Estimation of Age Structure of the Inhabitants of Bohemia in 1651 according to the List of Serfs according to Faith

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Abstract

One of the most valuable sources for Czech historical demography is the List of Serfs according to Faith of 1651. It captured the situation immediately following the end of the Thirty Years War. The most complicated pitfall for the researcher studying the age structure of the population on the basis of the List is the sub-registration of children before the age at which they can make confessions on certain estates (or in certain communities). The children are recorded systematically only from the age of 12 The basic prerequisite for estimating the number of children under the age of 12 was that women (men) of the same age in various parts of the estates had on average the same or at least a similar number of children in the individual age groups.

This article came into being within the framework of the long-term research project 2D06026, "Reproduction of Human Capital", financed by the Ministry of Education, Youth and Sport within the framework of National Research Program II

Key words: Bohemia, age structure, 17th century

We shall deal further only with the South Bohemian estates of the Eggenbergs, where 10,595 persons were recorded by the List. The acquisition of as precise a picture as possible of the age structure of the population as it was in the middle of the 17th century, however, is rendered difficult by several factors at once, the most important of these being that not all the population was recorded. Some were not recorded systematically (the clergy and the military) and some might have escaped the list by mistake (farm-labourers, hands, journeymen, beggars and travelling authorities). A further pitfall is the inaccuracy of the ages given, or rather their accumulation to certain values. In the time of the compiling of the List age did not play such a part as it does nowadays and it was not even very important for the purpose of the List. In addition elderly people often did not even know their precise age. Age was rounded up in tens, less often also to numbers ending in five and at a younger age (roughly up to 30 years), under the influence of the hexadecimal system, also to multiples of six and twelve.

Of the women on the Eggenberg estate in the 30–39 age-group 38% were aged 30 and 15% were aged 35. The age of women from the group of 40–49-year-olds was rounded up somewhat more: women aged 40 accounted for 52% of all those in their forties and women of 45 were 15%. Also interesting is the connection of age with certain social categories. Second-time widows were often ascribed the age of 40 years and if they were older than 60 years. In the case of "lone women" with children, who were probably unmarried mothers, we again often find the age of 30 years and so on. Odd numbers were more popular than even ones.

The level of distortion may be measures by the index of age accumulation *ik*:

$$ik^{z} = \frac{5 * \sum_{0}^{r} S_{25+5x}^{p}}{\sum_{23}^{62} S_{x}^{p}}$$
(1)

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The rounding-up of ages has a negative impact on the results of the study of the age structure of the population. This distortion can be reduced by the use of ten-year age intervals in which the most frequented value will always be in the middle, i.e. 5-14, 15-24, etc. Unfortunately, in order to be able to compare with present-day statistics and other authors dealing with the analysis of the List of Serfs according to Faith of 1651, it is also necessary to retain the usual age intervals: 0-4, 5-9, 10-14, etc. In some studies we may still find the ten-year intervals 0-9, 10-19, etc. The selection of the age intervals may influence the significance of the rounding-up in the resultant age structure.





Picture 2: Age structure, five years intervals



The most complicated pitfall for the researcher studying the age structure of the population on the basis of the List is the sub-registration of children before the age at which they can make confessions on certain estates (or in certain communities). On the Eggenberg estates children are recorded systematically only from the age of 12 and children under the age of 10 were recorded only in exceptional cases.

The basic prerequisite for estimating the number of children under the age of 12 was that women (men) of the same age in various parts of the estates had on average the same or at least a similar number of children in the individual age groups. As the initial data for this method per analogiam use was made of the records of the List from the estate of Radenín and Choustník, where children were recorded from birth and which is also part of the Bechyně region.

For checking the described estimate of the number of children under the age of 12 a second estimate was created in which the percentage representation and the average number of children in the various age-groups was related not to the age of the woman (mother), but to the age of the man (father). This was also done because a relatively large number of children lived with the father, who had married a young girl after becoming a widower. If this is really how things were in the family we can only guess from the information available in the List according to the ages of the children and spouses. The two estimates differ only minimally and so the calculated percentage shares would also be almost the same. However, there are relatively large differences in the individual age-groups of children.

Tab. 1. The estimate of the numer of children under the age of 12

Estimate	Age of child							
based on age	0	1–4	5–9	10-11	0	1–4	5–9	10-11
of	numbers				%			
woman	412	1394	1476	369	2.92	9.90	10.48	3.78
man	470	1245	1479	630	3.32	8.80	10.45	4.45



Conclusions

The accuracy of the results of the estimate of the number of children according to the age of the woman and according to the age of the man cannot be precisely verified, but it is possible to compare them with the estimates of other authors or else with the proportions of children under 10 and under 12 in places where all the children were recorded and which have already been processed in literature. From the comparison it is clear that the estimates of the

number of children on the Eggenberg estate generally do not deviate in any way from the estimates of other authors and the proportions of the child element on estates recording children from birth. In spite of this, especially for the children under 10, the estimate for the Eggenberg estate is lower than the other estimates, but nevertheless this difference is in no way extreme in comparison with the ascertained proportions of children on other estates.

Sources

- 1. Soupis poddaných podle víry Bechyňsko [List of Serfs according to Faith Bechyně region], Praha 1992
- Dušek, L. Fialová, L.: Age structure of the population of Česká Kamenice in 1670–1750. In: Historical demography 13, 1989, p. 125–160.
- 3. Kačerová, E., Henzler, J.: Matematické modelování věkových struktur historických populací [Mathematical models of age structure of historical population], *Forum Statisticum Slovacum*, 2009, roč. 5, č. 1, s. 25–30.