Chapter 4
The Social Geography of Unmarried Cohabitation in the USA, 2007–2011

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1 Introduction

As Europe and Latin America, also the US has experienced a new phase of "de-institutionalization of marriage" (Bumpass 1998; Cherlin 2004, 2005, 2010; Smock 2000; Heuveline and Timberlake 2004; Thornton et al. 2007) mainly as a result of the emergence of pre-marital and post-divorce or "post-union" cohabitation, and to a very minor degree as the result of the growth of same sex households (Gate and Ost 2004; O'Connell and Feliz 2011). But unlike the Latin American censuses, the US did not have any tradition of direct measurement of such cohabitation via a direct question about unmarried partnerships or consensual unions. In fact, before 1970 cohabitation was illegal in the United States (Wikipedia 2012, 2013). In 1990, the decennial US Census began to include "unmarried partner" as a category in the household composition section where individuals are related to the household head (Casper et al. 1999). There is no such specification in the individual marital status section as in other countries. Before that, various indirect procedures were utilized to identify cohabitors, and the most common one is known as the "Persons of

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Opposite Sex Sharing Living Quarters" or POSSLQ.[1] This procedure of identifying cohabitors had several imperfections such as including roommates but omitting post-divorce cohabitors who had children older than 15 stemming from an earlier union or marriage.[2]

In 1999 the US Bureau of the Census (Casper et al. 1999) published a consistent series of adjusted POSSLQ figures including those which had older children of one of the presumed adult cohabitors. In these 1995–1997 adjusted data, about 60 % of POSSLQ individuals were officially "singles" and 40 % were separated, divorced or widowed. These figures convey the orders of magnitude of pre-marital versus post-marital cohabitation. Also about 5 % of POSSLQ households contained children below age 18 (Casper et al. 1999: Table 2 and Figure 7). During the period 1977–1997, the number of POSSLQ individuals rose from one to about five million. Another striking feature of the US data is that the self-reported number of cohabitors (i.e. "unmarried partners" of householders) shows a slower evolution and only increases to about three million in 1997.[3] Apparently, the American public was still reluctant to admit to such a relationship or disliked the term "unmarried partner" altogether because it sounded like a reference to an illicit sexual affair (Manning and Smock 2005).[4] Another reason for the underestimation produced by the direct individual question is its incorporation into the household composition schedule. In this schedule solely relationships with the heads of the household are recorded, but not those between the other members. As a result, cohabitors are missed if neither one is coded as the household head. Furthermore, there may be a non-negligible

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[1] The radio poet Charles Osgood had this to say about "My POSSLQ" (pronounced *Poss-L-Q*):

You live with me and I with you
And you will be my POSSLQ.
I´ll be your friend and so much more;
That´s what a POSSLQ is for.
And everything we will confess;
Yes, even to the IRS.
Some day on what we both may earn,
Perhaps we´ll file a joint return.
You share my pad, my taxes, joint;
You´ll share my life – up to a point!
And that you´ll be so glad to do,
Because you´ll be my POSSLQ

[2] In the original version of the POSSLQ, the presence of other persons older than 15 was used as one of the non-inclusion criteria (Casper et al. 1999) presumably to eliminate composite households containing several unrelated adults.

[3] The estimate for 2010 is that more than two-thirds of American adults cohabit before they marry (Kennedy and Fitch 2012: 1479).

[4] During in-depth interviews Manning and Smock (1995) found that respondents felt that the term "unmarried partner" was a derogatory one. Cohabitors then preferred the use of "my boyfriend/girlfriend" or "my fiancé(e)". According to the IPUMS documentation for the Current Population Survey (CPS) data, the direct question was "Do you have a boyfriend, girlfriend or partner in this household?", so that the error due to wording was minimized. Unfortunately for our purposes the CPS sample is smaller than the ACS one, so that our results may be affected by the higher degree of underestimation.

number of "false singles" who have a regular partner but in fact live in unions that resemble LAT-relationships or "visiting unions".[5]

After the turn of the Century, most surveys adopted the direct option of indicating an "unrelated partnership" to the household head, and the indirect POSSLQ procedure has been abandoned. As a consequence, the figures about the incidence of cohabitation may be systematically underestimated, and the cohabitation trend may be even sharper upward than presumed (cf. Manning and Smock 2005). A recent analysis of another source, the US Current Population Survey (CPS) 2007–2009, remedies some of the shortfalls inherent to the "unmarried partner of the householder" procedure (Kennedy and Fitch 2012). More particularly, cohabitants could be identified even if neither one was the head of the household, and also children could be connected to their biological parents. The outcome is that the hitherto dominant "unmarried partner" procedure had missed some 18 % of cohabiting different-sex couples and 12 % of children residing with cohabiting partners. Moreover, the newly identified cohabitors were either older or belonged to a particular group of young disadvantaged adults co-residing with parents or other family members (see also Esteve et al. 2012). This illustrates the order of magnitude of errors than occur as a result of the use of different questionnaire methodologies.

In the analysis that follows, exclusive use is made of this direct "unrelated partner" question in the IPUMS files of 1990, 2000 and 2007–2011. The first two observations utilize US census household composition data and the most recent one is based on pooled samples of the annual American Community Survey (ACS). As in the other chapters, we shall focus mainly on women aged 25–29. Too many women are still in education prior to that age and have not entered into any union or have not "stabilized" their union type. Also the data pertain to the status of the current union, meaning that we do not have data on *ever* versus *never* experiencing cohabitation. For this extra and highly relevant information of ever experiencing premarital cohabitation use has to be made of smaller and more detailed surveys such as the National Survey of Family Growth (NSFG).[6]

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[5] The possibility of non-coresidential sexual partnerships (LAT or visiting) may be of particular relevance for the black population as the group of black women aged 25–29 had surprisingly low percentages ever in a union in the censuses of 1990 and 2000. It is also possible that many single mothers were in such undocumented visiting relationships.

[6] The omission of the "ever" question (i.e. "have you ever experienced event X ?") is a recurrent problem in surveys. A population with a high prevalence of ever experiencing an entry into a certain state may have a lower current incidence of being in that state if the duration of that stay is shorter than in some other group. In our case, population A may have a higher percentage ever-cohabiting and a lower percentage currently cohabiting than population B if those of A have on average shorter durations of cohabitation. According to data on women 19–44 in the NSFG survey of 2002, almost two thirds of those with only a high school degree or less had ever-cohabited. Among those with incomplete college education, about half had ever cohabited, and among those with completed college education or more, the figure was 45 percent (Kennedy and Bumpass 2008). When interpreting these figures, one should bear in mind that a higher proportion of those with more than high school education had not yet entered into *any* union, and that among those

These caveats regarding method of data collection and associated data quality should be born in mind throughout the rest of this chapter. In other words, the social and spatial differences are essentially acceptable estimates which point at underlying mechanisms, but they should not be interpreted as perfectly exact measurements.

2   The Social Context and the Meaning of Cohabitation

It is to be expected that the nature of a phenomenon changes as it spreads from a small minority to a clear majority of the population. This is clearly the case with respect to cohabitation. From an illicit form of behavior prior to 1970, premarital cohabitation replaced traditional dating (Macklin 1972, 1978; Manning and Smock 2005; Cherlin 2005; Furstenberg 2013), and in the strongly pro-marriage American cultural context, many justified cohabitation as a "trial marriage". This change from dating while living at home or in segregated dormitories to cohabitation was undoubtedly spurred on by the rise in education, the anti-authoritarian revolt of the 1960s, and by both the sexual and contraceptive revolutions of the late 1960s and 1970s (Macklin 1972, 1978; Furstenberg 2013).[7] As the process develops further, marriage no longer constitutes the initiation of a union but becomes the outcome of a tested period of union stability and mutual satisfaction. As Furstenberg (2013: 11) puts it: *"Marriage is increasingly regarded as less of a pledge to commitment than a celebration of commitment that has already been demonstrated."* This has far-reaching implications. Firstly, cohabitation can lead to a greater diversity in the further development of the life cycle, since, besides the transition to actual marriage, it may also be followed by multiple disruptions, multiple partnerships, lone motherhood, "visiting union" or LAT-relationships, or reconstituted families. Such a growth of diversity is then a logical consequence of the "de-institutionalization of marriage" and an integral part of the "Second demographic transition". In other words, it is not so much that classic marriage leads to greater union stability, greater happiness, better school performance of children etc, but the reverse is likely to hold, i.e. it is tested and proven union success that leads to marriage. With such reversed causation one can furthermore expect that both cultural (e.g. religion, upbringing, ethnicity, social pressure) and socio-economic factors (e.g. social background, education, social status and income) will cause major differentials with respect to these outcomes (cf. Axinn and Thornton 1992; Smock 2000, Manning and Smock 2005). To these one should also add the gender dimension,

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better educated who already were in a union the percentages "ever-cohabited" would be substantially higher.

[7] In this respect the US is hardly any different from the other western countries such as Canada, France or the Low Countries which equally witnessed the rise in cohabitation as a result of these societal transformations. The concept of the "second demographic transition" (Lesthaeghe and van de Kaa 1986) was developed as a result of these changes.

since men and women have come to experience different "utilities and disutilities" during a partnership and may therefore expect different returns from a prospective marriage (Huang et al. 2011).

The overall outcome for the US according to Furstenberg (2013) is a two tiered disparity according to social class : The upper, better educated third of the population enters cohabitation at later ages, considers this a testing ground for compatibility and quality, has more stable jobs and higher incomes, moves more frequently into marriage and stay more frequently married as well. They reap the fruits of union stability. The lower third, by contrast, enters into a partnership at younger ages, has more teenage pregnancies, experiences a less satisfactory life with a partner, partly because of job instability and low income, partly because of other factors (e.g. violence, crime), have prolonged cohabitation, more frequent partnership disruptions and multiple partnerships, and less entry into a stable marriage. The middle third, according to this view, would be sinking toward the lower third as the American "middle class" has greatly suffered from the crisis years since the turn of the Century.[8]

3   Some Major Differentials in the Incidence of Current Cohabitation, 1990–2011

As indicated, all statistical results on the incidence of cohabitation pertain to women who are currently in a union (i.e. married + cohabiting). Unpartnered women are not included in the denominators. The results stem from the direct question on the relationship to the head of the household, i.e. either married spouse or unrelated partner, and should be considered as lower estimates. The evolution of the share of cohabitation among all unions of women 25–29 is given in Table 4.1 together with the education and race differentials.

Compared to the Latin American countries, the share of cohabiting women has risen considerably more slowly in the USA. The US census results for 2000 indicate that about 16 % of women 25–29 in a union were cohabiting, whereas among the Latin American and Caribbean countries most had reached 40 %. About a decade later, virtually all these countries had passed the 50 % mark, whereas the US figure must have been about 25 % for 2010. Among Latin American countries, Mexico has the slowest evolution, but it is still faster than the US. For the census rounds of 1990 and 2000, Mexico had about 5 percentage points more cohabiting women 25–29

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[8] In the Northern and Western European countries such a growth of union instability and its consequences is less marked than in the US, which may well be the outcome of the fact that the European welfare state provisions have protected the middle class far better than in the US. But it should also be noted that divorce rates in the US rose much earlier and to much higher levels than in Europe during the 1950s and 1960s, and that the US also has a long tradition of much higher teenage fertility and earlier entry into marriage. Hence, a comparison with several Latin American countries and the UK may be more appropriate than with continental Northern and Western Europe.

Table 4.1 Percent cohabiting among women 25–29 in union, 1990–2011, by race and education

	Census 1990	Census 2000	ACS 2007–2011
White non-Hispanic	9.9	16.1	23.2
Black	16.7	23.5	31.1
Hispanic	9.8	13.7	21.9
Less than complete High School (LSH)	13.6	16.2	24.3
High School or some College (HS or SC)	9.9	16.4	24.4
BA or higher	9.7	15.3	20.5
Total	10.3	16.0	22.9

Source: Authors' tabulations based on the census and American Community Survey samples from the IPUMS-USA database

Table 4.2 Percent cohabiting among women in union, 2007–2011, by education and 5-year age groups

Age group	Less than High school	High School or some College	College graduate or higher
20–24	33.4	38.7	38.7
25–29	24.4	24.1	20.6
30–34	18.3	15.3	9.2
35–39	14.7	11.6	5.8
40–44	12.5	9.8	5.2
45–49	10.9	8.4	5.1

Source: Authors' tabulations based on the census and American Community Survey samples from the IPUMS-USA database

than the US, but in 2010, the Mexican figure rose to 37 %, compared to the 23 % for the US in the period 2007–2011.

The profiles by education indicate a slightly more rapid rise after 2000 for the less educated group, but the difference with the best educated segment (completed college or more) is only about 4 percentage points. Hence, it is clear that the US rise in cohabitation as a means of starting a union is occurring rather evenly in all education groups. The "pattern of disadvantage", i.e. the association of more cohabitation and less marriage in the least educated and poorest part, has not yet fully developed in the age group 25–29. However, differential sorting into marriage could occur at later ages. As is shown in Table 4.2 and Fig. 4.1, this is exactly what happens.[9] In the age group 20–24 both the least and the most educated group of women have the highest shares of cohabitation among those in a union. By age 25–29, the college educated slide back to some extent, but it is essentially after age 30 that the differentials develop. After that age the least educated women have the most cohabiting and the least married unions, whereas the college educated clearly exhibit the opposite pattern. *In other words, despite the fact that all education categories move*

[9] It should be noted that not all of the dropping off of the three curves in Fig. 4.1 is due to the transition from cohabitation to marriage. A significant part of it is also due to the cohort effect, with older cohorts of women having less entry into cohabitation to start with.
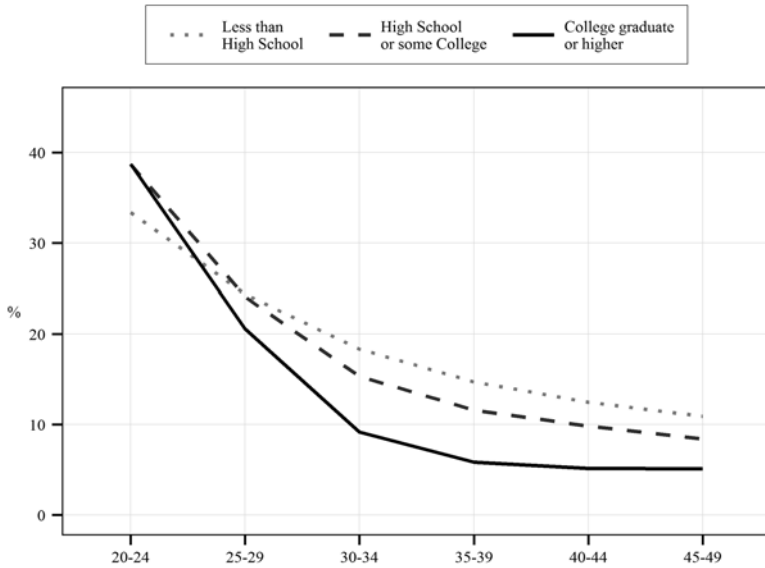
Fig. 4.1 Percent cohabiting among women in a union, 2007–2011, ages 20–49, by education (*Source*: Authors' elaboration based on the census and American Community Survey samples from the IPUMS-USA database)

into unions via cohabitation in roughly similar proportions, it is at later ages that the better educated can afford to convert their cohabiting unions into marriages to a significantly greater extent. This is perfectly in line with the Furstenberg "sorting" hypothesis. It is also consistent with a "pattern of disadvantage", *but only at later ages*. It is not so that the better educated *initiate* their unions much more via marriage, but it is true that after a cohabitation spell they *conver*t their cohabiting union more into classic matrimony.

As far as race or ethnicity is concerned, more variation emerges in the way unions are initiated. From Table 4.1 it is already clear that the black population has a significantly higher share of cohabitation in the age group 25–29. Adding more detail to the data of Table 4.1 will of course bring out more diversity. In Table 4.3, we have used a finer racial classification with 16 categories which was built after inspecting the complete racial breakdown involving some 170 different categories. From the other chapters in this volume, we know that cohabitation varies considerably in the Latin American countries and the Caribbean. As a result, we have broken down the US Hispanics into three groups: Mexican, Central American + Caribbean, and South American. We also expected American Indians and Alaskan natives to have higher cohabitation figures. Finally, the group of US Asians could be quite heterogenous, and hence we adopted a finer breakdown of this category as well.

With the breakdown of ethnicity as done in Table 4.3, it appears that American natives have the highest incidence of cohabitation, and are even higher than the US black population, whereas Hawaiians and other Pacific Islanders have a slightly lower figure than whites. The Hispanic group exhibits the expected heterogeneity

Table 4.3 Percent cohabiting among women 25–29 in union, 2007–2011, by race/ethnicity

Ethnic background	Percent cohabiting women 25–29 in union
White	23.2
Black	31.1
Natives: Indian+Alaska	33.1
Pacific+Hawaii	20.7
Mexican	20.0
Central American+Caribbean	28.1
South American	18.6
Other/unknown Hispanic	25.6
Chinese	17.3
Japanese	28.6
Filipino	18.6
Asian Indian	2.3
Korean	16.6
Vietnamese	15.8
Other/unknown Asian	15.4
All Other	26.9
Total	22.9

Source: Authors' tabulations based on the census and American Community Survey samples from the IPUMS-USA database

with Central Americans and Caribbeans having the higher incidence compared to Mexicans and South Americans. The heterogeneity among Asians is larger still. Normally one would expect populations of Asian origins to have very low cohabitation figures, as this runs counter to strong patriarchal systems of arranged and endogamous marriage which was historically highly prevalent in most Asian societies. As far as Asians in the US is concerned, this only holds for Asian Indians, for whom cohabitation is indeed exceptional. For most of the other US Asians, however, this is no longer the case, even though the figures are in the 15 to 18 % range and hence lower than in the white population. There is one major exception: women 25–29 of Japanese descent stand out with a considerably higher share of cohabitation, even surpassing the figure for white women.

4   The Social Geography of Cohabitation in the US

In this section we shall explore the spatial differences with respect to the share of cohabitation among all unions of women 25–29. Firstly, a set of maps by state combined with race and education will be presented. The full set of figures for 1990, 2000 and 2007–2011 by state is presented in Table 4.6 in the Appendix. According to the most recent figures, the highest percentages cohabiting among

partnered women 25–29 are registered in Washington DC. (41.9), Maine (34) and Massachusetts (33.6), whereas the lowest are in Utah (9.7), Alabama (15.3) and Arkansas (15.6). Secondly, also a more detailed map for smaller spatial aggregates, i.e. PUMAs, will be produced. Moreover, since either populations or surfaces of states are highly uneven, also a cartograms is being presented with areas proportional to population size in 2009. In other words, the cartogram provides a "visual correction" by restoring the true demographic weights of the various states.[10] Also, in all maps pertaining to the states we have used a unique set of categories in order to have complete comparability. *The categories correspond to the quintiles of the share of cohabitation as measured for the States in the period 2007–2011*. The recent State map and its corresponding cartogram are shown in Map 4.1, together with the State map for the 2000 census.
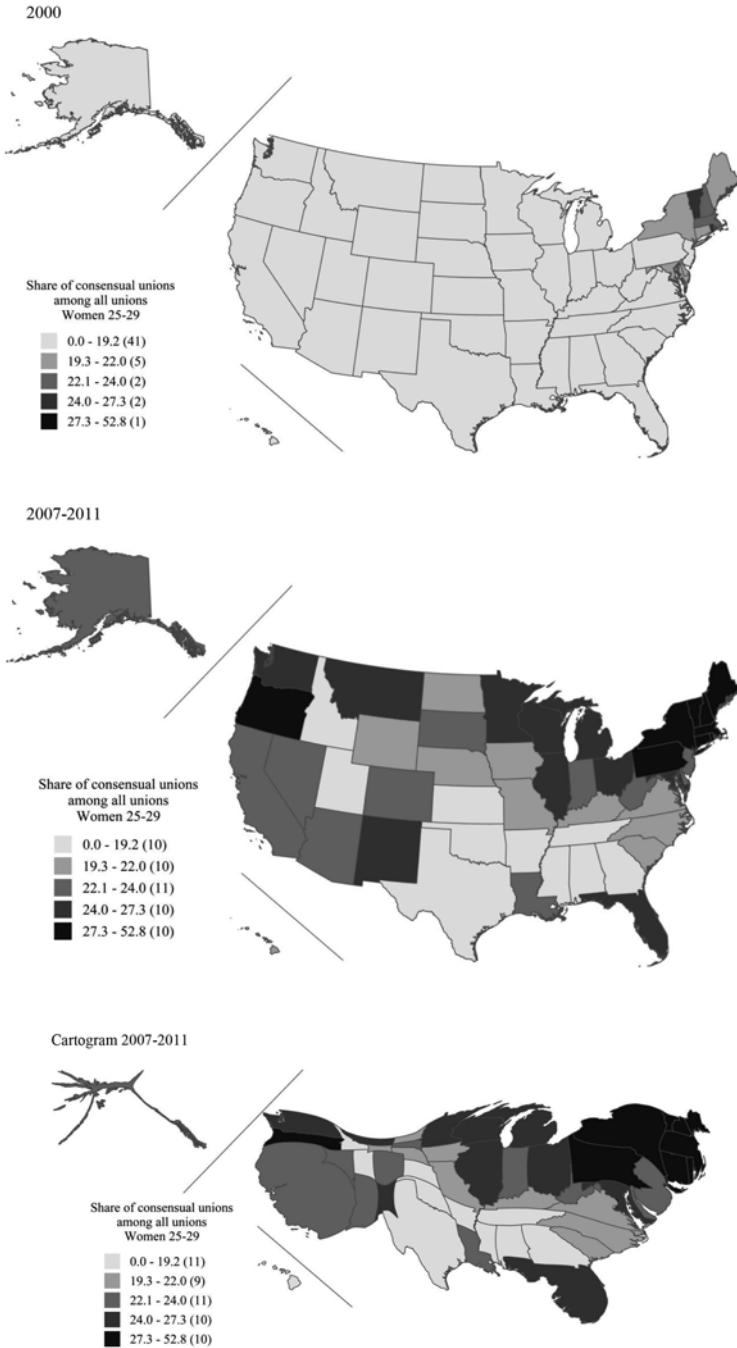
In Map 4.1 we could omit the 1990 results, since all states then fell into the lowest quintile (less than 19.3 %) except Washington DC. In 2000, however, all of New England and several other North Atlantic States (New York, Maryland, Delaware and Washington DC) move up to the higher quintiles, with Vermont and Rhode Island closely following the lead of Washington DC. The striking element here is that these states all contain large better educated populations and smaller populations in poverty (cf. US Bureau of the Census: SAIPE).[11] Roughly 10 years later, the share of cohabitation rapidly increases in the majority of states, but with the noticeable exception of most Southern ones (Oklahoma, Texas, Arkansas, Mississippi, Alabama, Georgia, Tennessee), Kansas, Idaho and Utah. New England and New York maintain their leading position together with Washington DC, but they are joined by Pennsylvania and Oregon in the top quintile. Also clearly above average are the states around the Great Lakes, Florida, New Mexico, Washington State and Montana. It is equally striking that California does not belong to the leading set.[12]

The racial breakdown by state is given in Map 4.2. Obviously, the map for the young white non-Hispanic women closely resembles that for states as a whole, but with the exception of California, Nevada, Colorado and Louisiana which move up one quintile and Minnesota and New Mexico which slide down one category. The map for the black non-Hispanic women 25–29 indicates that by 2007–2011 a clear majority of states are to be found in the upper two quintiles. Only the black populations in northern New England, the Pacific North-West and the northern
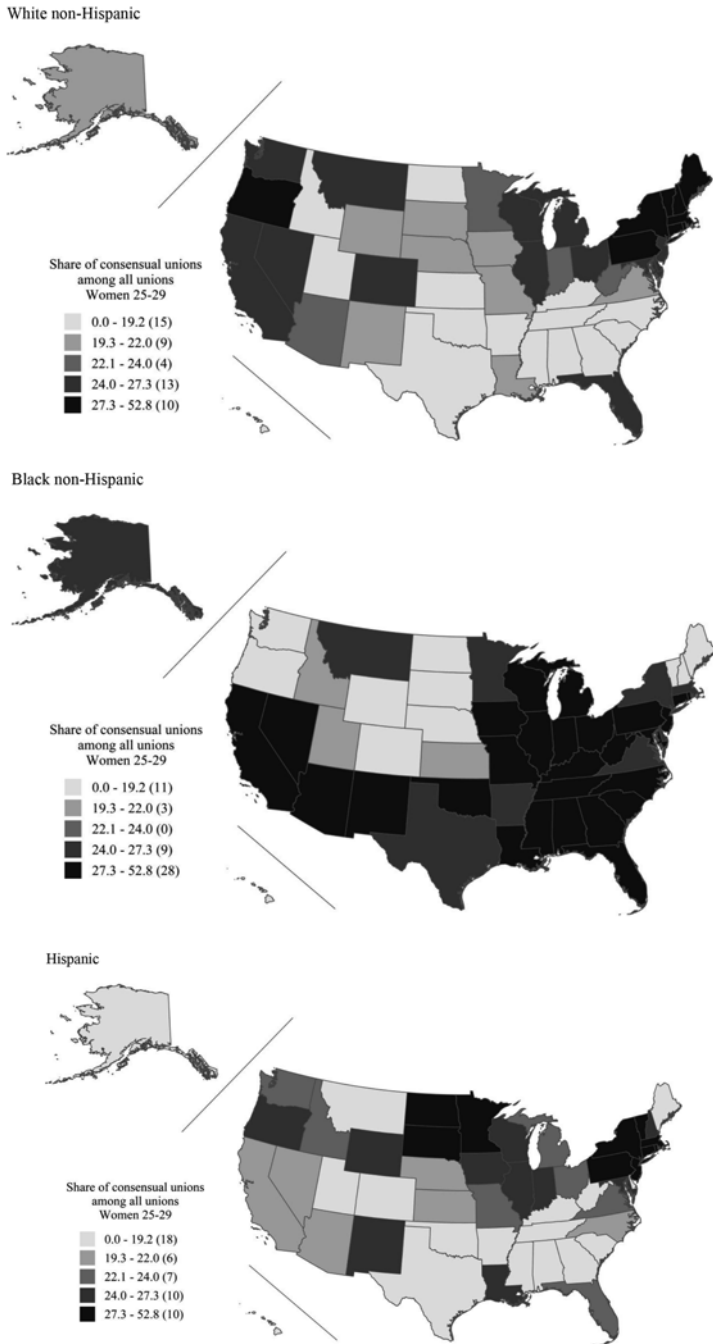
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[10]A cartogram for PUMAs could not be made because of the "donut" effect. Many urban PUMAs are entirely located within another PUMA (= donut effect), and when drawn proportional to population size, the inner part becomes larger than the outer one. The software to produce cartograms cannot cope with such situations.

[11]SAIPE = Small Area Income and Poverty Estimates. The US Bureau of the census publishes detailed figures of these estimates by school district, county and state.

[12]For those readers who like the highly stylized "11 nations" as published by Colin Woodard in *American Nations* (2011), cohabitation among whites started and rose most rapidly in the Yankeedom nation and spread to the western part of the Midlands, followed by the Left Coast and presumably New France. Greater Appalachia, Tidewater and Deep South (except Florida) exhibit the highest degree of resistance. Woodard has no finer breakdown for the Far West than the El Norte and the rest, but the Mormon nation would be an obvious addition.

2000

Share of consensual unions
among all unions
Women 25-29

- 0.0 - 19.2 (41)
- 19.3 - 22.0 (5)
- 22.1 - 24.0 (2)
- 24.0 - 27.3 (2)
- 27.3 - 52.8 (1)

2007-2011

Share of consensual unions
among all unions
Women 25-29

- 0.0 - 19.2 (10)
- 19.3 - 22.0 (10)
- 22.1 - 24.0 (11)
- 24.0 - 27.3 (10)
- 27.3 - 52.8 (10)

Cartogram 2007-2011

Share of consensual unions
among all unions
Women 25-29

- 0.0 - 19.2 (11)
- 19.3 - 22.0 (9)
- 22.1 - 24.0 (11)
- 24.0 - 27.3 (10)
- 27.3 - 52.8 (10)

Map 4.1 Share of cohabitation for all women 25–29 in a union, 2000–2011, by state. Cartogram 2007–2011 (*Source*: Authors' elaboration based on the census and American Community Survey samples from the IPUMS-USA database)

White non-Hispanic

Share of consensual unions
among all unions
Women 25-29

  0.0 - 19.2 (15)
  19.3 - 22.0 (9)
  22.1 - 24.0 (4)
  24.0 - 27.3 (13)
  27.3 - 52.8 (10)

Black non-Hispanic

Share of consensual unions
among all unions
Women 25-29

  0.0 - 19.2 (11)
  19.3 - 22.0 (3)
  22.1 - 24.0 (0)
  24.0 - 27.3 (9)
  27.3 - 52.8 (28)

Hispanic

Share of consensual unions
among all unions
Women 25-29

  0.0 - 19.2 (18)
  19.3 - 22.0 (6)
  22.1 - 24.0 (7)
  24.0 - 27.3 (10)
  27.3 - 52.8 (10)

Map 4.2 Share of cohabitation among women 25–29 in a union, 2007–2011, by state and race (*Source*: Authors' elaboration based on the census and American Community Survey samples from the IPUMS-USA database)

Great Planes have much less cohabiting young women. These are all states where the black populations constitute smaller minorities.

Among the Hispanic women cohabitation is most widespread in two distinct zones. The first one largely corresponds to the conurbation running from Massachusetts to Washington DC, and the second is made up of Minnesota and the adjacent Dakotas. By contrast, most Hispanic women 25–29 in the Southern states fall in the lowest quintile, whereas those of California, Nevada and Arizona also belong to the second lowest category. The large Hispanic group of Florida is close to the median level.

The geography of the share of cohabitation among partnered women 25–29 is given in the panels of Map 4.3 for the three education groups. In 2000, the least educated group scored highest in the Minnesota-Dakotas and in the Vermont-New Hampshire areas, followed by the rest of New England and Michigan. By 2007–2011, however, partnered young women with less than completed High school have cohabitation shares in excess of 27.3 % (highest quintile) in no less than 22 states, even including several southern ones (Louisiana, Mississippi and the Carolinas). By contrast, cohabitation among such women is much less in evidence in Texas and along the line Iowa, Nebraska, Colorado, Utah (lowest quintile, i.e. less than 19.3 %).

Young partnered women with completed High school or some College education had the higher shares of cohabitation in 2000 in New England, Maryland, Delaware and Washington DC, and further west, in Michigan, Wisconsin and Minnesota (12 states in the second to fourth quintile, none in the top one). In all remaining states their shares were in the lowest quintile. Ten years later, these shares increased into the highest quintile in 16 states, all concentrated along the north Atlantic (from Maine to Washington DC) and stretching inland to the Great Lakes and as far west as Minnesota and South Dakota. By contrast, young women in the middle education category currently have the lowest incidence of cohabitation in the South (Florida and Louisiana again being the exception) and in the Utah-Idaho pair.

In 2000, young partnered women with completed College or higher had the larger shares of cohabitation (upper three quintiles) in New England (Maine, Vermont, Massachusetts, Rhode Island), Washington DC and in Oregon. But by then the movement among them had started to spread to New York, Maryland, Colorado-Wyoming and California-Nevada. In 2007–2011, the increases are again most noticeable in the whole of New England plus New York and Oregon, but closely followed by Washington State, California and Colorado. However college educated young women still have low cohabitation shares in no less than 33 states (lowest two quintiles).

From these maps it is also clear that many states have a negative education gradient for partnered women 25–29, i.e. that the better educated are less likely to cohabit, either because of a lower incidence of entry into cohabitation or by a higher rate of leaving that condition by moving into marriage. Most states in the upper quintile, however, have essentially a flat gradient, and there are also a few cases in which there is a positive gradient or a non-linear pattern. In these instances, the better educated have the highest shares of cohabitation and/or the least educated have the smallest share. These noteworthy exceptions are California, Washington State,

Incomplete High School

Share of consensual unions
among all unions
Women 25-29

- 0.0 - 19.2 (6)
- 19.3 - 22.0 (10)
- 22.1 - 24.0 (4)
- 24.0 - 27.3 (9)
- 27.3 - 52.8 (22)

Completed High School or some College

Share of consensual unions
among all unions
Women 25-29

- 0.0 - 19.2 (7)
- 19.3 - 22.0 (10)
- 22.1 - 24.0 (5)
- 24.0 - 27.3 (13)
- 27.3 - 52.8 (16)

College BA or higher

Share of consensual unions
among all unions
Women 25-29

- 0.0 - 19.2 (24)
- 19.3 - 22.0 (9)
- 22.1 - 24.0 (5)
- 24.0 - 27.3 (5)
- 27.3 - 52.8 (8)

Map 4.3 Share of cohabitation among women 25–29 in a union, 2007–2011, by state and education (*Source*: Authors' elaboration based on the census and American Community Survey samples from the IPUMS-USA database)

Colorado, Wyoming, Hawaii (positive gradient), and Oregon (U-shaped gradient). There are also a few states with an inverted U-shaped pattern in which the middle education category has the larger share of young cohabitors: New Hampshire, Pennsylvania, Maryland, Illinois, Iowa, Nebraska, and Texas.

A much finer resolution of these maps can be obtained by plotting the results by PUMA (Public Use Microdata Area). Such PUMA areas are defined as spatial units comprising at least 100,000 individuals, and they are set up to produce meaningful spatial results while still adequately protecting the privacy of survey respondents (University of Michigan Population Studies Center). As a result, there may be more than one PUMA in Metropolitan counties, whereas there may be many counties being aggregated into a single PUMA in sparsely populated regions. The advantage of the PUMA units is that they are much more homogeneous in terms of population size than counties are. The disadvantage is that the PUMA borders in large urban areas are often too closely together to be identified on a map for the entire nation. Despite this drawback, we are still reproducing the PUMA results, essentially because we are using PUMAs as units for the multilevel analyses in the subsequent section. Furthermore, only the PUMA-map for 2007–2011 is being shown in Map 4.4, since the formal statistical analysis will bring out the dominant covariates. The categories in this map correspond to quartiles.

At this point, we can only formulate a few more general comments that were not yet made while exploring the results by State.

Firstly, high cohabitation shares are not necessarily a typical metropolitan or urban feature. For instance, the urban crescent of PUMAs along the Atlantic from Connecticut to New Jersey frequently exhibits lower levels than the rest of New

Map 4.4 Share of cohabitation among partnered women 25–29, 2007–2011, by Public Use Microdata Area (PUMA) (*Source*: Authors' elaboration based on the census and American Community Survey samples from the IPUMS-USA database)
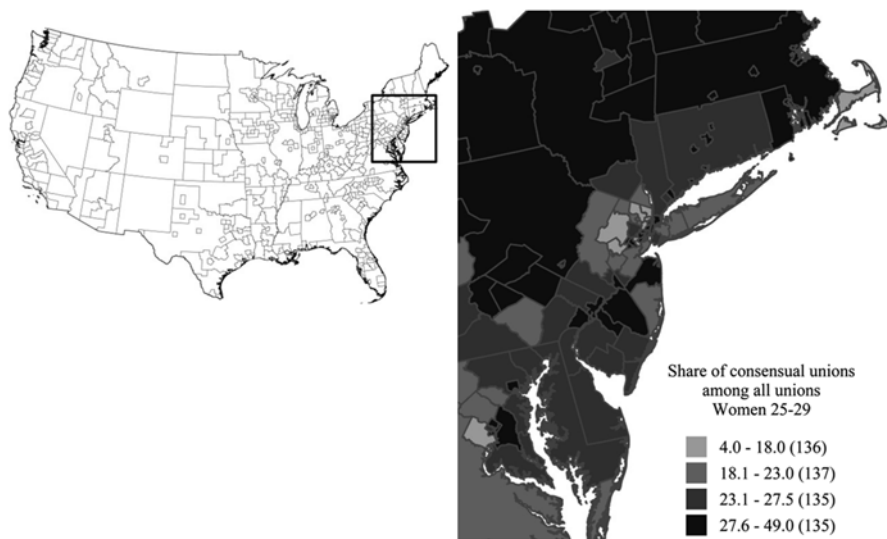
England and upstate New York or PUMAs in western Pennsylvania. By contrast, there is a band of high levels of cohabitation running through central Michigan and spilling across the lake into northern Wisconsin. These are not urban areas. In Texas, only Odessa has a cohabitation share in the top quartile, as opposed to the much larger other urban areas of the state. But there are also counter-examples: for instance, the Miami-West Palm Beach area has values in the top quartile. And the only two upper quartile cases in virtually the entire South are New Orleans and Baton Rouge. The overall picture seems to be that the link between cohabitation and degrees of urbanization is not always obvious, and that many other factors interfere. It should also be noted that PUMAs can be in the upper quartiles when they contain Indian reservations. But then, totally at the other end of the socio-economic spectrum, the same also holds for small college towns.

Secondly, the spatial concentration of the low shares of cohabitation is equally of interest. A striking finding is that there are very few cases in the lowest quartile among the PUMAs to the east of the Mississippi and north of the Ohio and Potomac rivers. South of the Ohio most PUMAs have cohabitation shares of partnered women 25–29 below the median of 23 %, but there are a few major exceptions such as most of Florida and a few PUMAs in Louisiana, Mississippi and the Carolinas. Further west, the Mormon belt in Utah and southern Idaho is a striking example of a very low incidence of cohabitation. But also most PUMAs of Iowa, Missouri, Nebraska, Kansas, and virtually all of Oklahoma and Arkansas score well below the median as well. Along the Pacific coast, there are much fewer PUMAs in the lowest quartile, and virtually none in Washington State, Oregon and Northern California.

5   Cohabitation in Selected Metropolitan Zones

The PUMA-map of the share of cohabitation for partnered women 25–29 for the entire US obscures differences that exist within large urban zones. To remedy this, we have also have produced a few more detailed regional maps for the Northern East coast and the New York area, Chicago and Lake Michigan shores, and Los Angeles. The legend for these maps refers to the same quartiles as those used in Map 4.4 for all the PUMAs in the entire US.

As mentioned before, Map 4.5 equally shows that many New England PUMAs form a contiguous zone with shares in the top quartile, whereas this only holds for a more limited number of then in the coastal crescent from Connecticut to Maryland. In the latter area, the top quartile is reserved for mainly urban areas (e.g. Hartford, New Haven, Bridgeport and Norwalk in Connecticut, the Bronx and Manhattan in NYC, the Jersey side of the lower Hudson, Monmouth, Burlington and Camden counties together with Trenton in New Jersey, Philadelphia and Delaware county in Pennsylvania, Baltimore, and Washington DC with two adjacent areas in Maryland and Virginia, namely Prince George´s county and Alexandria). The rest of the Connecticut-Maryland crescent tends to have percentages in the third quartile, but

Map 4.5 Share of cohabitation among partnered women 25–29, 2007–2011, along the Northern Atlantic conurbation by Public Use Microdata Area (PUMA) (*Source*: Authors' elaboration based on the census and American Community Survey samples from the IPUMS-USA database)

there is also a large zone in northern New Jersey together with Long Island that belongs to the two lower quartiles.
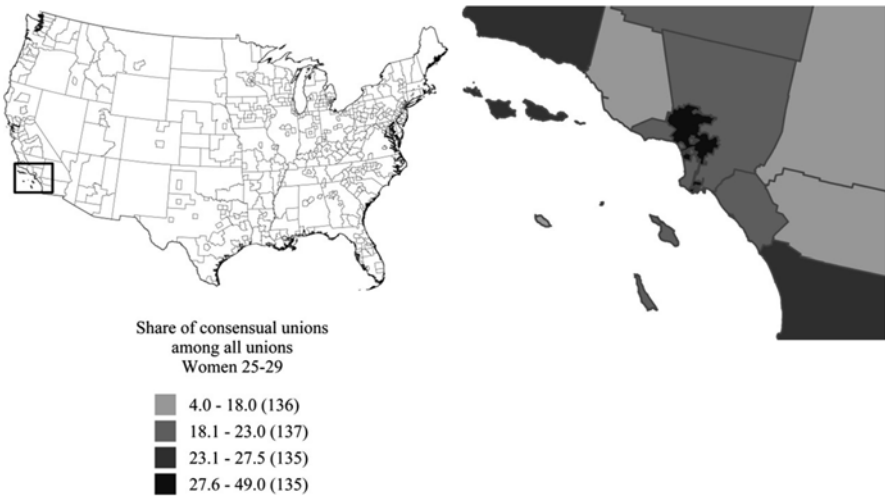
A more detailed map for the New York-New Jersey area (Map 4.6) further illustrates the high degree of heterogeneity. In New York City, Manhattan, the Bronx and Staten Island are in the top quartile, but not the other two boroughs of Brooklyn and Queens. In fact, the shares of cohabitation are lower for the totality of Long Island. Across the Hudson, 6 more PUMAs have cohabitation shares in the upper quartile and they are parts of Hudson, Essex, Union and Middlesex counties, i.e. roughly comprising the areas around Jersey City, Newark, Elizabeth and New Brunswick. But, as already indicated, the shares of cohabitation are much lower in the rest of northern New Jersey.

For greater Los Angeles (Map 4.7), the top quartile is essentially reserved for downtown, Eastern and Southern Los Angeles, Inglewood and Venice, to the North-West and in the south along the corridor to Wilmington-San Pedro. Only belonging to the second quartile are Malibu, Santa Monica, Beverley Hills, Hawthorne-Torrance, Long Beach, Burbank-Pasadena, Glendale and the rest of the county together with neighbouring Orange county. These divisions clearly reflect social class and Hispanic versus non-Hispanic differentials with the former having higher cohabitation shares.

The situation along the shores of Lake Michigan is shown on Map 4.8. Again, there is no clear contrast between Metropolitan and non-Metropolitan PUMAs. Part of the upper quartile are Chicago, Milwaukee-Racine and the eastern part of the industrial Indiana shore (e.g. Porter and Laporte counties), but so are much more
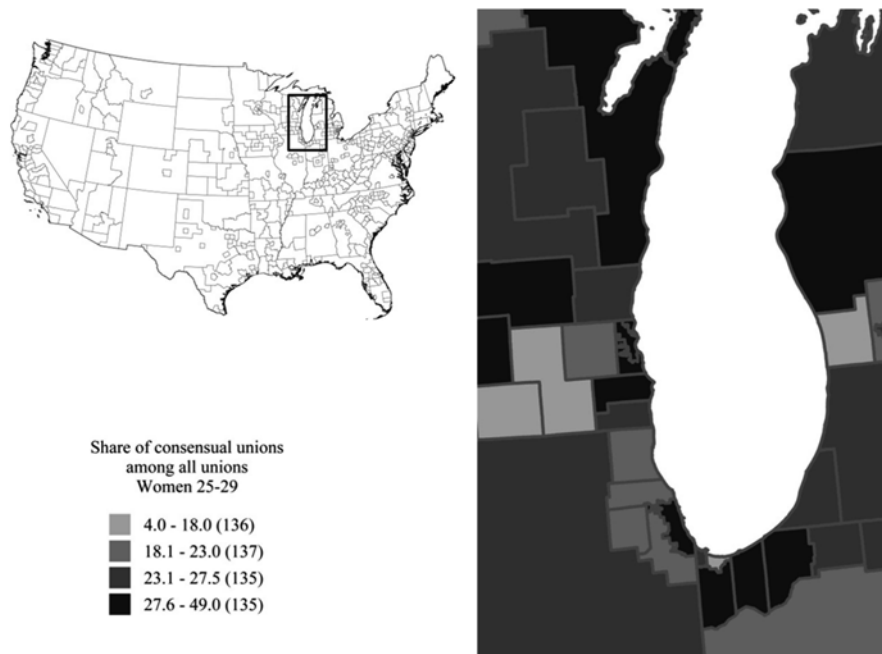
Map 4.6 Share of cohabitation among partnered women 25–29, 2007–2011, in the larger New York area by Public Use Microdata Area (PUMA) (*Source*: Authors' elaboration based on the census and American Community Survey samples from the IPUMS-USA database)

Map 4.7 Share of cohabitation among partnered women 25–29, 2007–2011, in the greater Los Angeles area by Public Use Microdata Area (PUMA) (*Source*: Authors' elaboration based on the census and American Community Survey samples from the IPUMS-USA database)

rural areas with small towns such as Green Bay and Door county or Sheboygan in Wisconsin or Muskegon, Oceana and Mason counties in Michigan. Also the lowest quartile is heterogeneous and includes highly industrial Gary, Indiana, together with completely non-industrial Ottawa County in Michigan.[13] Evidently, many other factors play a role at the local level in this part of the US.

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[13] Ottawa county MI contains the traditional town of Holland, founded by Dutch Calvinists.

Map 4.8 Share of cohabitation among partnered women 25–29, 2007–2011, along Lake Michigan by Public Use Microdata Area (PUMA) (*Source*: Authors' elaboration based on the census and American Community Survey samples from the IPUMS-USA database)

For a few more large areas we do not need a detailed map to identify the upper quartile PUMAs. In the larger San Francisco Bay area, there are only four cases: down town San Francisco, Sonoma to the North, Santa Cruz to the South and the state capital Sacramento to the West. The other eight PUMAs of the larger Bay area are in the second or third quartile. The Florida cases in the top quartile are also easily identifiable: Tampa-Saint Petersburg, Lake county in central Florida, and the two stretches along the Atlantic coast made up of Brevard county and of Broward and Miami-Dade counties further south.

6   A Multilevel Analysis of Cohabitation, 2007–2011

In this section a formal statistical analysis will be presented based on a two-level contextual logistic analysis (for details see Chapter on Brazil). The data pertain to 252,299 individuals and 543 PUMAs. We model the probability of a partnered woman 25–29 to be in a cohabiting union as opposed to being married. Variables at the individual level are education (4 levels), race/ethnicity (16 categories) and migrant status (born in state, out of state but in US, foreign born). The ACS

individual-level data for 2007–2011 do not contain any information on religious practice or denomination nor on income level, which is a major shortcoming. However, at the level of the PUMAs, such measures could be included. Religion is then measured in the form of the share of various denominations (Catholic, Mainstream Protestant, Black Protestant, Evangelical + Mormon). Income is captured via the shares of the population below the official US poverty threshold (i.e. below index 100).[14] Equally available at the PUMA-level are a measure of degree of urbanization based on population density, the share of the population born out of state (including abroad), and the voting results at the time of the 2008 presidential elections.

Apart from the coefficients and odds ratios (OR or exponentiated logistic regression coefficients) also the variance across PUMAs is measured. Normally, this variance should shrink as more and better predictors at the individual level are entered. If this is not the case, then important spatial differences are persisting, independently of the individual-level variables.

The first set of results is presented in Table 4.4 and table 4.5 showing the main effects (OR) for both individual-level and PUMA-level variables.

In the zero model without any covariates, the spatial variance between the 543 PUMAs is 0.183 (see Table 4.4). When introducing the three individual-level variables, this variance fails to shrink and increases even to 0.218, indicating that the controls for individual education, ethnicity and migrant status cannot account for the spatial differences. Besides this important finding, the results for the individual level determinants confirm or strengthen the results already reported in the previous tables with bivariate outcomes. This is clearly in evidence for the odds ratios of the various ethnic groups. With whites as a reference category (OR = 1), the odds ratios are highest for the Japanese women, which is surprising in view of their Asian origin and high education. They are followed by the American natives (Indians + Alaskan), and lower down in the ranking by black women and women of Central America and the Caribbean origins. At the other end of the spectrum we find the Asian Indians with virtually no cohabitation. Also lower than whites are the Vietnamese women and those belonging to the residual Asian category. For all other groups, including women with Mexican roots, the difference with whites is not pronounced.

The negative educational gradient is emerging very clearly in these data and it is further enhanced after controlling for the status of being foreign born. Before this control, the odds ratios for college educated women was 0.71, but thereafter it is reduced to 0.59 (figures not shown in Table 4.4). Furthermore, the negative gradient with education after controls for the other individual level characteristics is almost perfectly linear.

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[14] The poverty index has been defined by the US Social Security Administration in 1964, and is based on the cost of a food basket for households of different sizes and age compositions. The measure has been revised subsequently and it is adjusted annually for inflation. The poverty threshold corresponds with a value of 100. See Minnesota Population Center https://usa.ipums.org/usa/volii/poverty.shtml.

Table 4.4 Estimated odds ratios from a multilevel logistic regression of unmarried cohabitation by individual and contextual level variables, women 25–29, 2007–2011

Category	Model 0	Model 1	Model 2
Individual variables			
Education			
College or higher		0.59	0.59
Some college		0.81	0.74
High school		0.74	0.81
Less than HS (ref.)		1	1
Race			
Asian Indian		0.14	0.14
Black		1.49	1.49
Central American & Caribbean		1.43*	1.43
Chinese		0.95	0.95
Filipino		1.11	1.11
Japanese		1.80	1.80
Korean		0.99*	0.99*
Mexican		1.05	1.05
Native Indian		1.66	1.66
Other Asian		0.81	0.81
Others		1.30	1.30
Others hispanics		1.19	1.19
Pacific & Hawaiian		1.13	1.13
South American		1.01	1.00*
Vietnamese		0.90	0.90
White (ref.)		1	1
Migrant status			
Born abroad		0.48	0.48
Born out of State but in US		1.03	1.03
Born in state of residence (ref.)		1	1
Contextual variables			
Catholic			
Q4			1.46
Q3			1.24
Q2			1.30
Q1 (ref.)			1
Main Protestant			
Q4			1.36
Q3			1.15
Q2			1.28
Q1 (ref.)			1
Black Protestant			
Q4			0.97
Q3			0.96

(continued)

Table 4.4 (continued)

Category	Model 0	Model 1	Model 2
Q2			1.00
Q1 (ref.)			1
Evangelican or Mormon			
Q4			0.79
Q3			0.89
Q2			0.89
Q1 (ref.)			1
Poverty <100			
Q1			0.82
Q2			0.92
Q3			0.91
Q4 (ref.)			1
Born out of state (Stay2)			
Q4			0.95
Q3			0.98
Q2			0.97
Q1 (ref.)			1
Foreign Born			
Q4			0.98
Q3			1.07
Q2			0.99**
Q1 (ref.)			1
Density			
Q4			1.35**
Q3			1.14*
Q2			1.09*
Q1 (ref.)			1
Democrats			
40–49.9%			1.10
50–59.9%			1.23**
>60%			1.30
<40% (ref.)			1
Variance left between Pumas	0.18	0.22	0.11
Intercept	*−1.24*	*−0.87*	*−1.30*

Note: All the coefficients are statistically significant at $p < 0.001$ except *$p < 0.05$; **$p < 0.01$
Source: Authors' tabulations based on the census and American Community Survey samples from the IPUMS-USA database

Table 4.5 Estimated odds ratios from a multilevel logistic regression of unmarried cohabitation by individual and contextual level variables, women 25–29, 2007–2011

Category	Model 0	Model 1	Model 2	Model 3
Individual variables				
Education by race				
White LHS		1.67	1.72	1.72
White HS or SC		1.31	1.32	1.32
White BA or higher (ref.)		1	1	1
Black LHS		2.06	2.38	2.38
Black HS or SC		1.90	2.03	2.03
Black BA or higher		1.28	1.38	1.38
Mexican, South American and other Hisp LHS		1.03**	1.85	1.85
Mexican, South American and other Hisp HS or high.		1.01	1.34	1.34
Central American and Carib LHS		1.62	2.82	2.82
Central American and Carib HS or higher		1.28	1.73	1.72
American Indian and Alask LHS		3.01	3.03	3.04
American Indian and Alask HS or higher		2.06	2.07	2.07
Asian and Pacific LHS		0.18	0.34	0.34
Asian and Pacific HS or SC		0.65	1.10	1.10
Asian and Pacific BA or higher		0.42	0.71	0.71
Others Mixed LHS		1.72	2.09	2.09
Others Mixed HS or higher		1.37	1.55	1.55
Migrant status				
Born abroad			0.46	0.46
Born out of State but in US			1.03	1.03
Born in state of residence (ref.)			1	1
Contextual variables				
Poverty by density by religion				
Evan/Morm-not urban- not poor (Eup) (ref.)				1
Evan/Morm – not urban- poor (EuP)				1.01*
Evan/Morm – urban- not poor (EUp)				0.68
Evan/Morm – urban- poor (EUP)				1.02
Not Evan/Morm – not urban- no poor (eup)				1.56*
Not Evan/Morm – not urban- poor (euP)				1.64
Not Evan/Morm – urban- not poor (eUp)				2.48*
Not Evan/Morm – urban- poor (eUP)				1.84
Variance left between Pumas	0.18	0.20	0.22	0.14
Intercept	*−1.24*	*−1.41*	*−1.40*	*−1.81*

Note: All the coefficients are statistically significant at $p < 0.001$ except *$p < 0.05$; **$p < 0.01$
Source: Authors' tabulations based on the census and American Community Survey samples from the IPUMS-USA database

Finally, at the individual level, it does not matter very much whether or not one is born in the state of current residence. What matters, though, is whether one is foreign born or not. Cohabitation is considerably lower among the latter than among those born in the US.

In the hierarchical model used here, these individual effects are not altered by entering the contextual variables measured at the PUMA level. These additional variables are population density of PUMAs, proportions in four religious denomination groups, the US Census Bureau proportions of households in poverty, the proportions born out of state (Stay2), foreign born (FB) and the political orientation of the PUMA of residence (share of votes for Democrats). All these contextual variables were furthermore divided up in categories corresponding to their quartiles.

The findings for religious denominations in the PUMAs are as follows. Cohabitation among partnered women 25–29 increases as the area of residence has higher proportions Catholic. Evidently Catholicism is no longer a cultural barrier to cohabitation, despite the official Vatican teaching on such matters. Very much the same result is found for mainstream Protestants, i.e. an almost linear increase in the odds ratios of cohabitation for individuals as the population share of mainstream Protestants in the PUMA of residence increases. In fact, these two large mainstream denominations could be pooled together, presumably as a result of internal secularization. By contrast, there is hardly any difference in cohabitation risks among partnered women 25–29 depending on the relative size of black Protestant populations in their PUMA of residence. For PUMAs with a dominance of Evangelicals and Mormons, exactly the opposite occurs. Cohabitation risks for partnered young women, after controlling for the individual-level characteristics, are considerably reduced, particularly if residing in PUMAs that belong to the higher quartile with respect to the size of their Evangelical or Mormon populations.

The conclusion with respect to this contextual variable is that the individual probability of cohabitation versus marriage for women 25–29 varies considerably according to the religious mix in the overall population of the PUMA of residence. Also indicative of the importance of this religious composition variable in the model is that the variance left among PUMAs after individual-level controls decreases considerably after its introduction, i.e from 0.218 to 0.136. However, it should be noted that the strength of the contextual religious composition variable is in part due to the lack of measurements of religious denomination or practice at the individual level. Also, the importance of the agnostic population is not well measured in the data that we have used here. Information on these issues at the individual level could well explain a part of what is now only captured at the contextual level. With these caveats in mind, there is still a firm conclusion: religion matters very much in the US, either at the individual or contextual level. This is essentially a cultural effect and independent of the socio-economic ones that are also included in the model (individual education, contextual poverty).

The urban-rural gradient also emerges in a systematic fashion: residence in the more urban quartiles (as measured through population density) increases the probability of cohabitation for partnered women 25–29, and the effect is noticeably stronger for residence in the most urban group. The same holds for poverty: odds ratios decline as poverty levels of PUMAs of residence diminish, with the strongest reducing effect noticed for PUMAs in the quartile with the smallest overall poor population. Hence, there is a clear double effect here: individual cohabitation risks increase most when resident in the most urban and the poorest PUMAs. This is a clear socio-economic effect, which together with individual education levels, point in the direction of cohabitation exhibiting a pattern of disadvantage.

The prevailing political orientation in the PUMA of residence also exerts a clear effect. Compared to residence in dominantly Republican PUMAs (40 % or fewer votes for Democrats in the 2008 presidential elections), odds ratios for young women to be cohabiting instead of being married linearly increase to a value of 1.30 for residence in a strongly Democratic PUMA. However, as was also the case with contextual religion, this effect is not strictly a contextual one since political preference is not available as a individual-level variable and since cohabiting persons are more likely to vote for Democrats. What the result means is that politics and sub-dimensions of the "second demographic transition" are strongly correlated in the US at the individual and contextual levels (cf. Lesthaeghe and Neidert 2006, 2009).

The other two contextual variables exert only minor effects. Cohabitation risks slightly decline when resident in PUMAs with more persons born out of state and with more foreign born populations.

The introduction of the contextual variables has a major effect on the spatial variance, as it is now further reduced to 0.112, i.e. down from 0.183 in the zero model and from .218 in the model with only individual-level variables.

The model of Table 4.4 only produces main effects, and does not include any interactions, i.e. effects of particular combinations. In the model of Table 4.5, by contrast, we study effects of combined characteristics, both at the individual and at the PUMA level.

For the former, we have retained the ethnicity and education dimensions. For non-Hispanic whites and blacks and for Asians we distinguish between three education levels, but for the other groups, there are too few young partnered women with BA or higher degrees in the sample. This individual-level combination variable also makes sense since educational achievement is often strongly conditioned by ethnic background. For the contextual variables we dichotomized population density and poverty by contrasting the most urban and the poorest quartile against the rest. Religious denomination is dichotomized by selecting the PUMAs in the quartile with the largest Evangelical + Mormon population. The sizes of the population born out of state or foreign born in PUMAs are no longer included in view of their weaker discriminating power as shown in Table 4.4, and because the characteristic of being foreign born is already included at the individual level.

The odds ratios for cohabitation versus marriage according to the individual ethnic background/education combinations are measured against the level for whites with complete college education (BA) or higher (reference category). Firstly, in all ethnic groups, except Asians and Pacific/Hawaiians, higher education lowers the probability of cohabiting. Secondly, the negative gradient with education is strong for almost all races, but least pronounced for Hispanics with Mexican or southern American roots. Thirdly, native American women score by far the highest. It is also worth noting that the odds ratios for the better educated native Indian and Alaskan women is equal to that of the least educated group of the black population (OR in both cases is 2.06). Conversely, the lowest odds ratios of all groups are for Asian/ Pacific & Hawaiian women with either the lowest or the highest education. Presumably the former retain their strong pro-marriage traditions, whereas the latter have better chances of converting cohabiting unions into marriage.

The introduction of the migrant status individual variable produces an increase in all odds ratios of the ethnic categories, but the differences by education remain intact. This also changes the order between the ethnic groups to some extent. After removing the foreign born effect, the highest odds ratios are for less educated native American Indians and Alaskans, followed by less educated women with Central American or Caribbean backgrounds, and then by less educated black non-Hispanic women. Asian/ Pacific & Hawaiian women still have substantially lower odds ratios than college educated white women, except when they belong to the middle education category (OR = 1.09).

The combinations formed with contextual variables are equally revealing. The reference category is the combination with the overall *lowest* incidence of cohabitation, i.e. PUMAs belonging to the highest quartile *Evangelical/Mormon* (*E*), *not* belonging to the most *urban* highest population density quartile (u), and *not* belonging to the *poorest* quartile (p) either. With these abbreviations, using capital letters for belonging and lower case letters for not belonging, the eight categories now range from EUP (= most Evangelical, most urban, most poor) to eup (= less Evangelical, less urban, less poor).

First and foremost, the odds ratios for cohabitation are insignificantly different from the reference category when residing in highly Evangelical/Mormon PUMAs (*Eup*, *EUP*, *EuP*). Only residence in the PUMAs of the EUp combination lowers the probability of cohabiting still further. In other words, residence in PUMAs with a high Evangelical-Mormon concentration swamps the effect of the other PUMA characteristics of urbanity or income, and lowers that probability even further when such a PUMA belongs to the "most urban*non-poor" combination (*EUp*).

Secondly, concentrating on the 75 % of PUMAs with smaller Evangelical-Mormon populations (*e*), odds ratios of cohabiting obviously increase quite substantially. The smallest increase is, as expected, for the less urban and the non-poor PUMAs (*eup*). The next higher value is for the less urban and poor PUMAs (*euP*), then for the most urban but not poor ones (*eUp*), and the highest odds ratios are for

residence in the non-evangelical/Mormon, most urban and most poor PUMAs (*eUP*). In other words, conditioned on *e*, the gradient from lower to higher odds ratios for contextual combinations neatly follows the transition from "up" to "UP", as expected.

7   Conclusions

Among all studies of US cohabitation since the 1990s, there is to our knowledge not one that focuses on the spatial development of the phenomenon in any detail. Also, heterogeneity in measurement methodology equally resulted in a shortage of studies of differences in trends over the last two or three decades. In other words, time and space have been underexposed dimensions. By contrast, most studies heavily rely on cross-sections, either focusing on one census, or more frequently on surveys. As a consequence, social differences stood in the limelight, and much of the sociological literature in the US focuses on the so called "pattern of disadvantage". While it is undeniable that this pattern exists, and our results equally testify to this effect, it does by no means cover the entire story.

Firstly, it should be stressed that cohabitation for younger *white* women originated in the New England states and the state of New York, and that at the very beginning college students were involved (Macklin 1972, 1978). Also Pennsylvania and Oregon joined early on, which are two other states with liberal attitudes and a better educated population.[15] This clearly points in the direction of the original northern and western European "second demographic transition" pattern, in which a liberal elite opened the doors for everyone else to a new form of behavior in the 1960s and early 1970s. This point is typically absent in studies that lack the spatial dimension or have measurements at much later dates.

Secondly, as in Europe and Latin America, cohabitation shares among partnered women 25–29 subsequently rose quite dramatically in *all* education groups without exception. The gradient with education can be negative, flat or positive, but the *most* striking feature is the order of magnitude of that virtually *universal* increase. In addition, large increases can occur in a very short period of time and even in a single decade. These two features are virtually always overlooked by studies that lack a focus on the time dimension, and yet they are of particular relevance for the US as well. Furthermore, in the US this overall increase in cohabitation largely occurred prior to the economic crisis of 2008–2009, and it is obvious that the prime causes of the singular upward trend in cohabitation have little or nothing to do with ups and downs in the economy.

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[15] Washington DC too was part of the vanguard states, but we do not know at this point whether this is mainly due to its large black population or its liberal whites or both.

Thirdly, a distinction should be made between (i) cohabitation versus directly marrying as an *initial* choice for entering into a union, and (ii) staying in cohabitation versus converting the union to a marriage at later times. Using percentages currently cohabiting, as we were forced to do here, mixes these two aspects of differential union entry and exit forms. We suspect that, as cohabitation expands among younger women, we are by now mainly capturing differential "exit forms" (i.e. staying in the existing consensual union versus converting it to marriage, exiting from a union altogether, re-partnering etc.). In order to measure the differential union entry form, percentages ever and never cohabiting have to be studied as well. However, this information is seldomly available in large nation-wide surveys.

Fourthly, black women, native American and Alaskan women, and women with Central American or Caribbean roots have longer histories of less institutionalized marriage that sets them totally apart from Asians, whites, Mexicans, and Latin Americans with European origins. However, it should be stressed that the former groups too experienced rising cohabitation during at least the last two decades. Furthermore, as education and poverty are associated with race and ethnicity, the measurement of cohabitation as a possible pattern of disadvantage should be performed for all these racial groups *separately*.

The pattern of disadvantage does show up quite clearly in our results as all but one of the ethnic groups exhibit a negative cohabitation-education gradient in the 2007–2011 ACS data. But, it should again be stressed that the levels at which these gradients manifest themselves are vastly different depending on historical ethnic differences. *In other words, the negative education gradient operates at levels conditioned by older ethnic divisions*. The only group of young partnered women for which there is no negative cohabitation gradient is predominantly made up of persons of Asian descent. Among them, the least educated among them have the lowest odds ratios and they are by far the most traditional of all ethnic groups considered.

Independently of the individual combined race and education effects just mentioned, the pattern of disadvantage also emerges in the contextual effects. Conditioned on not being located in an area with large Evangelical or Mormon populations, odds ratios for cohabitation for young partnered women are enhanced further by residence in urban PUMAs and even more by residing in the poorest quartile of these urban areas. This implies that the pattern of disadvantage operates at both levels, individually, via lower education, and contextually, via residence in poor urban areas. However, there is one exception: residence in areas with larger Evangelical or Mormon populations largely neutralizes the joint negative contextual effect of urbanity and poverty on the incidence of cohabitation.

The US story is likely to develop further and with it the patterns by race, education and area of residence. The Furstenberg hypothesis of the pattern of disadvantage spreading to the American middle class is a possibility, but there may still be large differences in the unfolding of "diversity" depending on cultural (ethnicity, religion, political, ethical, gender-related values orientations) and socio-economic (education, income, job availability …) conditions. A slower exit from cohabitation

as a result of delayed marriage is very different from a rapid exit from it due to "endemic" union instability. In order to differentiate between these alternative paths for the culturally and socially very heterogeneous US public the large nationally representative surveys (such as the ACS) need to go beyond the current status questions and measure the incidence of transitions as well.[16]

Another crucial issue not covered in this chapter is the relationship between the changing legal landscape with respect to cohabitation and rights of or benefits for cohabitants and the observed spatial pattern of cohabitation. Despite the unifying effect of Supreme Court rulings, there are still very substantial differences depending on states, counties and municipalities.[17] A key issue here is to what extent the rise of cohabiting is the source of more liberal legislation, or to what degree legal adaptations spur on the rise in cohabitation.

To sum up, the US joined the all-American trend of rapidly rising shares of cohabitation. The US trend followed with a lag when compared to its neighbors, and with a substantial lag when compared to the rest of Latin America and the Caribbean. Nevertheless, the rise has been particularly pronounced since the turn of the Century. All races and educational categories contributed to this increase but in a very uneven way. Furthermore, aspects of the second demographic transition explanation and of the pattern of disadvantage are *both* at work, as was also true in the Latin American countries. Furthermore, also pre-existing ethnic differences with respect to the strength of marriage as an institution need to be added to the picture. As the process of increasing cohabitation is not terminated, it becomes more and more likely that the ensuing growth of diversity could follow different paths depending on both cultural and socio-economic conditions. Finally, these factors will not only play out at the individual level, but at the contextual one as well.

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[16]A first, but major step forward consists of also including the very simple "ever" questions: ever in a union ?, ever cohabiting ?, ever married ?, ever divorced ?, ever separated ?, ever re-partnered via cohabitation or via marriage ? etc.

[17]An instructive map, apparently originally compiled at the US Bureau of the Census, showing the legal differences regarding "domestic partnerships" for states, counties and cities, and updated to 2012, can be found in a Wikipedia article, 2013. The article uses a three-way classification of (1) County/city offers domestic partner benefits, (2) State-wide partner benefits through same sex marriage, civil union, domestic partnership or designated beneficiary, and (3) No domestic partner benefits offered by state. The states belonging to category 2 are all the New England ones plus New York, New Jersey, Delaware and Maryland on the Atlantic coast, four Plains states of Wisconsin, Illinois, Iowa and Minnesota, and the three Pacific states plus Nevada and Colorado. In states without benefits for domestic partners, however, there may be selected counties or cities that do offer these benefits. See: http://en.wikipedia.org/wiki/File:US_counties_and_cities_with_domestic_partnerships.svg

Of the 16 states that offer benefits to domestic partners, seven are in the top quartile of cohabitation (share among partnered women 25–29, 2007–2011), five in the second quartile, against four in the third quartile and none in the lowest quartile.

Appendix

Table 4.6 Share of cohabitation among all unions of partnered women 25–29, 1990–2011, by State, based on "relation to householder" question

State	1990	2000	2007–2011	State	1990	2000	2007–2011
Alabama	4.6	9.6	15.3	Montana	8.7	17.2	25.2
Alaska	13.6	18.6	22.7	Nebraska	7.9	12.9	20.9
Arizona	12.5	17.6	22.6	Nevada	14.2	17.8	23.8
Arkansas	5.7	9.6	15.6	New Hampshire	12.4	22.8	29.4
California	13.1	16.5	23.2	New Jersey	11.0	17.6	23.7
Colorado	12.4	18.3	22.1	New Mexico	12.7	16.6	25.1
Connecticut	12.5	20.2	29.0	New York	11.6	19.5	28.3
Delaware	10.3	21.8	24.0	North Carolina	8.4	14.3	20.4
Distric of Columbia	26.4	28.2	41.9	North Dakota	7.6	16.3	19.9
Florida	12.5	18.7	25.5	Ohio	9.3	16.6	25.2
Georgia	8.6	13.2	17.9	Oklahoma	6.2	10.6	17.4
Hawaii	10.8	15.9	19.3	Oregon	14.2	18.6	27.9
Idaho	7.2	11.0	16.8	Pennsylvania	10.0	18.4	28.2
Illinois	9.9	15.9	25.0	Rhode Island	11.6	26.1	31.3
Indiana	9.0	15.4	23.0	South Carolina	7.5	15.5	20.0
Iowa	8.4	15.5	20.6	South Dakota	9.8	15.3	23.4
Kansas	7.4	10.9	18.4	Tennessee	7.1	11.5	18.4
Kentucky	7.2	12.2	19.6	Texas	7.5	11.7	17.6
Louisiana	8.3	14.9	23.3	Utah	5.7	7.3	9.7
Maine	13.5	22.0	34.0	Vermont	16.1	24.8	32.9
Maryland	12.2	19.6	26.1	Virginia	9.5	15.0	20.6
Massachusetts	13.3	22.9	33.6	Washington	13.0	18.3	24.6
Michigan	10.4	17.9	24.9	West Virginia	7.2	12.5	23.1
Minnesota	11.6	18.1	24.6	Wisconsin	11.3	19.1	27.3
Mississippi	6.4	14.0	18.4	Wyoming	8.4	17.8	21.6
Missouri	8.8	14.4	21.4				
				Total	10.3	16.0	22.9

Source: Authors' tabulations based on the census and American Community Survey samples from the IPUMS-USA database

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