

SURVEY OF HISTORICAL DATABASES WITH LONGITUDINAL MICRO-DATA, version 2

For more information about this questionnaire or questions about entering specific information, please mail George Alter (altergc@umich.edu) and/or Kees Mandemakers (kma@iisg.nl).

If your organization is responsible for multiple databases (that are not integrated), please fill in a form for each database.

0/ Do you agree to put the following information on the internet
(at appropriate places like [www. historicaldemography.net](http://www.historicaldemography.net) or the new developed collaboratory on longitudinal historical databases)

Yes

1/ Identifying information

	Name of database:	BALSAC population register
	Location:	University of Quebec at Chicoutimi, Quebec, Canada
	Web-address:	http://www.uqac.ca/balsac/
	Name contact person:	Helene Vezina
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2/ Main objective and scope of the database:

<p>A Original goal</p>	<p>Given its particular history and its current structure, the population of Quebec meets various conditions that make it particularly propitious to the construction of a historical, genealogical, and demographic database. One of these conditions is the founder effect resulting from the immigration pattern from the beginning of the 17th century up to 1760. Most immigrants who have settled in the Saint-Laurent valley during this period came from France. As a consequence, a very large proportion of the contemporary Francophone population in Quebec carries genes inherited from these pioneers. From 1820-1830 onwards, under the pressure of high fertility and land scarcity, the settlement expanded beyond the Saint-Laurence Valley so that the 19th century witnessed the creation of a dozen regions or so. The contemporary structure of the population is also accounted for by the migration streams that took place over the years. After 1760, New France became a British colony and, as a result, a strong non-Francophone immigration ensued. However, most of these immigrants and their descendants settled in the western part of the province. Therefore, the present-day 7 million population is stratified into a Francophone segment inherited from the initial stock, and a multi-ethnic component located mostly in the Montreal region. Because of this structural diversity, the Quebec population lends itself to fascinating research projects. It is also the perfect setting for the creation of a genealogical population register which aims at recreating the diachronic trace of individuals and families over nearly four centuries. Another positive factor consists in the very high quality of the Quebec vital data registration system.</p> <p>The BALSAC population register is a computerized database designed for the automatic construction of family histories as well as ascending and descending genealogies. The information contained in the database comes primarily from marriage records. The BALSAC project was initiated in 1972 at the University of Quebec at Chicoutimi and the overall, long term objective is to extend the register to the entire population of Quebec from the onset of the settlement (at the beginning of the 17th century) up to recent years.</p> <p>The BALSAC register is widely used in the field of human genetics (population genetics, genetic epidemiology). It also supports a number of projects pertaining to historical and social sciences.</p>
<p>B Which part has been realized</p>	<p>As of now, the data entry is completed up to 1949 for the entire province ⁽¹⁾ and has been initiated for the 1950-59 period. Records are linked up to 1940 and the linkage operations are ongoing for 1940-1949. For the Saguenay region of Quebec, the database contains birth, marriage and death records of the entire population (1838 to 1971).</p> <p>⁽¹⁾ For the period prior to 1800, the marriages in BALSAC were provided by the PRDH (Registre de la population du Québec ancien) at the University of Montreal.</p>

FOLLOWING QUESTIONS CONCERN THE ACTUAL STATE OF THE DATABASE

3/ Sources: Please enter Yes or No and the time period for the main sources included in the database

Yes /no	Start year	End year	Type of source	Comments (such as breaks in period or geographic coverage)
Y	1838	1985	Baptisms	For the Saguenay region
Y	1621	1993	Marriages from church registers	For the entire Quebec province (completed up to 1939)
Y	1839	1978	Burials	For the Saguenay region
N			Population registers (continuous) maintained by a church	
N			Civil birth certificates	
Y	1969	1993	Civil marriage certificates	Partly processed
N			Civil death certificates	
N			Civil population registers	
N			Census	
N			Nominative lists	
Y			Genealogies (from more than one source)	Genealogies of all individuals in the database can be reconstructed back to the first immigrants to Quebec.
Y/N			Other:	
Y/N			Other:	
Y/N			Other:	

4/ How was the sample (or samples) defined?

The entire Quebec population is recorded through the marriage certificates from church registers.

For the Saguenay region, all the vital data (births, marriages, deaths) have been used.

5/ Units of observation: Please enter Y or N for each unit that can be followed over time; the number of units can be given in thousands

	Type	Number	Comments:
Y	Individuals	More than 4 millions	
Y	Married couples	More than 2 millions	
Y	Families	More than 2 millions	
N	Households		
N	Farms		
Y/N	Other:		
Y/N	Other:		
Y/N	Other:		

6/ Describe the geographic area under observation

The entire province of Quebec, Canada.

7/ Is information available about related individuals who are not in the sample?

Examples: Marriage registers often include occupations of parents.

A population register sample may include everyone in the household of an individual in the sample.

Yes. There is information about individuals mentioned in the vital records but who were never present in the Quebec territory (Example: an immigrant's parents at his marriage).

8/ What events can be identified? Do events have dates?

Y/N	Event	Are these events dated? Y/N/P (= partial dates, e.g. year only)	
Y	Birth	Y	Comment: For the Saguenay region only
Y	Marriage	Y	Comment: For the entire Québec province
Y	Death	Y	Comment: For the Saguenay region only
N	Migration	Y/N/P	Comment:
N	Other:	Y/N/P	Comment:
N	Other:	Y/N/P	Comment:
N	Other:	Y/N/P	Comment:

9/ These questions describe the way observation is censored.

A) How do individuals enter observation?

Individuals enter observation through the first civil record where they appear as subject or as parent.

B) How do individuals leave observation?

Individuals leave observation through the last civil record where they appear as subject or as parent.

C) Are some entry or exit dates unknown?

No. All entries have dates.

D) Are some entries or exits interval censored (i.e. the exact date is unknown, but it can be located between two known dates)?

No. All dates are exact.

10/ Residence and Household (Y/N/Partly)

Y	Can observations be linked to geographic locations?
N	Are the dates and locations of movements within the observation area recorded?
N	Are all individuals who lived in the households of sample members recorded?

11/ Kinship relations

A) How is kinship recorded in the sources?

The database structure allows for the reconstruction of all individual genealogies and exact measurement of kinship relationships among them.

Moreover, canonical consanguinity declared by the spouses in the marriage certificates is recorded.

B) How deep (number of generations) is the available kinship information?

The database structure and depth allow for the reconstruction of kinship links up to 17-18 generations (10 generations on average).

C) Are the variables for each generation comparable, or are their serious differences and if yes can you describe them?

Yes. Variables are the same throughout the database.

12/ Linkage

Which sources and units of observation have been linked?

	Y/N/Partly	Comments:
Births/Baptisms	Partly	For the Saguenay region only
Marriages	Y	For the entire Quebec catholic population up to 1940
Deaths/Burials	Partly	For the Saguenay region only
Population registers	Y/N/P	
Census	Y/N/P	
Nominative lists	Y/N/P	
Other:	Y/N/P	

Other:	Y/N/P	
Other:	Y/N/P	
Other:	Y/N/P	
<p>How is linkage represented in the database? <i>For example, do all occurrences of an individual include a universal identification number? Are records linked to each other but not to a universal ID? What was used to establish a link?</i></p>		
<p>There is a universal identification number for each person in the database and for each family. A person keeps the same ID number throughout all files.</p> <p>In the INDIVIDU file, each person is linked to his/her parents (individual's ID, father's ID, mother's ID).</p> <p>In the COUPLE file, spouses are linked (husband's ID, wife's ID). Families are identified by a family number which regroups spouses and their children.</p>		
<p>13 / What data structures have been constructed from the original source data to aid analysis</p>		
		Comments:
Y	Date of entry and date of exit by individual	
Y	Events by individual	
Y	Time constant information (date of birth, sex, etc.) by individual	
Y	Husband-Wife pairs	
Y	Mother-child and Father-child pairs	
Y/N	Other:	
<p>14/ What reference/coding systems have been linked to the data?</p>		
Y	Occupational titles (like HISCO): Homemade dictionary.	
Y	Locations (including geo-referenced systems): Homemade dictionary.	
Y	Other (religion, civil status etc.): Homemade dictionary for civil status.	
Y/N	Other:	
Y/N	Other:	
Y/N	Other:	

**15/ Have you developed any software for analysis or data extracting?
Please describe the capabilities and outputs of these programs.**

Through its Research Services, the BALSAC Project provides support to researchers seeking to use the register. The Service personnel offers professional and technical expertise as well as access to resources developed over the years at the BALSAC Project. The Service intervenes in different ways:

- Assistance at various steps of preparation and design of research queries to make them compatible with the structure of the register as well as with the set of confidentiality guidelines pertaining to the BALSAC Register;
- Preparation of cost estimates and formatting of the research queries;
- Technical training for accessing data fields in the register;
- Creation of data subsets according to the nature and the goals of the research;
- Reconstitution and analyses (genetic contribution of ancestors, inbreeding and kinship coefficients, etc) of genealogical samples;
- Loan of data, software, tools, methods developed by the BALSAC Project;
- Etc.

In addition, the BALSAC Project works in collaboration with the Interdisciplinary research group in demography and genetic epidemiology (GRIG). The GRIG is developing programs for genealogical analyses which are integrated in the S-PLUS statistical software (<http://www.uqac.ca/grig/>).