Biodemographic characteristics of North-Western Italian population (Giaglione - Susa Valley) between 18th and 19th century

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Abstract

For the study of genetic changes that occur over time in human communities (microevolution) anthropologists and biodemographers have favored the use of renewable flow, in particular the registers of marriage. Indeed they allow to easily estimate several biodemographic parameters (endogamy and exogamy; repeated pairs; immigration), even for long periods of time, since it is quite common to have consecutive series of documents relating to the marriage of a population. However, the sources of flow do not always allow to study in depth the factors that have given continuity to the community because they provide only partial information on demographic structure, the mode of aggregation of its members and the processes of change within families. A good alternative to sources of flow may be the use of sources of state, civil (censuses) or parish sources (the *status animarum*), which give a very detailed picture of the state of the population at a given time. The retrieval and analysis of census documentation assume therefore a primary role in order to obviate the intrinsic weaknesses of the sources of flow. In the perspective of biodemographic studies, the integration of the two types of sources is in actual fact the operating *optimum*. It must be remembered that it is quite difficult to find contemporary sources of flow and of state for the Italian populations of the past.

Introduction

In this paper we shall compare the demographic characteristics of the population of Giaglione (Val Susa, Turin) taken from the civil census of March 1799 and December 1858.[1] At the time of the earlier census, Giaglione was part of the short-lived Piedmontese Republic (1798/September-1799/June), in the restored Italy of the first Napoleonic period, while in 1858 the town belonged to the province of Susa, in the Turin division of the Kingdom of Sardinia-Piedmont, reformed in 1848 by the Albertine Statute. In 1799, the censused population of Giaglione consisted of 1348 people, spread over 266 housing units (households) included in 7 geographical fractions (hamlets) ranging in size from 120 to 303 inhabitants (Table 1), with an average of 5.1 individuals per family. The size of the housing aggregates shows a limited number of units formed by solitary or by two people only, while those consisting of 3 to 7 people are the most common (Table 2). Very few units are large (9 or more individuals).

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Results

In 1858 the data show that the population increased by one fourth, as 344 families were surveyed with 1695 members in total (Table 1); in the territory of Giaglione two new hamlets were built, plus a number of scattered houses. Moreover, the average number of components has dropped to 4.9 individuals per household, mainly due to the increase (+271% of nuclei compared to 1799) of the families composed of two people (Table 2). As a consequence, the proportion of households with three or more components decreased, except for those of five units (+1.8% differences). These changes in household size are a reflection of the change in the aggregation modality of the population. To identify these changes, households were classified on the basis of the code prepared by Laslett,[2] which aims at typifying the household aggregates according to the criteria of geographical nature, family relationship or work sharing. In line with the findings in demographic literature,[3,4] the population in 1799 is structured mainly in aggregates composed of nuclear families (52%), extended families (21%) and multiple families (22%) (Table 3). In 1858 the couples represented 60% of the total and the figures show that both the incidence of those without children and that of widowers with children doubled. The proportion of extended aggregates slightly decreased (from 21% to 19%) but, above all, the percentage of multiple households collapsed (from 22 to 13%), especially the downword subtype (15 to 10% of the overall total). It is possible that the trend of aggregation of families in multiple households has changed in the direction of an increase in *neo-local* marriages; in this way we could also understand the increase of nuclear couples without children and the increase of households and of the land occupied in 1858.

In the composition by sex, women are in surplus compared to men respectively of 50 individuals (out of 1346) in 1799 and of 17 (out of 1695) in 1858 (Table 4). The imbalance in favor of women (Ratio column) is particularly pronounced in the age group of young adults (aged 20 to 34), presumably due to the absence of men recruited as

soldiers in the army. Of these individuals there are no traces in the census, and they were not even been counted as *absent*. Conversely, between 45 and 59 years, the sex ratio is in favor of men. It seems reasonable to attribute the deficit of women in the mature classes to higher female mortality due to the weakening and the physical wear resulting from the stress of childbirth. Integration with death records could give confirmation to this hypothesis. The only exception to this pattern is given by the class 25-29 of 1858, for which there are more men than women, but it is possible that in the related years of birth (1829-1933) the sex ratio at birth was causally favorable to males, as probably happened – but in reverse – even in 1799, when at the end of the year 21 women were counted versus 13 men. In this case, the integration of information should be carried out using both birth certificates (for the fluctuations of the sex-ratio at birth) and those of death (for differential mortality by sex). Finally, the distribution of families was considered according to the offspring observed, by counting the minor children living with parents at the time of the census. The purpose is not to estimate the marital fertility using demographic models, such as in *Own children method*, but to compare the distributions at two different times. The offsping observed is a partial assessment of the final descent as many brides considered had not yet completed the fertile period at the time of the census. This calculation does not consider the children who, for various reasons, had left the family of origin at an early age (sent to service or married very young) and the children who had died; the latter must have been numerous because people in those years were still characterized by an *ancient régime* demographic pre-transitional type, with values of birth and death still very high.

The distribution of households according to co-residents children (Table 5) shows important differences between the two censuses: first, the average number of children for these families increased from 2.1 to 2.77 individuals. Then, young couples without children, accounting for 17.5% of the total in 1799, fell by half in 1858 (8.6%) and even those with only one child decreased from 26.3 to 16.2%.[5] On the other hand the proportion of households with two or more chil-

VILLAGES	CENSUS OF 1799			CENSUS OF 1858		
	House-holds	Inhabi-tants	Mean Size	House-holds	Inhabi-tants	Mean Size
CLOSO/S. ANDREA	24	120	5.0	42	197	4.7
POISAT/S.GIUSEPPE	32	159	5.0	30	153	5.1
RASTELLA	34	163	4.8	21	105	5.0
SAN GIOVANNI	40	217	5.4	51	255	5.0
SAN LORENZO	46	223	4.8	52	237	4.6
SANTO STEFANO	37	163	4.4	39	192	4.9
VILLA/S.ANTONIO	53	303	5.7	66	350	5.3
CREUSA /S.ROCCO				25	109	4.4
SAN GREGORIO				8	53	6.6
SCATTERED HOUSES				10	44	4.4
TOTAL	266	1348	5.1	344	1695	4.9

Table 1. Households and inhabitants of the villages of Giaglione censuses of 1799 and 1858.

N MEMBERS	HOUSEHOLDS		1858-1799 % VAR	PERCENTAGE		
	1799	1858		1799	1858	DIFF.
1	11	16	45.5	4.1	4.7	0.5
2	14	52	271.4	5.3	15.1	9.9
3	39	38	-2.6	14.7	11.0	-3.6
4	56	54	-3.6	21.1	15.7	-5.4
5	34	50	47.1	12.8	14.5	1.8
6	47	51	8.5	17.7	14.8	-2.8
7	36	37	2.8	13.5	10.8	-2.8
8	17	19	11.8	6.4	5.5	-0.9
9	3	12	300.0	1.1	3.5	2.4
>= 10	9	15	66.7	3.4	4.4	1.0
TOTAL	266	344	29.3	100.0	100.0	-

Table 2. Distribution of households for number of components. Diff.=difference.

TYPOLOGY	SUBTYPE	1799		1858	
1. Solitary	Males (singles or widowers)	6	2%	10	3%
	Females (singles or widows)	5	2%	6	2%
Total solitaries		11	4%	16	5%
2. Household without a family (unstructured)	2.1 Brothers and sisters co-residing	4	2%	9	3%
	2.3 Unrelated co-residents	1	0%	3	1%
Total unstruct.		5	2%	12	3%
3. Simple household	3.1 Married couple without children	11	4%	30	9%
	3.2 Married couple with children	100	38%	134	39%
	3.3 Widows with children	20	8%	27	8%
	3.4 Widowers with children	6	2%	15	4%
Total simple hous.		137	52%	206	60%
4. Extended household	4.1 Extended upward	24	9%	36	10%
	4.2 Extendend downward			1	0%
	4.3 Extended laterally	23	9%	25	7%
	4.4 Combination of the above	8	3%	2	1%
Total extend. hous.		55	21%	64	19%
4. Multiple household	5.1 Multiple upward	7	3%	6	2%
	5.2 Multiple downward	41	15%	36	10%
	5.3 Multiple in both directions	6	2%	2	1%
	5.4 Frereches	2	1%	1	0%
	5.5 Other	2	1%	1	0%
Total multip. hous.		58	22%	46	13%
Total		266	100%	344	100%

Table 3. Distribution of household types at censuses of 1799 and 1858.

AGE	1799				1858			
	M	F	T	RATIO	M	F	T	RATIO
0	13	21	34	**62**	19	18	37	**106**
1-4	55	58	113	**95**	70	66	136	**106**
5-9	60	66	126	**91**	97	104	201	**93**
10-14	67	66	133	**102**	82	95	177	**86**
15-19	58	68	126	**85**	78	86	164	**91**
20-24	36	57	93	**63**	62	69	131	**90**
25-29	47	57	104	**82**	62	51	113	**122**
30-34	44	63	107	**70**	50	59	109	**85**
35-39	41	40	81	**103**	55	55	110	**100**
40-44	45	53	98	**85**	51	62	113	**82**
45-49	42	29	71	**145**	59	42	101	**140**
50-54	41	33	74	**124**	52	41	93	**127**
55-59	35	31	66	**113**	30	23	53	**130**
60-64	21	26	47	**81**	23	32	55	**72**
65-69	21	16	37	**131**	14	22	36	**64**
70-74	10	10	20	**100**	22	16	38	**138**
75-79	5	4	9	**125**	11	10	21	**110**
80-	5	2	7	**250**	2	5	7	**40**
Total	646	700	1346	**92**	839	856	1695	**98**
Mean Age	29.8	27.5	28.6		28.8	27.5	28.6	

Table 4. Age structures of population at censuses of 1799 and 1858. M=males; F=females; T=total.

Children observed	N Families		Percentage	
	1799	1858	1799	1858
0	34	19	17.5	8.6
1	51	36	26.3	16.2
2	42	58	21.6	26.1
3	21	40	10.8	18.0
4	26	36	13.4	16.2
5	11	19	5.7	8.6
6	8	4	4.1	1.8
7		5		2.3
8	1	3	0.5	1.4
9				
10		1		0.5
11		1		0.5
Total	194	222	100.0	100.0
Average	2.13	2.77		

Table 5. Legitimate offspring at censuses of 1799 and 1858.

dren increased significantly. It is reasonable to assume that the mortality was already in regression at the time of the second census, while the fertility should not have deviated much from that of 1799. This allows to simultaneously have more children in younger age in the surveyed families.

Conclusions

In conclusion, it is possible to compare the demographic characteristics of the populations which are only described by census sources without having to use demographic models that sometimes require numerous assumptions and hypotheses for their application. Integration with sources of flow can help in the interpretation of certain aspects which, otherwise, could only be outlined with the use of census sources alone.

References

1. Prato G. [Censimenti e popolazione in Piemonte nei secoli XVI, XVII e XVIII]. [Book in Italian]. Roma: Editrice degli Olmi; 1906.
2. Laslett P. Introduction: the history of family. In: Laslett P, Wall R, eds. Household and family in past time. Cambridge: Cambridge University Press; 1972. pp 1-89.
3. Laslett P. [Famiglia ed aggregato domestico]. In: Barbagli M, ed. [Famiglia e mutamento sociale]. [Book in Italian]. Bologna: Il Mulino; 1977. pp 30-54.
4. Soliani L, Anelli A, Zanni R. [Aspetti della dinamica delle strutture familiari]. In: Moroni A, Anelli A, Ravera O, eds. [Atti S.IT.E.]. [Proc. in Italian]. Parma: Zara Edizioni; 1985. pp 765-776.
5. Livi Bacci M. [Introduzione alla demografia]. [Book in Italian]. Torino: Loescher Editore; 1981.