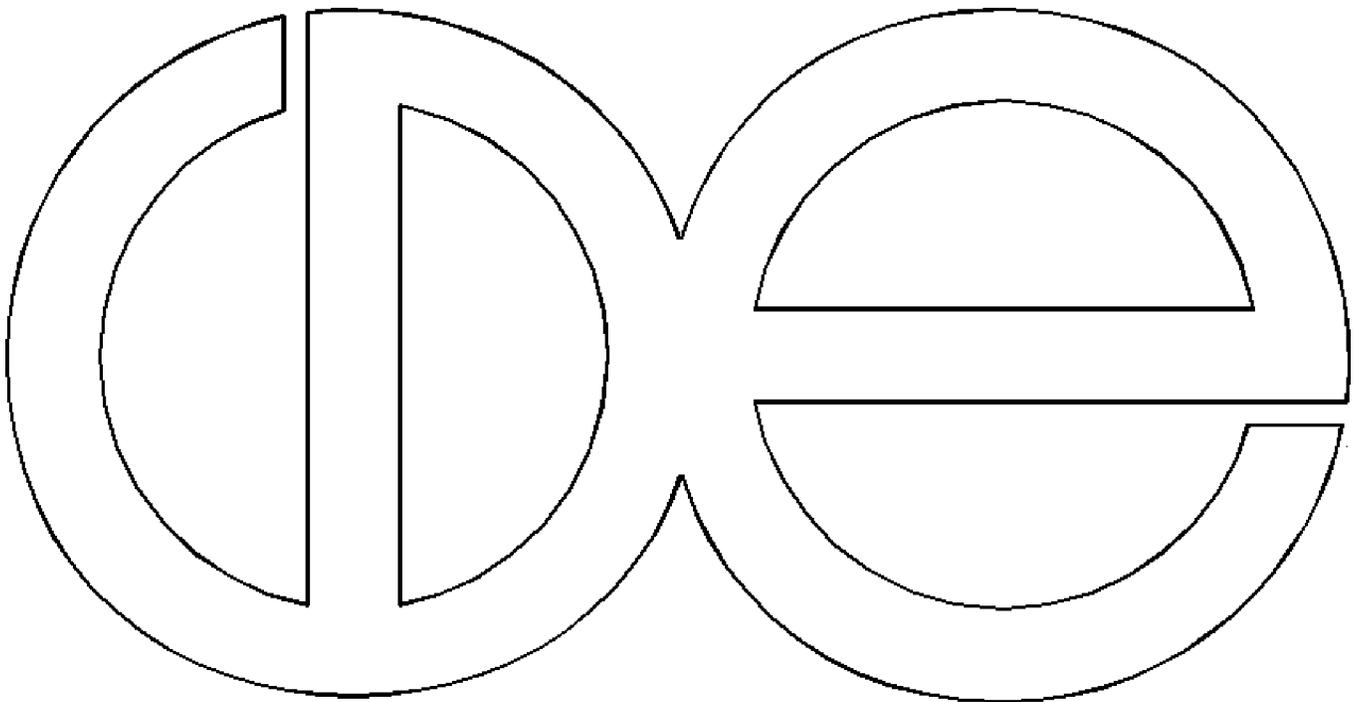


**Center for Demography and Ecology
University of Wisconsin-Madison**

**Living Arrangements of Children 13-16 and School Attendance:
Latin America in the Early 1980s**

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LATIN AMERICA IN THE EARLY 1980S**

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ABSTRACT

Since research findings for the United States suggest the tantalizing possibility that living arrangements effect a child's likelihood of school enrollment through differences in such factors as expectations, this study begins to examine whether the same might also be the case in part of Latin America. Considering seven different types of living arrangements, it performs a broad statistical sweep regarding children 13-16 years of age in 10 countries. Half the countries were found to have a modest relationship between living arrangements and school attendance. In general, living in households headed by formally married parents (both simple and complex) enhances a child's likelihood of attending school, but one is left to question Latin American definitions of marital status.

INTRODUCTION

Beneficial for both a society's socio-economic development and an individual's position in society is the amount of education that person attains. School enrollment or educational attainment is often an indicator of child well-being as well (e.g., Haurin, 1992). On a society-wide basis, major factors behind the amount of education generally received appear to be the nature of the economy and the nature of the polity (e.g., Arnove and Torres, 1995; Morales-Gomez and Torres, 1992). Inside societies, group affiliation may be important (e.g., urban/rural, ethnic, gender, class affiliations; see e.g. Psacharopoulos, 1993; Stromquist, 1992). On a more micro level but with potential for society-wide or policy relevance, the kind of family household the child lives in may be important. This certainly is true in the United States. Is it also the case in Latin America? The literature appears silent on the issue (but see Post et al., 1994).

In contrast to the research situation for Latin America, the importance of family structure for educational achievement is a hot topic in the United States, after the large negative effect of poverty. For instance research has found that 16 and 17-year olds in mother-only households were twice as likely not to be attending high school in 1980 compared to their counterparts in dual-parent households (Sweet and Bumpass, 1987; see also McLanahan, 1985; Mueller and Cooper, 1986). Some of the difference could not simply be explained by the household's economic resources. Such factors as differential parental expectations or parental involvement may have been critical. Single mothers typically work longer hours than married mothers, and have less time to supervise or otherwise be involved in the school-related activities of their children. Non-resident fathers do not have the kinds of day-to-day input often necessary for their children's educational achievement. Does such reasoning also apply to societies in Latin America?

It was initially suggested that the major reason for a difference between the educational achievement of children in single and dual parent households in the United States was the number of

adults available to children. Subsequent examination disclosed that the differential was not just a consequence of having only one adult instead of two in the household (e.g. Astone and McLanahan, 1991; see also McLanahan and Sandefur, 1994). That is, researchers honed in on biological parenthood, perhaps because an increasing proportion of children in “dual-parent” households in the U.S. were only living with one biological parent (Hernandez, 1988; 1993). Children who lived with a stepparent were found on average to have more problems (in and out of school) than children from an intact marriage (see also Dawson, 1991; Zill, 1988). In fact, aside from the obvious economic advantage to children of being in a household with a stepparent, such children often appeared more similar in educational achievement to counterparts in single-parent households than to counterparts in two-biological parent households. Factors thought to help explain this finding include differential “parental encouragement and attention with respect to educational activities” (Astone and McLanahan, 1991:318).

An implication of such sophisticated work is that it is not enough to consider all couple-headed simple households identically as would be the case if one simply divided households into couple-headed simple, single-parent simple and complex (extended) as has been done in the past (e.g. De Vos, 1995). In Latin America, the closest one often comes to being able to differentiate between step-parent and two-biological parent households is to use information on a mother’s marital status. In a piece that included Latin America for instance, Desai (1992) considered the mother’s union type to be an important aspect of family structure. Focussing on a marriage-consensual union difference, she found that children whose mothers were in consensual unions rather than marriages tended to be at a greater risk of having a health problem even after controlling for many socio-economic attributes of the mother and her spouse or mate. Since theoretically anyway, consensual unions may be less permanent, children may have been more likely to be living with a stepparent if their mother was in a consensual union, and that stepparent may have had less concern with the children’s welfare.

In another piece that examined female headship in rural Ecuador, DeGraff and Bilborrow

(1993) too found it important to consider the child's mother's marital status although they focussed on different contrasts and did not consider consensual union as a status at all. They observed that within their sample for rural Ecuador the households with the lowest welfare as measured by per capita income were those headed by married women (many of whose husbands had migrated away for work) whereas female-headed households in which the head was widowed or divorced appeared better off than the average male-headed household.

Even if we are bold enough to see some parallel between children in the U.S. whose parents never married or who divorced and remarried on the one hand and children in Latin America whose parents are in an informal union on the other, using research performed on children in such developed societies as the United States is of questionable generality. For one, their living arrangements are different. We are not simply talking about a two-way split between simple two-parent and single-parent households or a three-way split between simple two-married parent, two-in union-parent and single-parent households. As discussed more below, it necessary to identify, contrast and compare seven different living arrangements that are a combination of parents's marital status (never married, currently married, formerly married) and household structure (e.g. simple couple-headed, simple single-parent, complex).

Take for instance the single-parent household. Those households are not the same in Latin America as in places like the U.S. because most of the unmarried mothers heading a household in Latin America had at one time been married, and because many children with unmarried mothers live in complex (extended) family households, not single-parent households (there are no programs like AFDC or food stamps and kin may be called upon for assistance including providing residence). Thus single-parent households tend to be of two types: One being of a formerly-married mother who may be relatively well off and may be able to extend that well-being to her children; and the other being of a never-married mother who is not well off and would join another's household if she could. While roughly 10 percent of children lived in single-parent households in our sample, only about 2

percent of them lived with never-married mothers (Table 1).

Likewise, while living in a simple household headed by married parents may be the ideal in Latin America as it is in countries like the United States, many children whose parents are married in fact head complex family households (see also Lloyd and Desai, 1992; Palloni et al., 1994). It appears that in two of 10 Latin America countries for which I have census data, less than a fourth of all children 13-16 years of age lived in a simple married couple-headed households while in only one country (Brazil) was this the living arrangement of more than half the children. Between 11 percent (Panama) and 22 percent (Chile and Ecuador) of the children lived in complex family households headed by their married parents.

The ideal may also be to have married parents, but many parents in fact have not married, at least formally. Indeed, in countries like the Dominican Republic, Guatemala and Panama almost as many children 13-16 living in simple households with two parents, lived with parents who were in a so-called consensual union rather than in a formal marriage (Table 1). Complex (extended) family household living is also common. Over a tenth of the children 13-16 in Colombia, Dominican Republic, Ecuador, Guatemala, and Panama lived in complex family households headed by a “single” person and over another tenth lived in complex family households headed by a formerly-married person or married people who were not their parents (Table 1). Since such living arrangements are so different from the situation in the U.S., it is reasonable to suspect that living arrangements may have different relations to factors like educational expectations as well.

A second reason to be skeptical about the applicability of an education-living arrangements relationship found in the United States to Latin America is that children’s education is very different between Latin America and more developed countries. One has to ask what “basic” education is in the different settings. That is, primary education has become fairly universal throughout Latin America although pockets of illiteracy still remain, but attaining even more, secondary, education is not so widespread. Completing high school is much less common in Latin America than it is in the

United States. Higher education is less attained still and is often only the prerogative of the well-to-do. Thus, whereas one finds close to universal enrollment of children up to age 16 or so in countries like the United States or Canada (U.N. Demographic Yearbook, 1993) that is not the case in Latin America. In our data for around 1980 for instance, we encounter an enrollment range of 33 percent (Guatemala) to 69 percent (Chile) among 16 year olds. Consequently, for a developed country like the U.S., sociologists may use high school completion by age 25 or so to help measure well-being as there would be almost no variation in educational attainment to explain before that. In Latin America in contrast, there might be little variation to explain for enrollment up to age 12 or so, but there is much to explain for children older than that.

A third reason for questioning the applicability of a relationship between children's living arrangements and school attendance found in the United States to all of Latin America is that Latin America itself is very diverse. There could be a relationship in some countries but not in others, and where a relationship existed there might be little reason to expect that it would be the same in both countries.

Consider for example the diversity in living arrangements seen in Table 1. The proportion of children living in simple or complex married couple-headed households ranges from 33 percent in Panama to 72 percent in Brazil. Can one honestly consider peoples's perspective on the households in the two environments to be the same? Is marital status related to parental expectations regarding children's future social standing identically in both locales? Consider too the variation in school enrollment. In Guatemala, only 46 percent of children 13-16 were enrolled in school while in Chile, 83 percent were. The median was around 70 percent. Each country maintains a different curriculum, mandates a different number of years of schooling (or a different age at which school attendance is no longer necessary) and even sets "basic" to be a different number of years (5,6 or 8).

The Hypothetical Relationship

Despite a healthy skepticism about how any relationship might turn out, I do have working hypotheses because I expect the following (in shorthand):

$$\begin{aligned} \text{CPLE-MAR} > \text{COMP-MAR OWN CHILD} > \text{SING PAR-FM} = \text{COMP-FM} > \\ \text{CPLE-NM} > \text{COMP-NM} = \text{SING PAR-NM} \end{aligned}$$

where CPLE = simple couple household; COMP = complex family household; SING PAR = simple single parent household; MAR = married; FM = formerly married; and NM = never formally married.

The first idea is that *children living in simple married couple headed households are more likely to be in school than children in any other living arrangement, including children living in complex households headed by married parents, who are in turn more likely to be in school than children in other arrangements* (subhypothesis (a)). The idea has at least two components, one involving a difference or non-difference between household types given that in each parents are married, and the other involving a difference between parental marital statuses. Other things being equal, there could be less emphasis in complex households on the personal achievement gained from advanced study and more emphasis on the common good (sometimes gained through working at the expense of schooling) whereas children in simple family households headed by married parents may have the undivided attention of their parents. Thus even if a child lives with currently-married parents, whether this is in a simple or complex household might matter.

The second component is the idea that a child is better off if the parents are formally married. This might stem from matters of stability, intended permanence, biological parenthood, attitude toward family responsibility, or having the attention and expectations of two parents, among other factors. Thus even if children live in complex family households, they are more likely to still be in school if their parents head the household than if the children live in a household headed by someone other than a parent or if their parents were never formally married.

A second idea (subhypothesis (b)) is that *children in households headed by formerly-married*

people (or in some cases a currently-married couple who are not the child's parents) are more likely to be in school than children in households headed by a "single" (formally) person, but there is no difference among these by whether he/she lives in complex vs. single-parent households. The fact that the household head had once married is important because it tells us that the child came into a unit that had intended permanence and expected to place children as well as possible in society, even if the marriage was broken later. However, the fact that it was later broken may be important: The idea that children in single-parent households more often stop school to work appears consistent with research findings from such disparate places as urban Mexico and rural Ecuador (e.g. Chant, 1985; DeGraff and Bilsborrow, 1993). The reasoning behind expecting no net difference by household type once the head had a broken marriage is that on the one hand, children in simple households headed by a formerly-married (single) parent might seem least likely to be in school because those children especially might be expected to work to help support the household and/or forego supplemental schooling; but on the other hand children in complex family households need to share the household resources with all the other household members, and greater priority may be given to non-school items. It makes most sense to expect no net difference.

The third idea (subhypothesis c) is that *children in simple couple-headed households headed by parents who never married formally are no more likely to be in school than children in single-parent households headed by a never-married parent, but these children are more likely to be in school than counterparts in complex households headed by never formally married people.* Given some U.S. findings that children with stepparents may be more similar to children with single parents than to children living with both biological parents, perhaps because of expectations and aspirations (Astone and McLanahan, 1991) as well as our speculations about the Desai findings for part of Latin America, one might expect little difference between children in simple couple-headed as opposed to single-parent households when the parents never formally married. Although the Astone and McLanahan work could not address the issue of complex family living, we further reason that

complex family living could be deleterious for the children if such living were accompanied by less emphasis on personal achievement gained from advanced study and more emphasis on the common good (sometimes gained through working at the expense of schooling).

THE STUDY

The hypothesized relation between children's living arrangements and school attendance is tested empirically with a multivariate logit model discussed below for 10 Latin American countries. Age 13-16 was selected because most individuals in this age group are old enough to have finished basic primary school, may be in secondary (mostly middle) school but also are old enough to be at risk of leaving school for the labor force or unpaid family work (see e.g. Drenovsky, 1992). While primary school is considered necessary, even compulsory in most places, secondary school often is not and can compete fiercely with other household needs.

Data¹

The data for children aged 13-16 come from 1980-round census microfiles of 10 Latin American countries--Argentina, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Ecuador, Guatemala, Panama, and Paraguay. Data are nationally representative random samples of children in private households and range from a size of 20,992 for Costa Rica in 1984 to 225,376 for Colombia in 1985. See Table 1.

Household-related population information were added to cleaned files by the *Changing Household in Latin America* project in two important respects that enabled me to examine living arrangements. First, standard household composition variables, explained more below, were added. Second, marital status was checked and amended so that individuals reported to be married or in a

¹ The author is pleased to acknowledge that the data come from *The Changing Household in Latin America* project of the University of Wisconsin-Madison housed in the data library of its Center for Demography and Ecology.

consensual union who were listed as living without a spouse or mate were accorded separate categories of “married spouse absent” or “in consensual union but mate absent.” Likewise, children who lived with such a parent could have different living arrangements as well (e.g. be in a single-parent household instead of a simple couple-headed one).²

It should be noted that there is no standard definition of what constitutes a household. Usually there is some criterion such as eating together, sharing a common entrance, or using a common budget but different censuses use different criteria. Also, “household” helps constitute a living arrangement, but is not the same as a “family.” Indeed, family members living next door to each other and having daily interaction will still be considered as living in different households. Finally, just as there is no standard definition of a “household,” there is no standard definition of its head. Most censuses just report as head whoever is considered the head by respondents. This is usually an older male but can be someone else.

Model and Method

Model

Since a bivariate relationship between school attendance and living arrangements among children 13-16 could potentially be influenced by a number of factors that could make inferred causality spurious or inflated, we need to estimate the relationship in a multivariate context in which a number of factors are controlled. These controls include characteristics of the children themselves, characteristics of the households in which they live, and characteristics of the household head.

Two individual characteristics are age and urban/rural residence. The likelihood of school attendance decreases markedly with age because the older one is, the less likely it is that a family considers ever more schooling necessary and the more important earning income might become. Age

² An important feature of the data is that the child is not linked directly to a mother or father. Rather, a child can only be linked to the head of the household.

is also related to type of living arrangement as older children are more likely to live in households headed by a formerly-married person as parents may die or separate. Urban/rural residence is important because it is often difficult for rural children to travel to middle and/or high schools, when they are even available. Also, basic education may be sufficient for many rural residents who would not find advanced education additionally useful.

Of the household-level characteristics that might be crucial to control, the number of children in a household and a housing quality scale could well be the most important. It is well known that the welfare of individual children may decline as the total number of children in a household increases (e.g., Desai, 1995). There are just more children to share the finite resources of a household that could be spent on factors such as education or might otherwise require parental attention. Some children may be expected to stop schooling in order to help maintain the rest of the household through working or babysitting. Secondly, we are interested in whether living arrangements have an effect on school attendance net of socioeconomic (or poverty) status. That situation is reflected in part through the type of housing one has. Since income is not a commonly-available indicator in censuses, the nature of our data force us to use a housing quality scale and the head's education.

Characteristics related to the household head (anyone reported as such to the census) that should be controlled include the head's age, economic activity and education. The head's age can help indicate such factors as the likelihood of being in a certain type of living arrangement, the likelihood of having saved some assets, the likelihood of having attained a level of economic well-being or a likelihood of needing children for childcare or to work outside the home. The head's economic activity can influence a living arrangements-enrollment relationship because children in households in which the head is unemployed are more likely to quit school for the labor force both to help out and because it requires household resources to stay in school. The head's education helps predict the household's economic well-being and its ability to support a non-working child. Higher education generally leads to a white collar occupation and a higher salary which in turn make it

financially easier for a household to keep the child in school. A head's education may also help indicate expectations of what might be considered a child's "right" or the child's future placement in society, and more generally it can help reflect the whole household's evaluation of education. For instance, educational research in rural Colombia found parental education more important than whether a child had a job in predicting a child's school attendance (Alvarez, 1992).

In statistical parlance, the model is:

$$SA = \beta_1 LA + \beta_2 A + \beta_3 Res + \beta_4 NCh + \beta_5 HQ + \beta_6 HA + \beta_7 HWk + \beta_8 HEd$$

where SA is school attendance (0=no, 1=yes);

LA is living arrangements (1=simple with heads in consensual union; 2=simple with married heads; 3=simple never-married single-parent; 4=simple formerly-married single-parent; 5=complex with never-married head; 6=complex with married heads; 7=complex with formerly-married head);

A is single completed years of age of a child 13-16;

Res is whether the child resides in an urban or rural area;

NCh is the number of children under 15 years of age in the household;

HQ is a housing quality scale (ranging from 0 to 6);

HA is single completed years of household head;

HWk is whether or not the head was gainfully employed;

HEd is the head's education (ranging from 1 to 6);

Method

Since we are positing a multivariate model in which there is an dichotomous dependent variable (yes/no attending school), logit regression is an appropriate statistical technique. As discussed more below, the independent variable living arrangements is a 7-value categorical variable; we estimate its effect in terms of contrasts between categories-turned dummy variables. Assessing the significance of contrasts differing from zero requires that one of the categories be an omitted dummy variable. But that assessment only refers to the estimated contrast; it is not possible to assess the significance of any difference between two included categories. Hence, it is necessary to run the same model, using different omitted and included categories, to derive the significance of different contrasts. The estimated contrasts are the same in each case of course. The SAS statistical software

(version 6.09) is used.

Variables

A noteworthy feature of the study is that we use comparable indicators of all the items listed above except urban/rural residence for ten different countries of Latin America. The project from which these data were available standardized the household composition and marital status variables from which we were able to form our own, comparable, living arrangements variable. The project had also already standardized country-specific education information and the housing information, and had counted the number of children in each household. We were additionally able to use information on school enrollment or attendance and economic activity to construct equivalent two-category variables everywhere.

School Enrollment

School enrollment is a simple dichotomous yes/no variable, sometimes collapsed from more detail such as whether the school was public or private. As previously mentioned, there was a wide range in attendance, from a proportion of only 46 percent in Guatemala 1981 to a high of 83 percent in Chile in 1982 (see Table 1). The median was about 70 percent in Argentina 1981.

Living Arrangements

Our measure of living arrangements combines information on household composition in a strict sense (e.g. whether simple couple-headed, simple single-parent or complex) with information on the head's marital status and the child's relation to the household head. The result is a seven-category variable: (1) simple couple-headed households with married heads, (2) simple couple-headed with heads in a consensual union, (3) single-parent households with formerly-married heads, (4) single-parent households with a never-married head, (5) complex household headed by a "single" or never formally-married person, (6) complex household headed by married parents, and (7) complex

household headed by a formerly-married person or by a married couple who are not the child's parents. This coding results from the ideas that a mother's marital status makes a difference for her children's welfare and that the situation of children in complex family households also differ according to their family status. Special mention should be made of the distinction between the married heads's own children and other children in complex family households. Since we want to compare children whose parents are married, it was advisable to make this distinction as some children in complex households headed by married people were not those people's children.

Age and Number of Children

The age of the child, the age of the household head, and number of children in the household were measured in terms of single digits. Age was in terms of last completed year.

Work Status

Whether or not working for pay is a dichotomous variable of yes or no usually derived from information on the major economic activity the week before. People could usually be enumerated as working, looking for work, being retired, having studies or taking care of the house. Individuals who reported having a job were considered working for pay.

Education

Every country has its own educational system, and sometimes a different one at different times. As a consequence, one of the activities performed by the *Changing Household in Latin America* project was to transform divergent information on grade and level completed into a standardized six-category education variable: 1) no schooling or illiterate; 2) literate but less than a primary school diploma; 3) grammar school graduate; 4) middle school or some high school; 5) high school graduate; and 6) more.

Residence

Many of the censuses had their own residence variable but some (e.g. Costa Rica, Dominican Republic, Ecuador and Panama) did not. The project then coded an urban/rural variable from geographic information as best as possible.

Housing Quality

Since Latin American censuses typically have poor measures of socioeconomic status, especially for women and children, the *Changing Household in Latin America* project developed a possible standard measure using household information (Arias and De Vos, forthcoming). The scale, ranging from 0 to 6, helps indicate a minimum of hygienic living conditions and comfort from information on sewage, water and electricity. The maximum score means that a dwelling had electricity, indoor piped water from an aqueduct or similar system, and a piped sewerage system (including a septic tank). The minimum score means that a dwelling did not have electricity, had no sewage system, and used water from a public fountain, river, canal, water truck or cistern. Scores in between the minimum and maximum could be obtained from a number of different situations because the scale was a simple summation of the different items. Since the scale is correlated well with education among adults (both men and women), we use it here to help indicate socioeconomic status. In the ten countries here, the average scale value ranged from 4.87 in Chile to 2.32 in Guatemala.

Results

Whether There is a Relation

The first question is whether living arrangements makes any difference for whether a child is in school or not. This was investigated statistically by assessing the additional statistical value of having the living arrangements variable added to a model (that fit statistically everywhere) with all

the control variables. Results for this test are shown in Table 2. If one conducts a strict test, then the number of cases does not matter and the major consideration is the difference in degrees of freedom of adding the variable relative to the difference in unpredicted “variability” or -2LL (Menard, 1995). Applying such criteria, we find living arrangements to have a significant effect on school enrollment in all the countries; but sometimes only barely.

If we demand more than a “difference from zero” type effect and apply the criterion that at least .3 percent of the -2LL left after the control variables additionally gets explained by living arrangements, then only half of the countries have a noticeable net relationship between living arrangements and school attendance. Countries with a noticeable relationship are Argentina, Brazil, Chile, the Dominican Republic and Paraguay. Countries without one are Colombia, Costa Rica, Ecuador, Guatemala and Panama (Table 2). Thus, our suspicions about the lack of a general relationship were confirmed in part.

Why? Should we have been able to predict for which countries there would or would not be an association worth mentioning? The distribution of children by living arrangement is shown in Table 1, and Table 2 has other various country characteristics for around 1980. The proportion of children in single-parent households was about the same everywhere, so the proportion cannot help explain the variation between countries. Nor can the proportion of children living in households headed by married parents. In Costa Rica for instance, 63 percent of the children lived in married-couple headed households but a relationship was not noteworthy whereas in Chile, 67 percent of the children lived in such households and the relationship was noteworthy. Likewise in the Dominican Republic only 35 percent of the children lived in such households but the relationship was noteworthy. Factors like level of enrollment are similarly miserable explanations for why a relationship might or might not be noteworthy. For instance, Ecuador had an enrollment of 71 percent but an not noteworthy relation while Argentina had an enrollment of 70 percent but a noteworthy relation. A general economic indicator like per capita Gross National Product does

equally poorly, since Costa Rica and Panama had per capita GNPs around 1980 of over \$1,000 U.S. but no relationship while Argentina, Brazil and Chile also had per capita GNPs around 1980 over \$1,000 U.S. and a relationship worth mentioning. Likewise, the Dominican Republic and Ecuador had about the same per capita GNPs but the former country had a relationship while the latter did not. Although our model controls for urbanization, it should also be pointed out that countries like Panama and Colombia that have higher levels of urbanization than the Dominican Republic or Paraguay have not noteworthy relationship while countries such as Argentina and Chile have higher levels still and noteworthy relations. Also, factors that could help indicate a country's commitment to general public welfare like the infant mortality rate, seem poor predictors. The country with the lowest infant mortality rate, Costa Rica, had the most negligible relationship between living arrangements and school enrollment.

If there seems to be no easy explanation for why some Latin American countries have an not noteworthy relationship between school enrollment and living arrangements while others have noticeable ones, then one is led to the conclusion that comparative work that would answer a question like this is imperative. However, the comparative work on education in Latin America that I know of does not address the issue of family structure although it does consider the distinctive nature of each country seriously (e.g., Morales-Gomez and Torres, 1992). For instance, since Costa Rica has had the well-deserved reputation of being one of the most welfare-oriented countries in Latin America (with an infant mortality rate of only around 28 in 1980), one might also expect it to at least have a high level of school enrollment if not a relationship between living arrangements and school enrollment. That is not the case however.

In Costa Rica, the education budget has suffered in the face of economic problems. Furthermore, despite observations such as that (Fischel Volio, 1992: 148):

“From the nineteenth century up to the 1950s, the Costa Rican state concentrated on expanding universal primary education. The next two decades witnessed expansion of elementary and secondary education,

the growth of preschool, the diversification....”

there was a relatively low enrollment of children 13-16 years old in 1984, suggesting the persistence of a turn-of-the-century model in which secondary education was definitely elitist and there was no public university. Thus, even when one limits investigation to the urban population, one finds a relatively low level of school enrollment among children past primary school age.

For another example, research in Colombia points to the importance of a child’s household’s economic characteristics, but not to the type of living arrangements *per se*. For instance, (Alvarez, 1992:37):

Despite the proliferation of educational institutions in the country, there is a sector of the population barely represented in the educational system. It includes children and adolescents from the poorest families whose income, access to public services, and social participation are extremely limited. Some estimates show that close to 20% of the population lives in critical poverty. ...

Other themes include quality, curriculum relevance, and a country’s general economic well-being. Could it be that compared to such issues, living arrangements just do not seem important? That would seem in accord with our statistical finding for some of the countries, but living arrangements do seem important in others, in half of the Latin American countries viewed initially. Just because they are important though, does not mean that they are important in the same way. That is the topic to which we now turn.

When There is a Relationship

The first part of our working hypothesis was that:

children in simple households headed by a married couple are more likely to attend school than children in any other living arrangement, including children living in complex households headed by their married parents, who are in turn more likely to be in school than other children.

In part, this can be translated into expecting all the contrasts in the first panel of Table 3 to be

negative and significant. In most cases they are except for the idea that there is a statistically significant difference between children in simple or complex (extended) households headed by married parents.

In only two countries, Argentina and Chile, is there a difference in likelihood of school attendance between children in households headed by married parents, by whether or not the household is simple or complex. In most cases the important factor would seem to be that the child's parents are currently married and that they head the household. However, children in other types of living arrangements seem generally to have a lower likelihood of school attendance.

We should note exceptions however. The most glaring are in Paraguay. There, what seems important is whether the child lives in certain types of complex family households not headed by married parents, not whether parents are formally married or not, and not whether the children live in single-parent or simple couple-headed households. We should also note that in the Dominican Republic, there is no apparent difference in the likelihood of school attendance if the child lives in households headed by married parents or in a single-parent household headed by a formerly married parent.

The idea that children in complex family households headed by married parents were more likely to attend school than were children in other living arrangements except the simple-married couple kind was not supported by the data. This can be seen in the second panel of Table 3 where one would expect the contrasts in all the columns to be negative. One noteworthy observation is that there appears to be little difference in likelihood of attendance between children living in complex households headed by married parents and children living in single-parent households. Why this would be the case is difficult to explain. However, there do seem to be important differences in likelihood of attendance between children in complex households headed by married parents and children in simple couple-headed households headed by consensually married parents, children in complex family households headed by a single person, and children in complex family households

headed by a formerly-married person (or a married couple who are not the child's parents). But just as Argentina is the only country whose results were entirely consistent with the first part of the working hypothesis, so too are the results for each of the other countries not entirely consistent with this revision.

The second part of our working hypothesis is that:

children in households headed by formerly-married people (or in some cases a currently-married couple who are not the child's parents) are more likely to be in school than children in households headed by a never-married person; but there is no difference between living in complex vs. single-parent households.

The idea is that even if someone is no longer married, the fact that she or he at one time was married suggests that there may have been more concern for and expectations regarding a resulting child's welfare than might be the case if the parents never formally married. This observation might be particularly appropriate for children in single-parent households headed by a formerly-married parent since we are told that people who followed social norms by getting married may not be a policy concern because society has developed traditional ways to support them (e.g. Buvinic, 1991). As a result, formerly-married parents who need to may join an extended family household leaving those while others, who may be relatively well off, maintain households on their own. Presumably, being relatively well off could include having potentially-realistic expectations regarding children's education. Complex households might be different because adults in such households may place more attention on their daily survival and the common good rather than on expectations regarding a child's future, but we only know the marital status of the head, not of the parent--the children may be more similar to those in households with never-married heads; we have to see.

Translating initial expectations into the contrasts shown in the first panel of Table 4, we should observe negative contrasts with three types of households headed by never-married people, and insignificant contrasts with complex households headed by a formerly-married person. What we find is quite different. A bit different from expectations is that only three of five countries showed

significant negative contrasts in the likelihood of school attendance among children in single-parent formerly-married headed households compared to children in simple “unmarried” couple-headed households (Panel A of Table 4). While the contrast is insignificant in both Argentina and Paraguay, one can conjecture that the contrast is insignificant for different reasons. But the insignificance does raise the issue of how we are to think of parents’ marital status.

Totally different from expectations is that there seemed to be no significant difference in likelihood of school attendance between children in single-parent households headed by a “single” parent instead of by a formerly-married one (Panel A of Table 4). Are children in single-parent households generally better off than children in households headed by parents in a consensual union or in a complex household headed by a “single” person? Can mothers put more focus on children, expect more or supervise more, when there are not others to compete for attention?

Another finding, different from expectations, is that there was a significantly smaller likelihood of being in school if a child lived in a complex household headed by a formerly-married person rather than in a single-parent household headed by a formerly-married parent in four of the five countries (Panel A of Table 4). We had no reason to expect a difference unless there was an inherent disadvantage to children of living in a complex household. This suspicion was reinforced by finding that children in complex households headed by a never-married (formally) person were less (not as) likely to be in school than were children in single-parent households headed by a formerly-married parent. That is, if current and/or future welfare is associated with school enrollment, it would appear that children in single-parent households were better off than children in complex households if the households were not headed by their married parents.

We can examine such speculation further with the figures in the second panel of Table 4 that are contrasts between living in a complex household headed by a formerly-married person and other living arrangements. The figures do not disclose a simple relationship that holds in all five Latin American countries but the figures can nonetheless provide us with some important information.

Children who lived in complex households headed by a formerly-married person were more likely to be in school than children living in complex households headed by a “never-married” (formally) person in three of the five countries. Thus, children in single-parent households headed by a formerly-married parent were more likely to be in school than children in complex households headed by a formerly-married person who in some countries were also more likely to be in school than children in complex households headed by a “single” person.

Also important to note from the figures in the second panel of Table 4 is the mixed findings regarding children in complex households with formerly-married heads vs. children in simple couple-headed households with heads who are consensually “married,” and the basically insignificant difference in likelihood between the former children and children in simple single-parent households headed by a “never-married” (formally) parent. Such findings again point to the puzzling quality of marital status in Latin America and the puzzling nature of complex household living.

The final part of our working hypothesis was that:

children in simple couple-headed households headed by parents who never married formally are no more likely to be in school than children in single-parent households headed by a never-married parent, but these children are more likely to be in school than counterparts in complex households headed by never formally married people.

If this were true, one would expect no contrast in the first column of Table 5's Panel A to be significant but the contrasts in the second column to all be significantly negative. This is not what we find. Rather, most contrasts are insignificant, suggesting little difference in likelihood irrespective of which living arrangement a child had. Only in the Dominican Republic did findings accord with our expectations, and the Paraguay findings once again emphasized the favorable standing of children in a simple couple-headed household in which parents were consensually “married.” In Argentina, Brazil and Chile, nothing seemed to matter.

CONCLUSION AND DISCUSSION

Even as sociologists in the United States make compelling connections between children's living arrangements and school attendance, one has to be skeptical that the relationship applies elsewhere, such as in Latin America. We examined a possible connection among children past primary school age, ages 13 through 16, in ten Latin American countries in the early 1980s, and found only five of them to have a noteworthy relationship. One cannot a priori assume that a certain type of living arrangement is associated (statistically) with items such as aspirations and/or expectations related to post-primary education.

If five Latin American countries were found not to have a noteworthy relationship between school enrollment and living arrangements, five were found to have a noteworthy one. But when this was examined with a multivariate model that controlled for such factors as age, urban/rural residence, number of children in the household, housing quality, the head's education, the head's age and the head's economic activity, one had to be struck by the diversity of results; no two countries had the same results. A major reason may have been the idiosyncratic meaning of marital status.

Of all the possible contrasts in likelihood of school attendance, the ones between living in a simple family household headed by one's married parents vs. living in a complex family household headed by someone other than a married parent (either formerly-married or never-married (formally)) were the clearest. These contrasts are important because they involve between two-thirds and three-fourths of the children. The contrast between living in a simple (nuclear) or complex (extended) household headed by married parents was also significant in some countries (children in the complex households having a somewhat lower likelihood) but often the household type did not seem to matter.

An intriguing and unexpected finding was that there was no difference in likelihood of school attendance by whether a child lived in a single-parent household headed by a never-married (formally) or formerly-married parent. That situation affects roughly 8-10 percent of the children.

In general, living in a simple consensually united couple headed household had a negative

effect on a child's likelihood of attending school compared to living in households headed by married parents or living in households headed by a formerly-married person. We could be seeing the possible result of a stepparent's disregard for the children of a former union, among other factors. We must note however, that in Paraguay such children tended to do fairly well. Such living arrangements were not common there as only 7 percent of all children tended to be in that situation. But the potentially idiosyncratic nature of consensual union in Paraguay cannot go without mention.

Families and households are the arena in which people continually juggle their every day needs, kinship responsibilities and hopes for the future. They are the first level of aggregation beyond the individual, the first social level. And the major determiners are adults, not children, yet as we see, implications can be for children rather than adults. One conclusion of the present study might be that growing up in a simple (nuclear) single-parent household is not all that disadvantageous relative to many other scenarios although it often is even better to live in a household headed by currently-married parents. A second conclusion might be that there is no advantage for school attendance of living in a complex (extended) family setting instead of a simple one. A third conclusion is that in most places (Paraguay excepted) children 13-16 years old with married parents are more likely to be in school than children whose parents never formally married.

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Table 1. Percentile Distribution of Children 13-16 Years of Age by Household Type and Proportion Attending School, and Sample Sizes

	Percent Distribution of Households										Mean School Attend	Sample size
	2-headed simple			Single parent			Complex					
	Tot	CU	Mar	Tot	Sing	FM	Tot	NM	Mar- Own	FM+		
Argentina 1981	54	5	49	10	2	8	36	8	16	12	.70	35,330
Brazil 1980	63	5	58	9	1	8	27	4	14	10	.60	79,976
Chile 1982	47	2	45	10	1	8	43	5	22	16	.83	48,178
Colombia 1985	43	9	34	9	2	8	48	12	18	18	.67	225,376
Costa Rica 1984	57	7	49	11	3	8	33	8	14	10	.50	20,992
Dom. Rep. 1981	41	20	21	9	3	7	49	18	14	17	.76	48,741
Ecuador 1982	40	8	32	8	1	7	51	15	22	15	.71	62,784
Guatemala 1981	54	22	32	8	1	7	38	15	12	11	.46	26,095
Panama 1980	43	21	22	12	3	9	45	19	11	15	.73	32,353
Paraguay 1982	50	7	43	8	3	5	42	9	19	14	.58	25,586

Table 2. -2 Log L With and Without Living Arrangements and Selected Socioeconomic Indicators for 10 Latin American Countries circa 1980

	Without	With	Diff		%	GNPpc	IMR	%Urb
			No.	%	Enrolled			
Argentina	36061	35799	262	.7	.70	1910	45	80
Brazil	92269	92027	242	.3	.60	1570	109	61
Chile	37235	37018	217	.6	.83	1410	40	80
Colombia	266286	266011	275	.1	.67	870	77	60
Costa Rica	24787	24760	27	.1	.50	1180	28	41
Dom. Rep.	44918	44696	222	.5	.76	910	96	49
Ecuador	71489	71400	89	.1	.71	910	70	43
Guatemala	32602	32569	33	.1	.46	910	76	36
Panama	29914	29841	73	.2	.73	1290	47	51
Paraguay	31114	30946	168	.5	.58	850	64	40

Sources: Latin American census microfiles for the 1980 round and 1980 World Population Data Sheet of the Population Reference Bureau

Table 3. Conditional Logit Contrasts Between Living in Households Headed by Married Parents and Other Living Arrangements on Whether or Not Attending School Among Children 13-16 (controlling for other factors)

(A)						
Simple Mar-Cpl Hd Hshld (0)						
vs. Other Arrangements (1)						
	Cpl-Hd CU	Sng-Par NM FM		NM	Complex M-Own FM+	
Argentina 1981	-.34*	-.44*	-.29*	-.52*	-.12*	-.59*
Brazil 1980	-.45*	-.24	-.16*	-.38*	-.04	-.21*
Chile 1982	-.55*	-.44*	-.16*	-.62*	-.30*	-.41*
Dom. Rep. 1981	-.36*	-.21*	-.03	-.47*	-.11	-.21*
Paraguay 1982	.10	-.20	-.11	-.41	.01	-.45*

(B)						
Complex Mar-Cpl Parent Hd Hshld (0)						
vs. Other Arrangements (1)						
	Cpl-Hd CU	Sng-Par NM FM		NM	Complex FM+	
Argentina 1981	-.22*	-.32*	-.16*	-.40*		-.46*
Brazil 1980	-.42*	-.21	-.13*	-.35*		-.18*
Chile 1982	-.25*	-.12	-.14	-.32*		-.11
Dom. Rep. 1981	-.26*	-.11	.08	-.37*		-.10
Paraguay 1982	.08	-.21	-.12	-.42*		-.47*

Coefficients come from the logistic model $ATTEND (yes/no=1/0) = LIVING\ ARRANGEMENT + CHILD'S\ AGE + HEAD'S\ AGE + HEAD'S\ EDUCATION + HEAD'S\ WORK\ STATUS (works/doesn't\ work) + URBAN/RURAL\ RESIDENCE + NUMBER\ OF\ CHILDREN\ IN\ THE\ HOUSEHOLD + HOUSING\ QUALITY\ SCALE$. See discussion in text.

* Is significant at $p < .005$

Table 4. Conditional Logit Contrasts Between Living in a Household Headed by a Formerly-Married Person and other Living Arrangements on Whether or Not Attending School Among Children 13-16 (controlling for other factors)

(A)
Single-Parent FM Hhld (0)
vs. Other (1)

	Cpl-Hdd	Sng-Par		Complex		
	CU	Mar	NM	NM	M-Own	FM+
Argentina 1981	-.06	.29*	-.15	-.23*	.16*	-.30*
Brazil 1980	-.29*	.16*	-.08	-.22*	.13*	-.05
Chile 1982	-.39*	.16*	-.26	-.46*	-.14	-.26*
Dom. Rep. 1981	-.33*	.03	-.19	-.44*	-.08	-.18*
Paraguay 1982	.21	.11	-.09	-.30*	.12	-.35*

(B)
Complex Hshld With FM+ Head (0)
vs. Other (1)

	Cpl-Hdd	Sng-Par		Complex	
	CU	Mar	NM	NM	M-Own
Argentina 1981	.24*	.59*	.14	.06	.46*
Brazil 1980	-.24*	.21*	-.03	-.17*	.18*
Chile 1982	-.14	.41*	-.01	-.21*	.11
Dom. Rep. 1981	-.16*	.21*	-.01	-.26*	.10
Paraguay 1982	.55*	.45*	.26*	.05	.47*

Coefficients come from the logistic model $ATTEND (yes/no=1/0) = LIVING\ ARRANGEMENT + CHILD'S\ AGE + HEAD'S\ AGE + HEAD'S\ EDUCATION + HEAD'S\ WORK\ STATUS (works/doesn't\ work) + URBAN/RURAL\ RESIDENCE + NUMBER\ OF\ CHILDREN\ IN\ THE\ HOUSEHOLD + HOUSING\ QUALITY\ SCALE$. See discussion in text.

* Is significant at $p < .005$

Table 5. Conditional Logit Contrasts for Likelihood of Attending School Among Children 13-16 by Type of Households Headed by Never-Married (or Consensual-Married) Individuals

(A)		
Simple Consensually Married Headed Hshlds (0) vs. Others (1)		
	NM Sng-Par	Complex with NM Head
Argentina 1981	-.10	-.18
Brazil 1980	.21	.07
Chile 1982	.13	-.10
Dom. Rep. 1981	.14	-.11*
Paraguay 1982	-.30*	-.51*

(B)	
Single Parent Never Married Headed Hshlds (0) vs. Never Married Head of Complex Hshld (1)	
Argentina 1981	-.08
Brazil 1980	-.14
Chile 1982	-.21
Dom. Rep. 1981	-.25*
Paraguay 1982	-.21

Coefficients come from the logistic model ATTEND (yes/no=1/0) = LIVING ARRANGEMENT + CHILD'S AGE + HEAD'S AGE + HEAD'S EDUCATION + HEAD'S WORK STATUS (works/doesn't work) + URBAN/RURAL RESIDENCE + NUMBER OF CHILDREN IN THE HOUSEHOLD + HOUSING QUALITY SCALE. See discussion in text.

* significant at $p < .005$.

Center for Demography and Ecology
University of Wisconsin
1180 Observatory Drive Rm. 4412
Madison, WI 53706-1393
U.S.A.
608/262-2182
FAX 608/262-8400
email: devos@ssc.wisc.edu