

## LATE OTTOMAN POPULATION AND ITS ETHNIC DISTRIBUTION

Servet MUTLU\*<sup>1</sup>

The size and ethnic and spatial distribution of the Ottoman population during the last decades of the Empire has been a contentious issue, chiefly for political reasons. The Ottomans produced figures based on censuses and their updates while the protagonists of various political causes advanced their own numbers which at times differed considerably from the official ones. These conflicting numbers pose a problem for the students of Ottoman demography.

The crux to the solution of the problem is the establishment of the degree of accuracy and of reliability of the Ottoman censuses and updated population registers. This is the main objective of the present study.

The paper first discusses the Ottoman census methods and procedures as they had a bearing on the census counts. The system incorporated incentives for individuals, especially adult males, to register and the census committees responsible for the counts had an ethnic structure such as to prevent politically motivated constructions. However, partially for cultural reasons, women and children were undercounted. These deficiencies are amenable to correction.

Two methods were devised; one for İstanbul and one for the rest of the vilayets, to correct for undercounts using Model Life Tables. Two estimates were made for each census count by principal ethnic group and administrative unit: a lower and an upper bound estimate. It is found that when corrected for undercounts of women and children, Ottoman censuses are reasonably reliable documents.

### INTRODUCTION

As the Ottoman Empire disintegrated due to a variety of internal and external causes, principal ethnic minorities, at least their leaders, toward the end of the 19th century, agitated either to establish a separate state as in the case of the Armenians or to unite with their brethren as in the case of the Greeks. The size of population of each minority and its proportion in the total by geographic locality became a central issue. Various population figures were produced to justify separatist and irredentist demands. The Ottoman Administration had its own population figures based on censuses. However the separatists and irredentists claimed that these census figures were biased, unreliable and hence of no use. Subsequent events had unfortunate consequences for the minority aspirations, but the claims still prefigure in some protagonists' theses as historical fact (Dadrian, 1997).

How right were the protagonists, the Greek and Armenian separatists and irredentists and Ottomans, in their claims as to the number and spatial distribution of minority ethnic groups and Muslims? The crux of the problem is the establishment of the degree of accuracy of the Ottoman population censuses. This is the main objective of the present study.

---

\*Prof. Dr. Baskent University, Department of Economics

<sup>1</sup> The author is thankful to the two anonymous referees of this journal for their incisive comments which greatly improved the paper.

## OTTOMAN POPULATION CENSUSES

How a census is conducted and its objectives directly bear upon the degree of accuracy of its results. Hence, though not the principal aim of this study, a digression on the Ottoman censuses and their methods is in order.

Ottomans attached great importance to keeping population records through tax surveys which recorded the taxable population, namely the adult males, representing individual households. In the resulting tax registers (*tahrir defterleri*) of the period between the fifteenth and seventeenth centuries, the heads of households, both Muslim and non-Muslim, were recorded according to the size of the land they cultivated (*çift*, *nîm-çift*, *bennak* and *caba*); adult unmarried males within the households (*mücerred*) were also recorded separately. As poll-tax (*cizye*) levied on non-Muslims constituted one of the principal tax sources for the Ottoman treasury, the central administration paid utmost attention to renew the surveys, thus updating the registers. In the 19th century their interest in the number of population and its distribution by age groups, ethnic composition and geographic distribution became progressively keener.

The first general (empire-wide) population census was undertaken in 1830/31, only a quarter century after census procedures were adopted in the United States, Great Britain and France. The recruitment of a modern army following the destruction of the Janissary corps in 1826 necessitated accurate information on the number and age of the male population. Hence only the male population was recorded (Karal, 1943).

A separate Census Department was established in 1835 only to be dissolved after a decade or so. However, there is evidence that census officers continued to be stationed at important points throughout the empire and population reports, as yet uncovered, were produced for 1835, 1838, 1844 and 1857 (Shaw, 1978, p. 327). Only the report for 1844 was based on an actual census and statistical information about it is available in Ubicini and Eugene Boré who seemed to have had access to the figures. Ubicini, who gave a summary of the census result, claimed that his population tables "if not rigorously exact...are at least as correct as it was possible to render them. They were compiled from the general census taken in 1844 throughout the empire when Rıza Pasha, the Minister of War, undertook to organize the army by altering the method of recruitment" (cited in Karpat, 1985, p. 23)<sup>1</sup>

Conducting population censuses gained in importance after Tanzimat. In addition to the continuing need to assess the population resources for military recruitment, there was the need to find new sources of revenue to finance the modern army and the new administrative functions assumed by the government. Many non-Muslim communities used old records to show their number as low as possible to minimize the tax burden. General conscription was introduced in 1855, though never applied to Christians, and the poll tax was converted in 1857 into a tax in lieu of military service (*bedel-i askeriye*). So it became vital to update the population records.

The Department of Cadastres (*Tahrir-i Emlak Nezareti*) was established following the Crimean War and charged not only with the responsibility of registering property for tax purposes, but also of counting and registering male subjects and issuing population tax certificate (*vergi nüfus tezkeresi*) which stated the person's tax obligation and served as an identity card (Shaw, 1978, p.327). A census of non-Muslims was ordered in 1862 with the purpose of reforming the tax system. Another census was carried out in 1866 in the Tuna (Danube) province governed by the provincial reformer Mithat Pasha under the urgency created by the issue of *Islahat Fermanı* in 1856 the chief purpose of which was to introduce reforms for the benefit of the non-Muslim subjects of

the Empire. Female subjects were still not registered. Mithat Pasha used the census figures, completed in 1873, as bases for educational, economic and social reforms and to get further funds from the central government to meet local needs and to settle Muslim refugees fleeing from Serbia and Romania.

During his first term as Grand Vizier in 1872, Mithat Pasha formed a commission to investigate the census system and its use. On the basis of the commission's report, a general census regulation was issued and a new census ordered by the Council of State (Şuray-ı Devlet) in 1874. The Census Department became much more independent than before (Shaw, 1978,p.328).

The new census order was a direct response to the demographic and economic changes in the Empire in the late 1850s and 1860s. Close to two million Muslims fled from the Caucasus into the Empire. Increase of trade with Europe produced a shift of population from the rural interior toward the coastal towns. The Vilayet Law of 1864 and its amendment in 1871 led to the abolition of positions assigned to population officials. All these led to the deterioration of population registers, undermined the collection of taxes and conscription of Muslims into the army (Karpat, 1978, pp. 246-47).

The essence of the new census system was the establishment of a committee at the district level consisting of one government official, a Muslim, a non-Muslim chosen from among community leaders, a secretary and his assistant. The inclusion of both a Muslim and a non-Muslim in the committee was a safeguard against undercounting any ethnic group. The committee was required to do the actual counting by going to each neighbourhood and village. All male inhabitants including children living in the locality had to appear before the committee and the village council of elders (ihtiyar meclisi). The committee was instructed to see even new born babies with their own eyes. Age, skin complexion, color of eyes and any physical disabilities which would not pass with age were to be recorded. The census committee was empowered to use force if necessary to bring individuals before the officials. The roster of the village census was to be approved by the council of elders and subsequently submitted to the population office at the district center. The district official would do the sums, and pass it over to the next superior administrative unit, which would ultimately convey the list to the Defteri Hakani in Dersaadet. The district official was obliged to send copies of the registers of Muslims males to regional army offices.

The 1874 census order, despite preparations lasting a year, was never carried to completion because of the financial crisis and the political turmoil at the top level, created by the depositions of Abdülaziz and Murat V and the accession of Abdülhamit II in 1876. The new Sultan, after the conclusion of the Ottoman- Russian War and the stabilization of the situation following the Treaty of Berlin (1878), issued an order for carrying out a new census. He hired a French expert, M. Bolland, to investigate the census organization and method and create a new system. However, Bolland reported that the old system was logical and suited the conditions in the Empire (Shaw, 1978, p. 330). The issue was referred to and debated by Şuray-ı Devlet. The Council came out with a series of recommendations. It pointed out that, although the 1874 census could not be carried out, nevertheless the knowledge gained in devising it was very useful in planning the new one. The Council was in agreement with the military authorities that the division of Muslim population into age groups was of vital practical importance. It stressed the necessity of providing each Ottoman citizen with a tezkere, an identity card, to be used in the ever increasing contacts between the individuals and the government and emphasized that the population statistics were useful for administrative, especially tax, as well as military purposes. It further pointed out that "a census showed the size of the population at a given moment. The population changes being continuous and...natural, it was necessary to devise a sound basis, a new system which could record all

(population) changes and thus derive the outmost benefit from a census” (cited in Karpat, 1978, p. 250). In the view of the Council, a census was only a provisional measure necessary to establish the statistical basis which would be continuously updated by registering all births and deaths to provide up to date general information on the population.

The new census regulations, Sicil-i Nüfus Nizamnamesi (Regulation for Population Registers) reviving the old and incorporating the views of the Council was promulgated by the Sultan in 1881<sup>2</sup>. The new regulations resembled the old one in the formation of the census committees and counting and registration procedures. A novelty was that each person counted and recorded was provided with a signed and sealed Population Certificate (Nüfus Tezkeresi). The significance of the Population Certificate was that no one could buy or sell property, appear in court, travel within or outside the Empire or have any dealings with the police or municipal officials without producing the document. Financial penalties and occasionally imprisonment was imposed on those found unregistered or those refusing requisite information to the census officials. Men of military age who could not produce their identity certificates were conscripted without further formalities. A second novelty was the inclusion of females in the census. Sicil-i Nüfus Nizamnamesi became the basis for all subsequent censuses in the Empire.

The new regulations required that a continuous registration process be initiated following the initial census. All births, deaths, marriages, divorces and changes of residence were recorded locally as they took place, a practice which still continues. Periodic reports were made to the census officials at the district and provincial levels to keep the records up to date thus enabling the Empire to maintain a permanent and continuous record of the current state of its population.

Sicil-i Nüfus Nizamnamesi was revised in 1900/1, and reissued with minor revisions in 1902/3, to correct difficulties that had arisen in practice over the years. Provisions requiring display of Population Certificate were made more specific in order to make certain that all individuals, including girls and children, were counted and registered. All subjects were required to show their certificates whenever they purchased, transferred or abandoned property, whenever they were chosen to serve in any official or unofficial position, when they were admitted to a school, whether public or private, and when they retired and asked for a pension from the Treasury. Severe penalties were imposed on those forging the documents or adding unauthorized information on the certificates.

The revised law now required that all register pages be numbered consecutively and sealed in order to curb sloppiness and corruption in the registration process. Separate registers of daily census changes (vukat) were introduced instead of the empty pages left at the ends of original registers in the previous censuses and the district and provincial administrative councils were required to certify their accuracy before the information was sent to İstanbul to be incorporated into the Imperial statistics. The new law also upgraded the prerequisites for serving as a census official, and provided for the regular inspection of their work.

During the politically critical years of the 1890s and for most of the first decade of the 1900s, the Census Department was run either by a minority individual or an expatriate. From 1893 to 1896 the directors were Jewish. Mıgırdıç Sinabyan Efendi, an Armenian, served as the director from 1897 to 1902, and an American statistics expert from 1903 to 1907. There after Mehmet Behiç Bey, who had produced several works on statistics, was the director. Mıgırdıç Efendi, following a practice common at the time, tended to staff the Bureau with members of his millet and sent a number of them to England and France to study modern census techniques (Shaw, 1978, p. 333).

The list of directors of the Census Department and its staffing at the headquarters indicate that it was meant to run professionally and not as an office to produce politically inspired documents at a time when the population issue itself was becoming political.

The Sultan, Abdülhamit II, himself took a keen interest in the censuses<sup>3</sup> as he realized that they had not only financial and military but political implications as well. In a memorandum dated November, 1900, he expressed his concern that “the accuracy of the census is being compromised by the efforts of non-Muslims to deviously inflate their numbers”. Citing news he had received from Bitlis Province that “during the census the Armenians are striving to show themselves to be more numerous than they are through wiles and intrigues”, he urged that all necessary measures be taken to prevent the influx of Armenians from Russia and maintained that otherwise the census would be diverted “to serve interests other than those of the Ottomans” (Deringil, 2002, p. 42).

The first Ottoman Census conducted in accordance with the rules set down by the Sicil-i Nüfus Nizamnamesi promulgated in 1881, started in the same year. The first results from the more accessible places came in during 1884/ 85, that of İstanbul was completed in 1885. Some provinces did not complete their censuses or establish their registration system until 1886/ 87. The Sultan showed continuous interest in the census and issued deadlines for its completion. As the census progressed, qualified teams of inspectors were sent in 1885 to control the census results and to take the necessary measures to ensure a continuous and accurate registration of all population changes. Despite these measures a few people remained unregistered in areas where the census was declared to be complete, and in some inaccessible places, the population, especially the nomadic tribes, was not counted at all and only estimates were made based on the information supplied the local officials and tribal leaders (Karpas, 1985, p. 33). Though it is impossible to say when it ended, the census records were submitted to the Sultan on August 17, 1893 by Premier Cevat Pasha. The records noted the districts and regions where the census was completed and provided estimates for the areas not subjected to individual count and registration.

Following the 1881- 1893 Census, a population statistic was issued in 1315/ 1897 (*Devlet-i Aliye-i Osmaniye'nin 1313 Senesine Mahsus İstatistik-i Umumisi*). This volume gave statistics by vilayet on sex, age, religion and national affiliation of population and was the most comprehensive one to date.

A second census, the last one in the Ottoman era, was carried out in 1905/6. From an undated memorandum of circa 1893 it appears that the Ottoman officials were not satisfied with the results of the earlier census, as much as population in some areas like Iraq and Arabian Peninsula were either undercounted or not counted at all. Furthermore nationalist struggles between Greeks, Serbians, Bulgarians and to a lesser extent Vlachs in Macedonia over the appointment of their conationals as heads of particular Christian communities and as priests of the local Orthodox Churches necessitated a census the results of which would be uncontested. The majority ethnic group in each locality would then be entitled to appoint the priest to the local church. In places with ethnic communities of equal size, each would appoint its own priest.

The government planned to finish the census in three months and enlisted the cooperation and support of local ethnic communities. Each individual registered was to receive a *tezakir-i osmaniye*, a kind of identity card. The census report contains statistical data by sandjak and vilayet on the sex and religious distribution of the population.

The last report on population published in 1919 is the Memalik-i Osmaniye'nin 1330 Senesi Nüfus İstatistiği. This is the 1914 population report used in this study. This document is an updated version of the 1905/6 Census and contains statistical data by sandjak and vilayet on the religious or linguistic make up of the population without going into its distribution by sex.

Besides the census reports, the Ottomans in the 19<sup>th</sup> century produced statistical annuals, the salnames, starting in 1847. The population data for the whole empire first appeared in the volume issued for 1877/78. Starting with Bosnia in 1866, the vilayets also issued their own salnames. The last imperial salname was issued for 1918-22. The population figures in the vilayet salnames were based on earlier figures obtained by actual count, on tax registers and other information available to provincial administrators. However, their use is limited in as much as they do not form a continuous series and the quality of the population data varies greatly by vilayet<sup>4</sup>.

### RELIABILITY OF THE CENSUSES

It is clear from the above account that, taking into consideration the transportation and communication facilities, personnel situation, and the ethnic, religious, make up of The Empire, the Ottomans took logical, if not meticulous, measures in their census and registration procedures. They devised means and measures, population certificates and identity booklets, which the individuals were obligated to produce in their dealings with the governmental authorities, making it in the interest of individuals to get counted and registered. The state was always keen to get a correct count of the population by its various attributes to arrive at a reliable assessment of its financial and military capabilities, and toward the end of the century to buttress its arguments against political demands by some ethnic minorities.

In the evaluation of the reliability of the censuses, perhaps it would best first to have a macro look at the census figures by ethnic groups and principal areas including the eastern vilayets, (Vilayet-i Sitte) over which there has been much contention. Table I gives such a macro picture.

There are wide variations between the growth rates of principal ethnic groups during the 1897-1914 period. This pattern, if the factors which might possibly account for it are not taken into consideration, might lead one to regard the censuses as unreliable, and the population figures as politically motivated.

The growth rate of Muslim population within the approximate present borders of Turkey was 1.23 percent per annum during the period, not an unreasonable growth rate for the conditions of the time. The Greek minority, which includes all of those of Greek Orthodox denomination some of which, especially in Halep Vilayet and some sandjacks in the Southern and Southeastern Anatolia may not have been Greek, grew at 1.38 percent and the Armenian at 0.70 percent per annum. The "others" category, a small group, including the foreigners, grew at 2.54 percent per year. İstanbul's population decreased, only the Greeks managing to grow at a positive but marginal rate. If we exclude the six eastern vilayets (vilayet-i sitte) and İstanbul, we meet with a different picture: Muslims growing at about the same rate, 1.22 percent per annum, the Greeks at 1.52 percent and the Armenians at 1.90 percent. The Greek and Armenian growth rates were quite high for the time.

What can account for these variations? A number of possible reasons can be advanced.

i) The Muslims might have been undercounted, especially in the six vilayets in the 1897 Census Report, which actually was an updated summary of population registers based upon the 1881/82-1893 census. Many Muslims were nomads, for them only estimates were

made. Under the pressure of the obligation to produce identity documents, the registration and estimation of those not registered got better. Hence, because it starts from a low base, the rate of growth of Muslims naturally appear higher than that of the Armenians.

ii) The Armenians in the six vilayets, in the far off corner of the Empire where governmental authority was weaker, might have evaded registration in order not to pay the *bedel-i askeriye*, or to avoid draft after 1908 when non-Muslims were obliged to serve in the army (Zamir, 1981, p.87). Hence, their census growth rate is lower. In contradistinction to the six vilayets, in other parts of the Empire the Armenians were less rural and more amenable to count; governmental order and control was more firmly established, and the government was increasingly better able to count and register them. Moreover, in these vilayets a greater proportion of the Armenians than the Muslims were urban and engaged in trades and through time, if unwillingly, more and more Armenians had to register under the obligation to produce identity documents in their dealings with governmental authorities and non-governmental persons and bodies. Hence their census growth rates outside of the six vilayets appear higher than the Muslims. The same is true for the Greeks.

iii) The lower rate of increase of the Armenians in the six vilayets in part might have been due to out-migration to other parts of Anatolia especially to the Aegean region and Cilicia where economic conditions were improving. However, such a thesis is only partially supported by the census figures. There were 85.5 thousand Armenians in the vilayets of Aydın and Hüdavendigâr according to the 1897 Census Report and 105.3 thousand Armenians in roughly the same area in 1914, which means a growth rate of 1.23 percent per annum and which can be regarded as normal under the then prevailing conditions. There appears to have been some migration into Cilicia. Adana's Armenian population was 36,695 in the 1897 Census Report, and 58,027 in 1914 including İçil's which was formerly part of Adana vilayet. The increase between the two dates in Adana's Armenian population, even when deaths in the inter-ethnic struggle is taken into consideration (see note 6), can hardly account for the low rate of growth in the Armenian population in other parts of the empire. However, again the substantial increase in Cilicia might have been due to better count and registration.

iv) The low rate of growth of the Armenian population in six vilayets might have been due to immigration to foreign countries. There is evidence that such immigration was considerable<sup>5</sup>.

v) The low rate of growth of the Armenian population might have been due to the deaths in the inter-ethnic struggle during the time. There were surely deaths, but not to the extent to produce such a low growth rate in the six vilayets, especially in comparison with the growth rate of Muslims .

vi) In the case of the Greeks, they were, as the Armenians outside of the six vilayets, were more urbanized and engaged in trade. Thus they were not only likely to be better counted than Muslims but the necessity of presenting identity cards in official business might have led more of them to register. Perhaps more important, there was heavy migration of Greeks into to Aegean Region from the islands and Greece which continued well into the 20<sup>th</sup> century (Nakracas, 2003, pp. 76,80,92; Karpas, 1985, pp. 47). Hence, it was natural that the Greek population would increase at a much higher rate than the Muslims<sup>6</sup>

The reasons advanced for the differences between the growth rates of Muslims and Armenians except the v<sup>th</sup>, may all have been valid but in differing degrees. In as much as there are only general statements in various sources, no firm statements can be made at this point. To settle contentions and establish the degree of validity of each of the above, detailed research is needed.

As to the census figures on İstanbul, it is difficult to advance reasons for the decrease of population. İstanbul had a growing economy (Karpas, 1985, pp. 86-105) and was a natural magnet not only for various ethnic groups in the Empire, but for foreigners as well. The only reasons that can be advanced are that i) many Greeks and Armenians might have been getting foreign passports to evade taxation<sup>7</sup>, a reason not valid for Muslims, ii) the censuses in a city so crowded were getting progressively more difficult and iii) the census regulation and registration rules were not well enforced.

Inter-ethnic growth rate differentials do not discredit or throw doubt upon the reliability of the Ottoman censuses, for the reasons advanced above. The Ottoman censuses surely were not perfect as no census is<sup>8</sup>. The real question is were they better than the estimates made by the proponents of various irredentist claims. This point will be taken up later.

Students of Ottoman population censuses conducted since the 1880s are in agreement that, despite some shortcomings admitted by the authorities, they were essentially correct counts in most of the provinces. There is little evidence of large scale avoidance of counting and registration especially in heavily populated areas and, according to informed opinion, no evidence so far of falsification of or adjustments in records for political purposes (Shaw, 1978, p. 336; Zamir, 1981, p. 86). According to the informed opinion of another student the margin of error of 1881-93 Census is possibly between 2 to 5 percent in areas with reasonably good communication facilities and 6 to 10 percent in remote areas (Karpas, 1978, p. 256; also see McCarthy 1998a, pp. 175-85, 192- 93). However, as it will become clear from a later section, margin of error was considerably greater than 10 percent in some provinces.

There are two principal sources of the margin of error: undercounting of i) women and ii) children. To correct the census figures for undercounting of women we need to know the sex ratio. Though no information is available on the ratio for the relevant period, there is some data on Turkey. In as much as such parameters stay constant or nearly constant for long periods of time, contemporaneous data can be used without large margin of error.



**Table I: Population of Anatolia in the Censuses and Its Growth Rate by Principal Religious-Ethnic Groups**

	Muslims	Greeks <sup>b</sup>	Armenians <sup>c</sup>	Others	Total
<b>I ANATOLIA<sup>a</sup> (including İstanbul)</b>					
1) 1897	10,222,839	1,021,363	1,106,086	140,082	12,490,370
2) 1906/7	11,276,840	1,163,885	1,102,469	337,070	13,880,264
3) 1914	12,606,488	1,292,140	1,245,902	215,665	15,360,195
<b>II. İSTANBUL<sup>d</sup></b>					
1)1897	567,922	199,107	169,630	55,129	991,788
2) 1906/7	431,759	176,759	72,401	183,743	864,662
3) 1914	560,434	205,762	84,093	59,689	909,978
<b>III. THE SIX VILAYETS<sup>e</sup>(<i>Vilayet-i Sitte</i>)</b>					
1) 1897	2,332,760	47,903	555,902	33,211	2,969,776
2) 1906/7	2,483,135	74,959	561,774	28,012	3,147,880
3) 1914	3,040,891	83,095	636,306	79,255	3,839,547
<b>IV. ANATOLIA (excluding Istanbul and the six vilayets)</b>					
1) 1897	7,322,157	774,353	380,554	51,742	8,528,806
2) 1906/7	8,361,946	912,167	468,294	125,315	9,867,722
3) 1914	9,005,163	1,003,283	525,503	76,721	10,610,670
<b>V. INDICES AND GROWTH RATES (1897-1914)</b>					
<b>A) ANATOLIA(including İstanbul)</b>					
1) 1897	100.00	100.00	100.00	100.00	100.00
2) 1906/7	110.31	113.95	99.67	240.62	111.13
3) 1914	123.32	126.51	112.64	153.96	122.98
4) Growth rate(%) <sup>f</sup>	1.23	1.38	0.70	2.54	1.22
<b>B) İSTANBUL</b>					
1) 1897	100.00	100.00	100.00	100.00	100.00
2) 1906/7	76.02	88.78	42.68	333.30	87.18
3) 1914	98.68	103.34	49.57	108.27	91.75
4) Growth rate(%) <sup>f</sup>	-0.08	0.19	-4.13	0.47	-0.51
<b>C) THE SIX VILAYETS</b>					
1) 1897	100.00	100.00	100.00	100.00	100.00
2) 1906/7	106.45	156.48	101.06	84.35	105.99
3) 1914	130.36	175.47	114.46	238.64	129.29
4) Growth rate % <sup>f</sup>	1.56	3.31	0.79	5.12	1.51
<b>D) ANATOLIA (excluding İstanbul and the six vilayets)</b>					
1) 1897	100.00	100.00	100.00	100.00	100.00
2) 1906/7	114.20	117.80	123.06	242.19	115.70
3) 1914	122.99	129.56	138.09	148.28	124.41
4) Growth rate(%) <sup>f</sup>	1.22	1.52	1.90	2.32	1.28

NOTES: a) Approximately includes the vilayets and sandjaks within the present boundaries of Turkey-excluding Eastern Thrace, and Kars, Ardahan and Artvin. Includes Iskenderun, Antakya kazas and Ayıntab Sandjack of Halep Vilayet. The 1897 population of Halep Vilayet is apportioned between Halep, Maraş and Urfa sandjacks in the same proportions as in the 1906/7 Census. Then, 1897 and 1906/7 populations of ethnic groups of İskenderun, Antakya kazas and Gaziantep Sandjack are estimated using their shares in Halep Vilayet's population in 1914.

b) Includes Orthodox and Greek Catholics.

c) Includes Gregorians, Catholic Armenians and Protestants. Some Protestants may not have been Armenian.

d) İstanbul includes Dersaadet, and the suburbs (Şehremaneti Mülhakati). Catholics in the 1897 population register is apportioned between Greeks and Armenians, according to their shares of Catholic population in the 1914 register.

e) Erzurum, Bitlis, Diyarbakır, Mamüretülaziz, Sivas and Van vilayets.

f) Growth rate is over the period 1897 - 1914.

DATA SOURCES: Güran (1997, pp. 23-25); Karpat (1985, pp. 162-89).

**Table II: Sex Distribution of Population by Selected Vilayet**

VİLAYET	1897 Census		1906/7 Census	
	Male (%)	Female (%)	Male (%)	Female (%)
AYDIN				
i) Muslims	50.28	49.72	50.62	49.38
ii) Greeks	51.24	48.76	52.28	47.72
ANKARA				
i) Muslims	50.82	49.17	51.88	48.12
ii) Greeks	49.19	50.81	52.39	47.61
ERZURUM				
i) Muslims	53.49	46.50	53.93	46.06
ii) Armenians <sup>a</sup>	53.11	46.89	51.85	48.14
DİYARBAKIR				
i) Muslims	53.95	46.04	54.49	45.51
ii) Armenians <sup>a</sup>	52.50	47.50	51.40	48.59
VAN				
i) Muslims	58.85	41.14	53.88	46.12
ii) Armenians <sup>a</sup>	47.38	52.62	57.24	42.75
EMPIRE TOTAL	53.04	46.96	53.49	46.51

NOTE: a) Includes Gregorian and Catholic Armenians and the Protestants some of which may not have been Armenian.

DATA SOURCES: Güran (1997, pp. 23-25); Karpat (1985, p. 169).

According to a study based on a 10 year-long survey of births at Turkish hospitals during the late 1950s and 1960s, for every 100 female births there were 107.7 male births (Yüçetürk 1969, pp. 167-74). This makes the ratio of males births to total births 51.85 percent and that of females births 48.14 percent. If the age and sex specific survival rates, again of the 1960s, are used, in the 0-19 age cohort, the ratio of males to the total number of persons in the cohort come up to be 51.17 percent and the ratio of females 48.03 percent<sup>9</sup>. Taking into consideration the decimation of males in the wars during the period and deaths due to malnutrition and other causes during the long service periods in the army, the male ratio for the Muslims in the total would have been close to 50 percent, possibly around 50.5 percent, and that of females 49.5 percent.

Table II gives sex distribution of population by selected vilayets and for the Empire total for two censuses. The Empire totals indicate that there was serious undercounting of women. However the distribution by vilayet exhibit contrasting patterns. Aydın and Ankara's sex distribution is close to what we would expect based on the above considerations. Sex distribution of Greeks is not far off the expectation either. These in a way attest to the accuracy of the counts as far as adults were concerned in these vilayets and imply that any undercounting or under-registration must have originated from undercounting of children. In the eastern vilayets on the other hand, the distributions indicate a serious undercounting of women both Muslim and Armenian<sup>10</sup> except for Van in the 1897 Census. Van's case is an anomaly which might have been due to the disturbances

there at the time (McCarthy, 1998b, p. 130; Dadrian, 1997, pp. 131-38).

Undercounting of children was widespread. Even when women were not seriously undercounted as in Aydın, children were. Aydın's population of 15 years of age and under was 191,202 in the 1897 Census. Taking a mortality level of 5, Gross Reproduction Rate (GRR) of 3, two parameters of which more will be said in the following section, and using the East Model Life Table (Demeny and Coale 1966, p. 614), we find that the number of males 15 years of age and under should have been 329,230 which gives us an undercount of 138,028 or 41.92 percent. This is not surprising in view of the fact that under-registration of children continued in the Republican Era, especially in the eastern provinces, though in a diminishing extent.

Apart from undercounting of women and children, there are some anomalies between figures given in successive censuses or population reports, which are hard to explain. They don't discredit the censuses but have to be kept in mind. A few of them will be pointed out.

The Armenian population of Greater İstanbul went down to 70 thousand in 1906/7 from 169 thousand in 1897, a drop of 58.6 percent in 10 years. Though there were widespread immigration of Armenians during the period, especially to the USA, it is still hard to account for such a drop in so short a period in one of the safest places in the Empire. İstanbul's Muslim and Greek populations show a similar decline, but to a much smaller extent. Van's Muslim population was 76.9 thousand in 1897 and 179.4 thousand in 1914, an increase of 133.3 percent in 17 years: an impossible rate of increase in the absence of wide-scale immigration.

The Armenians constituted 31.9 percent of the total population in Bitlis in the 1897 census but only 27.2 percent 1914. However, unlike İstanbul's case, a number of reasons can be advanced for this. The relative decline of Armenian population might have been due to under-registration and deaths during the wide-spread disturbances in the region at the time, and migration to foreign countries and to Cilicia, the latter of which was encouraged by the Armenian leadership<sup>11</sup>.

The number of Muslims, Greeks, Armenians and Jews in Dersaadet were exactly the same in the Census Report of 1897 as in the report issued earlier containing the number of population counted up to 1895<sup>12</sup>. By the latter date Muslim population in Edirne was 434,366 which went up to 539,031 in the 1897 Census Report. There were similar increases in other religious groups<sup>13</sup>. Apparently counting and registration continued during the period in Edirne whereas in İstanbul, registration was either discontinued or if continued it was not reflected in the Census Report<sup>14</sup>. This indicates that the population figures in the 1897 census are not of the same period for different vilayets. The same may be true for the later census reports and hence they must be used with discretion.

One final point about the Ottoman population censuses is that as towns were better counted than less accessible rural areas, to the extent that Greeks and Armenians were more urbanized and lived in more accessible places than Muslims, especially in Eastern Anatolia where the latter were mostly nomads, they were better counted (Karpat, 1985).

### **CORRECTION COEFFICIENTS AND SOME ADJUSTMENTS**

As they are, the population figures in the Ottoman Census Reports and other documents need to be corrected for undercounting of women and children. McCarthy (1998a) has done this with meticulous care. However, his work produced point estimates and this for only the Anatolian vilayets, excluding Thrace and İstanbul, within the approximate present borders of Turkey.

In as much as we can never be sure of selecting the correct parameters within the framework of which the corrections are made it seems more reasonable to make the estimates within a range, with a lower and an upper bound. The present study is an attempt in that direction and includes not only the Anatolian vilayets but İstanbul and Thrace as well. In method, it follows McCarthy (1998a).

To make the estimates using a Model Life Table<sup>15</sup>, we need two parameters, a mortality level<sup>16</sup> and Gross Reproduction Rate (GRR)<sup>17</sup>, and the age distribution of population by sex.

A study done in the 1960s found, that GRR for Turkey was 3 (SSYB, 1970, pp. 39,46). Other studies support this finding (Demeny and Shorter, 1968, pp.46-52; Shorter, 1969, pp. 34-37; U.N., 1972, p.79). Moreover, there is evidence that his GRR was fairly stable over a long period of time (Shorter, 1969, pp. 34-37). Hence, in view of these findings a GRR of 3 was chosen for the study<sup>18</sup>.

An analysis of the census figures indicates that most of the vilayets were growing by about 1 percent per year during the period and some vilayets at considerable higher rates<sup>19</sup>. With the assumed GRR of 3, the mortality chosen must be of such level as to give a growth rate of at least this magnitude of 1. Level 5 assures this. The next lower mortality level, 4, gives a growth rate of 0.87 percent per year which is lower than the rate implied by the population census reports of 1897, 1905/6 and 1914. So, for the lower bound of estimates mortality level 5 is assumed to be the relevant one. For the upper bound of estimates mortality level 8 is taken, which implies a growth rate of 1.87 percent per year- with a GRR of 3.

The appropriateness of these mortality levels for the lower and upper bounds of the estimates is supported by evidence provided by the expectation of life estimate of 36.7 years for men in Turkey for the 1945-50 period (Shorter and Macura, 1983, p. 100), at which time mass killers such as malaria and tuberculosis which used to decimate the Ottoman population were under reasonable control. Hence, expectation of life at birth during the period under consideration must have been lower than that during the 1945- 50 period. At mortality level 5, expectation of of life at birth for males is 27.39 years and at level 8, it is 34.77 years. These corroborate our choice of mortality levels for the lower and upper bounds of the estimates.

We follow McCharty (1998a) in deriving the correction coefficients. Except for İstanbul the following formula is used<sup>20</sup>.

$$CC = \left[ \frac{Mra}{(1 - Pmr)} \right] \div Mrt$$

Where *CC* is the correction coefficient, *Mra* the recorded number of males aged 15 years of age and above, *Pmr* the percentage of males under 15 years of age in the Model Life Table and *Mrt* the total number of males recorded in the census.

Using the above formula, the East Model Life Tables, and the 1897 Census which has data on age distribution by sex, first two sets of corrected population estimates were made by vilayet for the year 1897: one for mortality level 5 constituting the lower bound of estimates and one for mortality level 8 forming the upper bound. Then, using the same correction coefficients, sets of estimates were made 1905/06 and 1914. The same coefficients were used for the latter estimates

because of the lack of census data on the distribution of population by age groups. To the extent that counting and registration of children improved in the census subsequent to the 1897 one, and in the registers, the latter corrected populations slightly overestimate the true populations<sup>21</sup>.

It is likely that this method underestimates the Muslim population of the western provinces, especially of Aydın and Hüdavendigâr, in as much as, being more densely settled and closer to the coast, a disproportionate number of male Muslims were recruited to the army few of which returned. For example, 90,079 Muslims were recruited to the army from the western provinces from the western vilayets in 1885 only 15734 of which returned (Kurmuş, 1982, pp. 74-75).

A different method was used for the estimation of İstanbul's population. Use of the same method would have greatly overestimated the city's population. İstanbul in the 19<sup>th</sup> century, as in the 20<sup>th</sup>, formed a magnet for temporary male workers (Karpát, 1985, p. 103; Quataert, 1983, pp. 96-100) and there were a lot of single person households (Duben, 2002, pp.190-91). To account for this particularity of İstanbul the following formula was used<sup>22</sup>.

$$CC = \left\{ \left[ \frac{Frf}{1 - Pfr} \times 2 \right] + (Mr - Fr) \right\} \div T$$

Where *Frf* is the number of recorded females 15 years of age and above, *Pfr* the percentage of females under 15 years of age in the Model Life Table, *Mr* the recorded number of males, *Fr* the recorded number of females and *T* total population.

A correction coefficient was calculated for each of the principal religious - ethnic - group, for Muslims, Greeks and Armenians, and an ethnic group population weighted average correction coefficient was calculated for the "other" category. The weighted coefficient comes up to be 1.1263 whereas if the formula used for other vilayets were utilized, the correction coefficient would have been 1.3225.

As has been said earlier, two correction coefficients have been calculated for each vilayet. However, for Trabzon, with a GRR of 3, mortality level 5 gives a correction coefficient less than 1. Hence only one coefficient, for mortality level 8, was calculated for Trabzon.

A different kind of problem is represented by Van. Vilayet of Van's Muslim population, exclusive of Hakkari *sandjak*, was 77 thousand in 1897 constituting 58 percent of the total and that of non-Muslims 55 thousand, making up 42 percent of the population. Muslim population in the 1914 Census Report was 179.4 thousand and that of non-Muslims 79.8 thousand. The Muslim figures mean a rate of growth of 5.29 percent per annum, which is an impossibility in the absence of heavy immigration and a phenomena no known group in history has ever experienced. Clearly, Van's Muslim population was grossly undercounted in the 1897 Census, the same was true of the non-Muslims 85 percent of which were Armenians. In making the corrections we follow McCarthy (1998a, pp. 83-84). We assume that the ethnic groups were undercounted by the same degree in the 1897 Census; hence the true proportion of each ethnic group in the total was the same as represented in the census, 58 percent and 42 percent for Muslims and non-Muslims respectively, and further that the proportions remained invariant over the period, from 1897 to 1914. This gives us an Armenian population of 110.4 thousand in 1914<sup>23</sup>, and we use this figure as the one to which the correction coefficient is to be applied.

A similar problem is exhibited by Bitlis. The proportion of Armenians in the 1897 Census Report was 32 percent. However in the 1914 Census Report it was only 27.2 percent, a sharp drop which may have been due to under-registration and deaths-on both sides-during the wide-spread disturbances in the region at the time. If we assume that the Muslim and Armenian population had increased at the same rate, during the interval between the two censuses, then the Armenian population in 1914 should have been 149 thousand. We take this figure as the one to which the correction coefficient is to be applied.<sup>24</sup>

A further accounting had to be done before population estimates were made. The 1897 Census Report gives the number of Catholic and Protestants by vilayet, but does not apportion these between Armenians and Greeks. The 1905/96 Census and 1914 Statistic not only have columns for Armenians and Greeks along with for other religious groups, but also separate columns for Greek Catholics, Armenian Catholics and Protestants. In the estimates for 1897 and 1914 populations, Greek Catholics were added to the Greeks (Orthodox) and Armenian Catholics and Protestants to the Armenians (Gregorians) although some Protestants may not have been Armenian<sup>25</sup> and some Greek Orthodox especially in Halep Vilayet and some *sandjaks* in south and southeastern Anatolia not Greek. In order to bring the 1897 Census figures to the same base as in the other two, percentages of Greek Catholics and Armenian Catholics in the total Catholic population excluding Latins (Roman Catholics) were calculated and the Catholic population in the 1897 Census Report was apportioned between Greeks and Armenians, in the same proportion as in the 1914 Statistic.

The correction coefficients are given in Table III. They are by vilayets included in the 1897 Census Report. Due to lack of data by age groups, the same correction coefficients were used for the subsequent censuses. To the extent that counting and registration improved, this practice leads to over estimation of true population in the subsequent censuses.

More vilayets and some independent *sandjaks* were created after the 1<sup>st</sup> Census Report considered here. For these, the same correction coefficient was used as the vilayets of which they were formerly a part. If a new vilayet was carved out of more than one vilayet, then the arithmetic average of the relevant vilayets was used as the correction coefficient for the new administrative unit.

A separate table is not produced for Mortality Level 8. Correction coefficients for M= 8 are 1.0464 times the coefficients for Mortality Level 5. Thus, the upper bound of population estimate for each vilayet is 1.0464 times the lower bound.

### **CORRECTED POPULATION AND ITS DISTRIBUTION**

Corrected population estimates for 1897 and 1914 by vilayets and by principal ethnic groups are given in the Annex (Tables A I and A II). A summary for 1914 is given in Table IV.

In those parts of the Empire within the approximate present boundaries of Turkey in 1914, there were at most 19.59 million people of which 15.82 million were Muslims, 1.81 million were Greeks and 1.67 million Armenians. These groups constituted 80.72 percent, 9.25 percent and 8.51 percent of the total respectively. If we take the lower bound of estimates (M=5), the percentage distribution by ethnic groups varies slightly.

**Table III: Population Correction Coefficients for and Degree of Undercount by Administrative Unit in the 1897 Census Report with Gross Reproduction Rate= 3 and Mortality Level=5<sup>a b</sup>**

Administrative Unit	Correction Coefficient	Degree of Undercount (%)	Administrative Unit	Correction Coefficient	Degree of Undercount (%)
Dersaadet <sup>c</sup>	1.1263 <sup>e</sup>	11.21	Diyarbakır	1.2039	16.94
Edirne	1.1820	15.40	Zor	1.1619	13.93
Aydın	1.1953	16.34	Selanik	1.2056	17.05
Erzurum	1.1754	14.92	Suriye	1.2169	17.82
Adana	1.2911	22.55	Sivas	1.1836	15.51
İşkodra	1.2981	22.96	Trabzon <sup>f</sup>	1.0109	1.08
İzmit	1.1851	15.62	Kosova	1.3997	28.55
Ankara	1.1786	15.15	Kastamonu	1.1626	13.99
Beyrut	1.1771	15.05	Konya	1.2465	19.78
Bitlis	1.3183	24.14	Kudüs-ü Şerif	1.0656	6.16
Biga	1.1767	15.05	Manastır	1.1091	9.84
Çatalca	1.1231	10.96	Mamüretülaziz	1.2636	20.86
Cezayir-i Bahri Sefid <sup>d</sup>	1.0879	8.08	Musul	2.2913	56.36
Halep	1.1723	14.69	Van	1.2027	16.85
Hüdavendigâr	1.0949	8.67	Yanya	1.1007	9.15

NOTES: a) For Mortality Level= 8, correction coefficients are 1.0464 times the coefficients listed in the table.

b) These correction coefficients were used for the subsequent censuses also. The coefficient for a new administrative unit was taken as of the old administrative unit if the new unit was carved out of one vilayet only, and as the arithmetic average of the administrative units out of which the new unit was created if otherwise.

c) The same coefficient was used for Şehremanati Mülhakati.

d) Midilli, Sakız, Rodos and Limni.

e) This is the ethnic population weighted correction coefficient and used only for the “others” category of population. In contradistinction to other vilayets where the same adjustment coefficient was used for all ethnic groups, for Dersaadet, a coefficient was calculated for each ethnic group. The coefficient was 1.1280 for Muslims, 1.1159 for Greeks and 1.1312 for Armenians.

f) Gross Reproduction Rate= 3 and Mortality Level= 8.

DATA SOURCES: For population by age groups: Güran (1997, pp. 26-29); for model age distribution: Coale and Demeny (1966).

Another summary is given in Table V, this time excluding Thrace. In Anatolia including İstanbul, there were, in 1914, 15.37 million Muslims, 1.52 million Greeks and 1.64 million Armenians at most. There was a substantial Greek population in İstanbul, constituting 22.42 percent of the total- as an upper bound. In Anatolia, excluding İstanbul, the number of Moslems were 14.71 million, that of Greeks 1.28 million, and that of Armenians 1.54 million at most.

**Table IV. Census and Corrected Population Distributions in 1914 by Principal Ethnic Groups within the Approximate Present Borders of Turkey<sup>a</sup>**

	Muslims	Greeks <sup>b</sup>	Armenians <sup>c</sup>	Others	Total
<b>I POPULATION</b>					
1) C <sup>d</sup>	12, 966, 843	1, 529, 170	1, 266, 458	242,632	16, 005, 103
2) M5 <sup>e</sup>	15, 174, 224	1, 749, 793	1, 596, 417	285, 711	18, 806, 145
3) M8 <sup>f</sup>	15, 817, 786	1, 811, 816	1, 667, 228	298, 965	19, 595, 795
<b>II. DISTRIBUTION (%)</b>					
1) C	81. 02	9. 55	7. 91	1. 52	100. 00
2) M5	80. 69	9. 30	8.49	1. 52	100. 00
3) M8	80. 72	9. 25	8.51	1.53	100. 00

NOTES: a) Excludes Dimetoko district of Edirne Vilayet and Kars, Artvin and Ardahan which were then under Russian occupation. Includes Iskenderun, and Antakya kazas and Ayintab Sandjack of Halep Vilayet. Also see note a under Table I.

b) Includes Orthodox and Greek Catholics.

c) Includes Gregorians, Catholic Armenians and Protestants. Some Protestants may not have been Armenian.

d) Census.

e) Mortality level 5, Gross Reproduction Rate (GRR) = 3. 00.

f) Mortality level 8, GRR= 3. 00.

DATA SOURCES: For the census population: Karpat (1985, pp. 170- 89); for the distribution of model population by age groups with various mortality levels and GRR= 3: Coale and Demeny (1966).

The numbers, in tables IV and V are a far cry from what the Greeks and Armenians claim. Taking the case of the Greeks first, an often cited source is the Greek Patriarchate Statistics of 1912. Excluding Thrace, İstanbul except the Asiatic shore, and those vilayets in which the number of Greeks was unsubstantial, The Patriarchate put the number of Greek population in Anatolia as 1.78 million<sup>26</sup>, Muslims as 7.05 million and Armenians as 608.7 thousand. If we add to the Greek figure the claimed 655.6 thousand in Eastern Thrace (excluding Gümülcine and Dedeğaç) and İstanbul, the Greek population comes up to be 2.435 million for 1912 (Pentzopoulos 2002 pp. 30-32) which is 34.53 percent higher than our upper bound of estimate (1.81 million) and 59.15 percent higher than that in the Ottoman Census Report of 1914.



**Table V. Census and Corrected Population Distributions in 1914 by Principal Ethnic Groups**

	Muslims	Greeks <sup>b</sup>	Armenians <sup>c</sup>	Others	Total
<b>I. ANATOLIA<sup>a</sup></b> ( including Greater İstanbul)					
1) C <sup>d</sup>	12, 606, 488	1, 292, 140	1, 245, 902	215, 665	15, 360, 195
2) M5 <sup>e</sup>	14, 749, 465	1, 471, 791	1, 572, 169	253, 958	18, 047, 383
3) M8 <sup>f</sup>	15, 373, 318	1, 520, 915	1, 641, 855	265, 738	18, 801, 826
DISRIBUTION (%)					
1) C	82. 07	8. 41	8. 11	1. 40	100. 00
2) M5	81. 73	8. 17	8. 71	1. 41	100. 00
3) M8	81. 77	8. 09	8. 73	1. 41	100. 00
<b>II. GREATER İSTANBUL</b>					
1) C	560, 434	205, 762	84, 093	59, 689	909, 978
2) M5	632, 169	229, 610	94, 713	67, 227	1, 023, 719
3) M8	659, 732	239, 621	99,109	70, 347	1, 068, 809
DISTRIBUTION (%)					
1) C	61. 59	22. 61	9. 24	6. 56	100. 00
2) M5, M8	61. 75	22. 43	9. 25	6. 57	100. 00
<b>III. ANATOLIA (excluding Greater İstanbul)</b>					
1) C	12, 046, 054	1, 086, 378	1, 161, 809	155, 976	14, 450, 217
2) M5	14, 117, 296	1, 242, 181	1, 477, 456	186, 731	17, 023, 664
3) M8	14, 713, 586	1, 281, 294	1, 542, 746	195, 391	17, 733, 017
DISTRIBUTION (%)					
1) C	83. 36	7. 52	8. 04	1. 08	100. 00
2) M5	82. 93	7. 30	8. 68	1. 10	100. 00
3) M8	82. 97	7. 23	8. 70	1. 10	100. 00

NOTES: a) Includes the vilayets and sandjaks within the present boundaries of Turkey- excluding Thrace and Kars, Artvin and Ardahan which then were under Russian occupation. Includes İskenderun and Antakya kazas and Aniytab Sandjack of Halep Vilayet. Also see note a under Table I.

b) Includes Orthodox and Greek Catholics.

c) Includes Gregorians, Catholic Armenians and Protestants. Some Protestants may not have been Armenian.

d) Census of 1914.

e) Mortality level 5; Gross Reproduction Rate (GRR)= 3. 00.

DATA SOURCES: For the census population: Karpat (1985, pp. 170- 89); for the distribution of model population by age groups with various mortality levels and GRR=3 : Coale and Demeny (1966).

The Greek sources, in order to buttress the Patriarchate’s figures, give as evidence, the figures by ethnic division from “Turkish Official Statistics 1910” which closely follows the Patriarchate’s in province totals. Such a statistic never existed. The Ottomans issued total population figures by vilayets which were subsequently used by Almanach de Gotha until 1923, but no document was issued for 1910 having the ethnic distribution of population and naturally no original copy has ever been found. The alleged “ Turkish official Statistics 1910” was a complete forgery (McCarthy, 1998a, p. 94). So was the “Patriarchate’s Statistics”, but more on this later.

The Greek statistics followed a certain “design” as is evinced in Table VI. The design was to double or nearly double the actual Greek element in each province, and reduce the Muslim population and sometimes the total in each, so that the Muslims constituted a much lesser percentage of a province population and The Greeks a much greater one. This was especially

pronounced in the case of the Ionian vilayets and Istanbul, the objects of “Megali Idea”. Soteriadis, who gave population of each sandjak and vilayet for 1912, and who is the most often referred source, gives the sandjak of İzmir’s Greek population as 449 thousand which is 109 percent greater than the Census Report figure for 1914 and 67 percent greater than our upper bound estimate. The Soteriadis figures for Muslims and for province totals get closer to the Ottoman Census Report figures of 1914 the farther away one gets from the Ionian vilayets, and the less is the proportion of Greeks in the total, though the number of Greeks is still doubled. For example, though not produced in Table VI, the Ottoman Census Report and the Soteriadis figures for Muslims in Bilecik Sandjak are 197.4 thousand and 194.4 thousand and totals are 236.5 thousand and 239.2 thousand respectively. For İstanbul, including the Asiatic shore, The Greek Patriarchate Statistics put The Greek population as 311.7 thousand and the Muslim (Turkish) one as 433 thousand. The figure for the Greeks is 51.5 percent greater than the population in the census report, and 30.1 percent more than our upper bound estimate. Correspondingly, the Muslim (Turkish) population is 22.75 percent smaller than the census figure, and 34.38 percent less than our estimate for the upper bound.

The story behind the Patriarchate and Soteriadis statistics meticulously constructed in detective fashion by McCarthy (1998a) is worth retelling. The Patriarchate Statistics made its first appearance in Polybius<sup>27</sup> who asserted that the Patriarchate Statistics was the result of an Ottoman Greek Census carried out in response to the allegations that the Young Turks had greatly inflated the Muslim element in the (forged, SM) 1910 Census. The Polybius’ figures alleged as the Patriarchate Statistics were then used by Soteriadis<sup>28</sup> in 1918- and by Maccas<sup>29</sup> in 1919- without giving the source- as Polybius. However, although Polybius gave the statistics by vilayet only, both Soteriadis and Maccas gave population figures not only by each vilayet, but also by sandjak and district without ever mentioning the source or qualifying them as the Patriarchate Statistics<sup>30</sup>. Needless to say, there is so far no evidence that anyone, other than the three, Polybius, Soteriadis and Maccas, who claim to have done so, has ever seen such a document. If the claim were to be made that there really was a census of Greeks based on community registers, it would have been nearly impossible to get reliable figures even on the Greeks as the community registers gave only the number of houses and the number of married people (Karpas, 1985, p. 47). Furthermore, even if there really was a separate census of Greeks conducted by the Patriarchate as alleged then the question remains as to the source of statistics on other population groups, especially on Muslims<sup>31</sup>.

An assessment can be made of the accuracy of the census report figures of 1914 by using Greek sources. According to the Greek Census of 1928, there were 1,105,216 refugees from Asia Minor, Pontus, Thrace and İstanbul- from the area covering the present day Turkey. Of those who migrated to Greece after what they call “the Disaster”, up to 70 thousand died of disease and weakness due to malnutrition<sup>32</sup> from September 1922 to July 1923 (Pentzopoulos, 2002, pp. 98-99). About 50 thousand refugees, upon arriving Greece, subsequently migrated to Egypt, France and the United States. According to the Turkish Census of 1927, there were 109,905 Orthodox (Greeks) (İUM, 1929, p. LX). Summing these we arrive at a figure of 1,335,121. This is only 194,425 short of the 1914 Census Report figure and 433,481 short of our upper bound estimate for the Greeks.

**Table VI: Population Distribution of Western Anatolia by Principal Ethnic Groups in 1914 According to Different Sources**

	Muslims	Greeks	Armenians	Others	Total
<b>I. 3 SANDJAKS</b>					
1) İzmir					
a) Census	378,883	214, 686	14, 273	32, 915	640, 757
b) Soteriadis <sup>a</sup>	219,494	449, 044	11, 395	74, 113	754, 046
c) Corrected Census <sup>b</sup>	472,703	268, 521	17, 853	41, 169	800, 246
2) Manisa					
a) Census	378, 336	47, 326	4, 882	3, 910	434, 454
b) Soteriadis	247, 776	83, 625	3, 960	2, 564	337, 925
c) Corrected Census	473, 208	59, 193	6, 106	4, 890	543, 397
3) Aydın					
a) Census	234, 449	30, 399	1,293	8, 648	274, 789
b) Soteriadis	162, 554 <sup>c</sup>	54, 633	634	2, 138 <sup>d</sup>	219, 959
c) Corrected Census	293, 248	38, 023	1,617	10.,817	343, 705
<b>II. TOTAL (3 sandjaks)</b>					
a) Census	991, 668	292, 411	20, 448	45, 473	1, 350, 000
b) Soteriadis	629, 824	587, 302	15, 989	78, 815	1, 311, 930
c) Corrected Census	1, 239, 159	365, 736	25, 576	56, 876	1, 687, 347
<b>II. OTHER WESTERN SANDJAKS<sup>e</sup></b>					
1) Census	2, 008, 143	213, 969	85, 448	20, 169	2, 327, 729
2) Soteriadis	1, 640, 176	352, 759	95, 140 <sup>f</sup>	13, 127	2, 095, 262
3) Corrected Census	2, 360, 225	248, 372	97, 739	23, 736	2, 729, 622
<b>III. DISTRIBUTION (%)</b>					
<b>A) 3 SANDJAKS</b>					
1) Census	73. 46	21. 66	1. 51	3. 37	100. 00
2) Soteriadis	48. 01	44. 77	1. 22	6. 01	100. 00
3) Corrected Census	73. 43	21. 68	1. 52	3. 37	100. 00
<b>B) OTHER WESTERN SANDJAKS</b>					
1) Census	86. 28	9. 19	3. 67	0. 87	100. 00
2) Soteriadis	78. 28	16. 84	4. 54	0. 63	100. 00
3) Corrected Census	86. 47	9. 10	3. 58	0. 87	100. 00

NOTES: a) The original source is George Soteriadis, *An Ethnological Map Illustrating Hellenism in the Balkan Peninsula and Asia Minor*. London: Edward Stanford Ltd., 1918. Here, we use Soteriadis' figures as given in Nakracas (2003).

b) Upper bound estimate with GRR=3 and Mortality Level=8.

c) The total given by Nakracas (2003, p. 107) is 165, 554. However his figures by district add up to only 162, 554.

d) When the Muslim (Turkish), Greek and Armenian populations by district are subtracted from the total population of the sandjak, the population in the other category comes up to be 2564 which is greater than 2138 given in Nakracas (2003, p. 107).

e) The other sandjaks are Denizli, Menteşe, Kale-i Sultaniye (Çanakkale), Karesi (Balıkesir) Hüdavendigar (Bursa), Bilecik, Kütahya and Karahisar-ı Sahip (Afyonkarahisar).

f) Nakracas (2003) does not give a figure for the Armenian population in Karahisar-ı Sahip, Here, the census figure is taken and the "others" category adjusted accordingly.

DATA SOURCES: Karpat (1985, pp. 170- 87), Nakracas (2003).

However the 1928 Greek Census does not depict the real number of refugees. The third Chairman of the Refugee Commission of the League of Nations, Charles B. Eddy, characterized the

census figures as an understatement and considered that a refugee figure of 1.3 million as being more accurate<sup>33</sup>. There are others who put number of refugees as high as 1.4 million (Pentzopoulos, 2002, p. 99). If we take Eddy's figure, the total number of refugees adds up to 1,459,905 only 33,641 short of the 1914 Census Report figure and 308,697 less than our higher bound estimate. These differences are a consequence of the deaths during the First World War and the Turco- Greek War<sup>34</sup> and attest to the high degree of reliability of the Ottoman Census Report.

As in the case of the Greeks, there are controversial figures on the Armenian population within the Empire. Ever since the beginning decades of the 19<sup>th</sup> century, the Western powers of the time took an increasing interest in the Ottoman Armenians. First came the missionaries, and partly due to their efforts, there arose a cultural invigoration among the Armenians (Shaw and Shaw, 2000, vol. II, pp. 251- 52), especially of Catholic and Protestant denomination, which in time led to nationalist movements and demands and towards the end of the 19<sup>th</sup> century to uprising and terrorist activities. In the Berlin Congress of 1878, the Ottoman government pledged to undertake reforms in the areas where the Armenians were concentrated- in the eastern vilayets. This further intensified western interest in the Armenian affairs and produced a plethora of figures on Armenian population. These can be seen in Uras (1988, pp. 353- 65), Karpat (1978, p. 257), McCarthy (1998a, p. 66), and Karpat (1985, pp. 51- 54). There are wide variations in the figures, and sometimes gross exaggerations. In a memorandum to the Lausanne Conference, the United Armenian Delegation argued that there were 2.25 million Armenians in Turkey before the War of which 1. 25 million had been killed and 700 thousand emigrated (Uras, 1988, p. 975). In the same conference, the head of the British Delegation, Lord Curzon asked the Turkish Delegation "..., how was it that the 3 million Armenians formerly in Asia Minor had been reduced to 130 thousand?", to which the Turkish Delegation responded by pointing out that there must be some error in the figure of 3 million, for they had never seen such a figure in any statistics, and that Cuinet from which most of the statistics published in Europe were derived spoke of 1.4 million only (Uras, 1988, p. 983). For a time it seemed as if Armenian population estimate was a free for all game.

What did the Ottoman statistics say on the Armenian population? According to the 1914 Census Report, there were 1.27 million Armenians then within the approximate present borders of Turkey. Our upper bound estimate is 1.67 million. The Armenians constituted 7.91 percent of the population according to our estimate (Table IV).

At the center of contention between various population estimates lies the population of the six vilayets (vilayet-i sitte) in the East in which the Ottoman government pledged to undertake reforms favoring the Armenians. In those vilayets, the Armenians numbered 639 thousand in the 1914 Census Report, and 1.018 million in 1912 according to the Armenian Patriarch of the time. Our upper bound estimate gives 912.6 million. The Muslims constituted 79.32 percent of the total population and Armenians 16.47 percent in the 1914 Census Report (Table VII). In the Patriarch's statistics they accounted for 53.23 percent and 38.93 percent of the population respectively. Our upper bound estimate gives a slightly lower percentage for Muslims (77.52 percent) than the Census Report and higher one for the Armenians (18.35 percent). The ratio of the Armenian population to total population in the Patriarch's figures is more than twice as high as the ratio in the Census Report and in our upper bound estimate. As to the total population in the six vilayets; the Patriarch's figure is only 67.39 percent of that of the Census Report and only 52.58 percent of our upper bound estimate.

Earlier, in 1882, the Patriarch issued a set of figures on the Armenians. In that statistic the Armenians numbered 1.63 million in the six vilayets, 2.55 times the number they reached in the 1914 Census Report. These figures were implicitly disowned when the Patriarch issued the 1912 figures.

The ploy in the Armenian Patriarch's figures was the same as in the forged Greek Patriarchate Statistics: doubling or near- doubling of the Cuinet's estimates or the earlier Ottoman census figures for the Armenians, and correspondingly, but to a much greater extent, decreasing the figures for Muslims and the vilayet totals.

There is no evidence supporting the Patriarch's numbers. Conceivably they could have been based on church registers. But to date, neither any local church register nor any document showing the summation of local registers at the Patriarchate in İstanbul has been produced as proof (McCarthy, 1998a, pp.56- 59). More important, even if such records of the Armenian population existed, how could the local priests, and hence the Patriarch who would be getting his numbers from them, ever know how many Muslims existed short of a census. Yet, the census figures belie the Patriarch's . Hence, the Patriarch's figures were nothing but politically motivated constructions.

**Table VII: Population in the Six Vilayets (Vilayet-i Sitte) by Principal Ethnic Groups in 1914**

	Muslims <sup>a</sup>	Greeks <sup>b</sup>	Armenians <sup>c</sup>	Others	Total
<b>I. VILAYETS</b>					
1) Erzurum					
i) Census	673,297	4,864	136,618	653	815,432
ii) Patriarchate: a <sup>d,e</sup>	400,000	12,000	215,000	3,000	630,000
b <sup>f</sup>			280,000		
iii) Corrected Census (M8)	828,114	5,982	168,032	803	1,002,931
2) Bitlis					
i) Census	309,999		119,132	8,348	437,479
ii) Patriarchate: a)	182,000		180,000	20,000	382,000
b)			250,000		
iii) Corrected Census (M8)	427,634		205,540	11,516	644,690
3) Diyarbakır					
i) Census	492,101	1935	73,226	52,563	619,825
ii) Patriarchate: a)	127,000		105,000	64,000	296,000
b)			150,000		
iii) Corrected Census (M 8)	619,929	2,438	92,247	66,217	780,831
4) Sivas					
i) Census	939,735	75,324	151,674	2,710	1,169,443
ii) Patriarchate: a)	287,000	30,000	165,000	25,000	507,000
b)			280,000		
iii) Corrected Census (M 8)	1,163,879	93,290	187,851	3,356	1,448,376
5) Mamüretülaziz <sup>g</sup>					
i) Census	483,240	2,041	90,729	3,013	579,023
ii) Patriarchate: a)	277,000		168,000	5,000	450,000
b)	638,954		270,000		
iii) Corrected Census (M 8)	590,293	2,579	119,964	3,984	765,487
6) Van					
i) Census	179,380	1	67,792	11,968	259,141
ii) Patriarchate: a)	119,000		185,000	46,000	350,000
b)			400,000		
iii) Corrected Census (M 8)	225,751	1	138,967	15,062	379,781
<b>II TOTAL</b>					
i) Census	3,077,752	84,165	639,171	79,255	3,880,343
ii) Patriarchate: a)	1,392,000	42,000	1,018,000	163,000	2,615,000
b)			1,630,000		
iii) Corrected Census (M 8)	3,855,600	104,290	912,601	100,938	4,973,429
<b>III. DISTRIBUTION (%)</b>					
i) Census	79.32	2.17	16.47	2.04	100.00
ii) Patriarchate: a)	53.23	1.61	38.93	6.23	100.00
iii) Corrected Census (M 8)	77.52	2.10	18.35	2.03	100.00

NOTES: a) The figures given here for Muslims in the Armenian Patriarchate's estimates include Turks, Circassians, Iranians, Kurds, Kızılbaş and Zaza. The Patriarch's figures exclude south of Siirt, south of Diyarbakır, south of Malatya in the vilayet of Harput and west and northwest of Sivas.

b) The census figures include Greek Catholics as well as Christians other than the Chaldeans, Jacobites and Nestorians.

c) The census figures include the Gregorians, Armenian Catholics and Protestants. Some Protestants may not have been Armenian.

d) The original source for the Patriarchate's figure is Patriarcat Arménien de Constantinople, Population Arménienne de la Turquie Avant la Guerre. Paris: 1920. The figures in this study are taken from McCarthy (1998a).

e) The figures for row a are for 1911/ 12.

f) The figures for row b are for 1882.

g) Includes Bünyan-ı Hamid district of Kayseri.

DATA SOURCES: Karpas (1985, pp. 170- 87); McCarthy (1998 a, pp. 46, 55); Kirakossian (1992, pp. 261- 62).

## CONCLUSIONS

The Ottomans had a keen interest in censuses, in knowing the number of Muslim and non-Muslim subjects in as much as their recruitment for the army, and the assessment of their taxes depended on such knowledge. Their census procedures improved over time, and the obligation on the part of the subjects to produce identity documents in their official dealings led to progressively better registration.

The censuses were far from perfect. Women and children were undercounted, and in some vilayets seriously. These are amenable to correction and this has been done in this study producing a lower bound and an upper bound estimate for each administrative unit.

The population figures advanced to support various political causes by the minority protagonists do not stand up to investigation. There is no evidence neither of politically motivated interference by the Ottoman authorities in census procedures, nor of any falsification in the census records. When corrected for undercounts of women and children, the census records prove to be reliable documents.

## NOTES

<sup>1</sup> The quotation by Karpas is from Ubcini, *Letters on Turkey*, trans: by Lady Easthope. London, 1956; reprinted., NewYork: Arno Press, 1973, pp. 23-24. The census figures were used also by Eugène Boré, *Almanach de L' Empire Ottoman Pour L'année 1849/1850*. Constantinople, 1849/1850.

<sup>2</sup> Shaw gives te date as 1878 in the text. But his footnote 12, on the same page, referring to BUA, Şuray-ı Devlet 3148, gives it as 8 Şevval 1298/21 August 1881 (Shaw, 1978, p.330). Karpas gives the date as 8 Şaban 1298/5 July 1881, again referring to BUA, İrade, Şuray-ı Devlet 3148 (Karpas, 1978, p.251).

<sup>3</sup> His interest in the censuses is attested by the American Ambassador S. Cox who was asked by the Sultan for a statistical review of the recent American Census. He told the ambassador in 1886 that he was very interested in such works and pointed out that it was his hope to compile a complete and systematic statistical record of the entire population in his realm. (Karpas, 1978, pp. 242-43 and Karpas, 1985, p. 3). Karpas's sources are a letter from the Sultan's private secretary and Ambassador Cox's memoirs.

<sup>4</sup> A complete list of the imperial surnames can be found in Karpas (1985, pp. 12-13); see also McCarthy (1998a, pp. 173-74).

<sup>5</sup> Before the First World War, Armenians migrated mainly to the United States and to the neighbouring countries, to the Russian Armenia and some to Persia. Karpas estimates that between 1854 and 1908, some 500,000 to 800,000 Greeks, Armenians and Arabs emigrated, chiefly to Russia and the Americas (Karpas, 1985, p. 11).

<sup>6</sup> A source notes that there were 150,000 Armenian deaths during 1895/96 due to inter-ethnic struggle, in the Central and Eastern Anatolia: Garo Chichekian, "The Armenians Since The Treaty of San Stephano", *Armenian Review*. Vol. 22, No. 2 (Spring 1968) pp. 42-56; cited in McCarthy (1998a, p. 55) . McCarthy finds this figure, as highly exaggerated, and his claim is supported by some figures. According to an Armenian historian, in the first Sasun rebellion in 1894, "No one has ever been able to give even an approximate number of the Armenians killed. Some say six or seven thousand, others say around one thousand. Probably the latter is nearer the truth". M. Varandian, *History of the Dashnaksution*, Paris, 1932, p. 146; cited in Uras (1988, p. 728). In the second Sason rebellion, in 1904, according to an Armenian source, the casualties were about 1000 mainly on the Turkish side; the Armenian casualties were in the low hundreds (Kukulian, *The Battles of Antranik*, Beirut, 1929; cited in Uras 1988, pp. 778-780). Between 1 July and 3 December, 1895 ,there were 26 inter-ethnic incidents in which, according to the Ottoman sources, there were 1828 Muslim and 8717 non-Muslim (Armenian) deaths; The wounded were 1433 and 2238 respectively (Gürün, 2001, pp. 147-149).

Outside of the six vilayets the bloodiest incident took place in Adana in April 1909. The Armenians, without giving supporting documents, claim that in the April 1909 uprising in Adana 25,000 Armenians were killed (Dadrian, 1997, p. 182). According to the report prepared by Babikian Efendi, the Edirne representative in the Ottoman Assembly, there were 20,001 deaths. Cemal Pasha who was appointed governor of the provience after the incidents, gave the numbers as 17000 Armenian, and 1850 Muslim deaths. The Amerinian Patriarchate put the total number of deaths as 21,300, based on the investigation it carried out. According to Babikian Efendi, Ottoman government put the number of deaths as 1487 Muslims and 4196 non-Muslims, based on population registers (McCarthy, 1998b, p. 133, note 58; Gürün ,2001, pp. 169-170; Sonyel, 1988; pp. 41-42). The whole Armenian population in Cilicia in 1897 was 37 thousand. Assuming population growth of 1.5 percent per year, the Armenian population in Cilicia should have reached 45 thousand in 1909; taking account of undercounting of women and children and assuming GRR= 3 and mortality level 8, to 61 thousand. There were 58 thousand Armenians in Cilicia in 1914. Adding to this figure the claimed 25 thousand dead, the Armenan population would have added up to 83 thousand, almost double the number the Armenian community would have reached by natural growth. There is evidence that there was heavy immigration of Armenious into Cilicia, especially from the eastern vilayets. Adana's Armenian population, according to a Turkish source, doubled between 1903-1908. This, taking into account the deaths during 1909, further corroborates the census figures (see Sakarya, 1984, p. 129). The immigration into Cilicia was an organized effort by the Armenions to ensure a strong presence in the region. This was freely admitted by Bishop Mushegh, in his book *The Adana Massacres and Their Instigators*. Cairo: 1909 (in Armenian), cited by Uras (1988, p. 811).

<sup>7</sup> Nakracas (2003, p. 86) makes this point about the Greeks, and Süslü (1990, p. 20) on the Armenians.

<sup>8</sup> For example, despite all the efforts to improve the count the American Census Bureau estimated that in the 1980 Census, as much as 18 percent of some age groups in some densely populated areas would escape the count (Karpas, 1985, p. 9).

<sup>9</sup> McCarthy (1998a, p. 162). He is using Life Tables prepared by Alpay for three metropolitan cities and some selected regions in the 1960s (Alpay, 1969).

<sup>10</sup> The undercounting of Muslim women in these vilayets is not a surprise in view of the orthodox Muslim view still held in those areas that women are *namahrem* and should not be exposed to adult males other than close kin. The contrast between Aydın and the eastern vilayets is possibly due to the less orthodox beliefs held in the west. Also, the distributions for Muslims and Armenians in the eastern vilayets may attest to the possibility if not the fact that despite religious differences, the two communities held similar mores respecting women.

<sup>11</sup> This relative decline was noted by McCarthy (1998a, p. 80). See note 6; also see Sonyel (1987, pp. 148, 253-256).



<sup>12</sup> This report is “*Sicil-i Nüfus İdare-i Umumiyesi*” of 17 Ramazan 1312/14 March 1895 (Karpas, 1985, p. 156-57, 160).

<sup>13</sup> The figures are from Karpas (1985, pp. 156-161). The population figures given by Karpas for 1897 are really the figures of the 1895/96 Census, which are in agreement with the ones used by McCarthy (1998a) as belonging to 1313/1895-96 census.

<sup>14</sup> In a similar case, Karpas (1985, p. 254, note b notes that the population of İstanbul given for 1885 and for 1893 are identical.

<sup>15</sup> A Model Life Table is an expression of typical mortality experience derived from a group of observed Life Tables. A life table is a listing of survivors at different ages, up to the highest age attained in a hypothetical cohort subject from birth to a particular set of age-specific mortality rate. The rates are those observed in a given population during a particular period of time. The Model Life Table chosen for the study is that of the East which is based on the mortality experience of Austria, Germany, Czechoslovakia, North and Central Italy, Hungary and Poland. The periods considered vary from 1881 to 1890 for Germany, 1931-32 for Poland and 1949-1951 for Czechoslovakia. See Coale and Demeny (1966, pp. 12-14). While the child mortality in Turkey even in the 1960s was considerably higher than that represented by the East Model Life Table and it must have been much higher for the period under consideration (Demeny and Shorter, 1968), nevertheless it is found that the Turkish mortality experience fits the East Table best (Shorter and Macura, 1983, pp. 70-71; also see McCarthy, 1998a, p. 203-204).

<sup>16</sup> A mortality level in a Model Life Table gives the age pattern of mortality by Gross Reproduction Rates with a specific expectation of life at birth. A low mortality level is associated with a low expectation of life at birth and a higher mortality level with a higher expectation of life.

<sup>17</sup> Gross Reproduction Rate is the average number of female children a woman would have if she survived to the end of her child bearing years and if, throughout, she were subject to a given set of age-specific fertility rates and a given sex ratio at birth. In the Model Life Tables, the mean of underlying maternity schedule is taken as 29 years, that is a woman is assumed to remain fertile for 29 years.

<sup>18</sup> Except for Biga, McCarthy uses the same GRR (=3) in his study (McCarthy, 1998a, p. 231).

<sup>19</sup> Apart from the census reports, McCarthy, using censuses and *salmanes*, gives tables for some vilayets from which development of population over time can easily be followed (McCarthy, 1998a, see also Karpas, 1985, p. 190).

<sup>20</sup> The underlying assumption in the formula is that males above 15 years of age were correctly recorded and male/female ratio is 1.

<sup>21</sup> These overestimates may result from possibly less massing of children at age 15 in the 1905/06 census. Massing at round numbers such as 15 or 20 still continues in Turkish censuses.

<sup>22</sup> The underlying assumption in the formula, though could not possibly be wholly true, is that the adult females, those 15 years of age and above, were correctly counted.

<sup>23</sup> McCarthy (1998a, pp. 83-84) calculates another figure for the Armenians, assuming that each Armenian household had the same number of persons as the Muslim households-6.69 persons per household. This second figure come up to be 91 thousand which he takes as the minimum number of Armenians to which the correction coefficient is to be applied.

<sup>24</sup> McCarthy uses a different method and utilizing Cuinet’s estimates arrives at a population of 144,991 Armenians for 1911/12 (McCarthy, 1998a pp. 79-80). The date should have been 1914. The error is due to interpretation of the date in the Ottoman document as Hicrî rather than Rumî. Both McCarthy’s and our estimate are possibly on the high end, in as much as there was out-migration of Armenians to other countries and to Cilicia during the period.

<sup>25</sup> In the Eastern Vilayets, there were intensive proselytization efforts to convert Christians to Protestantism. These efforts were concentrated on Armenians, and all Protestants may have been Armenians, In the other vilayets some Protestants may not have been Armenians and hence for vilayets other than those in the East, Armenians may have been slightly overestimated. For the proselytization efforts by Protestant missionaries see Kocabaşoğlu (1989) and Engelhardt (1999, pp. 65-67, 297-301).

<sup>26</sup> Some sources put the Greek population in Ionia alone as 2 million in 1914. There are other inflated figures. For examples, see Pentzopoulos (2002, p. 30- 31), who mentions them so that his use of the Patriarchate’s Statistics looks conservative and cautious in comparison with the other figures.

<sup>27</sup> Polybius, *Greece Before the Conference*, London: Methuen and Co. Ltd., 1919

<sup>28</sup> George Soteriadis, *An Ethnological Map Illustrating Hellenism in the Balkan Peninsula and Asia Minor*. London: Edward Stanford Ltd., 1918.

<sup>29</sup> Léon Maccas, *L’Hellénisme de L’Asie Mineure*. Paris, 1919.

<sup>30</sup> Apparently whoever prepared the so called Patriarchate Statistics took Vital Cuinet’s well-known work (*La Turquie d’Asie*, 4 volumes. Paris: 1890-94) as the starting point and added to or subtracted from each ethnic group as he deemed fit, and labelled it as the Greek Patriarchate Statistics, To buttress the alleged Patriarchate figures then Ottoman Official Statistics was concocted (McCarthy, 1998a, pp. 96-97).

<sup>31</sup> Venizelos used the alleged Patriarchate Statistics in the Peace Conference following the First World War to buttress his arguments on the number of Greek population in the Ottoman Empire. F.O. Documents on British Foreign Policy, 1919- 1939, series 1, vol. VIII, pp. 64-65, cited in McCarthy (1998a, p. 96), also see Shaw (2000, pp. 395-96).

The head of the Ottoman Delegation to the Sevres, on June 17, 1919, in his presentation to the Supreme Council made no direct reference to the population issue. However, in a memorandum to the Supreme Council on June 23<sup>rd</sup>, in connection with the border issue in Thrace, it was declared that the north and west of the vilayet of Edirne, including western Thrace, was predominantly Turkish (Shaw, 2000, pp. 416, 419). The population issue was brought out in the London Conference, by the Turkish nationalist delegation to prove that Western Anatolia under Greek occupation was overwhelmingly Turkish. On February 24, 1921, the delegation cited the figures collected in 1896 by a recognized French authority, M. Puymet, for purposes connected with the collection of Ottoman Public Debt and published as an official publication, a Yellow Book, by the French. Puymet's figures for Aydın was 1,296,595 Muslims (Turkish) and 230,711 Greeks (Shaw 2000, pp. 1233-1234).

<sup>32</sup> The mortality rate among the refugees was 45 percent during the last months of 1923 (Pentzopoulos, 2002, p. 98). The high degree of mortality among the refugees is attested by the surviving refugees in interviews conducted by a Turk from Honaz (Denizli) who in the early 1990s traversed refugee settlements throughout Greece in search of the family of the Greek neighbour of his father; see Yalçın (1998, passim).

<sup>33</sup> Charles B. Eddy, *Greece and the Greek Refugees*. London: George Allen and Unwin Ltd., 1931., pp. 52, 248; cited in Pentzopoulos (2002, p. 98).

<sup>34</sup> During the two wars, the Anatolian and Thracian Greeks died not only during the clashes, but also during the deportations. It is claimed that 418 thousand Greeks were deported during the First World War and that deportations continued during 1919 and 1920 (Pentzopoulos, 2002, p. 57). Ladas gives the number of deportees to the interior of Anatolia as 50 thousand (Ladas, 1932, p. 21). These figures need to be checked in the Ottoman archives, but there is no doubt that there were deportations and some deportees perished. There is a moving account of a deportee in Dido Sotriyu's novel, *Benden Selam Söyle Anadolu'ya*.

ANNEX

Table A I: Census and Corrected Populations by Administrative Unit for 1897.

Administrative Unit	Muslims	Greeks	Armenians	Bulgarians	Other	Total
Dersaadet						
i) C <sup>a</sup>	520,194	162,117	166,185	6,364	48,627	903,482
ii) M5 <sup>b</sup>	586,773	180,905	187,990	7,168	54,769	1,017,605
iii) M8 <sup>c</sup>	612,356	188,792	196,186	7,481	57,169	1,061,972
Edirne						
i) C	539,031	290,242	18,458	121,870	16,361	985,962
ii) M5	637,135	343,066	21,817	144,050	19,849	1,165,917
iii) M8	666,727	358,984	22,830	150,741	20,771	1,220,053
Aydın						
i) C	1,203,776	229,598	15,229	548	29,273	1,478,424
ii) M5	1,438,873	274,438	18,204	655	30,631	1,762,801
iii) M8	1,505,683	287,181	19,049	685	32,053	1,844,651
Erzurum						
i) C	513,446	3,296	120,147		126	637,015
ii) M5	603,504	3,874	141,221		148	748,747
iii) M8	631,487	4,054	147,773		155	783,469
Adana						
i) C	355,912	6,132	36,695		25	398,764
ii) M5	459,518	7,917	47,377		32	514,844
iii) M8	480,837	8,284	49,575		34	538,730
İşkodra						
i) C	78,999	8,530				87,529
ii) M5	102,549	11,073				113,622
iii) M8	107,304	11,587				118,891
İzmit						
i) C	155,565	27,722	44,953		203	228,443
ii) M5	184,360	32,853	53,274		240	270,727
iii) M8	192,916	37,655	55,746		252	286,569
Ankara						
i) C	895,196	36,900	81,437		5,210	1,018,744
ii) M5	1,055,078	43,492	95,982		6,141	1,200,693
iii) M8	1,104,045	45,510	100,435		6,425	1,256,415
Beyrut						
i) C	505,019	76,261	2,921		36,562	620,763
ii) M5	594,458	89,767	3,438		43,037	730,700
iii) M8	622,032	93,932	3,598		45,034	764,596
Bitlis						
i) C	224,772		108,050		5,820	338,642
ii) M5	296,317		142,442		7,673	446,432
iii) M8	310,050		149,052		8,029	467,131
Biga						
i) C	121,327	17,681	1,842	612	2,442	143,904
ii) M5	142,765	20,805	2,167	720	2,874	169,331
iii) M8	149,389	21,771	2,268	754	3,007	177,189
Cezayir-i Bahri Sefid						
i) C	30,578	253,066	10		3,082	286,736
ii) M5	33,266	275,311	12		3,353	311,942
iii) M8	34,810	288,090	14		3,509	326,423

**Table A I: Continued**

<b>Administrative Unit</b>	<b>Muslims</b>	<b>Greeks</b>	<b>Armenians</b>	<b>Bulgarians</b>	<b>Other</b>	<b>Total</b>
Çatalca						
i) C	16,320	36,520	979	5,787	1,395	61,001
ii) M5	18,329	41,056	1,099	6,499	1,567	68,550
iii)M8	19,179	42,918	1,151	6,801	1,639	71,688
Halep						
i) C	712,585	18,389	70,663		17,601	819,238
ii) M5	835,363	21,557	82,838		20,634	960,392
iii)M8	874,128	22,558	86,682		21,591	1,004,959
Hüdavendigâr						
i) C	1,234,304	144,138	70,262	2,267	3,323	1,454,294
ii) M5	1,351,439	157,817	76,930	2,482	3,638	1,592,306
iii)M8	1,414,142	165,139	80,499	2,780	3,807	1,666,367
Diyarbakır						
i) C	329,843	1,526	60,175		23,113	414,657
ii) M5	397,097	1,837	72,445		27,826	499,205
iii)M8	415,536	1,922	75,806		29,117	522,381
Zor						
i) C	50,767	16	474		19	51,270
ii) M5	58,986	12	550		22	59,570
iii)M8	61,723	12	576		23	62,334
Selanik						
i) C	452,175	296,989	51	239,270	50,468	1,038,953
ii) M5	545,142	357,098	65	288,464	60,844	1,251,613
iii)M8	570,916	373,667	68	301,863	63,667	1,310,181
Suriye						
i) C	476,434	55,185	1,478		18,037	551,135
ii) M5	579,773	67,155	1,799		21,949	670,676
iii)M8	606,691	70,271	1,882		22,968	701,812
Sivas						
i) C	807,651	42,123	129,085		2,017	980,876
ii) M5	955,936	49,857	152,785		2,387	1,160,965
iii)M8	1,000,275	52,169	159,874		2,498	1,214,816
Şehremanati Mülhakati						
i) C	47,728	36,990	3,074	17	497	88,306
ii) M5	53,770	41,661	3,463	19	560	99,473
iii)M8	56,115	43,595	3,614	20	586	103,930
Trabzon						
i) C	933,728	181,044	49,782		41	1,164,595
ii) M8	943,906	183,017	50,325		42	1,177,290
Kosova						
i) C	432,178	36,420	0	275,702	10,334	754,634
ii) M5	604,920	50,977	0	385,900	14,464	1,056,261
iii)M8	633,011	53,344	0	403,821	15,135	1,105,311
Kastamonu						
i) C	945,192	17,040	6,652			968,884
ii) M5	1,098,880	19,811	7,734			1,126,425
iii)M8	1,149,920	20,731	8,093			1,178,744

**Table A I: Continued**

<b>Administrative Unit</b>	<b>Muslims</b>	<b>Greeks</b>	<b>Armenians</b>	<b>Bulgarians</b>	<b>Other</b>	<b>Total</b>
Konya						
i) C						
ii) M5	942,932	68,186	10,972		744	1,022,834
iii) M8	1,175,364	84,994	13,677		927	1,274,962
Kudüs	1,229,960	88,938	14,311		970	1,334,179
i) C						
ii) M5	217,346	19,539	1,610		20,365	258,860
iii) M8	231,604	20,821	1,716		21,701	275,842
Manastr	242,363	31,787	1,795		22,708	298,653
i) C						
ii) M5	252,962	272,205	22	177,750	8,527	711,466
iii) M8	280,560	301,903	24	197,143	9,457	789,087
Mamüratülaziz	293,587	315,921	25	206,297	9,896	825,726
i) C						
ii) M5	380,092	958	83,394		2,135	466,579
iii) M8	480,284	1,211	105,377		2,698	589,570
Musul	502,596	1,267	110,266		2,823	616,952
i) C						
ii) M5	186,818	13			11,383	198,288
iii) M8	428,056	29			26,083	454,337
Van	447,915	31			27,292	475,415
i) C						
ii) M5	76,956		55,051		0	132,007
iii) M8	92,554		66,209		0	158,763
Yanya	96,849		69,282		0	166,131
i) C						
ii) M5	221,475	287,812			7,394	516,681
iii) M8	243,778	316,795			8,138	568,711
	255,093	331,499			8,516	595,108

NOTES: a) Census population.

b) Corrected population for Mortality Level= 5.

c) Corrected population for Mortality Level= 8.

DATA SOURCES: For census population and age distribution by administrative unit: Güran (1997, pp. 23-30); for model age distribution: Coale and Demeny (1966).

**Table A II: Census and Corrected Population by Administrative Unit For 1914**

<b>Administrative Unit</b>	<b>Muslims</b>	<b>Greeks<sup>d</sup></b>	<b>Armenians<sup>e</sup></b>	<b>Other</b>	<b>Total</b>
Edirne					
i) C <sup>a</sup>	360,417	224,680	19,888	26,109	631,094
ii) M5 <sup>b</sup>	426,012	265,572	23,508	30,860	745,952
iii) M8 <sup>c</sup>	445,780	277,894	24,599	32,293	780,566
Erzurum					
i) C	673,297	4,864	136,618	653	815,432
ii) M5	791,393	5,717	160,581	767	958,458
iii) M8	828,114	5,982	168,032	803	1,002,931
İstanbul					
i) C	560,434	205,762	84,093	59,689	909,978
ii) M5	632,169	229,610	94,713	67,227	1,023,719
iii) M8	659,732	239,621	99,109	70,347	1,068,809
Adana					
i) C	341,903	8,974	57,686	2,460	411,023
ii) M5	444,431	11,586	74,478	3,176	533,671
iii) M8	461,913	12,124	77,934	3,323	555,294
Ankara					
i) C	877,285	20,240	53,957	2,335	953,817
ii) M5	1,033,968	23,855	63,594	2,752	1,124,169
iii) M8	1,081,944	24,961	66,544	2,879	1,176,328
Aydm					
i) C	1,249,067	299,097	20,766	39,812	1,608,742
ii) M5	1,493,009	357,511	24,822	47,586	1,922,928
iii) M8	1,562,285	374,099	25,973	49,795	2,012,152
Bitlis					
i) C	309,999		119,132	8,348	437,479
ii) M5	408,672		196,427	11,005	616,104
iii) M8	427,634		205,540	11,516	644,690
Beyrut					
i) C	648,314	111,454	5,288	59,817	824,873
ii) M5	763,130	131,193	6,224	70,411	970,958
iii) M8	798,540	137,280	6,513	73,678	1,016,011
Halep					
i) C	576,320	21,954	49,486	20,030	667,790
ii) M5	675,620	25,737	58,012	23,481	782,850
iii) M8	706,969	26,931	60,704	24,571	819,175
Hüdavendigâr <sup>f</sup>					
i) C	474,114	74,927	61,191	5,995	616,227
ii) M5	519,107	82,038	66,998	6,564	674,707
iii) M8	543,194	85,845	70,107	6,868	706,014
Diyarbakır					
i) C	492,101	1,935	73,226	52,563	619,825
ii) M5	592,440	2,329	88,157	63,280	746,206
iii) M8	619,929	2,438	92,247	66,217	780,831
Suriye					
i) C	791,582	88,640	2,533	35,654	918,409
ii) M5	963,276	107,866	3,082	43,387	1,117,611
iii) M8	1,007,972	112,871	3,,225	45,400	1,169,468

**Table A II: Continued**

<b>Administrative Unit</b>	<b>Muslims</b>	<b>Greeks</b>	<b>Armenians</b>	<b>Other</b>	<b>Total</b>
Çatalca					
i) C	20,048	36,797	842	2,069	59,756
ii) M5	22,516	41,327	946	2,324	67,113
iii) M8	23,560	43,244	989	2,432	70,225
Zor					
i) C	65,770	45	283	196	66,294
ii) M5	76,418	52	329	228	77,027
iii) M8	79,689	55	344	238	80,326
Kudüs-i Şerif					
i) C	266,044	27,121	3,043	31,960	328,168
ii) M5	283,496	28,900	3,243	31,961	347,600
iii) M8	296,679	30,244	3,393	33,444	363,376
Karahisar-ı Sahip					
i) C	277,659	632	7,448	81	285,820
ii) M5	304,009	692	8,154	90	312,945
iii) M8	318,115	724	8,533	92	327,464
Karesi					
i) C	359,804	97,497	8,704	6,965	472,970
ii) M5	393,949	106,749	9,530	7,626	517,854
iii) M8	412,268	111,713	9,972	7,980	541,933
Kale-i Sultaniye					
i) C	149,903	8,550	2,541	4,821	165,815
ii) M5	176,391	10,061	2,990	5,673	195,115
iii) M8	184,593	10,529	3,129	5,936	204,187
Kayseri					
i) C	184,292	26,590	52,192		263,074
ii) M5	217,667	37,406	61,644		316,717
iii) M8	227,789	32,866	64,504		325,159
Kütahya					
i) C	303,348	8,755	4,548	243	316,894
ii) M5	332,136	9,586	4,979	266	346,967
iii) M8	347,580	10,032	5,211	278	363,101
Maraş					
i) C	152,645	34	38,433	1,443	192,555
ii) M5	178,946	39	45,055	1,692	225,732
iii) M8	187,267	42	47,146	1,770	236,225
Menteşe					
i) C	188,916	19,923	12	2,023	210,874
ii) M5	225,811	23,814	14	2,418	252,057
iii) M8	236,312	24,921	15	2,531	263,779
Niğde					
i) C	227,100	58,312	5,704		291,116
ii) M5	283,080	72,686	7,110		362,876
iii) M8	296,243	76,066	7,440		379,749
Sivas					
i) C	939,735	75,324	151,674	2,710	1,169,443
ii) M5	1,112,270	89,153	179,521	3,208	1,384,152
iii) M8	1,163,879	93,290	187,851	3,356	1,448,376
Trabzon					
i) C	921,128	161,574	40,237	8	1,122,947
ii) M8	931,168	163,335	40,675	8	1,135,186

**Table A II: Continued**

Administrative Unit	Muslims	Greeks	Armenians	Other	Total
Kastamonu					
i) C					
ii) M5	737,302	20,958	8,959	8	767,227
iii) M8	857,187	24,366	10,446	9	892,008
Konya	896,961	25,496	10,899	9	933,365
i) C					
ii) M5	750,712	25,150	13,225	21	789,108
iii) M8	935,763	31,349	16,484	26	983,622
Mamuretülaziz	979,182	32,804	17,249	27	1,029,262
i) C					
ii) M5	446,379	971	87,864	3,013	538,227
iii) M8	564,045	1,227	111,025	3,807	680,104
Van	590,273	1,284	116,176	3,984	711,717
i) C					
ii) M5	179,380	1	67,792	11,968	259,141
iii) M8	215,740	1	132,792	14,394	362,927
Eskişehir	225,751	1	138,967	15,062	379,781
i) C					
ii) M5	140,578	2,613	8,807	728	152,726
iii) M8	159,809	2,970	10,012	828	173,619
Antalya	167,218	3,108	10,476	866	181,668
i) C					
ii) M5	235,762	12,385	630	909	249,686
iii) M8	293,877	15,438	785	1,133	311,233
Urfa	307,513	16,154	822	1,186	325,675
i) C					
ii) M5	149,384	2	18,370	3,232	170,988
iii) M8	175,123	2	21,535	3,789	200,449
İçil	183,249	2	22,534	3,965	209,750
i) C					
ii) M5	102,034	2,507	341	312	105,194
iii) M8	131,736	3,237	440	403	135,816
İzmit	137,848	3,387	461	421	142,117
i) C					
ii) M5	226,859	40,048	57,789	457	325,153
iii) M8	268,851	47,461	68,486	542	385,340
Bolu	281,325	49,663	71,664	567	403,219
i) C					
ii) M5	399,281	5,151	2,972	1,242	408,646
iii) M8	464,204	5,989	3,455	1,444	475,092
Canik	485,743	6,266	3,615	1,511	497,135
i) C					
ii) M8	265,950	98,739	28,576	37	393,302
	272,386	101,128	29,267	38	402,819

NOTES: a) Census Report population.

b) Corrected population for Mortality Level= 5.

c) Corrected population for Mortality Level=8.

d) Includes Orthodox and Greek Catholics

e) Includes Gregorians, Catholic Armenians and Protestants. Some protestants may not have been Armenian.

f) The great drop in Hüdavendigâr's population from 1,454,294 in 1897 to 616,227 in 1914 is due to the creation of new administrative units, Karesi and Karahisar-ı Sahip, and redefinition of boundaries.

DATA SOURCES: For population by administrative unit: Karpat (1985, pp. 170- 189); for model age distribution: Coale and Demeny (1966).



## REFERENCES

- Akbal, Fazıla (1961), **1831 Tarihinde Osmanlı İmparatorluğunda İdari Taksimat ve Nüfus**. Belleten, 15 (60), pp. 617- 628.
- Alpay, Aysel (1969), “Abridged Life Tables for Three Metropolitan Cities and selected Regions of Turkey by Sex”, in Shorter, Frederic C. and Bozkurt Güvenç (eds.). **Turkish Demography: Proceedings of a Conference..** Ankara: Hacettepe University, pp. 83- 108.
- Behar, Cem (1996), Osmanlı İmparatorluğu'nun ve Türkiye'nin Nüfusu 1500- 1927. **Tarihi İstatistikler Dizisi**, C.2. Ankara: Devlet İstatistik Enstitüsü.
- Coale, Ansley J. and Paul Demeny (1966), **Regional Model Life Tables and Stable Populations**. Princeton, NJ: Princeton University Press.
- Dadrian, Vahakn N (1997), **The History of the Armenian Genocide: Ethnic Conflict from the Balkans to Anatolia to the Caucasus**. 2<sup>nd</sup> rev. ed. Providence, RI: Berghahn Books.
- Davis, Leslie A. (1989), **The Slaughterhouse Province: An American Diplomat's Report on the Armenian Genocide**. 1915-1917. New Rochelle, NY: Aristide D. Caratzas, Publisher.
- Demeny, Paul and Frederic C. Shorter (1968), **Estimating Turkish Mortality, Fertility and Age Structure: Application of Some New Tecniques**. İstanbul: İstanbul University Press.
- Deringil, Selim (2002), “The Study of the Armenian Crisis of the Late Ottoman Empire, or ' Seizing The Document by the Throat' ”, **New Perspectives on Turkey**, 27 (Fall), pp. 35-59.
- Duben, Alan (2002), **Kent, Aile, Tarih**, trans. by Leyla Şimşek. İstanbul: İletişim.
- Engelhardt (1999), **Tanzimat ve Türkiye**. çev. Ali Reşad, 1<sup>st</sup> pub. in French in 1883. İstanbul: Kaknüs Yayınları.
- Güran, Tevfik (1997), Osmanlı Devleti'nin İlk İstatistik Yıllığı, **Tarihi İstatistikler Dizisi**, C. 5. Ankara: Devlet İstatistik Enstitüsü.
- Gürün, Kamuran (2001), **The Armenian File: The Myth of Innocence Exposed**, 1<sup>st</sup> pub. 1985. Mersin: Rustem.
- İUM: İstatistik Umum Müdürlüğü (1929), **28 Teşrinievvel 1927 Umumi Nüfus Tahriri, Fasikül I, Mufassal Neticeler İcmal Tabloları**. İstanbul: Hüsütabiya Matbaası.
- Karacakaya, Recep (2001), **Kaynakçalı Ermeni Meselesi Kronolojisi (1878-1923)**, yayın no: 52. İstanbul : Devlet Arşivleri Genel Müdürlüğü.
- Karal, Enver Ziya (1943), **Osmanlı İmparatorluğu'nda İlk Nüfus Sayımı**. Ankara: İstatistik Umum Müdürlüğü.
- Karpat, Kemal H (1985), Ottoman Population 1830- 1914: **Demographic and Social Characteristics**. Madison, WISC: The University of Wisconsin Press.

- Karpat, Kemal (1978), "Ottoman Population Records and the Census of 1881/82- 1893", **International Journal of Middle East Studies**, 18, pp. 237-274.
- Kirakossian, John S. (1992), **The Armenian Genocide: The Young Turks Before The Judgment of History**. trans. from the Russian by Shushan Altunian. Madison, CONN.: Sphinx Press, Inc.
- Kocabaşođlu, Uygur (1989), **Kendi Belgeleriyle Anadolu'daki Amerika: 19. Yüzyılda Osmanlı İmparatorluğu'ndaki Amerikan Misyoner Okulları**. İstanbul: Arba Yayınları.
- Kurmuş, Orhan (1982), **Emperyalizmin Türkiye'ye Girişı**. 3. basım. Ankara: Savaş Yayınları.
- Ladas, S.P. (1932), **The Exchange of Minorities: Bulgaria, Greece and Turkey**. NewYork: The Macmillan Co.
- McCarthy, Justin (1998a), **Müslümanlar ve Azınlıklar**. 1<sup>st</sup> publ. in English in 1983, trans. by Bilge Umar. İstanbul: İnkılâp.
- McCarthy, Justin (1998b), **Ölüm ve Sürgün**. 1<sup>st</sup>publ. in English in 1995, trans. by Bilge Umar. İstanbul: İnkılap.
- Nakracas, George (2003), **Anadolu ve Rum Göçmenlerin Kökeni; 1922 Anadolu Felaketi**.1<sup>st</sup> publ. in Greek in 2000, trans. By İbrahim Onsunoglu. İstanbul: Belge Yayınları.
- Pentzopoulos, Dimitri (2002), **The Balkan Exchange of Minorities and Its Impact on Greece**, 1<sup>st</sup> pub. 1962. London: Hurst& Company.
- Quataert, Donald (1983), **Social Disintegration and Popular Resistance in the Ottoman Empire, 1881- 1908: Reactions to European Economic Penetration**. NewYork: NewYork University Press.
- Sakarya, İhsan (1984), **Belgelerle Ermeni Sorunu**. 2'nci baskı. Ankara: T.C. Genelkurmay Askeri Tarih ve Stratejik Etüt Başkanlığı.
- Shaw, Stanford J. (2000), **From Empire to Republic: the Turkish War of National Liberation, 1918-1923, a Documentary Study**. V. vols., Ankara: Türk Tarih Kurumu.
- Shaw, Stanford J. (1978), "The Ottoman Census System and Population, 1831-1914", **International Journal of Middle East Studies**, 9, pp. 325-338.
- Shaw, Stanford J. and Ezel Kural Shaw (2000), **Osmanlı İmparatorluğu ve Modern Türkiye**. c.II, 1<sup>st</sup> pub. 1976, trans. by Mehmet Harmancı, 3<sup>rd</sup> imp. İstanbul: e yayınları.
- Shorter, Frederic C. (1969), "Information on Fertility, Mortality and Population Growth in Turkey", in Shorter, Frederic C. and Bozkurt Güvenç (Eds.). **Turkish Demography: Proceedings of a Conference**. Ankara: Hacettepe University, pp. 19- 41.
- Shorter, Frederic C. And Miroslar Macura (1983), **Türkiye'de Nüfus Artışı (1935- 1975): Doğurganlık ve Ölümlülük Eğilimleri**. 1<sup>st</sup> publ. in English in 1982. Ankara: Yurt Yayınları.

- SSYB: Sağlık ve Sosyal Yardım Bakanlığı, Hıfzısıhha Okulu (1970), **Türkiye Nüfus Araştırmasından Elde Edilen Hayati İstatistikler, 1966-67**. Ankara: Hacettepe Basımevi.
- Sonyel, Salahi R. (1988), **The Turco-Armenian 'Adana Incidents' in the Light of Secret British Documents (July 1908- December 1909)**. Ankara: Türk Tarih Kurumu.
- Sonyel, Salahi R. (1987), **The Ottoman Armenians: Victims of Great Power Diplomacy**. London: K. Rustem & Brother.
- Süslü, Azmi (1970), **Ermeniler ve 1915 Tehcir Olayı**. Yayın No. 5. Van: Yüzüncü Yıl Üniversitesi Rektörlüğü.
- U.N. Department of Economic and Social Affairs (1972), Interim Report of Conditions and Trends of Fertility in the World, 1960- 65, **Population Studies**, No. 52. New York: United Nations.
- Uras, Esat (1988), **The Armenians in History and the Armenian Question**. rev. and exp. ver., trans. by Süheyla Artemel., 1<sup>st</sup> publ. 1953. İstanbul: Documentary Publications.
- Yalçın, Kemal (1998), **Emanet Çeyiz: Mübadele İnsanları**. İstanbul: Doğan Kitap.
- Yüçetürk, Alper (1969), "Sex Ratio and Monthly Distribution of Births," in Shorter, Frederic C. and Bozkurt Güvenç (Eds.). **Turkish Demography: Proceedings of a Conference**. Ankara: Hacettepe University, p. 167- 173.

## ÖZET

### SON DÖNEM OSMANLI NÜFUSU VE ETNİK DAĞILIMI

İmparatorluğun son yıllarında Osmanlı nüfusunun büyüklüğü ve etnik ve mekânsal dağılımı daha çok politik nedenlerle tartışmalı bir konu olagelmıştır. Osmanlılar nüfus sayımlarına ve bunların güncelleştirmelerine dayalı nüfus verileri üretirken çeşitli politik davaların taraftarları, kimi zaman resmi verilerden oldukça farklı rakamlar ileri sürmüşlerdir. Bu ihtilaflı rakamlar Osmanlı demografisi araştırmacıları için bir sorun arz etmektedir.

Sorunun çözümünün düğüm noktası Osmanlı nüfus sayımlarının ve güncelleştirmelerinin doğruluk ya da güvenilirlik derecelerinin belirlenmesidir. Bu makalenin temel amacı budur. Sayım sonuçları üzerinde etkili olduklarından, makale önce Osmanlı nüfus sayım yöntem ve süreçleri üzerinde durmaktadır. Sayım sistemi kişilerin, özellikle erişkin erkeklerin, kaydolmaları için özendiriciler içeriyor ve sayımdan sorumlu komiteler, politik maksatlı veri üretimini engelleyici bir etnik yapıdan oluşuyordu. Ancak, kısmen kültürel nedenlerle, kadın ve çocuklar eksik sayılmışlardı. Sayımlardaki bu kusurlar, düzeltilebilecek niteliktedir.

Model Hayat Tabloları kullanarak, eksik sayımları düzeltmek için biri İstanbul, biri de diğer vilayetler için olmak üzere iki yöntem geliştirilmiştir. Her sayım için, etnik grup ve idari birim itibarıyla, biri de alt sınır biri de üst sınır olmak üzere iki tahmin yapılmıştır. Kadın ve çocukların eksik sayımları için düzeltmeler yapıldığında, Osmanlı nüfus sayımlarının makul ölçüde güvenilir belgeler oldukları ortaya çıkmaktadır.

## NOTES

<sup>1</sup> The quotation by Karpat is from Ubcini, *Letters on Turkey*, trans: by Lady Easthope. London, 1956; reprinted., New York: Arno Press, 1973, pp. 23-24. The census figures were used also by Eugène Boré, *Almanach de L' Empire Ottoman Pour L'année 1849/1850*. Constantinople, 1849/1850.

<sup>2</sup> Shaw gives the date as 1878 in the text. But his footnote 12, on the same page, referring to BUA, Şuray-ı Devlet 3148, gives it as 8 Şevval 1298/21 August 1881 (Shaw, 1978, p.330). Karpat gives the date as 8 Şaban 1298/5 July 1881, again referring to BUA, İrade, Şuray-ı Devlet 3148 (Karpat, 1978, p.251).

<sup>3</sup> His interest in the censuses is attested by the American Ambassador S. Cox who was asked by the Sultan for a statistical review of the recent American Census. He told the ambassador in 1886 that he was very interested in such works and pointed out that it was his hope to compile a complete and systematic statistical record of the entire population in his realm. (Karpat, 1978, pp. 242-43 and Karpat, 1985, p. 3). Karpat's sources are a letter from the Sultan's private secretary and Ambassador Cox's memoirs.

<sup>4</sup> A complete list of the imperial surnames can be found in Karpat (1985, pp. 12-13); see also McCarthy (1998a, pp. 173-74).

<sup>5</sup> Before the First World War, Armenians migrated mainly to the United States and to the neighbouring countries, to the Russian Armenia and some to Persia. Karpat estimates that between 1854 and 1908, some 500,000 Greeks, Armenians and Arabs emigrated, chiefly to Russia and the Americas (Karpat, 1985, p. 11).

<sup>6</sup> A source notes that there were 150,000 Armenian deaths during 1895/96 due to inter-ethnic struggle, in the Central and Eastern Anatolia: Garo Chichikian, "The Armenians Since The Treaty of San Stephano", *Armenian Review*. Vol. 22, No. 2 (Spring 1968) pp. 42-56; cited in McCarthy (1998a, p. 55). McCarthy finds this figure, as highly exaggerated, and his claim is supported by some figures. According to an Armenian historian, in the first Sasun rebellion in 1894, "No one has ever been able to give even an approximate number of the Armenians killed. Some say six or seven thousand, others say around one thousand. Probably the latter is nearer the truth". M. Varandian, *History of the Dashnakstution*, Paris, 1932, p. 146; cited in Uras (1988, p. 728). In the second Sasun rebellion, in 1904, according to an Armenian source, the casualties were about 1000 mainly on the Turkish side; the Armenian casualties were in the low hundreds (Kukulian, *The Battles of Antranik*, Beirut, 1929; cited in Uras 1988, pp. 778-780). Between 1 July and 3 December, 1895, there were 26 inter-ethnic incidents in which, according to the Ottoman sources, there were 1828 Muslim and 8717 non-Muslim (Armenian) deaths; The wounded were 1433 and 2238 respectively (Gürün, 2001, pp. 147-149).

Outside of the six vilayets the bloodiest incident took place in Adana in April 1909. The Armenians, without giving supporting documents, claim that in the April 1909 uprising in Adana 25,000 Armenians were killed (Dadrian, 1997, p. 182). According to the report prepared by Babikian Efendi, the Edirne representative in the Ottoman Assembly, there were 20,001 deaths. Cemal Pasha who was appointed governor of the province after the incidents, gave the numbers as 17000 Armenian, and 1850 Muslim deaths. The Armenian Patriarchate put the total number of deaths as 21,300, based on the investigation it carried out. According to Babikian Efendi, Ottoman government put the number of deaths as 1487 Muslims and 4196 non-Muslims, based on population registers (McCarthy, 1998b, p. 133, note 58; Gürün, 2001, pp. 169-170; Sonyel, 1988; pp. 41-42). The whole Armenian population in Cilicia in 1897 was 37 thousand. Assuming population growth of 1.5 percent per year, the Armenian population in Cilicia should have reached 45 thousand in 1909; taking account of undercounting of women and children and assuming GRR= 3 and mortality level 8, to 61 thousand. There were 58 thousand Armenians in Cilicia in 1914. Adding to this figure the claimed 25 thousand dead, the Armenian population would have added up to 83 thousand, almost double the number the Armenian community would have reached by natural growth. There is evidence that there was heavy immigration of Armenians into Cilicia, especially from the eastern vilayets. Adana's Armenian population, according to a Turkish source, doubled between 1903-1908. This, taking into account the deaths during 1909, further corroborates the census figures (see Sakarya, 1984, p. 129). The immigration into Cilicia was an organized effort by the Armenians to ensure a strong presence in the region. This was freely admitted by Bishop Mushegh, in his book *The Adana Massacres and Their Instigators*. Cairo: 1909 (in Armenian), cited by Uras (1988, p. 811).

<sup>7</sup> Nakracas (2003, p. 86) makes this point about the Greeks, and Süslü (1990, p. 20) on the Armenians.

<sup>8</sup> For example, despite all the efforts to improve the count the American Census Bureau estimated that in the 1980 Census, as much as 18 percent of some age groups in some densely populated areas would escape the count (Karpat, 1985, p. 9).

<sup>9</sup> McCarthy (1998a, p. 162). He is using Life Tables prepared by Alpay for three metropolitan cities and some selected regions in the 1960s (Alpay, 1969).

<sup>10</sup> The undercounting of Muslim women in these vilayets is not a surprise in view of the orthodox Muslim view still held in those areas that women are *namahrem* and should not be exposed to adult males other than close kin. The contrast between Aydın and the eastern vilayets is possibly due to the less orthodox beliefs held in the west. Also, the

distributions for Muslims and Armenians in the eastern vilayets may attest to the possibility if not the fact that despite religious differences, the two communities held similar mores respecting women.

<sup>11</sup> This relative decline was noted by McCarthy (1998a, p. 80). See note 6; also see Sonyel (1987, pp. 148, 253-256).

<sup>12</sup> This report is “*Sicil-i Nüfus İdare-i Umumiyesi*” of 17 Ramazan 1312/14 March 1895 (Karpas, 1985, p. 156-57, 160).

<sup>13</sup> The figures are from Karpas (1985, pp. 156-161). The population figures given by Karpas for 1897 are really the figures of the 1895/96 Census, which are in agreement with the ones used by McCarthy (1998a) as belonging to 1313/1895-96 census.

<sup>14</sup> In a similar case, Karpas (1985, p. 254, note b notes that the population of İstanbul given for 1885 and for 1893 are identical.

<sup>15</sup> A Model Life Table is an expression of typical mortality experience derived from a group of observed Life Tables. A life table is a listing of survivors at different ages, up to the highest age attained in a hypothetical cohort subject from birth to a particular set of age-specific mortality rate. The rates are those observed in a given population during a particular period of time. The Model Life Table chosen for the study is that of the East which is based on the mortality experience of Austria, Germany, Czechoslovakia, North and Central Italy, Hungary and Poland. The periods considered vary from 1881 to 1890 for Germany, 1931-32 for Poland and 1949-1951 for Czechoslovakia. See Coale and Demeny (1966, pp. 12-14). While the child mortality in Turkey even in the 1960s was considerably higher than that represented by the East Model Life Table and it must have been much higher for the period under consideration (Demeny and Shorter, 1968), nevertheless it is found that the Turkish mortality experience fits the East Table best (Shorter and Macura, 1983, pp. 70-71; also see McCarthy, 1998a, p. 203-204).

<sup>16</sup> A mortality level in a Model Life Table gives the age pattern of mortality by Gross Reproduction Rates with a specific expectation of life at birth. A low mortality level is associated with a low expectation of life at birth and a higher mortality level with a higher expectation of life.

<sup>17</sup> Gross Reproduction Rate is the average number of female children a woman would have if she survived to the end of her child bearing years and if, throughout, she were subject to a given set of age-specific fertility rates and a given sex ratio at birth. In the Model Life Tables, the mean of underlying maternity schedule is taken as 29 years, that is a woman is assumed to remain fertile for 29 years.

<sup>18</sup> Except for Biga, McCarthy uses the same GRR (=3) in his study (McCarthy, 1998a, p. 231).

<sup>19</sup> Apart from the census reports, McCarthy, using censuses and *salmanes*, gives tables for some vilayets from which development of population over time can easily be followed (McCarthy, 1998a, see also Karpas, 1985, p. 190).

<sup>20</sup> The underlying assumption in the formula is that males above 15 years of age were correctly recorded and male/female ratio is 1.

<sup>21</sup> These overestimates may result from possibly less massing of children at age 15 in the 1905/06 census. Massing at round numbers such as 15 or 20 still continues in Turkish censuses.

<sup>22</sup> The underlying assumption in the formula, though could not possibly be wholly true, is that the adult females, those 15 years of age and above, were correctly counted.

<sup>23</sup> McCarthy (1998a, pp. 83-84) calculates another figure for the Armenians, assuming that each Armenian household had the same number of persons as the Muslim households-6.69 persons per household. This second figure come up to be 91 thousand which he takes as the minimum number of Armenians to which the correction coefficient is to be applied.

<sup>24</sup> McCarthy uses a different method and utilizing Cuinet’s estimates arrives at a population of 144,991 Armenians for 1911/12 (McCarthy, 1998a pp. 79-80). The date should have been 1914. The error is due to interpretation of the date in the Ottoman document as Hicrî rather than Rumî. Both McCarthy’s and our estimate are possibly on the high end, in as much as there was out-migration of Armenians to other countries and to Cilicia during the period.

<sup>25</sup> In the Eastern Vilayets, there were intensive proselytization efforts to convert Christians to Protestantism. These efforts were concentrated on Armenians, and all Protestants may have been Armenians, In the other vilayets some Protestants may not have been Armenians and hence for vilayets other than those in the East, Armenians may have been slightly overestimated. For the proselytization efforts by Protestant missionaries see Kocabaşoğlu (1989) and Engelhardt (1999, pp. 65-67, 297-301).

<sup>26</sup> Some sources put the Greek population in Ionia alone as 2 million in 1914. There are other inflated figures. For examples, see Pentzopoulos (2002, p. 30-31), who mentions them so that his use of the Patriarchate’s Statistics looks conservative and cautious in comparison with the other figures.

<sup>27</sup> Polybius, *Greece Before the Conference*, London: Methuen and Co. Ltd., 1919

<sup>28</sup> George Soteriadis, *An Ethnological Map Illustrating Hellenism in the Balkan Peninsula and Asia Minor*. London: Edward Stanford Ltd., 1918.

<sup>29</sup> Léon Maccas, *L’Hellénisme de L’Asie Mineure*. Paris, 1919.

<sup>30</sup> Apparently whoever prepared the so called Patriarchate Statistics took Vital Cuinet’s well-known work (*La Turquie d’Asie*, 4 volumes. Paris: 1890-94) as the starting point and added to or subtracted from each ethnic group as he deemed fit, and labelled it as the Greek Patriarchate Statistics, To buttress the alleged Patriarchate figures then Ottoman Official Statistics was concocted (McCarthy, 1998a, pp. 96-97).

---

<sup>31</sup> Venizelos used the alleged Patriarchate Statistics in the Peace Conference following the First World War to buttress his arguments on the number of Greek population in the Ottoman Empire. F.O. Documents on British Foreign Policy, 1919- 1939, series 1, vol. VIII, pp. 64-65, cited in McCarthy (1998a, p. 96), also see Shaw (2000, pp. 395-96).

The head of the Ottoman Delegation to the Sevres, on June 17, 1919, in his presentation to the Supreme Council made no direct reference to the population issue. However, in a memorandum to the Supreme Council on June 23<sup>rd</sup>, in connection with the border issue in Thrace, it was declared that the north and west of the vilayet of Edirne, including western Thrace, was predominantly Turkish (Shaw, 2000, pp. 416, 419). The population issue was brought out in the London Conference, by the Turkish nationalist delegation to prove that Western Anatolia under Greek occupation was overwhelmingly Turkish. On February 24, 1921, the delegation cited the figures collected in 1896 by a recognized French authority, M. Puymet, for purposes connected with the collection of Ottoman Public Debt and published as an official publication, a Yellow Book, by the French. Puymet's figures for Aydın was 1,296,595 Muslims (Turkish) and 230,711 Greeks (Shaw 2000, pp. 1233-1234).

<sup>32</sup> The mortality rate among the refugees was 45 percent during the last months of 1923 (Pentzopoulos, 2002, p. 98). The high degree of mortality among the refugees is attested by the surviving refugees in interviews conducted by a Turk from Honaz (Denizli) who in the early 1990s traversed refugee settlements throughout Greece in search of the family of the Greek neighbour of his father; see Yalçın (1998, passim).

<sup>33</sup> Charles B. Eddy, *Greece and the Greek Refugees*. London: George Allen and Unwin Ltd., 1931., pp. 52, 248; cited in Pentzopoulos (2002, p. 98).

<sup>34</sup> During the two wars, the Anatolian and Thracian Greeks died not only during the clashes, but also during the deportations. It is claimed that 418 thousand Greeks were deported during the First World War and that deportations continued during 1919 and 1920 (Pentzopoulos, 2002, p. 57). Ladas gives the number of deportees to the interior of Anatolia as 50 thousand (Ladas, 1932, p. 21). These figures need to be checked in the Ottoman archives, but there is no doubt that there were deportations and some deportees perished. There is a moving account of a deportee in Dido Sotriyu's novel, *Benden Selam Söyle Anadolu'ya*.