

SOME NOTES ON THE IMPORTANCE OF CADASTRAL SURVEYS AS A SOURCE OF HISTORICAL DEMOGRAPHY

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Demography, a sub branch of history, is the statistical study of population and of all its aspects. It is a highly developed social science which requires a technical approach and a fairly good knowledge of both natural and social sciences plus statistics.

The sources of demography¹ are many and vary from time to time and place to place. Food consumption, crafts, baths, size of armies, and taxations all are sources for demography. Of these taxations or rather the *defters* made for taxation purposes are the most important and reliable sources in the demography of Ottoman Empire.

A full study of these *defters* will bring to light many theoretical claims such as that of Holmes who had argued for the lower population figures after the Turks conquered the Byzantine Empire.²

No doubt each of these *tahrir defters* (cadastral surveys) is more important than the other, especially for a full scale population census of the Ottoman Empire. But for the comparison purposes especially where the demography of the Byzantine Empire involved a careful selection is needed. Athos (Aynaroz), Constantinople (İstanbul) and Pontos (Trabzon) are very good selections particularly for having different historic, geographic and ethnic characteristics, although Constantinople (İstanbul), will pose some serious problems during the process of research. One can not disagree with Jennings when he says that he would hesitate to apply the method which he has adopted for the study of Kayseri, Karaman, Amasya, Trabzon and Erzurum, to Constantinople (İstanbul).³

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¹ See, T. H. Hollingsworth, *Historical Demography*, London 1969.

² *Ibid*, p. 251; cf., W. G. Holmes, *The Age of Justinian and Theodora; A History of the Sixth Century, A. D.*, London 1912, vol. 1, p. 137.

³ Ronald C. Jennings, "Urban Population in Anatolia in the Sixteenth Century: A Study of Kayseri, Karaman, Amasya, Trabzon and Erzurum", *International Journal of Middle East Studies*, 7 (1976), p. 25. The initial steps were taken towards the study of By-

There are four rates which determine the change in the population size as a whole; births and deaths termed as vital rates, immigrants and emigrants termed as migration rates. Any study of these rates would definitely require a full scale comparison of at least two different *defsters* for any given area. In fact without such a comparison to establish correlation of the Ottoman demography with Byzantine demography would be impossible.

Also a comparison between the Muslim and non-Muslim⁴ households, which are listed under different headings an Ottoman cadastral survey, must be made before any *defster* of any area is compared with the sources of Byzantine demography not forgetting, the period of time elapsed between the Ottoman conquest of the area and the date of the *defster*.

I already said that the *defsters* were for raising taxation. Therefore they would obviously have their short comings when used for population purposes and their figures would need to be very carefully considered before they are used for demographic research; the possibility of scribe miscopying the figures,⁵ some households might have been deliberately not recorded and some others might have been missed out by mistake. On top of this we must not forget that the time and place of the *defsters* recorded are very important and therefore some research into the local history and geography would become necessary. Also one would need to be well acquainted with the social and religious nature of the community particularly in the case of analysing the four rates mentioned above.

zantology from the Ottoman archival sources with a Symposium at Dumbarton Oaks in May 1982 and the papers given were published and edited by Anthony Bryer and Heath Lowry in a book entitled *Continuity and Change in Late Byzantine and Early Ottoman Society*, Birmingham and Washington 1986.

⁴ *Kilise Defterleri* (The Record of Churches) could be used as a basis to determine whether the areas to be studied were densely populated by Christians before the Ottoman conquest. See, Bernard Lewis, "The Ottoman Archives as a source for the history of the Arab lands", *Journal of the Royal Asiatic Society*, (1951), p. 143.

⁵ In the 1518 Ottoman cadastral survey of the *sancak* of Amid (*Başbakanlık Archive*, TD, No. 64). I have counted 49 such entries and in that of Basra (*Tapu Kadastro Umum Müdürlüğü Kuyud-i Kadime Archive*, No. 94, dated 998/1590), 22 such entries. Particularly in the Village of Hamrayan of Basra (*TKUM, Tapu Kadastro Umum Müdürlüğü Kuyud-i Kadime Archive*, No. 94, fol. 81b) scribe has calculated *hane* as 30, where as it should be 40. In both registers the figures under *mücerreds* were mostly miscalculated and that was most probably due to the scribe, forgetting to put letter "m" under some of the names.

Of course it is useful and interesting to choose more than one place for the comparison purposes. For instance in comparing Pontus-Constantinople (Trabzon-İstanbul) and Athos-Constantinople (Aynaroz-İstanbul) we might just be able to establish migration rates beside calculating birth and death rates of urban and rural areas. Also we shall be able to deduce any decline or rise in the population. Under normal condition a rise or decline of more than 3 per cent is impossible for any given area. But immigration could be a reason for a sharp rise, and emigration and disaster—plague, flood or famine—for a sharp decline.

Fortunately the *defsters* provide us some information to study the population distributions by various groupings especially by age and sex. All the *defsters* without exception divide the population into *hanes* (households) — married adult males with *piri fanis* (aged) pointed out in some of *defsters* — and *mucerreds* (single adult males). In addition to female sex per married adult male there are *bives* (widows) mentioned in some of the *defsters*.⁶ Thus we find a rough structure of age and sex groupings in the *defsters* and a careful study of this structure would give us a relatively detailed distribution of population plus the birth and death rates. The only problem is children who were not included in the *defsters*; it is difficult to be certain of the *mucerreds*⁷ and to estimate the proportion of children to adults in the population.

The unit of taxation in the Ottoman Empire was *hane* that is the hearth which makes it difficult to estimate the family size. The value of

⁶ G. Kaldy Nagy, *Kanuni Devri Budin Tahrir Defteri, (1546-1562)*, Ankara 1971; Hadzibegic et al., *Oblast Branskovica Opsirni Katastarski Popis iz 1455 Godine* (=Monumenta Turcica, II, 2), 2 volume (Sarajevo 1972) (*Defter-i Mufassal-i Vilayet-i Vlak sene 859, Başvekalet Arşive*, Istanbul); B. W. McGowan, *Defter-i Mufassal-i Liva-i Sivrem; An Ottoman Revenue Survey Dating from the Reign of Selim II*, Columbia University, Ph. D. thesis, 1967. It strikes me that there are no *bive* entries either under the Muslim or Christian entries in the registers of predominantly Muslim areas (i. e. The 1518 Ottoman cadastral survey of the *sancaks* of Amid and Mardin -BA, TD, No. 64; the 1551. cadastral survey of Basra -BA, TD, No. 282; the 1548 cadastral survey of Kerkük —TKUM, No. 111; the 1568 cadastral survey of Amid —TKUM, No. 155). This, one may assume, could be due to the Islamic tradition of man being the head of the household and caring for any of his womenfolk particularly when they become widows. Also one might assume that this tradition must have had an influence on the non-Muslim population of Anatolia. But in almost all the *defsters* of Balkan regions we come across "*bive*" entries.

⁷ If the age fixed for the *mucerreds* was the age of puberty, then they should mostly be considered as children. However, cf., Halil İnalçık, "Osmanlılarda Raiyyet Rüşumu", *Belle-ten*, XXIII (1959), p. 578.

the revenues, the ratio of the *mucerreds* to *hanes*, the nature and religious background of the society, the location of the settlement and its size, the time, all these must be taken into consideration in estimating the family size. To discuss them all would require time and space which we do not have here. Bearing in mind the exception of continuous wars in early days to express the matter briefly but less accurately I can say that the factors which determine the family size in urban and rural areas of Turkish society today were most probably not much different from those in the early period of Ottomans.

No doubt the scheme of any detailed study on these lines will be shaped as one would go along. However, I feel that the theme will be much more strengthened if the modern demographic techniques adopted were rechecked with the findings — which should undergo demographic analysis — and then derive any necessary conclusions.