Educational assortative mating in marriages and consensual unions in Latin America, 1970-2000[1]

Luis Ángel López*, Albert Esteve*, Teresa Castro Martin**
*Centre d'Estudis Demogràfics, Barcelona; **Spanish National Research Council, Madrid

Abstract

This paper aims at exploring the differences in assortative mating between marriages and consensual unions in Latin America. We focus on eight countries in the region and compare the situation between 1970 and 2000. The countries under study are: Argentina, Brazil, Chile, Colombia, Costa Rica, Ecuador, Mexico, and Panama. We use national representative samples of couples (spouses aged 25-39) drawn from the integrated census microdata samples available at the IPUMS-International database. We apply log-linear analysis to control for the educational attainment of spouses and to investigate if there are differences in patterns of educational homogamy by union type. In general, our findings suggest that both unions share the same pattern of educational homogamy. In this sense, our results are similar to those obtained by Blackwell and Lichter (2004) for the U.S. case.

Keywords: Marriage / Consensual Unions / Educational Homogamy / Latin America.

Introduction

The study of assortative mating is relevant to social scientists for several reasons. First, assortative mating has often been taken as an indicator of social stratification and of barriers between social groups (Mare and Schwartz, 2006; Schwartz and Mare, 2005). Second, it informs about the distribution of power within couples depending on the combined characteristics of the spouses (i.e. differences in education, income), which also may work as predictor of marriage quality and duration (Kalmijn, de Graaf et al., 2005) as well as reproductive decisions taken within the couple. Third, from an aggregated level, assortative mating patterns are also mirroring imbalances in the marriage market and differences in marriage patterns by social groups (Bhrolchain, 2001; Henry, 1966; Qian, 1997; Schoen, 1983).

Research on how assortative mating patterns differ by union type, that is, between formal and informal unions is relatively scarce, even in developed countries (Blackwell and Lichter, 2004; Hamplova, 2009; Hamplova and Le Bourdais, 2008; Schwartz, 2008). As cohabitation increased in most developed societies, numerous comparative

[1] The extended abstract summarizes the main findings of our current research on educational assortative mating in Latin America. A complete paper on this topic is available on request from the authors (in Spanish).

studies identified differences and similarities between both types of union, but few of them addressed the specific issue of assortative mating; and, to the best of our knowledge, none has addressed this question for Latin America, where cohabitation has been a traditional feature of their marriage regimes.

To fill this gap, this paper aims at exploring the differences in assortative mating between marriages and consensual unions in Latin America. We focus on eight countries in the region and compare the situation between 1970 and 2000. The countries under study are: Argentina, Brazil, Chile, Colombia, Costa Rica, Ecuador, Mexico, and Panama. We use national representative samples of couples (spouses aged 25-39) drawn from the integrated census microdata samples available at the IPUMS-International database.

Background

Increases in cohabitation in developed countries have generated debate over the nature and characteristics of cohabiting couples as compared with traditional marriages. For explanatory purposes, we distinguish two main perspectives: the looser bond perspective and the winnowing process perspective.

The looser bond perspective argues that cohabiting couples differ from formal unions in their sense of mutual commitment and in higher individual agency (Brines and Joyner, 1999; Schoen and Weinick, 1993). Therefore, these differences should have an effect on assortative mating patterns, assuming that partner choice is dependant on the desired type of union. Following this reasoning, cohabiting couples are expected to be more educationally homogamous than marriages.

The winnowing process perspective (Blackwell and Lichter, 2000, 2004) assumes that dating and cohabitating couples are stages in life preceding marriage. In this framework, cohabitation will work as a testing ground to examine partners' compatibility and to strengthen emotional bonds. From stage to stage, a selection process takes place, and those couples that have more in common tend to prevail, ultimately becoming a married couple. Consequently, dating and cohabiting couples will be less homogamous than marriages.

Consensual unions in Latin America and specific hypotheses

One of the most distinctive features of Latin-American nuptiality regimes lies in the importance of consensual unions. Unlike developed countries, where the rise of cohabitation has been linked to the second demographic transition, informal unions have coexisted with formal marriages since colonial times. We next provide a summary of the main findings in the literature:

1. Traditionally, there have been high proportions of informal unions, with large differences between countries: on one hand, the Southern Cone and Mexico, with lowest levels; on the other hand, Central American and Caribbean countries

with highest levels (García and Rojas, 2002; Zavala de Cosío, 1995). Recent data indicate that cohabitation is expanding in former countries with lowest levels of informal unions, while it has remain relatively stable or increased slightly in countries with high levels (Castro Martin, Martin García et al., 2008).

2. Poorest groups have a higher propensity to form consensual unions. However, there is evidence that these unions are recently present across all the social strata, including among the most educated (Rodríguez Vignoli, 2005).
3. Cohabitation prevalence decreases by age. This can be related to changes in life cycle preferences, or related to the legalization of marriages over time (De Vos, 1998; Rodríguez Vignoli, 2005).
4. There are not significant differences between the reproductive patterns of formal and informal unions (Castro Martin, Martin García et al., 2008; Rosero Bixby, 1996).
5. Homogamy remains the predominant pattern. The highest levels of homogamy are found at the bottom and the top of the educational hierarchy (Esteve and López-Ruiz, 2009). Also, levels of homogamy/heterogamy vary depending on racial and gender differences within these educational groups (López Ruiz, Esteve et al., 2008). Furthermore, evidence from Brazil and Mexico (Esteve and McCaa, 2007) suggests declining propensity towards hypergamy over time.
6. Evidence from the scarce studies on homogamy and union type in the region is mixed. De Vos (1998) and Esteve (2005; 2007) did not find evidence suggesting significant variations between marriage and cohabitation; meanwhile Castro Martin (2008) concluded that age and educational heterogamy were higher among consensual unions.

In sum, studies on cohabitation portray a heterogeneous picture of the Latin American region, although recent trends point towards a significant reduction of gaps, both between countries and social strata groups. Furthermore, based on historical and contemporary qualitative research, cohabitation has different meanings, motivations and connotations across social strata. Hence, some consensual unions would be similar to those of developed countries (particularly among urban and educated couples), but a large majority still remains linked to cultural traditions, economic constraints and women's limited choices.

Taking into account the conceptual elements and the findings of previous research, a comparison of homogamy patterns between formal and informal unions could serve to shed light about their different nature. For this reason, these patterns will be assessed in two different contexts: (a) in the early 1970s, a period characterized by lower institutionalization of cohabitation and the prominence of the male breadwinner model, (b) around 2000, a period characterized by the expansion of cohabitation in the middle class, and a significant reduction of gender differences in education and the social division of labor. We will test the following hipotheses:

1. *Differences in homogamy levels between marital and consensual unions will be larger in the early 1970s than in the early 2000s.* We are assuming that the relationship between homogamy and consensual unions varies according to changes in the role of cohabitation in the society (Hamplova, 2009). Similar differences should be observed among countries with low and high prevalence of cohabitation.
2. *Homogamy is higher in marital unions than in consensual unions.* This hypothesis is based, both on the winnowing perspective (Schoen and Weinick, 1993), and the legalization tendency of consensual unions over time.
3. *Hypergamy will be higher in the 1970s than in the 2000s, regardless of union type.* This pattern will be characteristic of contexts with strong processes of modernization, in which values of education constitute the predominant element of social differentiation (Blossfeld and Timm, 2003; Oppenheimer, 1988, 1994; Smits, Ultee et al., 1998; Ultee and Luijkx, 1990) .

In Latin America, the patterns mentioned above are largely caused by the intensive expansion of formal education and the massive participation of women in several areas of public life.

Data

Our data come from the *Integrated Public Use of Microdata Samples* of Argentina, Brazil, Chile, Colombia, Costa Rica, Ecuador, Mexico and Panama for the 1970 and 2000 rounds of population censuses, available at www.ipums-international.org (Minnesota Population Center, 2009). The structure of the dataset is a cross-classification of unions for each year, country and type of union by educational attainment of the spouses. We limit the analysis to those couples in which both spouses are between 25 and 39 years old, in order to minimize the potential bias of not taking into account union dissolution. Only couples that are enumerated as living in the same household are considered, because the census microdata do not provide means for linking husbands and wives living apart.

The level of education taken as reference is that stated at the time of the census, and therefore does not necessarily match the level that the spouses had at the time of marriage or union. The challenge of this research lies in creating a system of classification by level of education that is highly comparable between countries. To begin with, the countries studied do not organize their educational timelines in the same way. Finally we opted for a classification into four categories elaborated on the basis of the variable EDATTAN built by IPUMS: 'less than primary', 'elementary complete', 'secondary complete' and 'tertiary complete'. EDATTAN registers the maximum level of educational attainment or that for which a diploma has been earned, and uses the international classification of the United Nations (2001) that sets primary school at 6 years, basic secondary at primary plus 3 and higher secondary at basic secondary plus 3. The levels of instruction in each country have been adapted to this classification. The

results of the analysis are sensitive to the number of levels upon which years of schooling are grouped. The accumulated experience indicates that the number of categories should be subjected to meaningful groupings with social and economic consequences.

Summary and discussion of main findings

Descriptive findings

Table 1 reports basic characteristics of husbands and wives for eight Latin American countries under study. During the 1970s, the proportion of men and women in consensual unions varies significantly by country. Panama stands out prominently with 53% of consensual unions, followed by Ecuador with 23%, and Colombia with 17%. Chile, Brazil and Argentina have the lowest prevalence rates of cohabitation. Cohabitation has increased remarkably between 1970 and 2000, mainly in those countries with lower levels of cohabitation. Analized by level of educational attainment, the growth of cohabitation has been relatively larger among higher educated strata. Whereas in the 1970s, cohabitation was extremely rare among individuals with secondary and university education, this is no longer the case in 2000.

Table 2 displays the relative distribution of unions for each country, year and type of union, according to type of homogamy –homogamous (within the same level of education), hypergamous (wife has less education than the husband) and hypogamous (husband has less education than the wife). Homogamous patterns prevail, accounting for more than 50% of all unions regardless of year, country, and union type; however there is a clear decline in homogamous unions from 1970 to 2000. During the 1970s, the largest proportions of homogamous unions correspond to consensual unions, but differentials wane in the 2000s. Regarding heterogamous couples, during the 1970s female hypergamy prevails both in consensual and marriage couples, regardless of country. Three decades later, most of these differences have disappeared or have even reversed.

Log-linear models

We use log-linear models to examine differences in assortative mating patterns between marriages and consensual unions. Log-linear models offer the possibility of examining relations between two or more variables controlling for their marginal distributions. To assess goodness of fit we use the *Likelihood Ratio* (X^2) statistic and the *Bayesian Indicator Criteria* (*BIC)* (Kass and Raftery, 1993).

Table 3 shows the goodness of fit statistics, model description and basic results of a series of log-linear fittings. For explanatory purposes, we have selected only eight models to illustrate the basic sequence of hypotheses leading to a final and best fitting model, as ascertained by means of X^2 and BIC. In both cases, the smaller the statistics, the better the fit, and therefore the better the explanatory power of the model.

Evidence from log-linear models sustains some of the hypotheses proposed in this paper, but not all. Regarding the first hypothesis, no evidence was found supporting that the gap in levels of homogamy in marital and consensual unions had varied during the intercensal period 1970-2000 (see Table 4 and Figure 1). Marital and consensual unions did vary in their homogamy patterns, but not in relation to their mutual differences. Regarding the second hypothesis, the observed patterns follow the same direction identified by the winnowing approach, although, the differences in homogamy levels between formal and informal unions tend to be modest. Regarding the third hypothesis, the evidence does not support the existence of significant differences in hypergamy patterns by union type. However, there is no doubt about the significant decline in hypergamy rates during the intercensal period 1970-2000, regardless of union type (see Table 5 and Figure 2).

It seems that differences found here, between formal and informal marriages, tend to be a matter of degree rather than of nature. In general, our findings suggest that both unions share the same pattern of educational homogamy. In this sense, our results are similar to those obtained by Blackwell and Lichter (2004) for the U.S. case.

Bibliography

Bhrolchain, M. N. (2001). Flexibility in the Marriage Market. *Population: An English Selection, 13*(2), 9-47.

Blackwell, D. L., & Lichter, D. T. (2000). Mate Selection Among Married and Cohabiting Couples. *Journal of Family Issues, 21*(3), 275-302.

Blackwell, D. L., & Lichter, D. T. (2004). Homogamy among dating, cohabiting, and married couples. *Sociological Quarterly, 45*(4), 719-737.

Blossfeld, H.-P., & Timm, A. (2003). *Who MarriesWhom? : Educational Systems as Marriage Markets in Modern Societies* (Vol. 12). Dordrecht: Kluwer Academic.

Brines, J., & Joyner, K. (1999). The Ties That Bind: Principles of Cohesion in Cohabitation and Marriage. *American Sociological Review, 64*(3), 333-355.

Castro Martin, T., Martin García, T., & Puga González, D. (2008). *Matrimonio Vs. Unión Consensual en Latinoamérica: Contrastes desde una Perspectiva de Género*. Paper presented at the III Congreso de la Asociación Latinoamericana de Población (ALAP),del 24 al 26 de setiembre de 2008, Córdoba, Argentina,

De Vos, S. (1998). Nuptiality in Latin America, *Working Paper 98-21*. Wisconsin, Madison: Center for Demography and Ecology.

Esteve, A. (2005). Tendencias en Homogamia Educacional en México: 1970-2000. *Estudios Demográficos y Urbanos, 20*(2), 341-362.

Esteve, A., & López-Ruiz, L. (2009). Union Formation Implication of Race and Gender Gaps in Educational Attainment: The Case of Latin America. *Population Research and Policy Review*, doi: 10.1007/s11113-009-9161-6.

Esteve, A., & McCaa, R. (2007). Homogamia Educativa en México y Brasil, 1970-2000: Pautas y Tendencias. *Latin American Research Review, 42*(3), 56-85.

García, B., & Rojas, O. (2002). Cambio en la Formación y Disoluciones de las Uniones en América Latina. *Papeles de Población*(32), 12-31.

Hamplova, D. (2009). Educational Homogamy Among Married and Unmarried Couples in Europe Does Context Matter? *Journal of Family Issues, 30*(1), 28-52.
Hamplova, D., & Le Bourdais, C. (2008). Educational Homogamy of Married and Unmarried Couples in English and French Canada. *Canadian Journal of Sociology, 33*(4), 845-872.
Henry, L. (1966). Perturbations de la nuptialité résultant de la guerre 1914-1918. *Population (French Edition), 21*(2), 273-332.
Kalmijn, M., de Graaf, P. M., & Janssen, J. P. G. (2005). Intermarriage and the risk of divorce in the Netherlands: The effects of differences in religion and in nationality, 1974-94. *Population Studies, 59*(1), 71 - 85.
Kass, R. E., & Raftery, A. E. (1993). *Bayes Factors and Model Uncertainty*. Washington: University of Washington.
López Ruiz, L. A., Esteve, A., & Cabré, A. (2008). Distancia Social y Uniones Conyugales en América Latina. *Revista Latinoamericana de Población, 1*(2), 47-71.
Mare, R. D., & Schwartz, C. R. (2006). Educational assortative mating and the family background of the next generation. *Sociological Theory and Methods, 21*(2), 253-277.
Minnesota Population Center. (2009). Integrated Public Use Microdata Series - International: Version 5.0. Minneapolis: University of Minnesota.
Oppenheimer, V. K. (1988). A Theory of Marriage Timing. *The American Journal of Sociology, 94*(3), 563-591.
Oppenheimer, V. K. (1994). Women's Rising Employment and the Future of the Family in Industrial Societies. *Population and Development Review, 20*(2), 293-342.
Qian, Z. (1997). Breaking the Racial Barriers: Variations in Interracial Marriage Between 1980 and 1990. *Demography, 34*(2), 263-276.
Rodríguez Vignoli, J. (2005). Unión y Cohabitación en América Latina: ¿Modernidad, Exclusión, Diversidad?, *Serie Población y Desarrollo*. Santiago de Chile: CELADE (Centro Latinoamericano y Caribeño de Demografía).
Rosero Bixby, L. (1996). Nuptiality Trends and Fertility Transition in Latin America. In J. M. Guzmán, S. Singh, G. Rodríguez & E. A. Pantelides (Eds.), *The Fertility Transition in Latin America* (pp. 135-150). Oxford: Clarendon Press Oxford.
Schoen, R. (1983). Measuring the Tightness of a Marriage Squeeze. *Demography, 20*(1), 61-78.
Schoen, R., & Weinick, R. M. (1993). Partner Choice in Marriages and Cohabitations. *Journal of Marriage and Family, 55*(2), 408-414.
Schwartz, C. R. (2008). Pathways to Educational Homogamy in Marital and Cohabiting Unions, *Working Paper Series CCPR-016-05*: California Center for Population Research.
Schwartz, C. R., & Mare, R. D. (2005). Trends in Educational Assortative Marriage from 1940 to 2003. *Demography, 42*(4), 621-646.
Smits, J., Ultee, W., & Lammers, J. (1998). Educational Homogamy in 65 Countries: An Explanation of Differences in Openness Using Country-Level Explanatory Variables. *American Sociological Review, 63*(2), 264-285.
Ultee, W. C., & Luijkx, R. (1990). Educational Heterogamy and Father-to-Son Occupational Mobility in 23 Industrial Nations: General Societal Openness or Compensatory Strategies of Reproduction? *European Sociological Review, 6*(2), 125-149.
United Nations. (2001). *Handbook on Population and Housing Census Editing*. New York: United Nations.

Zavala de Cosío, M. E. (1995). Dos Modelos de Transición Demográfica en América Latina. *Perfiles Latinoamericanos, 4*(6), 29-47.

Table 1. Distribution of spouses by educational attainment, sex, country, type of union and year (%)

	1970s										2000s									
	Consensual union					Marriage					Consensual union					Marriage				
	< Prim	Prim.	Sec.	Uni.	Tot.	< Prim	Prim.	Sec.	Uni.	Tot.	< Prim	Prim.	Sec.	Uni.	Tot.	< Prim	Prim.	Sec.	Uni.	Tot.
Men																				
Argentina	66.1	32.7	0.6	0.6	9.2	28.8	60.1	5.8	5.3	90.8	13.3	57.8	24.1	4.8	29.0	5.4	48.6	36.1	10.0	71.0
Brazil	75.5	22.5	1.0	1.0	5.9	63.3	29.9	4.2	2.6	94.1	28.0	54.1	15.5	2.4	30.0	19.4	49.5	23.8	7.2	70.0
Chile	63.8	34.8	0.5	0.9	3.4	36.3	47.6	12.8	3.4	96.6	11.7	51.5	31.8	4.9	18.0	6.2	41.3	44.7	7.8	82.0
Colombia	77.9	20.8	0.6	0.6	16.6	56.1	32.8	6.3	4.8	83.4	26.7	42.4	25.8	5.1	55.3	12.6	33.9	37.0	16.6	44.7
Costa Rica	74.8	23.8	0.7	0.6	13.7	51.8	38.0	4.5	5.8	86.3	27.0	58.0	12.0	3.0	25.3	10.9	54.3	22.5	12.3	74.7
Ecuador	76.4	22.1	1.1	0.4	23.0	57.7	32.3	7.0	3.1	77.0	29.5	50.5	16.6	3.4	32.2	16.8	43.0	28.0	12.3	67.8
Mexico	87.0	12.2	0.3	0.5	13.1	69.2	24.9	2.1	3.8	86.9	21.9	59.4	13.0	5.7	17.6	16.1	51.9	18.2	13.8	82.4
Panama	64.3	32.6	2.8	0.3	52.8	27.7	43.0	19.4	9.8	47.2	14.0	55.4	27.1	3.5	53.8	4.4	34.6	43.6	17.4	46.2
Women																				
Argentina	71.8	27.7	0.1	0.3	9.2	30.9	64.3	2.3	2.5	90.8	11.8	55.0	28.1	5.1	29.0	4.8	41.0	44.8	9.4	71.0
Brazil	79.9	19.6	0.5	0.0	5.9	64.8	29.4	4.9	0.9	94.1	26.9	54.9	15.6	2.6	30.0	16.2	49.3	26.7	7.8	70.0
Chile	74.2	25.3	0.5	0.0	3.4	39.7	49.0	9.9	1.4	96.6	13.7	50.1	33.4	2.8	18.0	5.9	40.6	47.5	5.9	82.0
Colombia	85.2	14.4	0.1	0.3	16.6	57.6	35.5	5.3	1.6	83.4	22.5	43.0	29.5	5.0	55.3	10.5	29.4	42.4	17.7	44.7
Costa Rica	79.1	19.9	0.4	0.7	13.7	51.2	38.9	3.6	6.3	86.3	27.8	56.8	11.9	3.5	25.3	9.0	55.8	23.5	11.7	74.7
Ecuador	79.7	19.5	0.6	0.2	23.0	63.9	28.7	6.7	0.7	77.0	30.1	51.9	15.6	2.3	32.2	18.3	40.2	31.3	10.3	67.8
Mexico	92.3	7.0	0.2	0.5	13.1	73.3	24.6	1.5	0.7	86.9	26.6	59.0	11.6	2.9	17.6	16.4	53.3	20.0	10.4	82.4
Panama	66.6	31.9	1.5	0.1	52.8	26.7	47.0	20.7	5.6	47.2	16.3	53.0	26.9	3.8	53.8	4.8	32.3	42.1	20.8	46.2

Legend: < Prim, less than primary; Prim. Primary completed; Sec. Secondary completed; Uni. University completed; Tot. Total.
Source: IPUMS-international 2009.

Table 2. Distribution of unions by type of homogamy, country, type of union and year (%)

	1970s						2000s					
	Consensual union			Marriage			Consensual union			Marriage		
	Hiper	Homo	Hipo	Hiper	Homo	Hipo	Hiper	Homo	Hipo	Hiper	Homo	Hipo
Country												
Argentina	18.1	70.2	11.7	20.6	67.3	12.1	16.7	60.6	22.7	15.3	62.0	22.7
Brazil	13.1	79.7	7.3	13.0	77.3	9.7	20.6	57.2	22.2	17.6	58.3	24.1
Chile	19.5	72.4	8.1	21.8	65.5	12.7	23.1	57.6	19.3	20.0	60.3	19.7
Colombia	13.6	81.0	5.4	17.5	71.6	10.8	19.0	55.2	25.9	16.6	58.9	24.5
Costa Rica	15.3	74.5	10.3	16.7	66.5	16.8	22.2	56.4	21.4	19.8	59.2	21.0
Ecuador	10.8	82.6	6.6	16.2	77.4	6.4	21.3	60.3	18.4	21.8	59.1	19.2
Mexico	8.7	88.2	3.2	15.1	77.9	7.0	24.3	60.9	14.9	22.1	59.6	18.3
Panama	14.5	74.3	11.1	20.8	63.3	15.9	22.8	56.2	21.0	20.0	56.3	23.6

Legend: Hiper. Hipergamous unions; Homo. Homogamous unions; Hipo. Hipogamous unions.
Source: Own elaboration based on IPUMS-International (2009).

Table 3. Goodness of fit statistics. log-linear models of educational assortative mating

		X^2	d.f.	BIC
1	TCUM. TCUW	59092.9	288	44433.0
2	TCUM. TCUW. MW	2530.3	279	-837.3
3	TCUM. TCUW. MW. HomT	1531.4	274	-1717.1
4	TCUM. TCUW. MW. HomT. HomC	900.8	242	-1998.7
5	TCUM. TCUW. MW. HomT. HomC. HomU	778.0	237	-2032.0
6	TCUM. TCUW. SimU. SimT. SimC	647.7	226	-2043.13
7	TCUM. TCUW. SimU. SimT. SimC. AsimT	511.38	224	-2064.50
8	TCUM. TCUW. SimU. SimT. SimC. AsimT. AsimC. AsimU	533.29	214	-1968.71

T (2) Time: 1970. 2000; C (8) Country: Argentina. Brazil. Chile. Colombia. Costa Rica. Ecuador. Mexico. Panama; U (2) Type of union: Consensual union. Marriage; M (4) Men's educational attainment: Less than primary. Primary completed. Secondary completed. University; W (4) Women's educational attainment: Less than primary. Primary completed. Secondary completed. University; Hom (4) homogamy parameters; Sim (6) symmetry parameters; Asim (1) asymmetry parameters.

Table 4. Homogamy parameters (log odss ratio. model 5)

	1970s								2000s							
	Consensual union				Marriage				Consensual union				Marriage			
	< Prim	Prim.	Sec.	Uni.	< Prim	Prim.	Sec.	Uni.	< Prim	Prim.	Sec.	Uni.	< Prim	Prim.	Sec.	Uni.
Country																
Argentina	2.87	0.93	1.60	0.85	3.30	0.87	1.81	1.02	1.57	1.47	0.77	2.12	2.00	1.42	0.97	2.29
Brazil	3.48	0.84	1.47	1.30	3.92	0.78	1.68	1.47	2.18	1.38	0.64	2.58	2.61	1.33	0.84	2.75
Chile	2.82	1.09	1.14	1.82	3.25	1.03	1.35	1.99	1.51	1.63	0.31	3.09	1.95	1.58	0.52	3.26
Colombia	3.48	0.69	1.68	0.89	3.91	0.63	1.89	1.06	2.17	1.23	0.85	2.17	2.61	1.18	1.05	2.34
Costa Rica	3.39	0.37	1.98	-0.07	3.83	0.31	2.19	0.10	2.09	0.91	1.15	1.20	2.52	0.86	1.35	1.37
Ecuador	3.56	1.11	1.60	0.17	3.99	1.05	1.81	0.34	2.25	1.66	0.77	1.45	2.69	1.60	0.97	1.62
Mexico	3.64	0.69	1.66	0.15	4.07	0.63	1.87	0.32	2.34	1.23	0.83	1.42	2.77	1.18	1.03	1.59
Panama	3.76	0.64	1.40	0.54	4.19	0.59	1.61	0.71	2.46	1.19	0.56	1.82	2.89	1.13	0.77	1.99

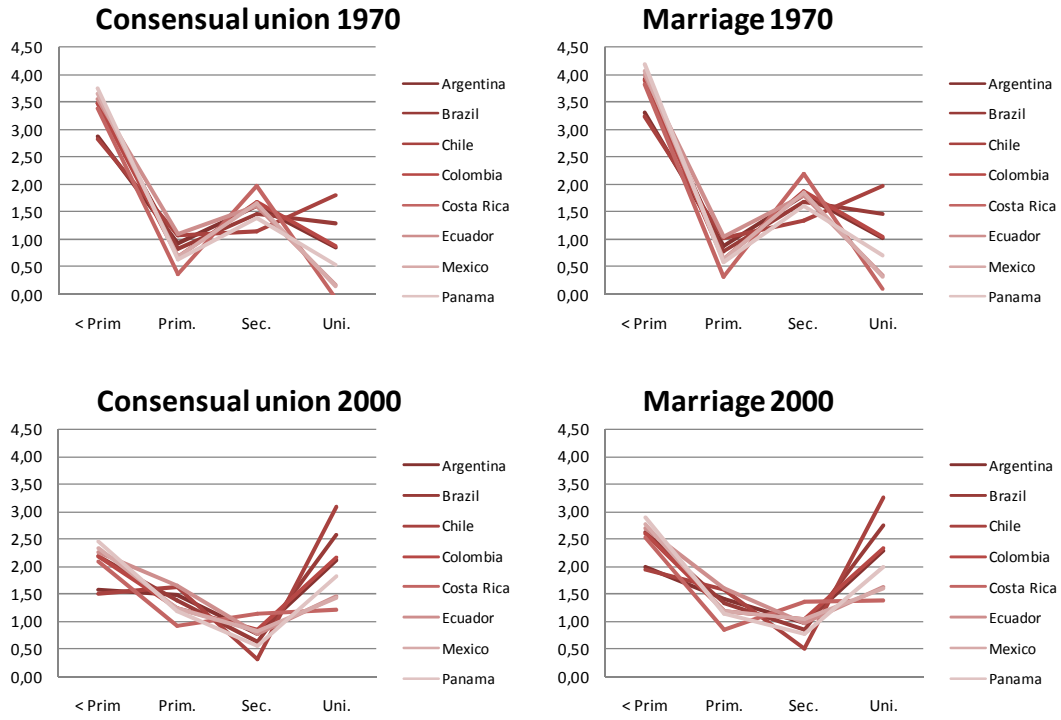
Source: Own elaboration based on IPUMS-International (2009).

Table 5. Hipergamy parameters (log odds ratio. model 8).

	1970s		2000s	
	Consensual union	Marriage	Consensual union	Marriage
Country				
Argentina	0.29	0.39	-0.23	-0.13
Brazil	0.28	0.38	-0.24	-0.14
Chile	0.28	0.38	-0.24	-0.14
Colombia	0.54	0.64	0.02	0.12
Costa Rica	0.72	0.82	0.20	0.30
Ecuador	0.80	0.90	0.28	0.38
Mexico	0.49	0.59	-0.03	0.07
Panama	0.57	0.67	0.05	0.15

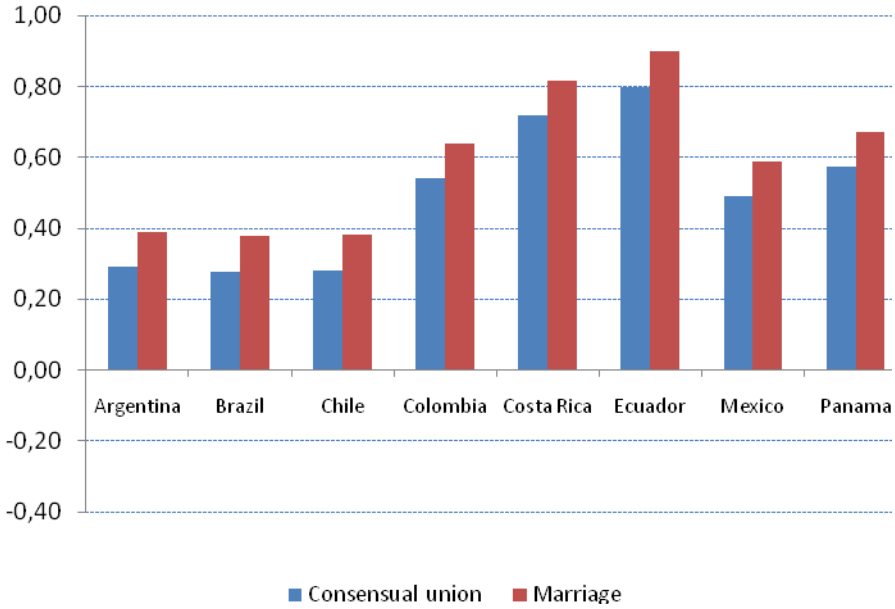
Source: Own elaboration based on IPUMS-International (2009).

Figure 1. Educational homogamy by educational attainment. type of union and country. (log odds ratio. model 5)



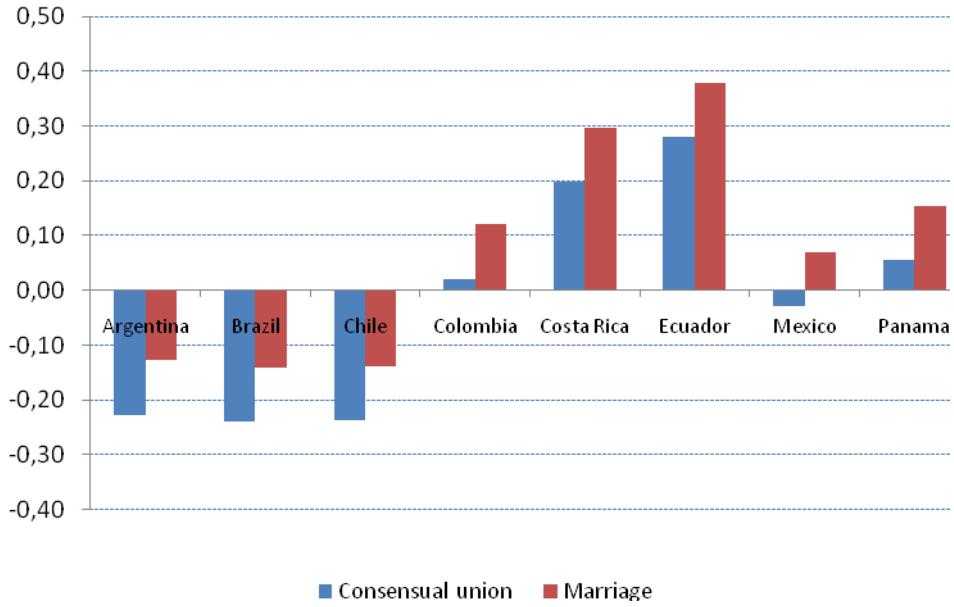
Source: Own elaboration based on IPUMS-International (2009).

Figure 2. Female hipergamy by type of union and country. 1970.
(log odds ratio. model 8).



Source: Own elaboration based on IPUMS-International (2009).

Figure3. Female hipergamy by type of union and country. 2000.
(log odds ratio. model 8).



Source: Own elaboration based on IPUMS-International (2009).