

An assessment of the data sources on fertility in Mexico

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INTRODUCTION

Since the mid 20th century, information on fertility in the country has been collected by means of the civil registration system and population censuses. Fertility surveys have been collected since the mid-seventies and, in recent years, there is data on Birth Records provided by the Health System to births delivered in clinics and hospitals.

Concern. Data sources on Mexico's fertility levels and trends tell different stories. Each data source has its strengths and limitations that have varied in time. Although the general trend in data quality is to improve over time, there is not a full agreement on the fertility level and trends even for the near past, when data sources are more numerous.

MEXICAN DATA SOURCES ON FERTILITY

The main data sources on fertility in Mexico are:

- Civil Registration System:

- births by year of registration and year of birth from 1985 to 2014.

- Population Censuses 1960, 1970, 1990, 2000, 2010, and 2015 (census survey):

- date of birth of last child born alive (number of births in the preceding year of the census; only in 2000, 2010 and 2015),
- population by sex and age (own children approach),
- women by number of children ever born alive.

- Birth Record

births that take place in the Health System premises from 2008 to 2015.

- Fertility Surveys (carried out in 1976, 1987, 1992, 1997, 2006, 2009 and 2014 with data on reproductive histories).

Objective. Evaluate data on births from civil register's records for the last three decades (1985 to 2014) and compare the results with data from other sources.

Civil Registration data

Advantages:

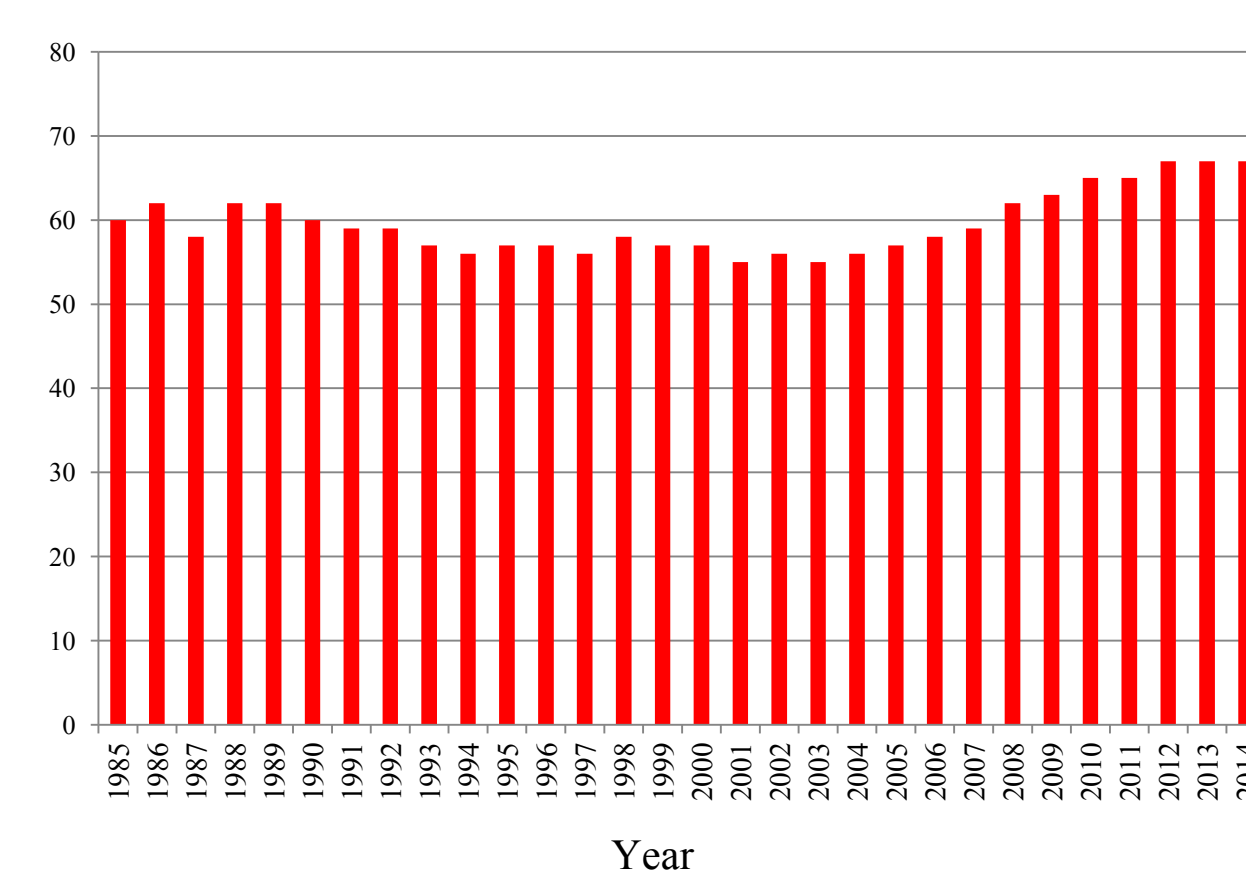
- no major timing distortions,
- data provided by parents,
- data at the population level.
- Continuous data source.

Shortcomings:

- late registration,
- multiple registration.
- omission.

LATE REGISTRATION OF BIRTHS

Figure 1. Proportion of births registered in the same year of birth



Trends in multiple registration and omission are difficult to disentangle from those in late registration. However, a clear trend towards an earlier registration is observed at least in the last 10 years (figures 1 and 2).

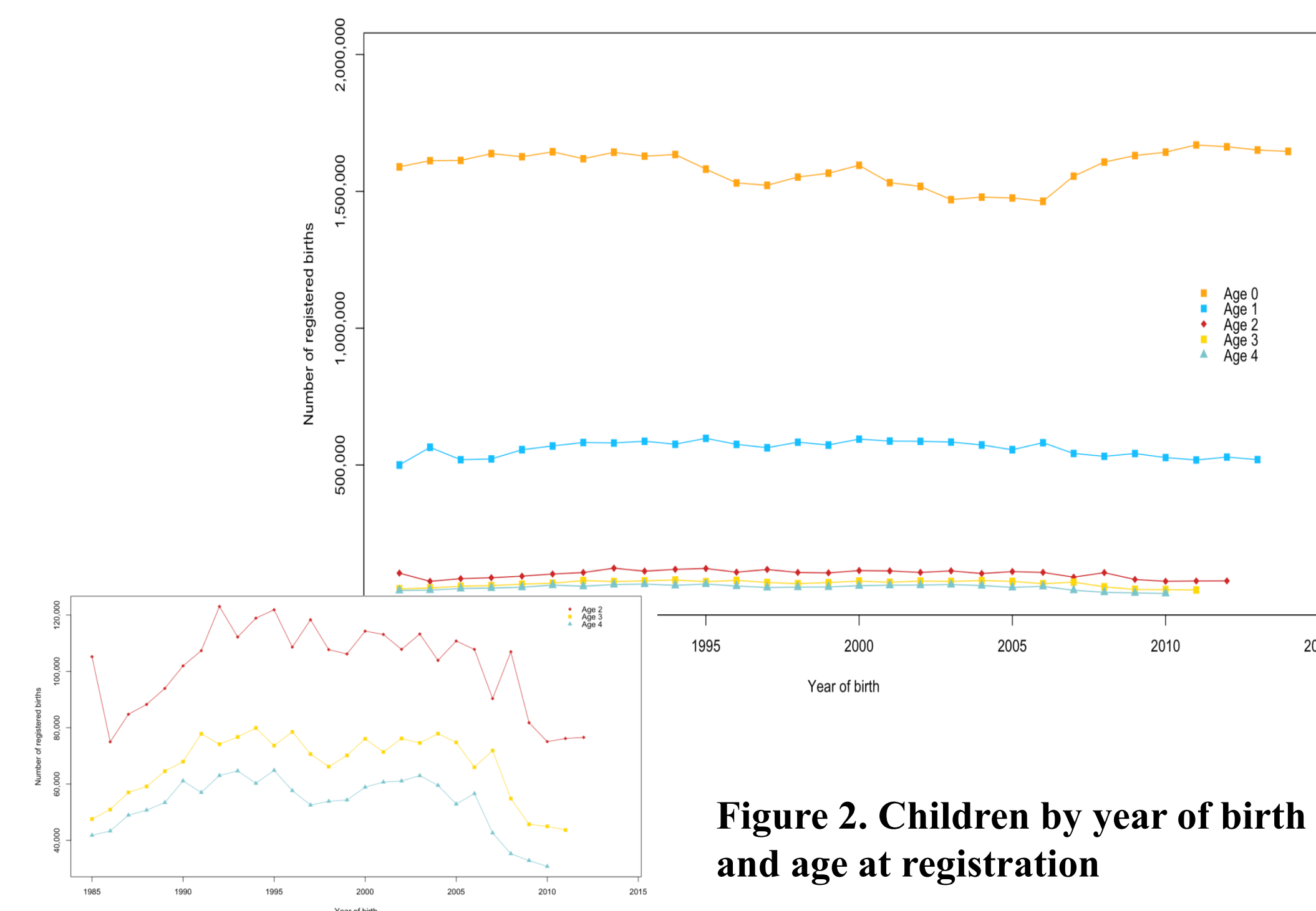


Figure 2. Children by year of birth and age at registration

We suppose that estimating yearly births by following birth cohorts until the fourth year after the birth is a reasonable approach to face late registration.

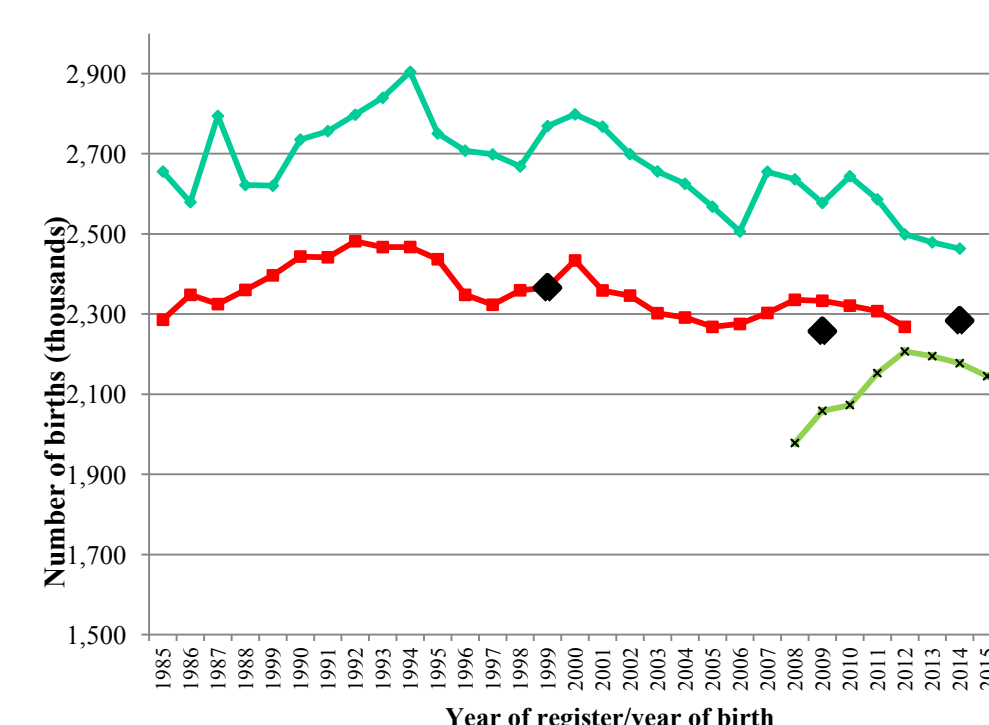


Figure 3. Number of yearly births. Different sources and methods.

The number of births estimated for birth cohorts is close to census figures., but higher values of the total registered show the persistence of late, and maybe multiple, registration.

Figure 4. Total fertility rate. Different sources and methods

Civil registration data provide fertility levels close to those obtained from other population level data sources. Birth Record figures are a lower bound, given that not all births take place at the Health System premises.

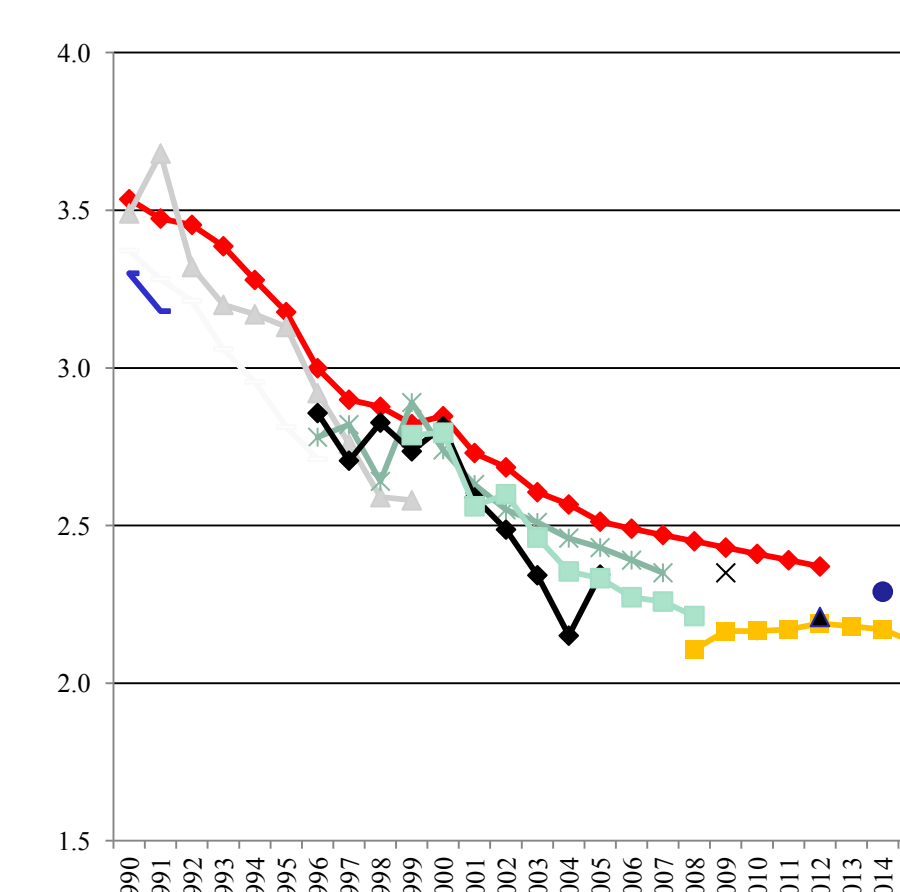


Figure 5. Total fertility rate. Different sources including surveys.

Fertility level from surveys is lower than population level sources, mainly in the years near the data collection.

CONCLUSIONS

Births from the civil registration provide a plausible estimation of levels and trend of fertility in Mexico during these years of fertility decline.

However, one should maintain a critical approach in the estimation of a series of births and the fertility levels and trends given the variation in the data quality during the analyzed period.

The improvement of birth registration over time is caused by an institutionalization process where birth certificate is required to have access to schools, health services and social programs.

More elements are needed to propose an adjustment in the number of births and the period fertility data. We will further investigate patterns of late and multiple registration. Because of deep regional disparities in the institutionalization process, we will develop our future research at the state level with the civil registration data and other data sources at the population level. This will allow us to estimate a unified series of period fertility data in Mexico and to provide a more accurate picture of the fertility transition in the country.

DATA REFERENCES AND AUTHORS

Own calculations with data from the Instituto Nacional de Estadística (INEGI) and the Secretaría de Salud, México.

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