

Brief history of distinguished data sources;

Indirect Demographic Methods;

Brazil as case study presenting different methods and sources to access fertility schedule in this country;

Conclusion/Discussions/Guidelines

In Latin America the quality of vital statistics is questionable;

Many countries are still present a considerable degree of data problems (under-registration of population and births, age-heaping, later birth registration, etc.)

Population censuses;

Household surveys;

Demographic Health Survey;

**Givil Registration**;

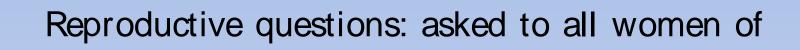
Human Fertility Database (HFD) and Human Fertility Collection (HFC).

The main data sources in Lat. American countries.

Started in eighteenth and nineteenth centuries, and from the 1950s, most of the countries in the region started to introduce regular decennial census;

The census under-reporting still exceeds 3% in many countries;

Progress in quality is uneven, with signs of improvement and also deterioration (Chile as example).



Virtually all countries it have since the early 1960s;

Initially, they only cover some socioeconomic groups and major metropolitan areas of the Latin American region;

Over time, they expanded to more detailed information. Including detailed issues such as housing conditions, demographic trends.

Brazilian National Household Survey (PNAD) questions:

Month and year of birth of the last child born alive; and the number of children ever born, within and outside the home.

Along with the national surveys, are the most important data sources for estimating fertility, infant mortality and nuptiality.

Detailed information about the date of birth of each child for all women,

Very useful information for studying fertility levels, trends and compare cohorts.

Country	WFSsurveys	DHSsurveys
Bolivia		1989 1994 1998 2003 2008
Brazil		1986 1991 1996 2006
Colombia	1976	1986 1990 1995 2000 2005 2010
Costa Rica	1976	
Dominican Republic	1975 1980	1986 1991 1996 1999 2002 2007 2013
Ecuador	1979-80	1987
El Salvador	1978	1985
Guatemala	1978 1983	1987 1995 1998-99
Guyana	1975	2004 2005 2009

Information collected as part of an ongoing vital registration system;

The quality of these statistics covering recent decades is variable;

The data collected are still very incomplete;

Because parents often lack incentives to register; births; or because babies who die shortly

	Period					
Rating	1960-	1975-	1980-	1985-	1990-	1995-
	65	80	85	90	95	00
Good (> de 90%)	45%	55%	55%	57.9%	54.5%	55%
Satisfactory (80 and						
89%)	25%	25%	10%	5.3%	9.1%	0%
Regular (70 and 79%)	5%	5%	5%	5.3%	9.1%	15%
Deficient (< 70%)	5%	10%	5%	10.5%	9.1%	5%
No information	20%	5%	25%	21.1%	18.2%	25%
Total	20	20	20	19	22	20

Bay, G. and Orellana. H. calidad de las estadísticas vitales en la América . Taller de expertos em el uso de estadísticas vitales: alcances y limitaciones. LC/R. 2141. Santiago de chile, diciembre 2007.

Not a data source in strict senses, but a compilation of data with goal to gather and provide as much as possible fertility data to a broad

Sub-national population of the country (urban RN).

Censuses 1970 to 2010;

Reason: Region that has experienced rapid changes in mortality and fertility (IDEMA, 2002; Fossa e Bezerra, 2002), and also has historically shown lower quality of vital registration (IBGE, 2003; Paes, 2006; Lima and Queiroz, 2014).

The country as whole.

Censuses 2000 to 2010;

Birth registers;

Demographic Health Survey.

We compare the results of different data sources and methods combined in a scenario of fertility decline to below replacement level.

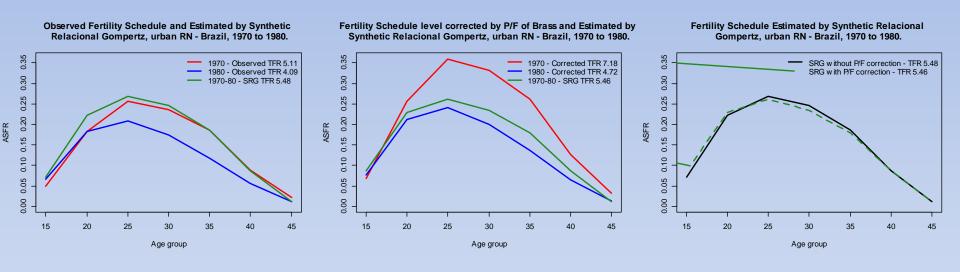


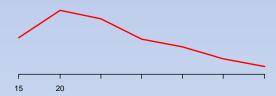
Urban area of the with strong fertility decline over time, with change not only in level but also shape of fertility schedule;

Two methods are applied P/F and Compertz Relational Model (SRG)

Two scenarios of analysis for the SRG:

- 1) Observed data for each census
- 2) Brass correction applied P2/F2

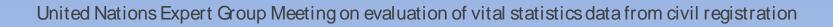




Two choices each period (1) without P/F correction and (2) with correction:

1970	App. 1975	1980
1) TFR 5.11	5.48	4.09
2) TFR 7.18	5.46	4.72





What are the most appropriate methods available to evaluate the completeness and quality of births records?

What are the strengths and limitations of the various methods?

What are the lessons learned from recent experiences with the application of these methods to different settings, including at the sub-national level or for subpopulations disaggregated by various characteristics?

What recommendations can be provided to national authorities in low middle income countries to best evaluate the completeness and quality of their vital statistics, both at the national and at the local level?

What further methodological research would be desirable to address any pending needs?

