# Chapter 5
# The Expansion of Cohabitation in Mexico, 1930–2010: The Revenge of History?

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## 1 Introduction

Mexico shares with most other Latin American countries a nuptiality system that is characterized by the coexistence of marriage and cohabitation. This dual nuptiality model (Castro-Martín 2002), with origins in pre-hispanic times, has been present for centuries. Despite the fact that cohabitation survived in Mexico with different intensity between regions and among several indigenous populations for such a long period of time, the shift from marriage to cohabitation in Mexico came relatively late by Latin American standards. In fact, the main increase in cohabitation occurs after 1990 and especially during the 2000–2010 decade. After the economic crisis of 1994–1995 the upward trend not only continues but also accelerates, so that the Mexican case too is an example of a sustained rise of cohabitation and not just of a temporary response to an adverse economic event.[1]

Our study of Mexican partnerships is furthermore enriched by the availability of the census data of 1930. By being able to go further back in time than in the other countries, we can also better document the phase that preceded the post-1990

[1] The economic crises of the 1980s in the Latin American countries or later in Mexico did not produce a postponement of partnership formation, but may have caused a temporary postponement of marriages and the concomitant celebrations.

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cohabitation boom. This earlier phase is characterized by the systematic reduction in cohabitation in favor of marriages, which, in tandem with the subsequent increase, results in an overall U-shaped evolution of cohabitation for the entire period between 1930 and 2010. The geo-historical study of cohabitation is also enhanced by the availability of data at the level of municipalities for the three most recent censuses. Quite often regions with the higher percentages of cohabiting women straddle the state borders, and links with ethnic or other local particularities are only visible when using smaller spatial aggregates. As a result, a detailed statistical contextual analysis can be performed for 2000 and 2010, with some 317,000 individual partnered women 25–29 each, and 2456 municipalities as units.

As is the case for the other Latin American countries treated in this volume, also the Mexican individual census data are provided by IPUMS. This allows for the use of similar methodologies and statistical models as in the other chapters.

The recent expansion of cohabitation, which occurs at the expense of religious and civil marriages, compels us to gain a better understanding of the nature and type of cohabitation that is now booming in the area. More specifically, we should investigate whether recent cohabitation shares the same characteristics with the older forms or with the new type that emerged in the western industrialized world. In the former instance, we would merely have a "*revenge of history*", but in the latter we would witness an entirely novel phenomenon that fits the "*Second Demographic Transition*" (SDT) description (Lesthaeghe 1995, 2010; Esteve et al. 2012). In this eventuality, we would have the traditional consensual unions and "trial marriages" with centuries of history at one end, and, at the other end, the SDT-type cohabitation that is part of the "non-conformist" transition that supports individual freedom of choice in a great variety of domains (individual autonomy) and questions both the intergenerational and gender power relationships (anti-authoritarian, egalitarian, secularized). Another, and quite plausible, possibility is that the two types interconnect so that their boundaries become more blurred. Such a syncretic form would also be a novel feature corresponding to a Latin American SDT "sui generis", which would be partially distinct when compared to the Western and Northern European SDT-pattern.

## 2 The Historical Phases in the Evolution of Partnership Types in Mexico

Examining the new cohabitation in a Mexican or Latin American context containing a historical precedent is a challenging task. Both the traditional and the new cohabitation developed from profound changes in the way couples were formed. The traditional cohabitation was already present before the Spanish conquest, but it was reinforced later on because of the characteristics of that colonization and its subsequent evolution. On the other hand, the rise of a new SDT-type of cohabitation also has to be understood as the culmination of a long process of secularization and emancipation.

## 2.1 Cohabitation: A Secular Institution

The traditional cohabitation includes a series of practices that belong to what some scholars refer to as "the Meso-American model of family formation" (Robichaux, 2003): early formation of first union as a response to high mortality, early start of childbearing, universality of unions, possibility of union dissolution, parental and community influence in partner choice, and tolerance toward cohabitation and even polygamy, which was accepted, but only for the upper class. In other words, contrary to the Tridentine religious marriage that the Catholic Church tried to impose during colonial times, the pre-hispanic model allowed "trial marriages" that could lead either to a formal marriage or to the return of the woman to her parental home. In the former instance, residence became patrilocal, and the groom's parents could press the new couple to marry if they thought that the young adults were behaving as married. The trial period worked as a filter to select the best fitting woman or to select the woman that would function best in her new family, a practice that continues to the present ( Gonzalez Montes 1999).

After the Spanish conquest, the Church tried to impose its religious marriage, but it had to make several concessions. During the initial years, the Church reacted against the early union formation accompanied with early childbearing, and against arranged and trial marriage. However, cohabitation had an inherent flexibility that puts it outside the normative European framework. During the colonial period cohabitation also fostered "*mestizaje*" between the indigenous and Spanish populations, since it gave shelter to inter-racial concubinage and extra-marital unions. Those unions were tolerated by the Church, provided that the status of the legitimate spouse was respected (Gonzalbo 1991; Gonzalbo and Rabell 2004). In addition, cohabitation was a refuge for heterogamous couples whose marriage would not have been socially acceptable by one or both sets of parents. In this instance, cohabitation would still provide a sufficiently stable setting for raising children. By the end of the Colony, in 1776, the Crown toughened the conditions to form heterogamous or exogamous marriages by passing the "*Real Pragmatica de Matrimonios*", but its impact was only felt by a small group of property holders. In every-day life, lassitude in complying with imposed rules prevailed (Gonzalbo 1991). Furthermore, also old Spanish customs such as the *barrangania* (concubinage or consensual union) and polygamy, inherited from the Muslim occupation of Spain, left openings for transgressing the official colonial legislation.

## 2.2 From the Institutionalization of Civil Marriage to the Expansion of Cohabitation

By the time of the Independence at the start of the nineteenth century, the Mexican marriage laws were not that different from what they had been before, except for the fact that they weakened the position of women (McCaa 1994). By the middle of that

century, the liberal movements were able to institute civil marriage, in which the State replaced the Church in the sanctioning of marriages. In 1859 the Law on Civil Marriage was passed as the only code that provides official recognition of marriages. Concomitantly, also the civil registration system was established. However, it took more than 30 years for the first marriage statistics to be published in 1893 (Secretaría de Gobernación 1982), which clearly shows that the implementation of the 1859 legislation met with major obstacles such as inadequate communication, a lack of enforcement, and the rejection by a large part of the population which still preferred a religious marriage. Nevertheless, it can be argued that the secularization of marriage was one of the main results of the liberal legislation of the nineteenth century, and that this in its turn also initiated the secularization of society as a whole. The outcome was a double institutionalization of marriage and the establishment of three categories: civil only, religious only and civil plus religious.

The early decades of the twentieth century were characterized by the consolidation of civil marriage, and in 1929 such a marriage became compulsory prior to the religious one. Simultaneously, cohabitation was coded for the first time in the census of 1930, which makes this census the prime source for starting more detailed studies of Mexican nuptiality patterns. In the earlier censuses (1895, 1910, 1922) cohabitants just appeared in the category of singles (Quilodrán 1974, 1998 and 2010). However, it is also likely that the 1930 census underestimated the incidence of cohabitation.

Between 1930 and 1990 there is a steady decline of religious marriages (R) as a single event, and a smaller concomitant rise in the proportions only having a civil marriage (C). The category of the dual marriage (C + R) is the one that expands from 1930 till 1980. An accompanying feature is the reduction in cohabitation during that period. The data for women 15 to 59 are presented in Table 5.1.

**Table 5.1** Percent in each type of marriage and in cohabitation, partnered women 15–59, Mexican censuses 1930–2010

| | Religious only (R) | Civil marriage only (C) | Both C + R marriages | Cohabitation |
|---|---|---|---|---|
| 1930 | 27.6 | 11.8 | 35.1 | 25.5 |
| 1940 | 15.8 | 14.9 | 47.0 | 22.3 |
| 1950 | 12.7 | 16.2 | 52.2 | 18.9 |
| 1960 | 9.6 | 17.4 | 56.7 | 16.2 |
| 1970 | 8.3 | 14.8 | 61.4 | 15.5 |
| 1980 | 4.1 | 19.5 | 62.4 | 13.9 |
| 1990 | 3.9 | 21.7 | 59.9 | 14.6 |
| 2000 | 6.5 | 24.3 | 51.9 | 24.1 |
| 2010 | 3.0 | 24.9 | 43.6 | 28.6 |

*Source*: J. Quilodrán (1998) and INEGI

## 3 The Rise of Cohabitation: The View from the Censuses 1930–2010

### *3.1 The Age Profiles*

As in the studies of the other countries, we mainly analyze Mexican data which pertain to proportions currently cohabiting among women who are currently in a union (i.e. "partnered"), either via marriage or via cohabitation. The evolution of these proportions by age and over the censuses from 1930 to 2010 is shown in Fig. 5.1. The age profiles from age 20 to 65 are very similar in the censuses till 1990, and until that date, the proportions cohabiting systematically decreased. However, already in 1990 a trend reversal can be noted for the youngest cohort then aged 20–24. After 1990, all new incoming cohorts produce *major increases* in cohabitation and the expansion gains momentum between 2000 and 2010.

The data of Fig. 5.1 can also be read for cohorts. For instance, among ever-partnered women at age 25 in 1930 about 27 % were cohabiting, and 30 years later in 1960 this percentage dropped to about 12 % for these women then age 55. Evidently, many young cohabiting women in 1930 converted their unions into marriages at older ages. This dropping off of proportions cohabiting with age is being attenuated as time advances. For instance, the young partnered women of 25 in 1970 start out at 17 % cohabiting, and about 12 % are still doing so at age 55 in 2000.

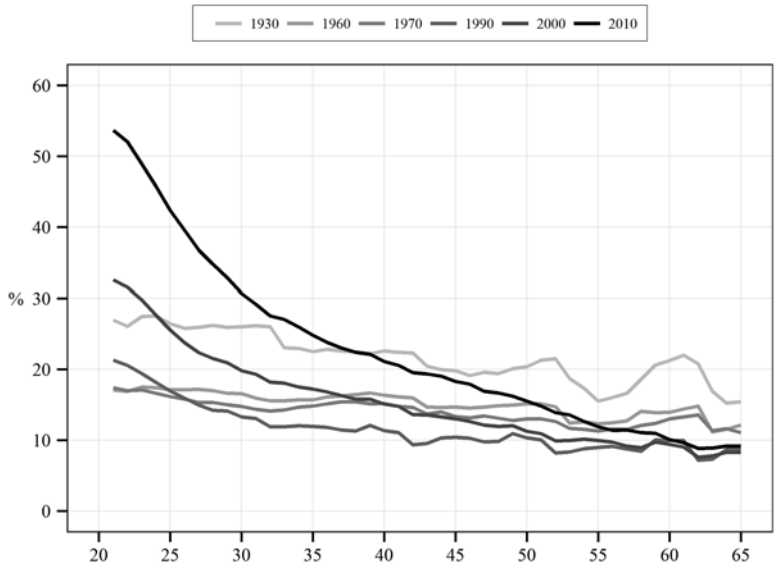



**Fig. 5.1** Percent partnered Mexican women currently cohabiting by age and in the censuses from 1930 to 2010 (*Source*: Authors' elaboration based on census samples from IPUMS-International and INEGI)

This is a drop off of 5 percentage points against 15 points in the cohort previously discussed. For partnered women age 25 in 1990, however, the move over 20 years is from about 17–19 % at age 45, and the drop off with age beyond 25 has disappeared.[2] Hence, there is a new element being added to the picture after 1990: *cohabitation is now again a more lasting state*.

## *3.2 The Spatial Distribution by State*

Restricting the analysis to partnered women 25–29, the percentages cohabiting for Mexico as a whole show the initial downward trend from about 26 % in 1930 to 13 % in 1980. Despite the fact that several states are missing in 1930, one can still assume that the share of cohabitation has about halved during these initial 50 years. In 2010, however, the percentage cohabiting reaches 37 %, and during the last three decades its incidence has almost tripled (Table 5.2).

The data in Table 5.2 are also plotted in Fig. 5.2. These data show that the U-shaped evolution is present in the majority of states, but also that the variance was much larger in 1930 than in 2010. In other words, at the start of our observation there were many states where cohabitation was already very rare, but also others in which it still exceeded 40 and even 50 %. At the low end of the distribution with less than 10 % in 1930 or 1960 are states such as Aguacalientes, Guanajuato, Jalisco, Michoacan, Colima, Nueva Leon, Queretaro, Tlaxcala and Zacatecas. At the opposite end with more than 40 % cohabiting are Sinaloa and then Hidalgo, Veracruz, Tabasco and Chiapas. Hence, there were two zones with high levels of cohabitation (Sierra Madre Occidental, Gulf of Mexico and Chiapas) separated by a "North–south trench" of low levels, running from Coahuila to Michoacan. In addition to this trench, the entire Yucatan peninsula, with a large Maya indigenous population, also exhibited very low levels of cohabitation.[3]

The evolution by state is also presented in Map 5.1. The top row of three maps shows the reduction phase, whereas the bottom row with the three maps starting in 1990 displays the expansion phase. As already noted, the high cohabitation areas at the onset formed a band along the Gulf of Mexico (Veracruz, Tabasco) and stretching inland to Hidalgo in the North and Chiapas in the South. In addition, the equally high northwestern zone in the Sierra Madre Occidental and the Sierra de Nayar corresponds to the states of Sinaloa and Nayarit. All these areas have falling percentages cohabiting till the 1980s, but stay nevertheless at the upper end of the distribution. During the second phase, after 1990, *cohabitation increases everywhere*, but the former higher states stay at the top of the distribution. But many others are also catching up: the Baja California states, Sonora and Chihuahua,

[2] This interpretation assumes that there are no or only minor changes in the denominator across cohorts, i.e. that over these ages, different cohorts did not experience significant differences in the proportions in a union.

[3] Quilodrán (1998, 2001) established the same corridor with 1990 data.

**Table 5.2** Percent cohabiting among partnered women age 25–29 in Mexican states, 1930–2010

| State | 1930 | 1960 | 1970 | 1980 | 1990 | 2000 | 2010 |
|---|---|---|---|---|---|---|---|
| Aguascalientes | – | 1.0 | 4.1 | 3.7 | 4.3 | 9.28 | 23.8 |
| Baja California | – | 16.3 | 12.0 | 14.8 | 19.9 | 32.24 | 50.3 |
| Baja California Sur | – | 20.5 | 16.7 | 12.2 | 18.4 | 26.19 | 47.4 |
| Campeche | – | 15.4 | 10.6 | 8.3 | 11.5 | 18.29 | 26.6 |
| Coahuila | 12.9 | 10.7 | 5.6 | 7.2 | 6.4 | 13.13 | 23.5 |
| Colima | – | 15.6 | 9.1 | 12.9 | 15.7 | 22.64 | 38.6 |
| Chiapas | 63.6 | 43.7 | 38.1 | 27.8 | 28.7 | 34.14 | 45.7 |
| Chihuahua | 18.4 | 12.9 | 12.5 | 11.8 | 14.0 | 27.65 | 44.4 |
| Distrito Federal | – | 13.2 | 8.9 | 10.2 | 16.2 | 27.26 | 48.2 |
| Durango | 20.7 | 11.1 | 12.4 | 12.6 | 12.3 | 22.01 | 33.9 |
| Guanajuato | 4.0 | 3.9 | 3.3 | 3.4 | 3.5 | 7.15 | 18.2 |
| Guerrero | 25.7 | 14.5 | 13.6 | 12.5 | 14.5 | 19.38 | 29.4 |
| Hidalgo | 59.2 | 34.7 | 26.8 | 24.22 | 24.9 | 32.09 | 47.5 |
| Jalisco | 8.0 | 6.7 | 6.0 | 6.02 | 6.4 | 11.35 | 25.9 |
| México | 13.9 | 8.7 | 9.1 | 10.5 | 14.6 | 24.33 | 42.0 |
| Michoacán | 14.8 | 5.0 | 6.1 | 6.4 | 6.5 | 9.97 | 21.9 |
| Morelos | 34.7 | 25.3 | 17.7 | 18.3 | 20.5 | 30.39 | 44.7 |
| Nayarit | 34.1 | 34.3 | 25.7 | 28.3 | 28.8 | 33.29 | 43.0 |
| Nuevo León | 10.0 | 6.9 | 7.4 | 4.4 | 4.8 | 9.74 | 22.6 |
| Oaxaca | 30.9 | 21.0 | 23.6 | 18.2 | 17.6 | 24.24 | 35.6 |
| Puebla | 29.0 | 18.8 | 19.1 | 15.8 | 18.7 | 31.56 | 50.1 |
| Querétaro | – | 2.9 | 3.4 | 5.9 | 7.2 | 16.21 | 36.7 |
| Quintana Roo | – | 11.8 | 18.8 | 10.4 | 16.4 | 24.47 | 45.7 |
| San Luis Potosí | 21.0 | 14.0 | 10.6 | 10.0 | 10.7 | 15.27 | 33.0 |
| Sinaloa | 54.0 | 32.6 | 31.9 | 22.7 | 23.1 | 26.56 | 32.2 |
| Sonora | 19.8 | 20.3 | 19.7 | 14.5 | 20.2 | 30.56 | 40.8 |
| Tabasco | 55.3 | 29.5 | 33.3 | 16.4 | 17.8 | 27.76 | 38.3 |
| Tamaulipas | 26.6 | 20.1 | 17.6 | 13.6 | 13.5 | 21.72 | 38.5 |
| Tlaxcala | – | 9.1 | 11.9 | 13.1 | 13.7 | 23.91 | 42.7 |
| Veracruz | 44.8 | 35.8 | 33.9 | 29.6 | 28.8 | 35.21 | 46.5 |
| Yucatán | 21.8 | 12.3 | 6.6 | 5.8 | 5.0 | 7.56 | 17.1 |
| Zacatecas | 6.9 | 4.2 | 5.8 | 4.2 | 5.3 | 8.29 | 23.3 |
| Total | 25.9[a] | 17.2 | 15.3 | 13.2 | 15.2 | 22.69 | 37.1 |

*Source*: Authors' tabulations based on census samples from IPUMS-International and INEGI
[a]States without data not included in total

Mexico State and Mexico City (Federal District), Tlaxcala, and Quintana Roo in Yucatan.[4] On the whole, the geographical pattern of the resurgence exhibits more than a mere "revenge of history" given the rapid rise of cohabitation in states that were only in the middle of the distribution in the 1960–1980 period.

[4] It should be noted that the state of Quintana Roo contains a very large population originating from other areas in Mexico. This was due to the development of the tourism sector after 1970.

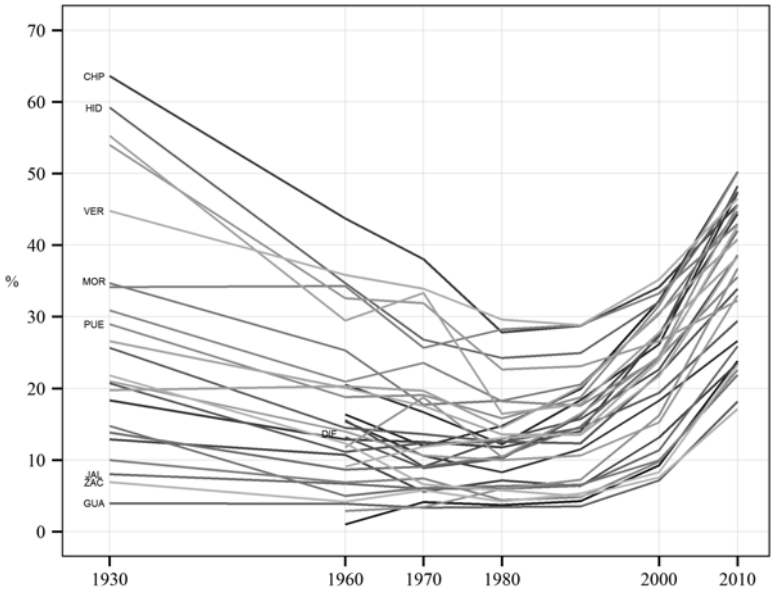


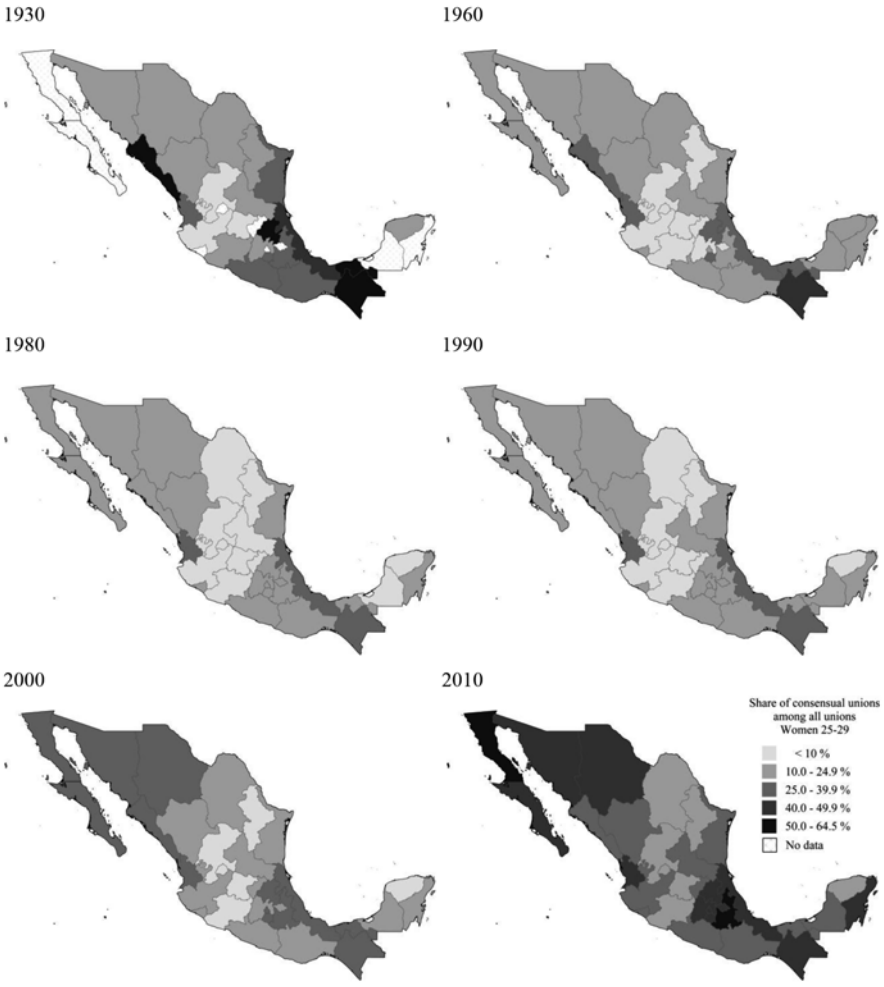

**Fig. 5.2** Percent cohabiting among women 25–29 in a union, Mexican states 1930–2010 (*Source*: Authors' elaboration based on census samples from IPUMS-International and INEGI)

## 4 The Indigenous Factor

The geo-historical evolution of cohabitation in Mexico cannot be understood without a more detailed scrutiny of the differential survival of cohabitation among the various indigenous populations. The Mexican censuses captured this factor via the native language question. But as the population of indigenous language speakers have shrunk over time, the information provided by the 1930 and 1970 censuses has been crucial in reconstructing this earlier distribution.[5] With this information we now have an idea of the possible evolution of cohabitation for 19 indigenous populations that are scattered over the entire Mexican territory. The data of Table 5.3 pertain to *all* women in a union irrespective of age. Despite the data limitations, it is abundantly clear that already in the 1920s there was a high degree of heterogeneity among the indigenous groups.[6] For instance, the northern groups made up of the Tarahumara in the Sierra Madre Occidental and the Cora and Huichol in the Sierra

[5] The Instituto Nacional de Estadistica, Geografia e Informatica (INEGI, 2004) estimated the size of the indigenous population age 5+ on the basis of the 2000 census data for language and ethnic auto-ascription to be 5.26 million which is 6.7% of the total population.

[6] We obviously cannot reconstruct the history of cohabitation among indigenous populations before 1930, but many factors must have been at work such as location in mountains and isolation, differential Christianization, pre-hispanic state formation, eradication of nomadism and creation of fixed settlements, etc. See Escalante-Gonzalbo (2013) and García-Martínez (2013) for relevant historical background information.




**Map 5.1** The share of cohabitation in all unions of women 25–29 in Mexican states, 1930–2010 (*Source*: Authors' elaboration based on census samples from IPUMS-International and INEGI)

de Nayar had a high incidence of cohabitation to start with and continued to be at the top of the distribution throughout the entire period 1930–2010. For these groups, the percentages cohabiting among all partnered women are commonly between 60 and 80 %. A second stretch with a history of sustained cohabitation is located in the coastal plains along the Gulf of Mexico (Llanura Costal del Golfo), but the levels are already noticeably lower than in the northwestern groups, and comprised between 20 and 60 %. Examples thereof are the Popoluca and Totocana. Equally in the 20–60 % range are populations in the central volcanic system (e.g. Popoloca, Nahuatl, Otomi), in the Sierra Madre del Sur (e.g. Chontal of Oaxaca, Mazateco), and in the Sierra of Chiapas (e.g. Zoque and especially Tzotzil). At the low end of

**Table 5.3** Percent cohabiting among all women in a union, selected Mexican indigenous populations, 1930–2010

| Geographical area | Indigenous languages | 1930 | 1970 | 1990 | 2000 | 2010 |
|---|---|---|---|---|---|---|
| Sierra Madre Occidental | Tarahumara | 54.4 | 58.0 | 65.5 | 66.4 | 80.8 |
| Sierra de Nayar | Cora | – | 60.0 | 78.2 | 66.7 | 86.9 |
| | Huichol | – | 87.5 | 85.7 | 70.3 | 85.6 |
| Sierra Madre Oriental | Tepehua | 51.7 | 40.0 | 33.8 | 38.5 | 34.6 |
| Sistema volcánico transversal | Mazahua | 6.1 | 6.6 | 8.8 | 12.4 | 19.1 |
| | Otomi | 29.7 | 22.1 | 22.7 | 22.2 | 29.5 |
| | Nahuatl | 34.3 | 24.8 | 20.7 | 25.2 | 32.0 |
| | Purepecha | 10.9 | 5.6 | 5.7 | 8.6 | 13.1 |
| | Popoloca | 68.2 | 55.4 | 49.0 | 48.6 | 31.9 |
| Llanura Costal Golfo | Huasteco | 23.4 | 19.2 | 12.2 | 15.4 | 23.8 |
| | Totocana | 28.8 | 30.8 | 24.6 | 26.2 | 30.8 |
| | Popoluca | 44.4 | 42.1 | 57.2 | 56.8 | 56.1 |
| Sierra Madre Sur | Amuzgo | 20.0 | 26.9 | 13.5 | 11.9 | 20.7 |
| | Chontal (Oaxaca) | 44.4 | 22.0 | 15.1 | 35.5 | 29.5 |
| | Mazateco | 44.0 | 35.0 | 24.6 | 26.5 | 31.6 |
| Golfo Tehuantepec | Zapoteco | 25.6 | 20.1 | 15.7 | 18.7 | 20.0 |
| Sierras de Chiapas | Tzotzil | 75.2 | 68.5 | 56.7 | 54.8 | 57.6 |
| | Zoque | 50.0 | 30.6 | 17.2 | 18.8 | 31.2 |
| Yucatan | Maya | 22.9 | 12.6 | 6.9 | 8.7 | 13.1 |

*Source*: Authors' tabulations based on census samples from IPUMS-International

the distribution with commonly less than 20 % cohabiting women are the Huasteco of San Luis Potosi, the Zapoteco on the Golfo de Tehuantepec, the Amuzgo of Oaxaca, the Mazahua and Purepecha of Michoacan, and the Maya population of Yucatan.

Also the trends over time exhibit heterogeneity, as there are indigenous populations with steady declines (Popoloca in the central volcanic range, Tepehua in the Sierra Madre Occidental, Tzotzil of Chiapas), but also others with sustained increases, notably in the northwestern sierras (Tarahumara and Cora). The majority pattern, however, seems to be the U-shaped one with the troughs in the 1980s (1990 census). This pattern also matches the U-shaped evolution shown for the Mexican states.

Finally, also the group of Afro-Mexicans (sometimes referred to as Jarochos) has to be mentioned. This population was brought in as slaves as early as the sixteenth century and their descendants are still found in the province of Veracruz and on the Pacific coast of Guerrero and Oaxaca (Costa Chica). They do not figure among the indigenous populations since they are Spanish speakers, but they also have a tradition of forming cohabiting unions.

Since the indigenous populations are concentrated in specific locations, the more detailed maps by municipality will equally show the ethnic clusters of high percentages cohabiting. It should be noted, however, that these indigenous population

**Table 5.4** Percent distribution of women 25–29 by level of education, Mexico 1970–2010

| Education | 1970 | 1980 | 1990 | 2000 | 2010 |
|---|---|---|---|---|---|
| Primary or less | 90.5 | 17.6 | 52.7 | 35.9 | 24.0 |
| Secondary | 3.6 | 10.9 | 15.9 | 28.7 | 30.1 |
| Preparatory & Technical | 4.4 | 11.4 | 16.9 | 21.1 | 20.6 |
| Higher (Bachelor and more) | 1.5 | 6.2 | 14.4 | 14.3 | 25.3 |

*Source*: Authors' tabulations based on census samples from IPUMS-International

**Table 5.5** Percent cohabiting among women 25–29 in a union, Mexico 1970–2010

| Education | 1970 | 1990 | 2000 | 2010 |
|---|---|---|---|---|
| Less than Primary completed | 18.8 | 22.4 | 32.7 | 51.0 |
| Primary completed | 5.4 | 13.5 | 23.6 | 39.7 |
| Secondary completed | 3.9 | 7.3 | 13.6 | 30.3 |
| University completed | 8.0 | 4.7 | 8.3 | 23.8 |

*Source*: Authors' tabulations based on census samples from IPUMS-International

clusters are typical of traditional forms of cohabitation and "trial marriage" and that many are also low on the scales of education and infrastructural development (e.g. lacking piped water, sewage system, electricity etc.) (Permanyer 2013; INEGI 2004; Comisión Nacional para el Desarrollo de los Pueblos Indígenas CDI 2002).[7]

## 5 The Education Factor

As in many other Latin American countries, the level of education of women has also substantially increased in Mexico. As is shown in Table 5.4 for women at ages 25–29, the percentage illiterate women or with no more than primary education declined from a high of no less than 90.5 % in 1970 to 24.0 % in 2010. The middle education groups expanded considerably from 8.0 to 50.7 % over that period, and also the percentage of women 25–29 with higher education rose from a mere 1.5–25.3 % by 2010. The upward shift in the educational composition is a key element in interpreting the importance of the shift toward cohabitation by education.

As shown in Table 5.5 and Fig. 5.3 for partnered women 25–29, there has been a systematic negative relation between the incidence of cohabitation and the level of education. Mexico is no exception in this respect. The figures for 1960 and 1970 capture the situation when overall cohabitation levels were still declining and

[7] CDI (2002) gives an overview of the development characteristics of the indigenous population based on the 2000 census. For the populations listed in Table 5.3, high percentages illiteracy and/or lack of amenities (piped water, sewage system, electricity) were particularly prevalent for the Amuzgo, Cora, Tarahumara, Mazateco, Huasteco and Totonaca, whereas the better conditions were observed for the Chontal of Oaxaca, Maya, Mazahua and Otomi.

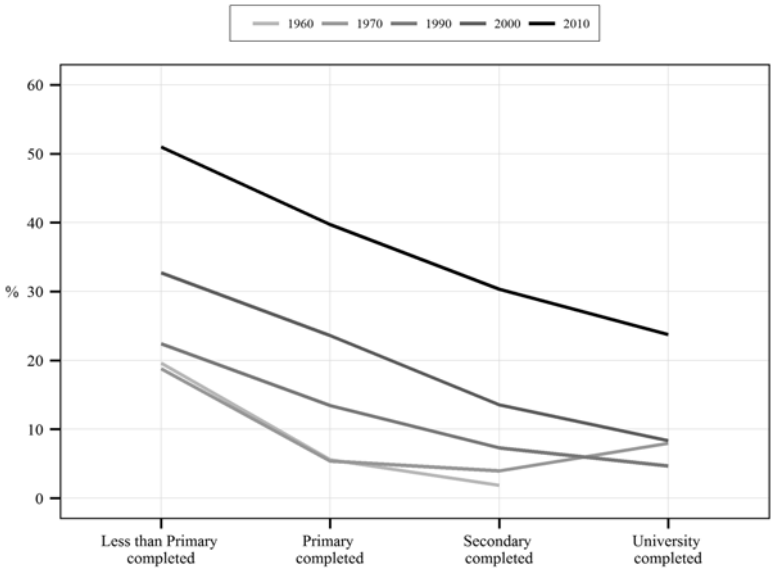



**Fig. 5.3** Percent cohabiting among partnered women 25–29 by level of education, Mexico 1960–2010 (*Source*: Authors' elaboration based on census samples from IPUMS-International and INEGI)

reached an overall low (also very low by Latin American standards).[8] However, from 1990 onwards the levels *increase for all education categories by very similar amounts*, thereby maintaining the negative relationship (downward profiles by education). Particularly the large and uniform increase between 2000 and 2010 in the various education groups is a striking feature. Not only has there been an upward shift in educational composition, *but the higher educated have increased their levels of cohabitation to the same extent as those with less education*. This implies that the overall pool of cohabiting educated women has grown substantially after 1990. If there is indeed a social class difference with traditional cohabitation being the dominant type for the less educated and the SDT-type for the more educated, then the share of the SDT-type should have expanded along with the pool of cohabiting educated women. Conversely, despite the increase in the probability of being in a consensual union for the least educated women, the dramatic shrinking of this education category would produce a major reduction in traditional cohabitation. Obviously, if the SDT-type has also gained a foothold among the least educated, which cannot be ruled out given their similar shift in values, then the shift to the SDT-type would be even more marked.

[8] In 1930 the percentages cohabiting among women 25–29 in a union were 29.4 for illiterate women and 14.0 for literate ones. These figures are higher than those for less than primary completed and primary completed in 1970 and about at the same level for these groups in 1990 (22.4 and 13.5 respectively).

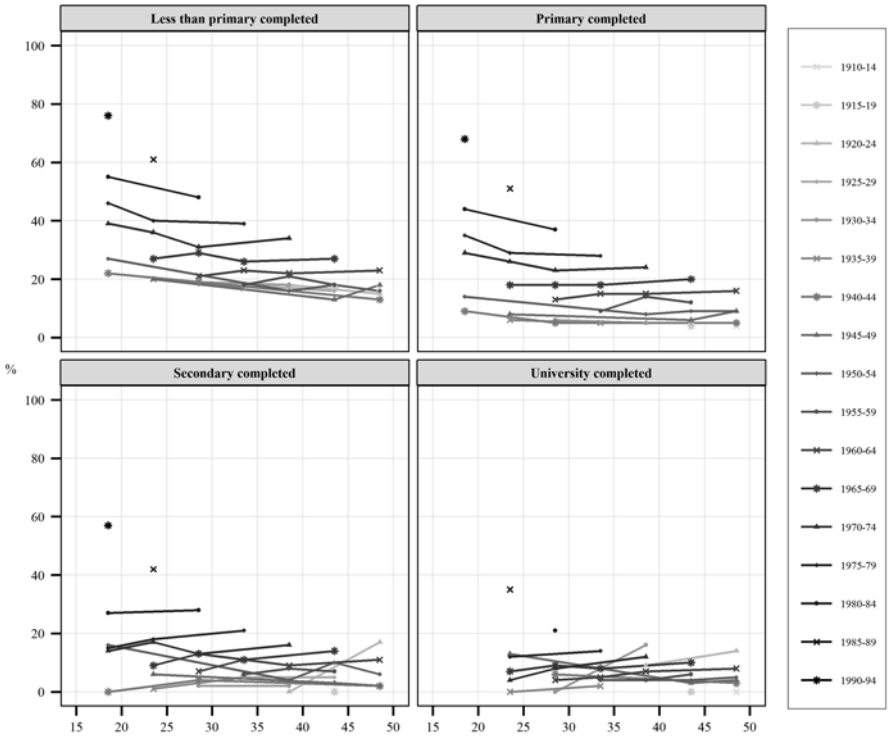



**Fig. 5.4** Share of cohabitation among partnered women by birth cohort and level of education, Mexico (*Source*: Authors' elaboration based on census samples from IPUMS-International and INEGI)

A more detailed picture of the evolution of cohabitation by birth cohort and by level of education is shown in the four panels of Fig. 5.4. These figures reveal that in *all* education groups the pioneers of rising cohabitation were the cohorts born between 1960 and 1964 and who entered unions in the 1980s. This is of some relevance because this increase in the pioneering cohort predates the economic crisis of the mid-1990s. Evidently, cohabitation expands initially more among the least educated, but once started, the movement is universal. The generally flat cohort profiles over age also suggest that, once past the age of 25, cohabitation frequently becomes a lasting state over the life cycle.

## 6 Cohabitation at the Municipal Level: Maps and Models

For the censuses of 1990, 2000 and 2010 the spatial pattern of cohabitation can be studied at the municipal level using the IPUMS files. This permits defining variables both at the individual level and at a contextual level.

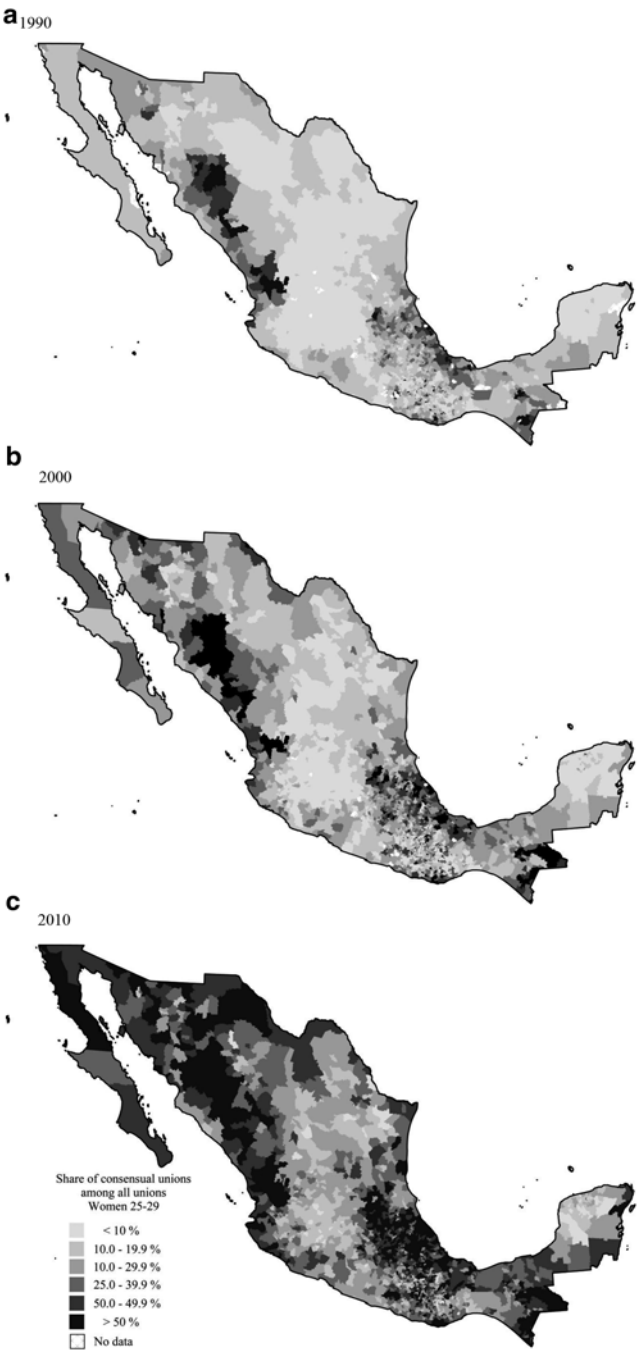
## 6.1 A More Detailed Geography of Cohabitation

The maps of percentages cohabiting among currently partnered women 25–29 is given in Map 5.2, using the same legend. In 1990 the vast majority of municipalities had either less than 10 % cohabiting women, or were just in the next category between 10 and 25 %. Municipalities with more than 40 % very frequently contain indigenous populations with the higher cohabitation levels. The ethnic factor accounts largely for the clusters in the Sierra Madre Occidental and the Sierra de Nayar (Tarahumara, Cora, Huichol), the clusters in Chiapas (e.g. Tzotzil, Tzeltal, Zoque, Chol and Mame), and many municipalities in the province of Veracruz. Map 5.2. a for 1990 seems to capture the surviving traditional ethnic form of cohabitation as they survived during the previous two decades. During the 1990s, however, the incidence of cohabitation further increases in and around these aforementioned areas, but also spreads to Central Mexico, the coast of Oaxaca and along the border with the USA. The provinces with very low levels of cohabitation in 1990 still are low in 2000: the large area of the "North–south trench" from Coahuila to Michoacan, and also the Yucatan peninsula comprising the provinces of Campeche, Yucatan and Quintana-Roo. In 2010, by contrast, there are only few municipalities left with less than 10 % cohabiting women among those 25–29 in a union, and these are scattered in the "North–south trench" and on the Peninsula (Yucatan, Campeche). Most of the other municipalities in the "North–south trench" and the province of Quintana Roo (Caribbean coast) have moved up to the higher categories. The further rise in cohabitation is also very noticeable along the US border and in Central Mexican municipalities, i.e. in the provinces of Queretaro and Hidalgo, Mexico, Puebla, Tlaxcala and Morelos, and further south in Oaxaca.

The general story is well known by now: municipalities in the vanguard often had a large indigenous population component, but they are joined by many others in the same or adjacent regions during subsequent rises. In addition new zones of higher levels of cohabitation developed in the North along the US border and Baja California, in Central Mexico, and along the Caribbean coast of Yucatan.

## 6.2 The Contextual Statistical Models, 2000 and 2010

The data that are used in this section stem from the 2000 and 2010 censuses, they pertain to currently partnered women 25–29, and they are compiled from the IPUMS files. The Human Development Index for Mexican municipalities, however, is provided by its author Iñaki Permanyer (2013). As in the chapters on Brazil and Colombia, we again model the probability of cohabiting (versus being married) by making use of a two-level random intercept logistic model. We assess the impact of a series of individual level variables first, and then that of a set of contextual variables measured at the level of the 2456 municipalities. In this hierarchical model, the residual variance is partitioned according to the two levels, and we again use the




**Map 5.2** Percent currently cohabiting women among all partnered women 25–29, Mexican municipalities, 1990, 2000 and 2010 (*Source*: Authors' elaboration based on census samples from IPUMS-International)

variance across municipalities as an indicator of the degree to which the introduction of the individual level variables as controls is capable of reducing the differences between municipalities. The results are presented in the form of odds ratios (OR) (exponentiated regression coefficients), i.e. relative to a chosen reference category (OR = 1).

At the individual level, we first introduce the respondent's ethnicity, but coded according to whether the individual's indigenous group had a tradition of cohabitation or not. This produces 5 categories, ranging from not belonging to an indigenous population to being a member of the group with a history of a high prevalence of cohabitation (40+ percent in 1930 and/or 1970). The group with "unknown/unspecified ethnicity" is also identified. The next variable is the respondent's level of education in 4 categories ranging from less than primary to completed university. The respondent's religion is next, with 5 categories: Catholic, Protestant, other religion, no religion and unknown. Finally, we also have some information about the respondent's migratory status, with a two-way classification as being born in the state as opposed to being born out of state.

At the level of municipalities, we use four contextual variables. The first one measures the local degree of religiosity versus secularization, by looking at the frequencies of religious marriages (religious only plus civil and religious marriages) in the municipality, and then using the quartiles of this distribution as categories. The second contextual variable classifies the municipalities depending on their percentage of indigenous people belonging to the groups with a history of high levels of cohabitation. We obtain three groups: municipalities without indigenous people, with less, and with more than the median percentage cohabitation in 1930–1970. The third contextual variable is the Permanyer composite Human Development Index adapted for the Mexican municipalities (HDI-M). In this version, the HDI-M corresponds to the "wealth dimension" (building materials and assets in households[9]) and captures the degree of development of the material living conditions.[10] Finally, the educational level of the municipality is introduced via the percentage of its population with full secondary education or more. The quartiles of this distribution define the categories used in the tables.[11]

The results are presented in Table 5.6 using the individual variables only and in Table 5.7 presenting the full model with also the contextual variables being added in. Each table contains a comparison between the 2000 and the 2010 results. The odds ratios for the former date capture the situation at the time of the incipient rise of cohabitation, whereas those for the latter date capture the evolution at a more advanced state. It should also be noted that the distribution of several independent variables has changed during the 1990–2010 period. For instance, despite the economic crisis of the mid-90s, all three dimensions of the HDI-M index (health,

[9] The assets are: piped water, flush toilet, quality floors, quality walls, quality roof, electricity, radio, TV, refrigerator, phone, and car.

[10] The other HDI dimensions are health and education.

[11] Also the population size of municipalities (5 categories) was used as a contextual variable, but its effect was negligible in either 2000 or 2010.

**Table 5.6** Estimated odds ratios of cohabiting as opposed to being married for Mexican women 25–29 in a union, results for the individual level variables, Mexico 2000 and 2010

| | 2000 | | 2010 | |
|---|---|---|---|---|
| Individual variables/Level | Model 1 | Model 2 | Model 1 | Model 2 |
| *Member indigenous group, 1930–1970. Cohabiation level* | | | | |
| Low cohabitation group LT 20 % | 0.97* | 0.73 | 1.04** | 0.83 |
| Medium cohabitation 20-39 % | 1.41 | 1.01* | 1.30 | 1.03** |
| High cohabitation group 40+ | 1.82 | 1.16 | 1.82 | 1.40 |
| Membership unknown | 1.57 | 1.10 | 1.99 | 1.52 |
| Not indigenous (ref.) | 1 | 1 | 1 | 1 |
| *Education* | | | | |
| Less than Primary | | 6.93 | | 4.12 |
| Primary completed | | 3.93 | | 2.50 |
| Secondary completed | | 1.74 | | 1.45 |
| University completed (ref.) | | 1 | | 1 |
| *Religion* | | | | |
| No religion | | 1.47 | | 1.67 |
| Other religion | | 0.89** | | 0.51 |
| Religion unknown | | 1.14 | | 1.28 |
| Protestant | | 0.53 | | 0.53 |
| Catholic (ref.) | | 1 | | 1 |
| *Migrant* | | | | |
| Born out of state | | 1.27 | | 1.23 |
| Born in state (ref.) | | 1 | | 1 |
| *Remaining variance between minicipalities* | 1.03 | 1.10 | 0.64 | 0.68 |
| *Intercept* | *−1.52* | *−2.94* | *−0.67* | *−1.49* |

*Source*: Authors' tabulations based on census samples from IPUMS-International
*Notes*: All the coefficients are statistically significant at $p<0.001$ except *: $p<0.05$ and **: $p<0.01$
The initial variance between municipalities in the zero models without covariates was 1.06 in 2000 and 0.65 in 2010

wealth, education) have vastly improved (Permanyer 2013).[12] The number of religious marriages declined faster than before,[13] and also the percentage of indigenous language speakers continued its downward trend.

The analysis progressed via a stepwise introduction of each of the individual variables, starting with the individual's membership of an indigenous group with a tradition of lower versus higher cohabitation, and using persons not belonging to any indigenous group as the reference category (OR = 1).[14] At both dates, the results

[12] On a 0 to 1 scale, the mean of the wealth index for Mexican municipalities (based on household assets), rose from 0.34 in 1990 to 0.56 in 2000 and 0.62 in 2010.

[13] Among women 25–29, those with a religious marriage (religious only plus civil and religious) declined from 68.3% in 1970 to 65.5 in 1980, 61.0 in 1990, and then more rapidly to 50.0% in 2000 and only 33.8% in 2010, according to census figures from INEGI.

[14] No significance levels are reported since almost all results are significant given the very large sample of individuals (over 300,000 for each year), and the use of the totality of municipalities in the contextual analysis.

for Model 1 are as expected: current indigenous group membership clearly follows the historical gradient, as established in 1930 or 1970. Also, those belonging to an indigenous population without any further specification exhibit high percentages cohabiting. The introduction of the individual level of education (results not shown) reduces the ethnic differentiation, which is of course the reflection of the fact that indigenous populations tend to have significantly less education than the population as a whole. Thereafter the odds ratios remain very stable, so that one can directly inspect the results for Model 2 which contains all individual covariates. In this model, the negative education gradient remains strong and robust over the two periods of observation. Also the religious gradient is very clearly in evidence at both dates. Those without religion have higher cohabitation risks than Catholics, whereas Protestants (largely Evangelicals) have much lower ones. Furthermore, it should be noted that the education gradient in 2010 is less steep than in 2000. Finally, being born outside the state of current residence slightly increases the risk of cohabitation in both years of observation.

The multivariate analysis essentially confirms what we could infer from the bivariate relationships. However, the variance between municipalities is not reduced following the controls for these four individual variables. This holds for both dates. Only the variance between municipalities is smaller in 2010 than in 2000 as many more municipalities are concentrated in the middle categories of cohabitation.

The stepwise introduction of the contextual variables, i.e. the characteristics of the municipalities of residence, does not alter the odds ratios observed for the individual level variables, so that the results of Model 2 are not repeated in Table 5.7. These individual variables are, however, now used as controls in assessing the odds ratios for the contextual ones. Also, the stepwise additions of the contextual variables did not alter the coefficients in any significant way, so that only the results for the complete model need to be presented.

In addition to individual religion and ethnicity, also the contextual measures of these two cultural variables continue to be of relevance in 2000 and 2010. For instance, in 2000, the odds ratios of cohabiting among partnered women 25–29 increases more than twofold when being a resident in a secular municipality with few religious marriages. Furthermore, living in a municipality with a significant ethnic population equally exhibits the same effect. Only the distinction with respect to the specific indigenous group, classified in two historical categories, has been attenuated. The results for 2010 are similar, but the gradient according to the secularization dimension has become more flat. This is presumably the effect of further secularization of municipalities that still had more religious marriages 10 years earlier.

On the socio-economic side, the gradient with respect to the material living conditions is the same at both dates: partnered women 25–29 in municipalities belonging to the poorest quartile have the highest likelihood of being in a consensual union, but the differences are not very pronounced when compared to the middle quartiles. Essentially women living in the wealthiest municipalities have a reduced odds ratios for cohabitation.

**Table 5.7** Estimated odds ratios from a multilevel logistic regression model of unmarried cohabitation by contextual characteristics at the municipality, women 25–29 in a union, Mexico 2000 and 2010 (complete model)

| Contextual variables (municipalities) | 2000 | 2010 |
|---|---|---|
| Incidence religious marriages in quartiles | | |
| Upper Q4 (ref.) | 1 | 1 |
| Third Q3 | 1.41 | 1.23 |
| Second Q2 | 2.05 | 1.45 |
| Lower Q1 | 2.41 | 1.57 |
| Historical presence indigenous cohabitation, 1930–1970 | | |
| Not indigenous population | 0.49 | 0.58 |
| Indigenous above median | 1.10* | 1.07** |
| Indigenous below median (ref.) | 1 | 1 |
| Municipal education, Pct Secondary + in quartiles | | |
| Upper Q4 | 1.59 | 1.57 |
| Third Q3 | 1.29 | 1.38 |
| Second Q2 | 1.19 | 1.20 |
| Lower Q1 (ref.) | 1 | 1 |
| Material living conditions in quartiles | | |
| Upper Q4 | 0.61 | 0.69 |
| Third Q3 | 0.86* | 0.88* |
| Second Q2 | 0.86 | 0.86 |
| Lower Q1 (ref) | 1 | 1 |
| *Remaining variance municipalities* | | |
| in complet model | 0.76* | 0.54 |
| *Intercept* | *−3.37* | *−1.76* |

*Source*: Authors' tabulations based on census samples from IPUMS-International
*Notes*: All the coefficients are statistically significant at $p<0.001$ except *: $p<0.05$ and **: $p<0.01$
The Remaining variance municipalities in 2000 is 1.06* in the empty model, and 1.10* after controlling for the individual variables (see Model 2). The same values in 2010 are: 0.65 and 0.66 respectively

The municipal level of education, measured through the proportion of women with secondary education or more, exhibits the opposite pattern of what is expected: residence in a better educated municipality *increases* the odds ratios of cohabiting. A further inspection of this overall contextual pattern revealed the existence of a marked degree of interaction between individual and contextual levels of education. It turned out that, controlling for the other variables, *it is essentially the less educated women who cohabit much more when residing in the better educated municipalities than when residing in the least educated locations*. This finding furthermore holds for 2000 and for 2010, as shown in Table 5.8 and Fig 5.5. Hence, it is *not* that the university educated women cohabit more in the better educated municipalities. In fact, until 2000, these better educated women cohabited slightly less when in high education environments. In 2010 there is no longer a contextual effect of the educational status of the place of residence for better educated women (secondary and higher), but even higher odds ratios for the least educated residing in the better

**Table 5.8** Estimated odds ratios of cohabitation for partnered women 25–29 according to the individual and contextual levels of education combined, Mexico 2000 and 2010

| | Educational level municipalities (% secondary+) | | | |
|---|---|---|---|---|
| | Q1 Low | Q2 | Q3 | Q4 High |
| 2000 | | | | |
| Less than Primary completed | 1.16 | 1.52 | 1.80 | 2.58 |
| Primary completed | 0.96 | 1.02 | 1.05 | 1.33 |
| Secondary completed | 1.26 | 0.77* | 0.66* | 0.57 |
| University completed (ref.) | 1 | 0.74 | 0.57 | 0.32 |
| 2010 | | | | |
| Less than Primary completed | 1.60 | 2.05 | 2.56 | 3.54 |
| Primary completed | 1.24 | 1.39 | 1.60 | 1.87 |
| Secondary completed | 1.18 | 1.20 | 1.05 | 1.04 |
| University completed (ref.) | 1 | 0.82 | 0.79 | 0.74 |
| *Intercept −1.07* | | | | |

*Source*: Authors' tabulations based on census samples from IPUMS-International
*Notes*: All the coefficients are statistically significant at $p<0.001$ except *: $p<0.05$ and **: $p<0.01$
The quartile cut off points for the municipal education variable in 2000 are LT 2.7 % women secondary education, 2.7–4.6,4.7–8.8, and 8.9+, and for 2010 : LT 5.5, 5.5–9.4, 9.5–14.4 and 14.5+

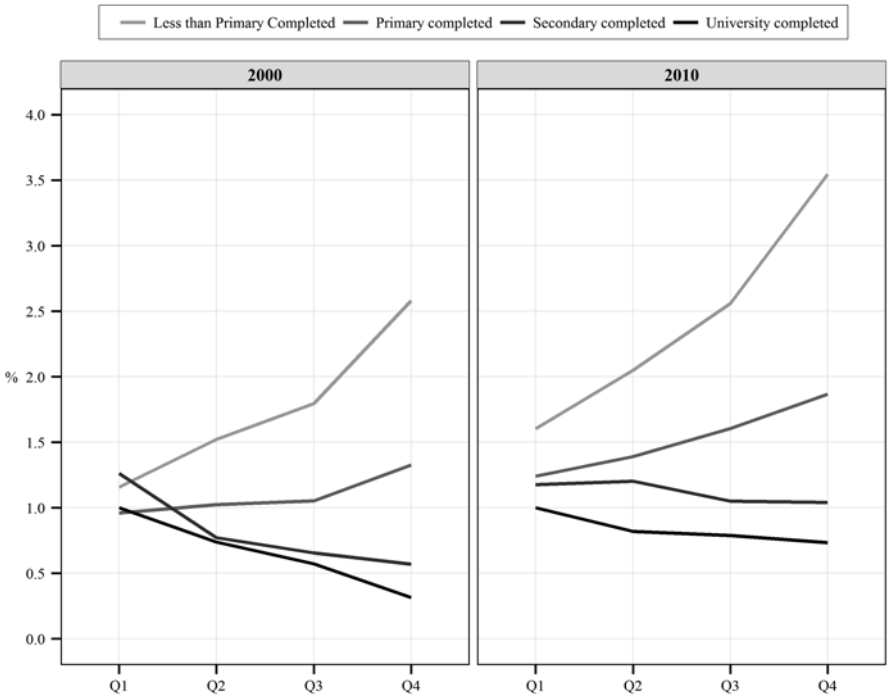



**Fig. 5.5** Estimated odds ratios of cohabitation for partnered women 25–29 according to the individual (Y) and the contextual levels (X) of education combined, Mexico 2000 and 2010 (university completed and Q1: OR = 1) (*Source*: Authors' elaboration based on census samples from IPUMS-International)

educated places. A possible explanation could be that the wealthier areas have a large service sector that attracts less educated women, who on the basis of their income, can establish a household via cohabitation.[15] In addition, the better educated municipalities may have a greater tolerance for diversity, and even if highly educated women tend to have a preference for marriage, they are not concerned about the behavior of the less educated, who can enter into long term consensual unions without stigmatization.

## 7 Conclusions

In comparison to the other Meso-American countries, Mexico must have witnessed a far steeper decline of cohabitation before and/or during the first half of the twentieth century, and furthermore maintained these relatively low levels all the way till the 1980s. Only after 1990 and especially during the first decade of the twenty-first century has there been a substantial increase. The U-shaped evolution over time found for the nation as a whole is equally in evidence in the evolution for the states and for many indigenous populations.

The geography of the phenomenon of rising cohabitation owes a clear tribute to the historical patterns that developed among the various indigenous populations. The municipalities with the higher levels of cohabitation in 1990 are typically places with more isolated indigenous groups who had managed to maintain their older traditions. Thanks to the availability of the 1930s census data it is now clear that there was a great deal of heterogeneity among the indigenous groups to start with. For instance, the Mayas of Yucatan already had very low levels of cohabitation during the early decades of the previous century, in strong contrast to the indigenous populations of the northwestern sierras which kept their high levels above 60 % among women 25–29 in a union. Consequently, the 1990 map of cohabitation for states and municipalities predominantly reflects the much earlier history of ethnic differentiation in cohabitation. In addition, the indigenous factor is also partially responsible for the initial negative gradient of cohabitation with level of education, given the disadvantaged position of most indigenous populations in this and other respects.

When the “cohabitation boom” also takes shape in Mexico after 1990, the phenomenon ceases to be mainly “ethnic”. Admittedly, membership of an indigenous group with a strong cohabitation tradition and residence in an area of concentration of such groups are still positively associated with higher levels, but these are not the main factors anymore. Equally striking are the differentiations according to religion, both at the individual and contextual levels: being a non-religious person and residing in a municipality with fewer religious marriages both significantly increase

[15] Women in the service sector can establish cohabiting households at fairly young ages with men with low wages, temporary jobs, or even with unemployed men.

the likelihood of cohabitation. Hence, Mexico's history of differential secularization emerges as well.[16]

The most striking feature of the post 1990 era is the maintenance of a steep educational gradient. However, it would be fallacious to infer from this that the rise in cohabitation would be the result of increased poverty among the less educated. Not only do we know that the standards of living and the health conditions have vastly improved in Mexico over the last two decades (Permanyer 2013), but even more strikingly, the rise in cohabitation is just as outstanding among the better educated women as among the least educated ones. As in all the other Latin American countries, the education gradients remains negative, but the rises are by no means confined to the lower social strata.

Do we have a revenge of history in Mexico? Judging from the mere *cross-sectional* profiles (e.g. the ethnic and geographic profiles, the secularization pattern, or the education gradient) one could indeed conclude that historical differentials are being replicated, and that there is nothing new. At a closer inspection of *changes over time*, however, several features emerge that strongly mitigate this historical inheritance. First and foremost, there has been a quantum upward shift in the educational distribution of the female population, which, in tandem with the rise of cohabitation in the better educated groups, must imply that cohabitation is now a "normal" form of partnership among that expanding educational group as well. It is, furthermore, likely that the shift from marriage to prolonged cohabitation is equally driven by further secularization and an overall shift in values. Also at the aggregate level there are several novelties. Firstly, a number of indigenous groups who used to be in the middle or at the lower end of the cohabitation distribution joined the ones which were at the top before the 1990s. Secondly, and more importantly, a number of states have been catching up after that date, and are now in the upper part of the distribution as well. And finally, a striking interaction effect has been discovered in our analysis: cohabitation levels among the less educated women are much higher when these women are residing in heterogeneous municipalities with many more educated women than in homogeneous municipalities were virtually everyone has little education. Apparently, the large service sector in the wealthier areas provides jobs for less educated young women which help them in setting up households via cohabitation.

Hence, there are several reasons to believe that the SDT-type of cohabitation has taken a foothold in Mexico as well.[17] But, as stated in the introduction, a finer

[16] It should also be noted that the World Values Survey results for Mexico document major changes between 1996 and 2005 in attitudes toward suicide, abortion, homosexuality, euthanasia and divorce. The attitudes became more tolerant for all five ethical items and in all education categories at the later date. There was only one exception: the tolerance for abortion remained the same at both dates for the middle category of education. Hence, it is not unreasonable to assume that also the weakening cultural stigma against cohabitation was an integral part of the process for all education groups or social classes.

[17] Another factor that can be mentioned is the effect of the "sexual revolution", i.e. the rise of premarital sexual relations and concomitant unplanned pregnancies, (Gayet and Szasz 2014) which would have sped up the entry into a consensual union.

typology of cohabitation is needed to accommodate the multi-faceted picture of Latin American cohabitation (Covre-Sussai 2014; Quilodrán 2006, 2011).

Time will tell how fast and to what degree the shift to the SDT-type will be occurring in Mexico, but at present it is clear that the shift away from the traditional type is under way, and that this is furthermore the main reason for the Mexican expansion of cohabitation after 1990.



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