

# Living arrangements of cohabiting couples and single mothers in Latin America

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## **Abstract**

The dramatic shift from marriage to cohabitation during the last four decades in most Latin American countries begs the question as to the living arrangements of cohabiting couples and single mothers. The new “Family Interrelationship Variables” in the IPUMS samples of Latin American censuses facilitated the construction of an enlarged LIPRO typology. LIPRO classifies individuals with respect to the type of household in which they are living.

The results indicate that cohabiting women and single mothers of ages 25 to 29 are frequently found in parental households or in other extended or composite households. However there are large variations according to country and education. For instance, cohabitation is mainly in nuclear households, as in Europe, in Puerto Rico, Costa Rica, Brazil, and Argentina. It is mainly in extended households in Peru, Colombia, Bolivia, Ecuador, Panama, Venezuela and Cuba. Mexico and Chile occupy intermediate positions. In all instances coresidence of cohabiting couples with other kin drops significantly upon the transition to parenthood, and then there are no differences between cohabiting and married couples anymore. Single mothers, however, continue to coreside in extended or composite households, and this holds particularly for the better educated among them.

This analysis illustrates that cohabitation of the traditional type and of the “Second Demographic Transition” type are found alongside each other, with one being more important than the other depending on country and education or social class within each country.

## 1. Introduction

The aim of the article is to trace the shifts in household formation patterns of younger women in a number of Latin American countries since the late 1960s, using the data of the census rounds of 1970 through 2007. Not only has there been a major increase in cohabitation as a form of union formation (e.g. Esteve, Lesthaeghe and López-Gay, 2012), but there has also been a rise in the proportions of young single mothers (e.g. Castro-Martin and Puga, 2008; Castro-Martin et al.; 2011). The question has also been raised (Esteve et al, 2012: 76) to what extent these features are occurring in a context of neolocal residence and nuclear families, which would be consistent with the notion of a “Second Demographic Transition” (Lesthaeghe, 2010), or continue to be located in three-generation families or other forms of extended households. Depending on these outcomes, the meaning of cohabitation and the degree of precariousness of “lone” motherhood could be quite different. As a result, a closer inspection of the evolution of household structures since the 1960s has become necessary.

Our data are census samples contained in the International Integrated Public Use Microdata Series (IPUMS) that were collected and harmonized by the team at the University of Minnesota Population Center (2009, 2011, Ruggles et al., 2009). More specifically, we use the “Family Interrelationship Variables” of IPUMS (Sobek and Kennedy, 2009) to construct a new typology for classifying individuals in a variety of household situations. This classification was inspired by the original European LIPRO version developed by Evert van Imhoff to project (-PRO) individual living (LI-) arrangements (van Imhoff and Keilman, 1991; van Imhoff, 1995). The LIPRO typology has not only been used for multistate projections of household positions of individuals in the Netherlands, Belgium and the UK (van Imhoff, 1995; Surkyn, 1999, Department for Communities and Local Government, 2009), but even more extensively for studying actual trends in national or regional, socio-economic and immigrant subpopulations (Deboosere, 1992; Deboosere et al., 1997, 2009). The original European version has only a limited number of categories for two reasons. Firstly, there are few extended and composite households in western and northern Europe, and secondly, a manageable projection engine requires a more modest typology. Since neither of these conditions

applies to the current analysis of Latin American data, the adapted version used here is entirely new and considerably less constrained.

The LIPRO-style typology has *individuals* as units of analysis, not entire households. It is not a classic typology of households or kinship groups. By contrast, it is very well suited for following individuals through the various stages of the life course. In this article, we shall focus on the shifting situation of young women over time by recording their positions in various living arrangements as measured in successive censuses. This is not a complete cohort analysis or a panel study that follows the same generation for a long time. Rather, by focusing on women 25-29 at several census dates through much of the analysis, we shall obtain a clear picture of the household situation of up to 4 successive generations as they pass through this crucial phase of their lives. Obviously, the LIPRO-type data constructed here lend themselves for a variety of studies (e.g. related to teenagers, home leaving, developments at older ages, etc.), but we have to limit ourselves to a selected few in the present contribution. Since such further topics can be addressed by others, we have made the LIPRO master sheets available on line.<sup>i</sup>

The article is organized as follows. First we explain the construction of the newly extended LIPRO-typology. Then we give an illustration for one of the 13 Latin American countries in our dataset so that the reader will have an idea of the potential of the full LIPRO-classification for more detailed analyses. This is followed by an overview of the basic trends in three educational groups in 11 countries. We then proceed with specific topics such as the incidence of living with parents or in extended and composite families, and with a further exploration of the living arrangements of single mothers. Finally, we think that the data also shed light on the reason for the “robustness” of the Latin American family to the economic crises of the 1980s and early 1990s (Fussell and Palloni, 2004), and also on the more distinct pattern of Latin American cohabitation when compared to the European one (cf. Esteve et al., 2012: 76).

## **2. The construction of a Latin American LIPRO-typology**

The basis for the Latin American LIPRO-typology is the IPUMS standardization of the family relationship codes and the construction of position *pointer variables* for all individuals in a household (Sobek and Kennedy, 2009). Latin American censuses

commonly follow the classic procedure of identifying a head of a household (self reference or the economically most important person) and of relating each household member to the head via a kinship or relationship code (e.g. spouse, child, grandchild, sibling, son/daughter in law, unrelated person, etc.). More often than not, the Latin American censuses also have a separate category for cohabiting partners within the marital status variable, so that cohabiting couples can be separated from the married ones. Other classic variables that are needed are the household size, gender of members, ages, and number of children (either ever-born or resident). On the basis of this information, Sobek and Kennedy constructed the following pointer variables for each member:

1. SPLOC (spouse location): points to the person number of the spouse.
2. POPLOC (father location): points to the person number of the father
3. MOMLOC (mother location): points to the person number of the mother.

If these are not present, codes equal to zero are being assigned. The example given in Table 1, adapted from Sobek and Kennedy (2009, table 2), illustrates the set up.

TABLE 1: Example of census household data and of the creation of three additional IPUM pointers.

Person Number	Relation-ship	age	sex	Children ever born	Marital Status	Sploc	Poploc	Momloc
1	Head	73	M	na	Married	2	0	0
2	Spouse	62	F	6	Married	1	0	0
3	Child	38	M	na	Cohab.	4	1	2
4	Other	30	F	1	Cohab.	3	0	0
5	Grandchild	6	F	0	Single	0	3	4
6	Sibling	69	M	na	Widowed	0	0	0
7	Servant	16	F	0	Single	0	0	0

The primary interest of a LIPRO-type classification is not so much the exact kinship relationship, but the allocation of a type of household position to individuals. As such, the notion of a head of a household is no longer used. The head person in Table 2 becomes simply a married man of 73 in a composite household. The household is composite, because there is a servant (non-kin) present. Without the servant, the married man of 73 would be living in an extended household. Person number 4 is the cohabiting partner of the son of the old man, mother of his grandchild, and also living in the same composite household. And person number 6 is the widowed brother of the old man in position number 1.

The set of rules used in setting up our new Latin American LIPRO typology are specified in the Appendix Table A1. We start with the SPLOC distinction of having a spouse/partner versus not having one, and continue in the former case with the distinction of this person being a partner in a consensual union versus a married spouse (IPUMS-variable CONSENS). This yields already the major three way classification of persons in group A who are not in a union, group B in a cohabiting union, and group C in a marital union. From there onward further and analogous distinctions are made within each of these three major categories. Firstly, the presence of a child is flagged (IPUMS-variable NCHILD), which leads to the distinction of parents versus non-parents. Secondly, we indicate whether his/her parent(s) are present (POPLOC or MOMLOC), so that we can identify persons that are still living with parents. Thirdly, the presence of relatives other than parents is indicated, which means living in an extended household. The mere presence of another non-relative changes the label into a composite household. Hence, composite households can include extended ones. The

household described in Table 1 is an example thereof. Finally, persons that were classified by the original census as living in group quarters are kept in a separate category (group D). This group may not only contain persons in collective households such as convents or army barracks, but, as we discovered following further inspection, also persons in multi-family compounds.

As there are cases with missing pieces of information, we have tried to classify persons as far as possible with the information at hand. Hence the residual class of persons with incomplete information is also being split up into subclasses revealing as much of this partial information as possible. When this category becomes too large and exceeds several percentage points, we refrain from making inferences about trends since shifts in unclassified categories can be responsible for much of the presumed trend. Also for this reason we had to drop the data for the 1970s round of censuses in Mexico and Brazil.

As indicated below, we have also tried to make the labels as clear as possible. Parenthood is flagged by the dichotomy zero children or “0” versus presence of children or “+”. Presence of own parents is indicated by `_PAR`, further extensions with relatives by `_EXT`, and further presence of at least one non-relative always yields `_COMP` for composite, irrespective of whether the household was already extended or not.

The full Latin American LIPRO-style typology is now being presented in Table 2. The complete typology contains a total of 36 categories, and the Excel sheets also provide the totals for the four main classes, i.e. not in a union, cohabiting, married, and “others”.<sup>ii</sup>

TABLE 2: Categories in the Latin-American extended version of LIPRO

A. **Not in a union (NiU)**

- A1. no children, living alone (LIVALONE)
- A2. no children, no parent(s) but other relatives (NOTUNION\_EXT)
- A3. no children, no parent(s), but at least 1 non-relative (NOTUNION\_COMP)
- A4. no children, parent(s) (NOTUNION\_PAR)
- A5. no children, parent(s), and other relative(s) (NOTUNION\_PAR\_EXT)
- A6. no children, parent(s), and at least one non-relative (NOTUNION\_PAR\_COMP)
- A7. child(ren) => hence single parent (SINGPAR)

- A8. child(ren), no parent(s), but other relative(s) (SINGPAR\_EXT)
- A9. child(ren), no parent(s), and non-relative(s) (SINGPAR\_COMP)
- A10. child(ren), parent(s), and eventually also other relative(s) (SINGPAR\_PAR\_EXT)
- A11. children, parent(s), and at least one non-relative(s) (SINGPAR\_PAR\_COMP)
- A12. no further information (NOTUNION\_UNCLASS)

**B. Cohabiting (Coh)**

- B1. no children (COH0)
- B2. no children, no parent(s) but other relative(s) (COH0\_EXT)
- B3. no children, no parent(s), but at least 1 non-relative (COH0\_COMP)
- B4. no children, parent(s) and eventually other relatives ( COH0\_PAR\_EXT)
- B5. no children, parent(s) and at least 1 non-relative (COH0\_PAR\_COMP)
- B6. child(ren) (COH+)
- B7. child(ren), no parent(s) but other relative(s) (COH+\_EXT)
- B8. child(ren), no parents but at least 1 non-relative (COH+\_COMP)
- B9. child(ren), parent(s), and eventually also other relative(s) (COH+\_PAR\_EXT)
- B10. child(ren), parent(s), and at least 1 non-relative (COH+\_PAR\_COMP)
- B.11 no further information (COH\_UNCLASS)

**C. Married (Mar)**

- C1. no children (MAR0)
- C2. no children, no parents but other relative(s) (MAR0\_EXT)
- C3. no children, no parents, at least 1 non-relative (MAR0\_COMP)
- C4. no children, parent(s), and eventually other relative(s) (MAR0\_PAR\_EXT)
- C5. no children, parent(s), and at least 1 non-relative (MAR0\_PAR\_COMP)
- C6. child(ren) (MAR+)
- C7. child(ren), no parent(s) but other relative(s) (MAR+\_EXT)
- C8. child(ren), no parent(s) and at least 1 non-relative (MAR+\_COMP)
- C9. child(ren), parent(s), and eventually other relative(s) (MAR+\_PAR\_EXT)
- C10. child(ren), parent(s), and at least 1 non-relative (MAR+\_PAR\_COMP)
- C11. no further information (MAR\_UNCLASS)

**D. Other**

- D1 in a union, no further information (INUNION\_UNCLASS)
- D2. In group quarters (GROUPQ)

### 3. Data organization.

The IPUMS data at our disposal are for 13 Latin American countries, but for varying census dates. In addition some censuses were not used here since the D-category with “others” was too large (commonly above 4 percent) to infer robust trend estimates. In the end we are analyzing 4 census rounds for 6 countries (Argentina, Chile, Colombia, Ecuador, Panama and Venezuela), 3 census rounds for 3 countries (Brazil, Costa Rica and Puerto Rico), 2 census rounds for another 2 countries (Mexico and Peru), and only 1 recent census for a last set of 2 countries (Bolivia and Cuba). We have grouped the exact census date by round, i.e. the 1970s, 1980s, 1990s and 2000s. The exact census dates are given below in Table 3.

TABLE 3: Available information and exact census dates for 13 Latin American countries.

	1970s	1980s	1990s	2000s
Argentina	1970	1980	1991	2001
Chile	1970	1982	1992	2002
Colombia	1973	1985	1993	2005
Ecuador	1974	1982	1990	2001
Panama	1970	1980	1990	2000
Venezuela	1971	1981	1990	2001
Brazil	-	1980	1991	2000
Costa Rica	1973	1984	-	2000
Puerto Rico	1970	1980	1990	-
Mexico	-	-	1990	2000
Peru	-	-	1993	2007
Bolivia	-	-	-	2001
Cuba	-	-	-	2002

Note: the distinction between married and cohabiting is missing for Bolivia 1976 and 1992, and for Puerto Rico 2000. In Brazil 1970 and Mexico 1970, the proportions in the unclassifiable category were too large. For the remaining missing dates there was either no census round or no data were available in the IPUMS data set.

The Excel master sheets are interactive and contain the results for 4 age groups of women, starting with 15-19 and ending with 30-34. This permits to study the most important phases of household formation. In addition, the data also come for 4 educational categories, i.e. less than primary, full primary, completed secondary, and completed tertiary/university. A full example of the Excel data sheets is given in the



Appendix for Colombia 2005, women 25-29 (Table A2). Since the sheets are interactive, the user can condense and regroup any categories according to personal needs.

The use of the Latin American extended LIPRO typology will now be illustrated by, firstly, analyzing the size of the shift away from marriage into longer living outside a union and into unmarried cohabitation; secondly, by measuring the prevalence of living in extended or composite households; and thirdly by focusing on the group of single mothers and their domestic living arrangements.

#### **4. The shift away from marriage: longer single or more cohabitation?**

The rise of cohabitation and the concomitant shift away from marriage has already been documented and commented upon by several authors (e.g. Quilodran, 1999; Castro-Martin, 2002; Garcia and Rojas, 2004; Rodriguez-Vignoli, 2005; Castro-Martin and Puga, 2008; Covre-Sussai en Matthijs, 2010; Diaz, 2011; Esteve, Lesthaeghe and Lopez-Gay, 2012). The LIPRO typology proposed here permits to shed further light on these changes as they unfolded since the 1960s.

In this section we are restricting the analysis to the three main categories, i.e. not in a union, cohabiting, and married, and follow over time to what extent the decline in percentages married among young women is due to their remaining single for a longer time or, instead, whether this is compensated by rising proportions cohabiting. From the Excel master table two shorter tables were extracted listing the three main categories (totaling 100%) for each country and census, and respectively for women 20-24 and 25-29. These tables are reproduced in the Appendix as Tables A 3a and A 3b. From these data we calculated the reduction of the percentages married in each country, and the respective shares of this overall percentage points drop going to currently remaining single (more accurately: not in union) and moving into cohabitation. The period of observation for these reductions in percentages currently married corresponds with roughly the twenty years between the censuses of the 1980s round and of the 2000s round. The results are reported in Table 4.

TABLE 4: Declines in percentages currently married and shares thereof due to remaining single versus moving into cohabitation, observed over a 20 year period from 1980s to 2000s census rounds, women 20-24 and 25-29 (\*).

	Age group	%-points decline in currently married, 1980s – 2000s	Share to not in union (%)	Share to cohabitation (%)
Chile	20-24	-16.7	48.7	51.2
	25-29	-16.9	46.0	54.0
Argentina	20-24	-22.2	44.2	55.8
	25-29	-24.6	40.0	60.0
Colombia	20-24	-15.7	9.2	90.8
	25-29	-21.5	21.9	78.1
Ecuador	20-24	-8.1	36.5	63.5
	25-29	-9.6	60.5	39.5
Venezuela	20-24	-13.3	31.3	68.8
	25-29	-14.2	32.0	68.0
Panama	20-24	-7.5	3.1	96.8
	25-29	-6.7	25.5	74.5
Costa Rica	20-24	-11.2	26.4	73.6
	25-29	-9.6	12.8	87.2
Brazil	20-24	-20.2	26.1	73.8
	25-29	-23.0	29.1	70.9
<i>Mexico (*)</i>	20-24	-5.65	21.0	78.9
	25-29	-7.42	40.9	59.1
<i>Peru(*)</i>	20-24	-8.37	0.00 (**)	100.0 (**)
	25-29	-16.04	18.3	81.6

(\*) shorter observation periods: Mexico from 1990 to 2000 and Peru from 1993 to 2007.

(\*\*) no increase in proportions not in a union, but a tiny decline of 0.23 percentage points instead. This means that cohabitation rose with  $8.37 + 0.23 = 8.60$  percentage points.

The results show, first and foremost, that the sizes of the marriage decline are fairly similar in both age groups, but vary much more between countries. The smallest reductions in percentages currently married for the 20 years of observation are found in Ecuador, where the initial proportions married in the 1980s were fairly high (30.5 and 47.8 % in the two age groups) and in Panama where these initial percentages were already very low (18.0 and 26.7 %). By contrast, reductions ranging between 15 and 25 percentage points in proportions currently married are observed in Argentina, Brazil, Colombia and Chile. Costa Rica and Venezuela occupy intermediate positions.

However, much of the decline in proportions married is accounted for by rising proportions cohabiting. In all countries the share of rising cohabitation is higher than that of increasingly being single. This is strikingly so in Panama and Colombia, where the reduction in marriage among women 20-25 is for more than 90 percent “neutralized” by cohabitation. These two countries are closely followed by Costa Rica, Brazil and Venezuela where the share of rising cohabitation is still 2 to 3 times as large as the share of remaining single. By contrast, a more even distribution is observed in Argentina, Chile and Ecuador, with a more slight preponderance of cohabitation over not being in a union. In these latter three countries ages at entry into a union (of whatever type) must have increased, whereas in all the others (not in italics) mentioned in Table 3, ages of entry into a union must have remained fairly stable over the 20 year observation period (cf. Lopez, Spijker and Esteve 2011) thanks to the large compensation by rising cohabitation.

A word should also be said about Mexico and Peru for which we have only shorter periods of reliable observation (1990 to 2000 in Mexico, and 1993 to 2007 in Peru). The shift away from marriage in Mexico came late compared to most other Latin American countries, but the share of cohabitation is again larger than the share of remaining single. However recent information for the Mexican census of 2010 indicates that the country has been catching up at an accelerated pace (Perez-Amador and Esteve, forthcoming).<sup>iii</sup> Peru on the other hand had more impressive declines in percentages currently married, and the lion share of this decline over almost a decade and a half goes to cohabitation, in a similar manner as in Colombia and Panama.

It is equally worthwhile to compare these shifts from marriage to longer staying single and cohabitation by education category. This is not only relevant in any country, but it is particularly so in Latin America given the strong contrasts between social classes. The results are given in Table 5 and the details in Appendix tables A4a and A4b. In order to simplify the table we have grouped those with incomplete and complete primary education into a single category. But another reason for doing this is the fact that later cohorts of young women have increasingly completed primary education, but essentially belong to the same social class as their less educated predecessors who are about 20 years older. The other two education categories refer to completed levels. The analysis here is also restricted to women 25-29.

TABLE 5: Declines in percentages currently married and shares thereof due to being single versus moving into cohabitation, observed over a 20 year period from 1980s to 2000s census rounds, women 25-29, results by education (\*).

	Education	%-points decline in currently married	Share to not in union (%)	Share to cohabitation (%)
Chile	Primary	-14.84	15.8	84.2
	Secondary	-14.78	41.4	58.6
	Tertiary	-20.45	69.1	30.9
Argentina	Primary	-23.80	1.5	98.5
	Secondary	-20.68	35.6	64.4
	Tertiary	-25.05	68.8	31.2
Colombia	Primary	-23.60	0.0 (**)	100.0 (**)
	Secondary	-22.02	0.0 (**)	100.0 (**)
	Tertiary	-15.67	40.8	59.2
Ecuador	Primary	-10.47	36.2	63.9
	Secondary	-8.45	6.0	94.0
	Tertiary	-7.85	54.4	45.6
Venezuela	Primary	-15.36	4.9	95.1
	Secondary	-13.27	52.6	47.4
	Tertiary	-19.34	85.9	14.1
Panama	Primary	-6.37	0.0 (**)	100.0 (**)
	Secondary	-16.07	0.1	99.9
	Tertiary	-12.70	55.5	44.5
Costa Rica	Primary	-9.62	0.0 (**)	100.0 (**)
	Secondary	-9.68	20.9	79.1
	Tertiary	-1.02	70.3	29.7
Brazil	Primary	-24.55	12.5	87.5
	Secondary	-14.46	22.5	77.5
	Tertiary	-17.02	70.8	29.2
<i>Mexico (*)</i>	<i>Primary</i>	<i>-7.70</i>	<i>22.1</i>	<i>77.9</i>
	<i>Secondary</i>	<i>-1.50</i>	<i>0.0 (**)</i>	<i>100.0 (**)</i>
	<i>Tertiary</i>	<i>-7.27</i>	<i>81.4</i>	<i>18.4</i>
<i>Peru (*)</i>	<i>Primary</i>	<i>-14.54</i>	<i>0.0 (**)</i>	<i>100.0 (**)</i>
	<i>Secondary</i>	<i>-2.04</i>	<i>0.0 (**)</i>	<i>100.0 (**)</i>
	<i>Tertiary</i>	<i>-11.37</i>	<i>0.2</i>	<i>99.8</i>

(\*) shorter observation periods: Mexico from 1990 to 2000, and Peru from 1993 to 2007.

(\*\*)100 % means that the declining percentage of married women is fully compensated by a rise in cohabitation, and that in addition, there was also a further increment in cohabitation due to declining proportions not yet in a union. For women with incomplete or complete education, these decreases in percentages not in a union were -2.38 percentage points in Colombia, -3.85 in Panama, -2.64 in Costa Rica and -1.02 in Peru. For women with completed secondary education, these values are -.78 in Colombia, -1.50 in Mexico, and -2.04 in Peru.

The results in Table 5 illustrate that the declining proportions married among women 25-29 among the population segments with less than complete secondary education are very largely compensated by a move into cohabitation. In addition, in a number of countries (Colombia, Panama, Costa Rica and Peru) there were also small declines among women not yet in a union, and these percentages are equally shifts in favor of cohabitation.

The educational gradient in the shift is also quite clear: the more educated, the larger the shift of declining percentages married in favor of remaining outside a union and the smaller the shift toward cohabitation. On the whole, women with completed secondary education still have shifts toward cohabitation that are larger than to remaining single, but the reverse holds for women with completed tertiary and university education. But there are a few exceptions: in both Colombia and Peru is the shift to cohabitation for women with such higher education still the larger one.

The overall outcome of this section is that the dominant trend for women with less than complete secondary education is to simply substitute cohabitation for marriage. For them the proportions single have not risen in any significant way, and in several instances, such proportions not in a union have even declined slightly. This means indeed that ages at entry into a union for these categories of women have remained essentially stable during the last quarter of the 20<sup>th</sup> century. For women with complete secondary education the picture is more mixed as in some countries there are more appreciable rises in proportions single. Concomitantly there are varying degrees of partial substitution of marriage by cohabitation. Until the 21<sup>st</sup> Century these trends were slowest in Chile, Mexico and to a lesser degree in Argentina and Ecuador, but most pronounced in Colombia and in Peru. The 2010 census round will reveal to what extent the slower moving countries will have caught up with the others. We already know for Mexico that the rise in cohabitation during the first decade of the 21<sup>st</sup> Century has been substantial (see also endnote iii).

##### **5. Union status and the incidence of residence in extended/ composite households.**

More often than not, the shifts in living arrangements of young women are considered without further reference to the possible presence of other kin or other non-relatives. This is not a major issue in situations dealing with European populations or populations with European traditions since the nuclear household is by far the dominant one. But

matters change considerably when other populations are analyzed. In these instances the incidence of extended or composite household structures becomes of interest, not only in its own right, but also because such family or household structures can absorb or soften the effects of economic shocks, or alleviate the consequence of more precarious situations. In the first instance marriage or cohabitation without leaving the parental household could have been a response to the period of high economic instability and hyperinflation of the 1980s. In the second case single mothers could benefit both financially and in kind from the presence of parents, other kin, or even non-relatives. In what follows we shall analyze our Latin American version of the LIPRO typology as to reveal to what extent the shifts documented in the previous section occurred within the context of nuclear versus extended or composite households. To this end standard tables are extracted from the LIPRO-master table for women 25-29 which all have the same structure in studying per country and over time the internal distribution of 5 individual positions over 3 household situations. The 5 subcategories are: SINGPAR, COH0, COH+, MAR0 and MAR+. And the 3 household situations are: nuclear, extended with parents and possibly other kin or non-kin (\_PAR), and all other forms of extensions or composite structures without own parents (\_OTH). It is worth noting that SINGPAR\_PAR, COH+\_PAR and MAR+\_PAR must of necessity contain three-generation families. The tables are presented in the appendix, Tables A 5a through A 5e. Before entering into details, we first consider the prevalence of any form of extension (i.e. with parents, kin or non-relatives) for each of the 5 union subcategories. These percentages extended (or composite) of all types are given in Table 6. The complement of these percentages gives the incidence of living in nuclear households.

TABLE 6: Percentages of women 25-29 living in extended and /or composite households, by type of union. Latin American countries, latest available census.

	SINGPAR	COH0	MAR0	COH+	MAR+
Chile 2002	81.8	37.4	37.3	29.2	24.6
Argentina 2001	73.4	28.3	21.9	23.2	19.7
Colombia 2005	72.7	41.1	28.3	26.9	25.9
Ecuador 2001	67.7	59.8	51.9	32.2	26.8
Venezuela 2001	79.4	50.1	42.6	29.4	30.4
Panama 2000	73.4	41.4	32.2	31.6	28.9
Puerto Rico 1990	40.0	41.9	14.6	10.4	9.1
Costa Rica 2000	66.1	37.0	21.5	18.8	15.0
Brazil 2000	69.4	26.0	18.1	17.9	14.3
Mexico 2000	72.5	37.1	31.2	20.8	18.7
Peru 2007	71.6	54.8	52.7	33.6	31.9
Bolivia 2001	56.8	59.9	56.9	28.9	29.1
Cuba 2002	74.2	44.7	51.3	27.9	38.0

Table 6 illustrates that very considerable proportions of young women 25-29 still live in extended or composite families. This is particularly so for single mothers (SINGPAR), with figures typically ranging between two thirds and four fifths. Only in Bolivia and Puerto Rico are these proportions below 60 percent. The degree of splitting off from the parental or otherwise extended household upon the formation of a partnership, either through marriage or cohabitation, can be assessed via the figures for COH0 and MAR0: still a third to over one half of young childless women in a partnership are commonly found in extended or composite households. Only in Argentina and Brazil do we find lower figures of the order of one quarter. Equally remarkable is that the differences between the cohabiting and the married women without children in the percentages living in extended households vary substantially between countries, but with the percentages for COH0 systematically being higher than for MAR0. This may indicate that further splitting off from the parental household occurs when a cohabiting union is converted into a married one. Regardless of the actual process, all of this means that cohabiting partners are accepted as residents in extended households in very much the same way as married spouses.

As indicated, the incidence of co-residence varies substantially from country to country. In Argentina and Brazil, co-residence in an extended household is least common for cohabiting couples (COH0). It is equally rare for married ones (MAR0) in

these two countries, and in Puerto Rico. At the high end of the distribution for both COH0 and MAR0 are Ecuador, Venezuela, Peru, Bolivia and Cuba, with percentages in extended households typically in excess of 40 percent. As expected, co-residence with parents or other adults drops further for cohabiting and married women with children. There is still a slight tendency for cohabiting mothers (COH+) to be found more frequently in extended households than for married mothers (MAR+), but this tendency is not universal. More striking is the lasting difference between countries. Puerto Rico, Costa Rica and Brazil have fewer than 20 percent of young married or cohabiting mothers living in extended households, whereas the figures for Venezuela, Peru, Bolivia, Panama and Cuba are still in range of 30 to 40 percent.

There are two more substantive conclusions to be drawn from these findings. First, the more precise nature of the “robustness” of Latin American families to the economic shocks of hyperinflation in the 1980s, as perceived by Fussell and Palloni (2004), lies in the fact that co-residence with parents or others remains the rule for single mothers, and also remains very common for both cohabiting and married couples without children. And second, there is a caveat with respect to the Latin American convergence to the pattern of the “Second Demographic Transition” (SDT). The sheer size of the cohabitation boom (Esteve et al. 2012) and the de-stigmatization of unmarried unions (ibidem) definitely fit the SDT prediction, but the convergence to a purely western pattern is only a partial one given that significant proportions of childless cohabiting couples and a still noticeable percentage of cohabiting parents are not living in a nuclear household but in extended and/or composite ones. For such couples it is harder to imagine that cohabitation would be merely a “trial marriage” between two individuals. Hence there is a distinct Latin American version of one of the key aspects of the SDT, and it is produced by the historical context of continued robustness of co-residence in extended households for a significant segment of the population. For the others, however, and they are a majority in 9 countries of the 13 considered here, cohabitants (cf. COH0) do live in a neolocal and nuclear setting, and for them the convergence to the western pattern is much more likely.

## **6. Living arrangements of single mothers: further details.**

The literature on single mothers is a vast one, and for understandable reasons: single mothers face numerous problems with tensions between work and caring for children,



suffer from deficient social capital, and they are almost universally at a considerably higher risk of ending up in poverty (e.g. Chant 1985, 2002; Dominguez and Watkins 2003; Gornick and Jäntti, 2010). The problem has always been acute in Latin America and the Caribbean, to the point that the high incidence of single mothers is considered as one of the reasons why Latin American income inequalities have remained so pronounced (Gindling and Oviedo 2008). These are reasons enough to single out this topic for some further research with the help of the LIPRO typology.

Additional and more specific reasons are that the rise in cohabitation over the last decades has contributed to a growing pool of candidates with higher probabilities of ending up as single mothers. In 1996 Arias and Palloni concluded for several Latin American countries:

*“Our data reveal that there is an increased tendency for widows and divorced women to head their own household. If these characteristics remained invariant in years to come we will see a large increase in the total proportion of female heads as the population ages and as marriage disruptions become more prevalent. The increase, however, will not come from the ranks of younger women who are unmarried or in consensual unions, but from those who are older and who have experienced some time within marriage.”*(1996: 27)

Evidently, at the time of writing these authors, who are among the leading specialists of Latin American demographic trends, had not yet realized that the “cohabitation boom” was in the making and that this new feature would alter the situation to a considerable extent.

Another reason for taking up the subject again is that the literature focuses almost entirely on the lower income and lower educational strata of the population (see also Lehman, 2000: 30). However, not only have educational levels increased to a considerable extent in most of Latin America since the 1970s, but also the prevalence of cohabitation has expanded among women with full secondary education and even full university training (see Esteve et al. 2012). This implies that there is now a completely different pool of women who incur higher probabilities of single motherhood, and for whom situations may be different from those in the lower education strata.

The IPUMS data and the LIPRO-typology combined permit to reconstruct the basic trends over time and according to educational category. The relative prevalence of single mothers in the age group 25-29 are given in Table 7, both as a percentage of all women in that age group and as a percentage of all women with children.

TABLE 7: Prevalence of unpartnered mothers (SINGPAR) 25-29 in Latin American censuses, 1970-2007. Percentages relative to all women 25-29 and to all mothers 25-29.

All women 25-29 = 100%	1970-74	1980-85	1990-93	2000-2007
Chile	10,9	13,2	14,5	16,8
Argentina	6,1	8,0	8,8	11,5
Colombia	16,0	14,1	14,4	19,3
Ecuador	15,3	14,5	13,5	15,2
Venezuela	12,7	16,0	16,5	16,2
Panama	17,8	19,1	19,0	17,6
Puerto Rico	10,1	12,7	15,0	-
Costa Rica	13,0	14,0	-	13,3
Brazil	-	5,0	9,3	11,2
Mexico	-	-	6,9	11,2
Peru	-	-	15,5	16,8
Bolivia	-	-	-	19,2
Cuba	-	-	-	19,6
All mothers 25-29 = 100%	1970-74	1980-85	1990-93	2000-07
Chile	17,2	19,5	21,5	28,1
Argentina	10,2	12,3	13,5	19,4
Colombia	24,5	21,4	22,9	29,1
Ecuador	20,5	19,7	19,4	23,1
Venezuela	18,0	22,8	24,2	25,0
Panama	23,9	26,3	27,5	26,4
Puerto Rico	13,7	17,7	23,5	-
Costa Rica	17,5	18,7	-	18,9
Brazil	-	7,3	13,5	17,0
Mexico	-	-	10,9	16,4
Peru	-	-	23,8	27,1
Bolivia	-	-	-	29,4
Cuba	-	-	-	29,7

The rise in percentages single mothers, expressed either relative to all women 25-29 or all mothers 25-29, varies substantially across countries. Chile, Argentina, Colombia and Brazil had increases between the 1980 and 2000 census rounds in excess of 3.5 percentage points relative to all women and in excess of 7.0 percentage points relative to all mothers. By contrast, Panama and Costa Rica had no increase in single mothers as a percent of all women 25-29, and hardly any as a percent of all mothers in that age group. One of the major reasons for these differences could of course be the differences in the growth of cohabitation over that period. This is partially born out by the data: Argentina, Colombia and Brazil had increases in percentages cohabiting among all women 25-29 in a union (see Esteve et al. 2012: 61) larger than 25 percentage points, whereas the corresponding increments for Panama and Costa Rica were only of the order of 10 percentage points. For similar increments in cohabitation, Venezuela and Ecuador have slightly larger increments in percentages single mothers than Panama and Costa Rica, but it is Chile who has the strongest growth of single motherhood (+3.6 and +8.6 in Table 7) given its more modest increase in cohabitation (+17.9 percentage points)(*ibidem*).

If we fit a regression through these data points for the 8 countries listed above and using the percentage points increase in cohabitation to predict the equivalent increase in single motherhood, we get the expected lining up. The correlation coefficients are +.77 when predicting the rise of single motherhood relative to all women 25-29 and +.76 when predicting the rise of single motherhood per 100 parous women 25-29. The slopes indicate furthermore that for a percentage point increase in cohabitation over roughly 20 years (1980 to 2000 census rounds) among women 25-29 in a union, we would get an increase of just over half a percentage point (+0.55 to be exact) in the incidence of single motherhood among all women 25-29, and of a third of a percentage point (+.32) in the incidence among all mothers 25-29. These cross-sectional results are obviously not very sophisticated, but they still suggest that, aside from national variations, there was indeed a connection between the increase in cohabitation and the rises in single motherhood during the last decades of the 20<sup>th</sup> Century.

It will come as no surprise that the incidence of unpartnered motherhood equally varies according to social class and education group. The outcomes are presented in Table 8

for the latest available census, again for all women 25-29 and for all mothers in that age group.

TABLE 8: Prevalence of unpartnered mothers (SINGPAR) 25-29 in Latin American censuses, by education, latest census year. Percentages relative to all women and to all mothers 25-29.

All women 25-29 =100%	Primary or less	Complete Secondary	Complete Tertiary/University
Chile 2002	18,3	16,9	8,0
Argentina 2001	15,4	9,2	2,9
Colombia 2005	20,1	21,3	10,8
Ecuador 2001	16,0	15,0	9,1
Venezuela 2001	18,0	11,5	7,1
Panama 2000	19,4	18,4	9,1
Costa Rica 2000	14,3	12,8	8,0
Brazil 2000	12,6	9,2	4,7
Mexico 2000	12,4	10,1	5,5
Peru 2007	17,3	17,8	11,8
Bolivia 2001	21,1	17,5	10,0
Cuba 2002	13,9	16,6	12,5
All mothers 25-29 =100%	Primary or less	Complete Secondary	Complete Tertiary/University
Chile 2002	25,2	31,5	30,3
Argentina 2001	19,4	19,7	15,0
Colombia 2005	25,0	33,8	33,8
Ecuador 2001	21,8	26,2	25,1
Venezuela 2001	24,3	28,5	26,9
Panama 2000	24,3	30,1	27,6
Costa Rica 2000	14,3	21,9	21,1
Brazil 2000	12,6	19,1	17,7
Mexico 2000	16,2	17,1	16,7
Peru 2007	21,4	31,2	37,3
Bolivia 2001	28,3	32,1	31,0
Cuba 2002	26,4	32,9	31,3

With the exception of Cuba, where the educational differences in the incidence of single motherhood are minimal, the contrast between women 25-29 with complete tertiary education and those with at most complete primary education still follows the old

gradient with respect to cohabitation (cf. Esteve et al, 2012: figure 3 p.67): the higher the education, the lower the proportions cohabiting, and the lower the incidence of single motherhood. In Table 8, the percentages single mothers among all women 25-29 are typically lowest for the best educated. Apart from Cuba, the gap varies from 5.5 percentage points in Peru to 12.5 percentage points in Argentina. Much of the explanation lies of course in the fact that motherhood comes much later for the upper education echelons than for the lower ones. However, when controlling for this and hence by considering only women who are already mothers, these educational differences not only disappear but are systematically reversed. This is shown in the bottom half of Table 8. With the sole exception of Argentina, single motherhood among parous women 25-29 is more frequent among those with advanced education than among those who did not progress beyond primary education. In fact, in several instances this reversed profile is quite pronounced: in Brazil and Chile (+5.1 percentage points difference), Costa Rica (+6.8), Colombia (+8.8) and Peru (+15.9). Evidently, among the fewer women with higher education who progress to motherhood in the age group 25-29, proportionally *more* have already ended up in the position of a single parent. This not only illustrates the operation of a different selection mechanism, but once more that educational gradients are far from stable in periods of rapid economic and/or cultural change (cf. Esteve et al. 2012: 68-75).

There is, however, a major caveat when it comes to automatically assigning the labels of being in “a precarious situation” or “in poverty” to single mothers. This caveat pertains to the fact that co-residence of unpartnered mothers with others or in another household is far more common in Latin America than in Europe or the US. This specific feature is illustrated in Table 9, where the percentages of single mothers 25-29 living in extended or composite households are being reported. Many of such extensions include one or both parents, so that we are often dealing with three generation households.

TABLE 9: Percent unpartnered mothers 25-29 (SINGPAR) living in extended / composite households, Latin American censuses, various census rounds 1970-2007.

	1970-74	1980-85	1990-03	2000-07
Chile	79,0	82,8	81,1	81,8
Argentina	76,0	76,1	70,2	73,4
Colombia	72,0	84,4	77,5	72,7
Ecuador	69,1	72,0	68,8	67,7
Venezuela	76,1	79,7	77,6	79,4
Panama	70,1	71,8	77,7	73,4
Puerto Rico	57,6	44,9	40,0	-
Costa Rica	80,6	76,6	-	66,1
Brazil	-	66,9	74,1	69,0
Mexico	-	-	66,5	72,5
Peru	-	-	69,1	71,6
Bolivia	-	-	-	86,7
Cuba	-	-	-	74,2

The census results for several successive decades not only show that co-residence in extended/composite households occurs for 70 to 85 percent of unpartnered mothers, but also that these percentages have been quite stable over time. The only exceptions are Puerto Rico and Costa Rica, where such co-residence is less frequent and where percentages are declining. The overall high percentage of co-residence in the majority of countries considered here illustrates the “robustness” of family relations that Fussell and Palloni (2004) referred to when commenting on the persistent Latin American marriage regime in times of economic upheaval. This robustness is apparently still there, but the “marriage regime” has been significantly altered by the rises in cohabitation and concomitantly also in single parenthood. Moreover, with such high percentages of co-residence, the statement by Gindling and Oviedo, that the marked Latin American income inequality can, to a significant degree, be ascribed to the high prevalence of single motherhood, seems somewhat exaggerated. And, finally, from this section it has become clear that the term “lone mother” is only applicable to a minority of unpartnered mothers. The majority of them are simply not “lone” or alone in a nuclear household.

TABLE 10: Percent unpartnered mothers 25-29 (SINGPAR) living in extended / composite households, by education, 2000-2007 Latin American censuses.

	Primary or less	Complete Secondary	Complete Tertiary/University
Chile 2002	79,3	83,9	86,3
Venezuela 2001	78,2	73,3	99,9
Panama 2000	71,8	73,3	86,3
Argentina 2001	71,0	77,9	71,5
Mexico 2000	70,0	80,8	81,5
Brazil 2000	67,1	78,0	71,1
Colombia 2005	66,9	76,9	82,0
Cuba 2002	66,8	78,0	82,3
Ecuador 2001	64,8	72,1	80,9
Costa Rica 2000	63,4	75,0	78,6
Peru 2007	59,0	77,8	85,8
Bolivia 2001	49,6	70,5	84,2

The percentage of unpartnered mothers 25-29 living in extended or composite households in each of the education categories is given in Table 10. These profiles may be counter-intuitive at first sight, but quite logical when considered more carefully. The better educated women (full secondary or higher) systematically have the largest proportions of single mothers living with their parents or other relatives. This illustrates once more that they benefit from greater social capital than the less educated ones. If women with higher education end up as single mothers, they can rely more on parents and siblings who also have more substantial resources than the relatives of women at the lower end of the stratification spectrum. Another factor that is likely to be operative here is that single mothers with completed secondary education are likely to be students still, and then continued co-residence with parents is desirable in order to finish higher education. The overall outcome, however, still is that the less educated unpartnered mothers not only have much lower incomes, but also come from families that are not wealthy enough to further support them via co-residence. In other words, the less educated single mothers face a double burden since proportionally more of them also miss the safety net of the three generation or otherwise extended family. And the relative share of unpartnered mothers with completed primary education or less who live in such a more precarious nuclear situation ranges from roughly 20 percent in Chile to a full 50 percent in Bolivia.

## 7. Conclusions.

In this admittedly purely descriptive study we have tried to shed further light on the rapidly changing Latin American picture of union and household formation. We focused on women 25-29 since many of the crucial transitions have either already occurred before that age or are happening in that age bracket. To this end we used the IPUMS samples of a series of census rounds, and reconfigured the household positions of individuals by constructing a new and extended version of the van Imhoff LIPRO-typology. These adaptations allow for the possibility of continued co-residence in the parental household or in other forms of family extensions.

The following findings emerge:

- (i) The considerable drop in proportions married prior to age 30 at the overall level is not due so much to longer living as a single person, either in the parental household or as a one-person household, but mainly due to the substitution of marriage by cohabitation. This is also the main reason why ages at first union formation have remained stable in most countries of the region. However, there is a marked educational differential in this respect, with generally the better educated women also prolonging the period of not (yet) being in a union in addition to their substitution of marriage by cohabitation.
- (ii) It would be a serious omission if the study of household formation were to neglect the possibility of remaining in the parental household and/or of co-residence with other relatives or even non-relatives. The transition to a neolocal nuclear household is not of necessity synchronous with entering into a partnership or reaching parenthood. This feature sets most Latin American populations apart from the European ones (including US, Canada, Australia, New Zealand).
- (iii) Until the end of the 1990s, co-residence in extended or composite households was less frequent in Puerto Rico and Costa Rica, followed by Argentina and Brazil, and most common in Ecuador, Bolivia, Peru, Colombia, Venezuela and Cuba. Panama, Mexico and Chile occupy the middle positions.
- (iv) The majority of cohabiting women without children continue to live in extended households (most often three generation ones) in Ecuador, Venezuela, Peru



and Bolivia. For them, cohabitation presumably misses the so called “second demographic transition” connotation of being a neolocal and nuclear “trial marriage”. Rather, cohabitation in this instance could be viewed as the continuation of an older historical pattern. However, this cannot be concluded for the complement of this percentage, i.e. the share of cohabiting women without children *outside* any extended or composite set up. This share is larger than 50 percent in Colombia, Panama, Puerto Rico and Cuba, and it increases to more than 60 percent in Chile, Costa Rica and Mexico, and to even to more than 70 percent in Argentina and Brazil. In these instances, the convergence of cohabitation to the European pattern is evidently more pronounced.

- (v) For as long as there are no children, co-residence of cohabiting women in extended families is more common than for their married counterparts. This means that the cohabiting partners are quite regularly accepted by co-residing relatives, and presumably also that a subsequent marriage marks the splitting off of the new couple from a parental household. However, in some countries there are still very substantial proportions of married women without children in co-residence with parents or other adults. This holds again for Ecuador, Peru, Bolivia and Cuba.
- (vi) Co-residence with others drops further for couples, cohabiting or married, with children. Such extensions become more rare in Puerto Rico, Costa Rica and Brazil, but are still around 30 percent for COH+ and MAR+ in Ecuador, Venezuela, Panama, Peru, Bolivia and Cuba.
- (vii) Single mothers have by far the highest incidence of living in an extended or composite household. Among such women 25-29, commonly two thirds to three quarters co-reside with other adults, and in such instances three generation households are a dominant feature. The major exceptions are Bolivia and especially Puerto Rico, where significantly fewer single mothers are found in extended families.
- (viii) In contrast to the expectations of Arias and Palloni (1996), who predicted rises in unpartnered motherhood for older women with an experience of marriage, it seems that the cohabitation boom is the main source of the rise in single motherhood.

(ix) When considering all women 25-29, the incidence of unpartnered motherhood is always significantly highest for women with the least education (primary or less). Only in Cuba is there no such a gradient. Part of the explanation is of course that there are simply fewer parous women in that age group among the better educated. However, if only mothers in the age group 25-29 are considered, then co-residence with others is *lowest* for the least educated echelons. As a result, less educated single mothers face the double burden of having less income earning power and the greater absence of the safety net provided by co-residence with kin or other adults.

The overall conclusions are:

- (i) The remarkable robustness of the Latin American ages at first union entry to the economic shocks of the 1980s and early 1990s is essentially due to the systematic shift from marriage to cohabitation, and furthermore to the continued intergenerational support provided by the extended family system.
- (ii) It would be a mistake, however, to consider this as an overall indication of continued “traditionalism”. In fact, despite the relatively high percentages of cohabitants residing for some time in extended households, the majority of them are found in a neolocal and nuclear setting. There is considerable national and regional variation in this respect, but the trends are definitely in the direction of what was predicted by the “Second demographic transition” theory (SDT) : greater tolerance for new forms of behavior have spurred the cohabitation boom, and as a byproduct also the rise in single motherhood. But there is definitely an unmistakably Latin American version of the SDT, which is offered by the potential of living a part of the life cycle in an extended family.
- (iii) Single mothers have by far the highest incidence of co-residence with kin and/or other adults. This makes their situation quite different from that of their European or American counterparts who fend on their own in more isolated, nuclear settings. However, there are again large differences in this respect among the various Latin American countries.
- (iv) Single mothers with no more than primary education have the lowest chances of benefitting from the “softening” effect of residing in extended families, which is presumably another significant factor contributing to their overall most disadvantaged position.

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<sup>ii</sup> Any analysis of Latin American household data runs into the problem of women in visiting unions who do not report a partner, and are therefore often referred to as “false singles”. Our analysis here is no exception, and hence the proportions of single mothers could be overestimated. However, visiting unions are much more typical for the Caribbean and for black or mulatto populations that stem from the slaves imported in regions with large scale plantations. Furthermore, men in visiting unions are mobile in terms of partnerships and may have more than one female partner. All of this means that women in such unions resemble more the “real” single mothers than mothers in regular consensual unions.

<sup>iii</sup> The share of cohabitation among all partnered women 25-29 in Mexico in the 2010 census has jumped to 37.1 percent, compared to 15.2 and 22.7 in the 1990 and 2000 censuses respectively.