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# The diversity of fertility trends in Mexico. A theoretical challenge

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## **The diversity of fertility trends in Mexico. A theoretical challenge.**

### **Short abstract (200 words)**

For the past two decades, we have explored fertility change in Mexico with data from three rounds of biographical data from the Demographic Retrospective Surveys (EDER), following life histories of men and women from generations born in 1953-1997.

At the difference of the pace of the transition towards the parameters of demographically advanced countries, the peculiarity of the Mexican case is related to the coexistence of modern and ancient reproductive patterns, which are not uniquely explained by educational or economic inequalities among individuals and their families of origin.

The country is socially and culturally diverse and some regional standards of family formation are very polarized, along fertility models from high to low completed fertility.

### **Extended abstract (2-4 pages)**

#### **Introduction**

For the past two decades, we have explored the fertility transition in Mexico with biographical data from three rounds of the Demographic Retrospective Survey (EDER), following life histories of men and women from generations born in 1953-1997.

In 1998 it was evident that the decline in fertility was slower in rural than in urban areas, and that the timing of marital unions dictated the timing of births (Zavala de Cosío, 2005). By 2011, the year in which the EDER was conducted only in metropolitan areas, we found that the diversity in the pace of the reproductive transition was largely explained by differences in the level of schooling, but mostly due to social origin (Páez & Zavala, 2016).

In 2017, the survey was ten times larger (a sample of 32 000 dwellings) and it was then possible to analyze, in addition, regional differences. The retrospective data with the possibility of disaggregation at the state level allowed us to validate the existence of different reproductive regions in the country, that earlier research had identified with cross-sectional data (Cosío Zavala, 1994).

The work accumulated so far enables us to account for the polarization of the reproductive phenomenon in the Mexican territory, expressed in the increasing percentage of women with very small offspring in certain strata and regions, while in other groups and areas reproductive models related to old fertility patterns persist, such as greater offspring or the preference for sons.

#### **Methods**

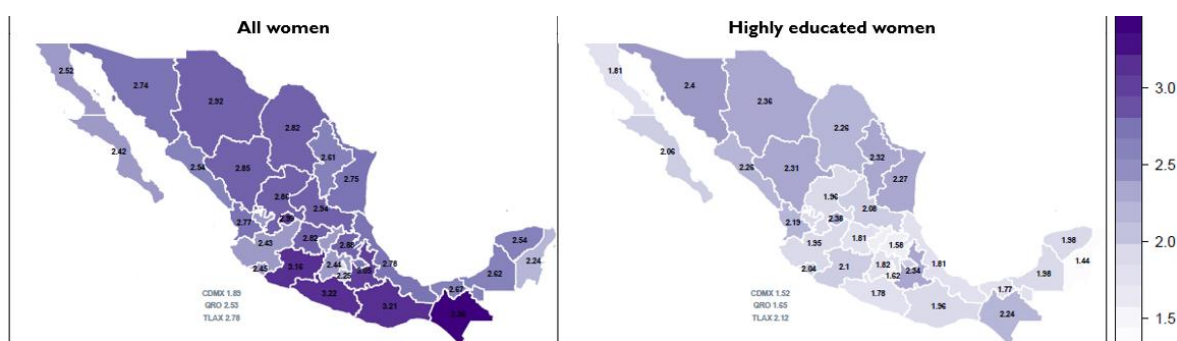
This paper is based on the analysis of gaps and trends in indicators of completed fertility intensity and timing, such as final offspring, probabilities of family enlargement, median ages at first union and first child, and childbearing intervals.

To this end, sequence analysis techniques are used to classify the country into regions with different standards of family formation and to verify that the gaps and pace of trends also have a territorial component.

## Results and Discussion

In general, women in the south of the country have the highest number of children at the end of their reproductive lives (more than 3 on average). However, when considering only the most educated women, it is the northern ones who have the highest average number of children (figure 1).

Figure 1. Average final offspring by federative entities. All women and highly educated women aged 40 and over.



Source: Authors' elaboration with data from EDER 2017.

These regional differences reveal a reproductive pattern that responds not only to differences in social origin and inequalities throughout the life course, but also to cultural and religious standards prevailing in different regions of the country.

Conversely, whereas the proportion with no offspring for highly educated women is about twice that of low- and middle-educated women, this phenomenon has been increasing across generations, even for less educated women. Having a single child is also more frequent among women with higher education, but the trend for women with medium and low levels of education has been consistently increasing, doubling between those born in 1964-1965 and 1974-1975.

The sequence analysis carried out results in the delimitation of six regions with different standards of family formation. There are observable differences in the indicators of intensity and timing of fertility. Women in the *High fertility* region have the highest average number of children at the end of their reproductive life (close to 3.6 children per woman). In the *Very Conservative* region the average is 3.1 children and, in contrast, in the *Liberal* region, women average 2.1 children. This is a difference of 1.5 sons/daughters

between opposite regions of the same country. In the *Very Conservative* region, reproduction starts one year later, on average, but the spacing between the second and third child is shorter compared to the *Mixed* and *Tolerant* regions. In the *Mixed* region, there is a higher probability of having a third child, especially if the first two were girls. In the *Tolerant* region, the sex of the first two children is not relevant in the probabilities of seeking a third child. In the *Liberal* region, we observe the lowest final offspring, the greatest postponement of the first birth, as well as the greatest spacing between first, second and third births. Also, the highest proportion of women with only one child and the highest proportion of women with no offspring. In general, lower probability of family enlargement, even if the first two children had been of the same sex.

With indicators suggesting a slower transition are the *High Fertility* and *Very Conservative* regions. The first (Chiapas, Michoacán, Oaxaca) maintains high offspring due to very early unions and short spacing between children, in addition to lower contraceptive use during the reproductive life of couples. Meanwhile, the second adheres to the traditional reproductive model, with a predominantly civil and religious marriage, delayed birth of the first child and relatively short intervals between successive births, until reaching a large family size, since 57% of the women who had a third child have a fourth child and 52% of the women who had four children have a fifth child.

Figure 1. Regions in Mexico based on family formation patterns.



Liberal	Tolerante	Mixta	Alta fecundidad	Conservadora	Muy conservadora
Ciudad de México	Baja California	Baja California Sur	Chiapas	Coahuila	Aguascalientes
Morelos	Hidalgo	Colima	Michoacán	Durango	Campeche
Quintana Roo	México	Chihuahua	Oaxaca	Jalisco	Guanajuato
Sonora	Nayarit	Guerrero		Nuevo León	Yucatán
	Puebla	Querétaro		San Luis Potosí	Zacatecas
	Veracruz	Sinaloa		Tamaulipas	
		Tabasco			
		Tlaxcala			

Source: Authors' elaboration with data from EDER 2017.

## Conclusion

The country is socially and culturally diverse and some regional standards of family formation are very polarized, along fertility models from high to low completed fertility.

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