

Unmarried Cohabitation in the Americas: Unveiling the Spatial Dimension¹

Antonio López-Gay*, Sheela Kennedy **, Ron Lesthaeghe***, Benoit Laplante****, Julian López*,
Iñaki Permanyer*, Anna Turu*, Albert Esteve*

* Center for Demographic Studies, Barcelona

** University of Minnesota

*** Free University of Brussels

**** University of Quebec

This paper presents the map unmarried cohabitation in the Americas. The map offers a large scale cross-national perspective together with small area estimates of cohabitation. Census microdata from 41 countries and more than 17,000 units have been pulled together to map the percentage of cohabitation among women in union aged 25 to 29. From Canada to Argentina, results show inter- and intra-national contrasting regional patterns. The highest rates of cohabitation are found in areas of Central America, the Caribbean, Colombia and Peru. The lowest rates are mainly found in the United States and Mexico. Brazil, Argentina and Chile occupy intermediate positions. In all countries, there is substantial spatial heterogeneity, as indicated by spatial autocorrelation statistics. Our results beg the question as to which forces have shaped these patterns and remind us that such forces need to be taken into account to understand recent patterns and rises in cohabitation.

NOTE TO THE CHAIR: The extended abstract includes the tables, figures and maps that will be part of the final manuscript. After 2 years of work, results are final. We are now in the process of writing the manuscript. First we will justify the need and importance of carrying out such a large comparative analysis. Due to data limitations, the spatial dimension of most social phenomena is seldom studied. The vast majority of cross-national research is carried out at country level. In our approach, we do combine the large scale comparative perspective with a detailed geographic analysis within countries. This perspective allows us to identify clustering patterns that often go beyond national boundaries as well as to observe striking regional differences within countries. Second, we will carefully document the data sets and the design of the geographic boundary files. The percentage of cohabitation among women 25-29 in union has been chosen as our main indicator. By focusing on women 25-29, we

¹ Main funding for this project comes from the European Research Council as a Starting Grant to Albert Esteve, principal investigator of the WorldFam project (www.ced.uab.es/worldfam).

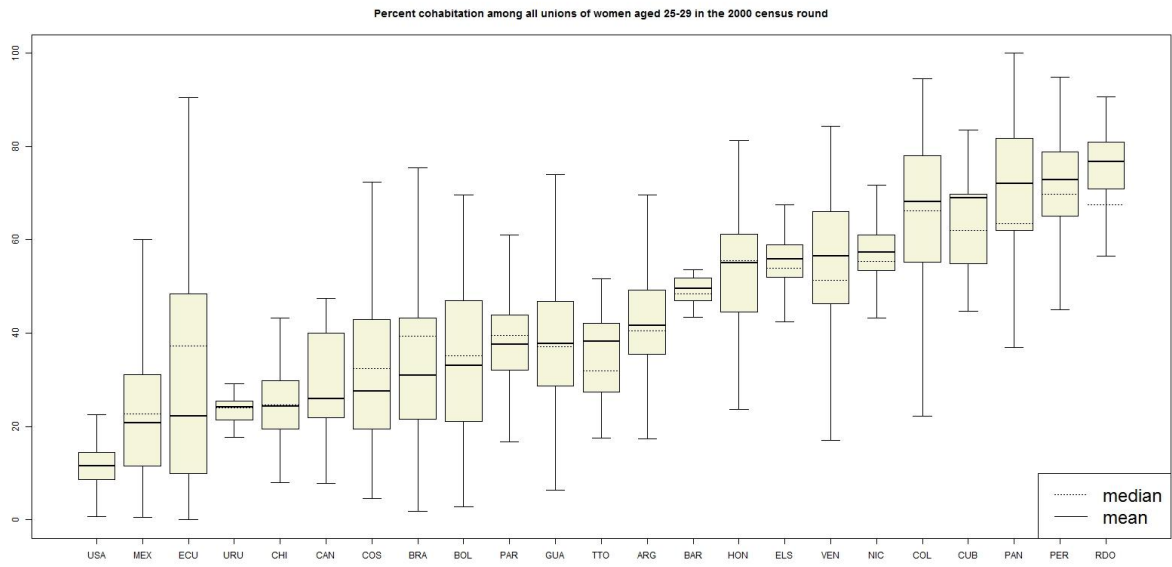
obtain a clear picture of their union status in a crucial phase of their lives. Third, and final, we present our main results. We start with a general description of cohabitation levels across the 41 countries (see Figure 1) and dispersion within countries. We follow with the presentation of the map of cohabitation in the Americas (see Map 1). We use spatial autocorrelation statistics to measure global autocorrelation within countries (see Table 2) and to identify clusters of spatial autocorrelation at local level (see Map 2).

Table 1. Summary of the Census data, boundary files and geographic detail used for the analysis of consensual unions in the Americas. 2000 Census round.

Country	Census Year	Boundary file provider*	Denomination	Administrative level	Number of units	Average pop. per unit	Average surface (km ²)
North America							
Canada	2001	STATCAN	Census division	2	288	104.191	34.669
Mexico	2000	CELADE	Municipality	2	2443	39.711	803
United States	2000	IPUMS	PUMA	3	2071	135.887	4.744
Central America							
Belize	2000	GADM	Single division	0	1	232.111	21.989
Costa Rica	2000	CELADE	District	3	459	8.301	112
El Salvador	2007	CELADE	Municipality	2	262	21.924	77
Guatemala	2002	CELADE	Municipality	3	331	33.949	327
Honduras	2001	GADM	Municipality	2	298	20.392	377
Mexico	2000	CELADE	Municipality	2	2443	39.711	803
Nicaragua	2005	GADM	Municipality	2	153	33.609	787
Panama	2000	CELADE	<i>Corregimiento</i>	3	592	4.793	126
South America							
Argentina	2000	GADM	Department	2	532	68.158	5.223
Bolivia	2001	CELADE	Section	3	314	26.351	3.442
Brazil	2000	IBGE	Municipality	3	5507	30.847	1.543
Chile	2002	CELADE	Commune	3	342	44.200	2.220
Colombia	2005	DANE	Municipality	2	1113	36.995	994
Ecuador	2001	CELADE	Parish	3	995	12.218	255
French Guyana	2008	GADM	Single division	0	1	219.266	83.299
Paraguay	2002	CELADE	Census District	2	241	21.424	1.655
Peru	2007	CELADE	District	3	1833	14.955	702
Rep. of Guyana	2002	GADM	Single division	0	1	751.230	209.739
Uruguay	1996	GADM	Department	1	19	166.514	9.340
Venezuela	2001	INE	Parish	3	1116	20.658	830
Caribbean							
Anguilla	2001	GADM	Single division	0	1	11.430	83
Antigua and Barbuda	2001	GADM	Single division	0	1	63.863	436
Bahamas	2000	GADM	Single division	0	1	303.611	13.388
Barbados	2000	CELADE	Parish	1	11	22.728	74
Cuba	2002	GADM	Parish	1	15	745.845	7.382
Dominica	2001	GADM	Single division	0	1	69.775	754
Grenada	2001	GADM	Single division	0	1	103.137	360
Guadeloupe	2008	GADM	Single division	0	1	401.784	1.731
British Virgin Islands	2001	GADM	Single division	0	1	23.161	169
Jamaica	2001	GADM	Single division	0	1	2.607.635	11.000
Martinique	2008	GADM	Single division	0	1	397.693	1.118
Montserrat	2001	GADM	Single division	0	1	4.303	101
Dominican Republic	2002	CELADE	Municipality	3	225	38.056	212
Saint Kitts and Nevis	2001	GADM	Single division	0	1	46.325	267
Saint Vincent and the Grenadines	2001	GADM	Single division	0	1	106.253	398
Saint Lucia	2001	GADM	Single division	0	1	156.741	614
Trinidad and Tobago	2000	CELADE	Parish	1	15	74.318	344

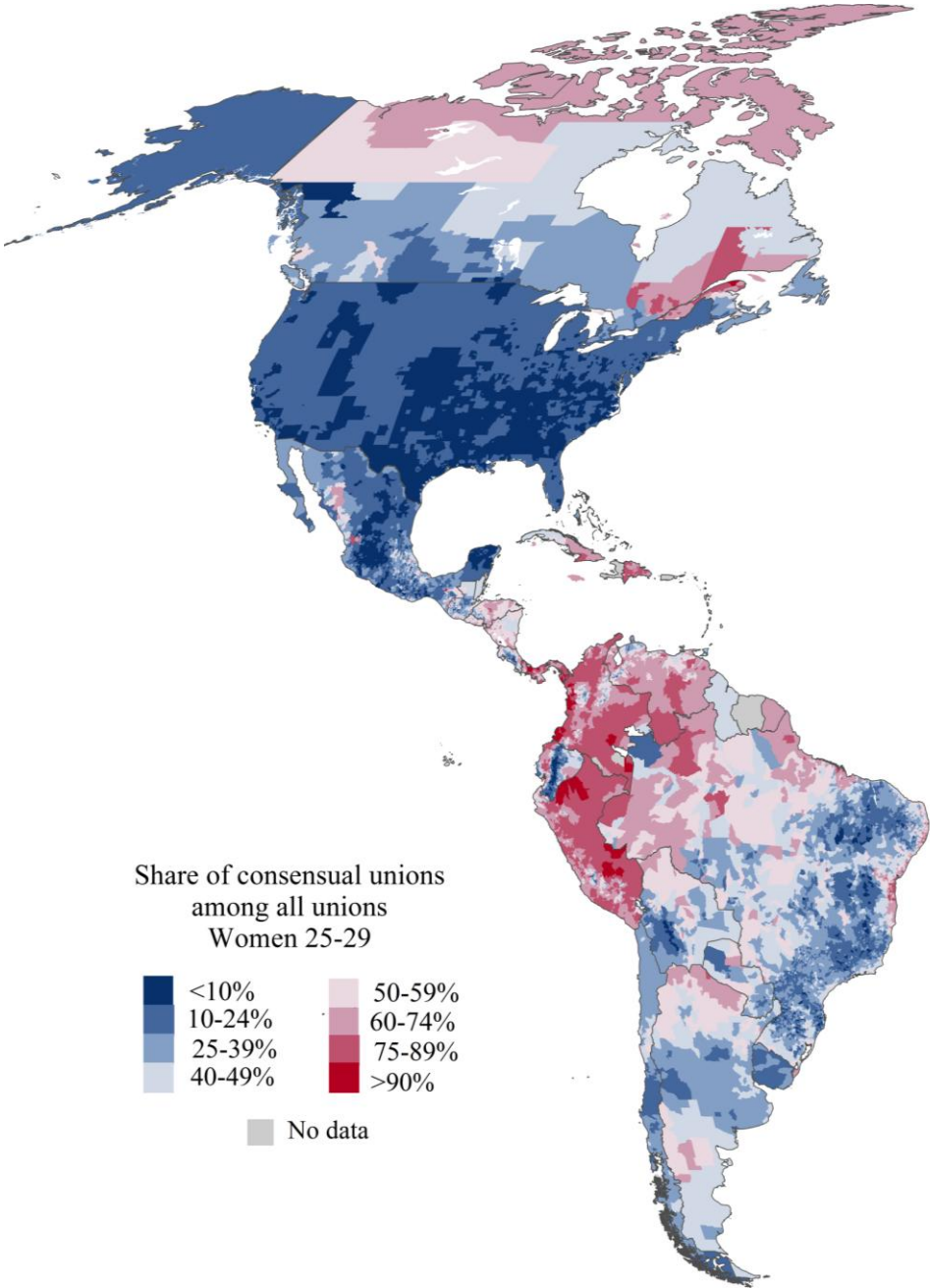
Source: Own work.

Figure 1. Regional distribution of the share of consensual unions among all unions by country . Women 25-29. Census Round 2000.



Source: Own work.

Map 1. Share of consensual unions among all unions. Women 25-29. Census Round 2000



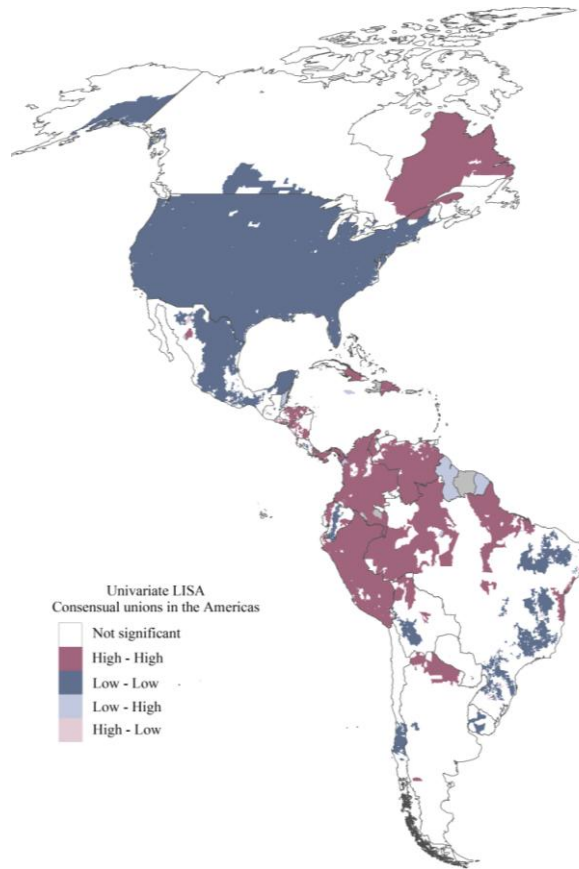
Source: Own work.

Table 2. Global Moran's I. Census Round 2000

Country	Global Moran's I	Country	Global Moran's I
North America		Caribbean	
Canada	0,8297	Cuba	0,8206
Mexico	0,4160	Dominican Republic	0,6842
United States	0,4002	South America	
Central America		Argentina	0,8309
Costa Rica	0,8197	Bolivia	0,8153
El Salvador	0,4160	Brazil	0,7794
Guatemala	0,4805	Chile	0,8123
Honduras	0,7535	Colombia	0,8175
Mexico	0,6504	Ecuador	0,9228
Nicaragua	0,6102	Paraguay	0,6506
Panama	0,8319	Peru	0,7611
		Uruguay	0,2270
		Venezuela	0,7509

Source: Own work.

Map 2. Local indicators of spatial autocorrelation (LISA) of the share of consensual unions. Census Round 2000



Fuente: Elaboración propia.

References

- L. Anselin (1995), "Local indicators of spatial association-LISA", *Geographical Analysis* 27: 93 –115.
- L. Anselin, R. Florax, S. Rey (2004): *Advances in Spatial Econometrics. Methodology, Tools and Applications*, Springer, Berlin.
- R. Assunção, C.P. Schmertman, J.E. Potter, S. Cavenaghi (2005), "Empirical Bayes estimation of demographic schedules for small areas", *Demography* 42(3): 537-558).
- G. Binstock (2008): "Cambios en la formacion de la familia en Argentina: cuestion de tiempo o cuestion de forma ?" *Paper presented at the tirad Congress of the Latin American population Association (ALAP)*, Cordoba, Argentina, September 24-26.
- W. Cabella, A. Peri, M. C. Street (2004): "Dos orillas y una transicion ? La segunda transición demografica en Buenos Aires y Montevideo en perspectiva biografica." *Paper presented at the first Congress of the Latin American Population Association (ALAP)*, Caxambu MG, Brazil, September 18-20.
- A. Esteve, R. Lesthaeghe, A. López-Gay (2012): "The Latin American Cohabitation Boom", *Population and Development Review*, 38: 55-81.
- R. Haining (2003): *Spatial Data Analysis. Theory and Practice*, Cambridge University Press, Cambrigde.
- Minnesota Population Center (2011). *Integrated Public Use Microdata Series International: Version 6.1*. [Machine-readable database] Minneapolis: University of Minnesota.
- J. Quilodran (2008): "Hacia la instalacion de un modelo de nupcialidad post transicional en America Latina?" *Paper presented at the third Congress of the Latin American Population Association (ALAP)*, Cordoba, Argentina, September 24-26.
- J. Rodriguez Vignoli (2005): *Union y cohabitacion en America Latina: modernidad, exclusion, diversidad?* CELADE, Division de Poblacion de la CEPAL and UNFPA, Serie Poblacion y Desarrollo 57, Santiago de Chile..