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The demographic characteristics of national minorities in certain European States
The demographic characteristics of the main ethnic/national minorities in Bulgaria

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I. HISTORICAL AND STATISTICAL OVERVIEW

Bulgaria is a small European state of 110.7 thousand square km., located in the northeastern part of the Balkan Peninsula, with a population of 8,283,000 in 1997. Its territory covers lands situated to the west of the Black Sea and to the south of the lower reaches of the River Danube. It has common frontiers with Romania to the north, with Turkey and Greece to the south, and with "the former Yugoslav Republic of Macedonia" and former Yugoslavia to the west. Lying at the crossroads of two continents and two religions, the country's historical development is replete with decisive events, which have left a lasting impact on its ethnic history and contemporary ethnic structure.

1. Historical Background

Bulgaria has existed as a state for more than 1300 years. Its birth can be traced to 681 when Byzantium signed a peace treaty with Khan Asparouh, leader of the proto-Bulgarian hordes. Under pressure from the Khazars he led his tribes towards the estuary of the Danube, repeatedly assailed the northern boundaries of the Empire and succeeded in settling the lands around the Danube, today's Dobrudja, the northern Black Sea coast, and the Deliorman to the south. The first raids of the Ottomans happened in the 13th Century and ended with their permanent settlement as conquerors during the 14th Century. Bulgaria became a vassal state of the Ottoman Empire between 1371 and 1382 and after a series of decisive battles was included in the Ottoman Empire in 1396. During the next five centuries, Bulgaria came under Ottoman domination. Its liberation was proclaimed under the terms of the San Stefano Peace Treaty on 3.3.1878, now a national holiday. Four months later, at the Treaty of Berlin, an autonomous Bulgarian Principality was established under the suzerainty of the Sultan in the region between the Danube and the Balkan mountains. The Ottoman autonomous province of Eastern Rumelia was set up between the Balkan and the Rhodope mountains under a Christian Bulgarian governor. In 1885, Eastern Rumelia was united with the Bulgarian Principality, and the independent Kingdom of Bulgaria was subsequently proclaimed in 1908. By the same Treaty of Berlin, Southern Thrace and Macedonia remained Ottoman provinces until the Balkan wars of 1912-1913.

These wars together with the hostilities of 1914-1918, and subsequent peace treaties repeatedly redrew the country's boundaries, but Northern Dobrudja, Western Thrace, parts of Macedonia, and the western fringes remained outside Bulgaria. The resulting territorial shifts caused substantial changes to the ethnic map with a total of over 600,000 Bulgarian refugees being resettled in Bulgaria, while part of the ethnic minority population left the country. The country has not been subject to any boundary changes since 1940.

2. Historical Formation of the Major Ethnic/Minority Groups

The rich ethnic history of the Bulgarian population is poorly documented. Numerous hypotheses had been advanced concerning the origin, language, habits, organisation, and other characteristics of the diverse tribes, hordes, people, and other groups that form today's Bulgarian population. In this brief overview we mention only the most widely accepted views. Throughout this report the focus is on the three major ethnic/minority groups that are significant from the demographic view point, namely the Bulgarians, Turks, and Roma/Gypsies.

Bulgarians

Upon their arrival in the region, the proto-Bulgarians found seven Slavic tribes, intermingled with the autochthonous Thracian population and it is these groups that constitute the historical Bulgarian people and state. It is assumed that the more numerous Slavs gradually assimilated the smaller number of proto-Bulgarians and that this population later expanded southwards to reach the Aegean Sea. They have always been more cohesive and larger in number than the other ethnic groups that settled on the territory of present Bulgaria.

Reflecting its history, the Bulgarian ethnic group is diverse with respect to ethnographic and cultural characteristics. It is especially important to distinguish Bulgarian Muslims from the Turkish minority and although they are not to be regarded as separate from the Bulgarians, their main demographic characteristics are listed separately in Appendix 1.

The Turkish Minority

The rulers of the Ottoman Empire were aware that the open road to Europe could be preserved only if a Muslim population guarded it. Thus after the advance of their armies into the Balkan Peninsula, an Ottoman population arrived from Asia Minor to settle in these territories. The lands of Bulgaria were on the direct route leading to Europe and hence were the first to be occupied. Waves of impoverished Turkish people settled where the lands were fertile, while Bulgarian families left their strategic settlements and resettled in more remote places. The further increase of the Muslim population was assured by the conversion of local people to Islam.Some Bulgarians converted voluntarily to Islam. They adopted the language and culture of the Ottomans, were gradually assimilated and today their descendants are a part of the Turkish minority. Families formed on the basis of mixed marriages were yet another source of growth in the Turkish population.

Roma/Gypsies

The Roma/Gypsies are the second largest minority in Bulgaria. They have always had a separate cultural entity, but have never had a compact territory. According to many historians the Roma/Gypsies of the Balkan Peninsula are predominantly of Indian origin and settled there during the 14th Century (Tupkova, 1966). At the beginning of this century they numbered about 100,000 persons, or about 2.4 per cent of the Bulgarian population. Roma/Gypsies have a diverse culture; in the past they led a nomadic life, wore Turkish dress, were periodically occupied as craftsmen, spoke their own language, and followed many Christian (Eastern Orthodox) habits and traditions. Some regard themselves as Turkish, but they neither speak the Turkish language nor follow Turkish habits, and few are Muslim. During the first population censuses taken between 1881 and 1900, a substantial part of the Roma/Gypsy population declared themselves to be Bulgarian.

Other Minorities

To the extent that Bulgarian lands lie at the crossroads of the Balkans, they have become home to many exiles and settlers of other ethnic origins. This latter group made up between 1 and 2% of the population at the time of the 1992 census (Table 1).

Armenians comprise a relatively large component of this group. Armenian communities were found in Byzantium as early as in the time of the founding of the Bulgarian state during the 7th Century. Byzantine emperors placed Armenian colonies along the frontier as a means of defence against the raids of the Avars and Huns, as well as the Bulgarian tribes. During the 9th and 10th centuries, thousands of Armenian colonists were resettled in Thrace from Germany and Armenian communities could be found from Sofia to Bitolia and Ohrid, and in the valleys of the Balkan Mountains. During the dominance of the Ottoman Empire, Armenian colonies flourished in Varna, Sofia, Veliko Turnovo, Ruse, Razgrad, Shumen, and Plovdiv. Following the pogroms against the Armenians of Russia and Constantinople in 1895 and 1896, many sought and found asylum in Bulgaria. Nowadays they make up around 0.2% of the population and are mainly urban dwellers.

Greeks are an even older population and have been settled in the present day territory of Bulgaria since classical and Hellenistic times. They are divided in two groups: those who have been settled along the coast since the time of the Byzantine Empire, and the Thracian Greeks, who are dispersed throughout the interior of the state. At the time of the Liberation in 1878 they numbered some 62,000 persons but by the 1930s the population had dropped to 10,500. In the process, their number declined from 1.9 to 0.19 per cent of the total (Chankov, 1935). In the 1992 census, about 5000 Greeks were enumerated.

Jews have been present in Bulgaria since the early middle ages and more migrated into the country from Spain in the 16th Century. Currently, they are divided into Jews of Spanish, German, and Russian origin and most reside in the urban settlements of the western part of the state. Although they maintain separate communities and adhere to their own religion, economically speaking they are well integrated into Bulgarian society. The whole minority survived the Nazis genocide during the Second World War. Aside from the departures to Israel, this small group maintains a stable share of the population and a firm presence in the country's social, economic and cultural life.

The ***Gagauzes*** are a less well known minority with specific cultural characteristics. They are small in number, are mainly rural and inhabit the lands from the estuary of the River Danube to Cape Emine, and are found as far as the towns of Silistra and Provadia towards the west. In 1905 they numbered 10,175 persons, but by 1926 they were only 4,362, and were down to 1,478 persons in the 1992 census (table 1). By religion, they are Eastern Orthodox, but their mother tongue is Turkish. Most would regard themselves as Bulgarian, but some resemble the Greek minority in their customs and habits. The latter are termed the "coastal" Gagauzes, as distinct from the "real" Gagauzes, who are considered to be the ancestors of the proto-Bulgarians. For many decades the ethnic origin of this minority has been referred to as the "Gagauz problem" by specialists in the field of Bulgarian historiography.

The ***Karakachans*** are another less known minority. The 1992 census enumerated 5,144 of them (table 1), but a private survey by their cultural organisation in 1991 claimed a figure of about 18,000 persons (Pimpireva, 1995). They speak "their own language" which although containing Bulgarian elements is much closer to Greek. Their religion is mainly Greek Eastern Orthodox. Today, the larger part of the Karakachans is to be found in Greece. They were a nomadic group until only about 30 years ago but are now entirely sedentary. They are dispersed among a number settlements, predominantly in the area between the Balkan and the Sredna Gora Mountains, as well as in northwestern Bulgaria.

In addition, there are other minorities that are too small to have any real impact on the demographic profile of the Bulgarian population like the Russians, Germans and French. Table 1 lists the enumerated size of those groups that comprised more than 1000 individuals at the time of the 1992 census. It is interesting to note that females considerably outnumbered males in the Russian and Ukrainian minorities, due to mixed marriages involving Bulgarian workers in the former Soviet Union.

3. Sources of Information and the Reliability of Statistical Data on Ethnic/Minority Groups

Historical studies by Bulgarian scholars have demonstrated that there is insufficient information to allow a quantitative assessment of the Muslim impact on the population occupying the present territory of Bulgaria between the 15th and 17th centuries. Registers, including those relating to agrarian matters, that list the population liable for taxation or for military service have been analysed and even though some taxes and types of military service were religion-specific, they are not sufficiently precise to distinguish Bulgarians from Turks. Notable research in this field has been carried out by Todorov (1960), Mutafchiev and Mutafchieva (1995), and Grozdanova and Andreev (1986).

The 18th and especially the 19th centuries are somewhat better in terms of the availability of information about the respective sizes of the Bulgarian and Turkish populations. Todorova (1993) studied in detail family formation patterns and family size, and was able to infer that there were demographic differences between the two populations. The population censuses of the Ottoman Empire conducted during the 19th century are an important source of information about this topic and are discussed more fully below.

The history of Bulgarian state statistics after the liberation in 1878 began with the collection of population data through censuses, the vital registration of demographic events, and demographic surveys. The Treaty of Berlin in 1878 divided Bulgaria into two parts: The Principality of Bulgaria (Northern Bulgaria) and the autonomous territory of Eastern Rumelia (Southern Bulgaria). The first population census was conducted independently in each of these two territories, in May 1880 and January 1881 respectively, and covered sex, age, marital status, place of birth, place of residence, religion, mother tongue and citizenship. The census taken in Eastern Rumelia was subsequently discredited and a second one held in 1884. After the union of the two territories into the Principality of Bulgaria in 1885, a general population census was carried at the beginning of January 1888 and the results were published in 1890. Recalculations were also made of the ethnic breakdown of the population of the two territories at the beginning of 1881 and 1888 (Sarafov 1884, Irechek 1899). A total of 16 census enumerations have so far been conducted in Bulgaria and the data with respect to ethnic group, religion, and spoken and mother tongue are diverse.

The civil registration of marriages, births, and deaths has been in force since 1881 and events are recorded by religion, citizenship and nationality. Divorces were first registered in 1895 and international migrations in 1893. In recent times the Government statistical service has organised additional sample-based surveys on fertility in 1975 and internal migration in 1966 and 1975 and all three have included nationality.

The first statistical yearbook to include demographic data was published in 1909 and has appeared regularly since then with the exception of certain wartime years, although the missing data were included in later issues. Until 1944, the yearbook was published in two languages - Bulgarian and French. Demographic data prior to 1909 are to be found in special publications and in the research findings of individual authors. The population census and a civil registration programmes are based on European experience and follow the recommendations of the relevant international organisations, guided by experienced experts. Demographic information is accurately processed and is used professionally for analytical research applying the most appropriate quantitative techniques.

Table 1: Population by Ethnic Group, 1992

ETHNIC GROUP	TOTAL			URBAN			RURAL		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
TOTAL	8,487,317	4,170,622	4,316,695	5,704,552	2,792,331	2,912,221	2,782,765	1,378,291	1,404,474
Bulgarian	7,271,185	3,562,964	3,708,221	5,209,060	2,547,996	2,661,064	2,062,125	1,014,968	1,047,157
Turkish	800,052	402,521	397,531	253,119	126,805	126,314	546,933	275,716	271,217
Roma/Gypsy	313,396	157,241	156,155	163,896	81,606	82,290	149,500	75,635	73,865
Russian	17,139	3,543	13,596	14,284	2,830	11,454	2,855	713	2,142
Armenian	13,677	6,686	6,991	13,417	6,551	6,866	260	135	125
Arab	5,438	3,584	1,854	4,677	3,183	1,494	761	401	360
Walachian	5,159	2,640	2,519	2,043	1,036	1,007	3,116	1,604	1,512
Karakachan	5,144	2,659	2,485	3,707	1,917	1,790	1,437	742	695
Greek	4,930	2,743	2,187	4,711	2,637	2,074	219	106	113
Tatar	4,515	2,296	2,219	2,045	1,015	1,030	2,470	1,281	1,189
Jewish	3,461	1,679	1,782	3,296	1,604	1,692	165	75	90
Albanian	3,197	1,317	1,880	2,488	1,018	1,470	709	299	410
Romanian	2,491	1,183	1,308	837	367	470	1,654	816	838
Vietnamese	1,969	1,124	845	1,479	891	588	490	233	257
Ukranian	1,864	363	1,501	1,648	322	1,326	175	0	175
English	1,578	811	767	1,065	559	506	513	252	261
Gagauze	1,478	648	830	1,037	447	590	441	201	240
Polish	1,218	367	851	1,128	341	787	90	26	64
Not known	8,481	4,356	4,125	8,425	4,323	4,102	56	33	23

Source: Population Census 1992, Vol. 1, p.194, Table 24. National Statistical Institute.
(Groups less than 1,000 persons are excluded)

A Law on population censuses, adopted by the Ordinary National Assembly on November 10, 1897, and the development of the civil registration system, considerably improved the organisation and reliability of census data and facilitated the study of ethnic composition. Thus, since 1912 the registration of marriages, births, and deaths has included a person's religion and nationality. The same applies to external migration data based on the population census since 1927 and to that derived from vital registration since 1932. The development of census information on ethnicity reflects economic, military, and political circumstances, and these have left their impact on the quality and scope of the data collected. Up to 1890, the enumeration schedule included religion and mother tongue, which were used to assess the ethnic affiliation of 26 different groups - Bulgarians, Turks, Jews, Russians, Slovenians, etc. This was considered a necessary compromise during the initial stages of the organisation of the system of national statistics (Sarafov, 1881).

The enumeration schedule used in censuses since 1900 has included questions on *narodnost*[1], in addition to citizenship. In the 1926 census, for example, it was formulated as follows: "What are you by *narodnost*, by origin, by race (Bulgarian, Turk, Greek, etc.), and what is your spoken, or mother tongue" (Arkadiev, 1992). The census of 1900 identified 62 ethnic groups and is the largest number ever recorded. The 1946 census recognised 39, and the 1956 enumeration 17. The last mentioned included *narodnost* as well as nationality, while the question on language was dropped. Experiments were made with the self-declaration of ethnic affiliation as opposed to enumerator observation but the method of interview increased the possibility of systematic error and thereby reduced the reliability of the data. Accordingly, the practice was introduced of defining *narodnost* affiliation in terms of the entry in individuals' passports. The same was adopted for the 1965 census, which again included both *narodnost* and nationality. The question on language spoken was reintroduced and 56 possible *narodnosts* were listed. Table 2a below gives the census results starting with 1900 and till 1992. The 1975 census included 36 *narodnosts* along with the question on language, but the results were not published. The few data that have subsequently appeared are unreliable because at the time the registration of certain minorities, notably Turks and Roma/Gypsies was suppressed. The 1985 enumeration was carried out under the conditions of the so-called "renaissance process" - a specific assimilation policy aimed at changing the names of the Turkish population. Nor did this census recognise a Turkish ethnic affiliation. However, with the new political conditions since 1989, the census of 1992 was able to utilise better ethnic-specific information, although it is not without its limitations with respect to self-declaration and methods of interviewing. It included inquires into ethnic affiliation, mother tongue and religion.

[1] The Bulgarian terms "narodnost" and "natsionalnost" are both translated into English as "nationality". "Narodnost" means approximately "belonging to people", or simply "ethnicity', but the latter is translated in Bulgarian as "etnichnost". The Bulgarian "narodnost" will be used where appropriate in order to avoid confusion.

The questionable reliability of census data is partially compensated for by the improvements that were made to civil registration during the 1960s and 1970s. The scope of vital statistics was enlarged to include nationality at the registration of marriages, causes of death, and internal and external migration. An effort, as yet unfinished, is being made to create an "Integrated system of social and demographic statistics" from the various sources of information. Inaccuracies and inconsistencies can arise in identifying ethnic affiliation as a result of the way the question is approached and the response of enumerated persons, but it is accepted that in earlier censuses this factor did not substantially distort the data. "*Although it can be assumed that during the censuses carried out in 1905, 1910, 1920, and 1926 inaccurate information could be given with respect to narodnosts by some persons, such as Gypsies, Gagauzes, Tatars... this inaccurate information is small and is not an obstacle to a clear vision of the ethnic groups in our country and for their numerical ratios*" (Chankov, 1935, p. 52). During more recent times, part of the Roma/Gypsy population have for various reasons identified themselves as Bulgarians or Turks, especially in the 1965 and 1975 censuses. Hence, the proportion enumerated in1992 was double the figure suggested in these earlier counts.

Finally, it should be mentioned that any comparison of data from different time periods should take account of the changes to Bulgaria's borders up to 1940. Territorial revisions occurred in the aftermath of the Balkan Wars and also after the First World War, when southwestern Thrace was ceded to Greece, Dobrudja to Romania, and the western fringes of the country to Yugoslavia. Southern Dobrudja was returned in 1940.

4. Concepts and Definitions of Nationality and Ethnic/Minority Group

Official Bulgarian statistics have used the term *narodnost* which translates into French as "ethnic nationality", or "ethnographic group" (the Statistical Yearbooks for Bulgaria were published in French up to 1945). The expressions *nationality* and *narodnost* were both used during the 1950s and 1960s under the influence of Soviet practice, but in 1992 the term "ethnic group" was adopted instead, with an analogous or even identical meaning. According to the definition adopted for the last census, an ethnic group is defined as a community of persons with a common origin and language, and close affinity by type and culture. It is accepted that an individual's perception of belonging is the single most important factor when defining ethnic group for statistical purposes. Additional indicators are language and religion as well as shared life style, traditions, customs and history.

The terms *narodnost* and ethnic group were introduced with the first censuses carried out at the end of the 19th century. The notion of "minority" was introduced into international law in connection to the treaties of Versailles, Trianon, and Neuilly at the end of the First World War (Totev, 1989) and differs from "ethnic group". The former was introduced because these treaties drew strategic boundaries between states thereby segmenting compact, homogeneous populations and it was for these areas that the status of minority was introduced. Thus Bosilegrad and Tzaribrod were transferred from Bulgaria to Yugoslavia with the status of minority areas in which the local administration and cultural institutions were preserved. An ethnic group, by contrast, is a population of different origin in a given state, which may, or may not be compact and homogeneous. The international framework convention on national minorities was signed by the Bulgarian President in 1997, and ratified by the National Assembly on February 18, 1999. This introduces the term "minority group" which is now often used interchangeably with "ethnic group".[2]

5 International Conventions for Population Exchange

The first treaty for the exchange of population between Bulgaria and the Ottoman Empire was signed in 1913 and is known as the Adrianopol Convention. This set up a mixed Commission which identified 9,714 Ottoman families in Bulgaria, comprising a total of 48,570 persons, for resettlement in the Ottoman Empire and 9,472 Bulgarian families in the Ottoman Empire, made up of 46,764 persons, for resettlement in Bulgaria. The Neuilly Treaty of November 1919 was the basis for a Convention signed between Bulgaria and Turkey on October 18, 1925 which allowed for the emigration of approximately 700,000 Turks from Bulgaria, and the return of Bulgarians from Minor Asia and Odrin Thrace to Bulgaria in the period up to 1939-40. In August 1950, an official Bulgarian note was delivered to the Turkish Government, which requested that Turkey accept 250,000 Turks from Bulgaria within three months, according to the terms of the 1925 Convention.

[2] In this report the term "minority" is used where Turks and Roma/Gypsies are considered. The Bulgarians are referred to as an "ethnic group". This term was used in the 1992-population census and is extensively used here. The term "minority" often replaces "minority group" for short. We also refer to the Turkish and Roma/Gypsy minorities as ethnic groups, where the text requires.

In November 1919, a Greek-Bulgarian Convention on Voluntary Emigration was signed at Neuilly which was implemented during the 1920s by a mixed international commission under the auspices of the League of Nations. Those involved were self-declared Bulgarians in Greece and self-declared Greeks in Bulgaria and compensation was offered for property left behind in the country of origin. In 1927, a Bulgarian-Greek Protocol was signed by Mollov and Kafandaris to regulate the financial arrangements surrounding the 1919 Convention. In all, some 100 to 120,000 persons on both sides of the frontier were involved in this movement. In 1940 the so-called Craiova Agreement was signed between Bulgaria and Romania, for the departure of Bulgarians from Northern Dobrudja and of Romanians from South Dobrudja. Agreements have also existed between Bulgaria and Turkey since the Second World War for the departure of Turks from Bulgaria (Totev 1989).

II. THE DEMOGRAPHIC SITUATION OF ETHNIC/MINORITY GROUPS

Demographic research on ethnic/minority groups in Bulgaria is scanty, largely because of a lack of adequate data and the restrains imposed on scientific research by the totalitarian regime before 1989. Arkadiev (1992) examined the trends in ethnic composition revealed in successive censuses, while Donkov (1994), Sougareva (1995), and Geshev (1995) have published concise descriptions of the ethnic-specific data contained in the 1992 enumeration. In addition, Chalukova (1996) has examined adolescent fertility by ethnic group based on data from a small sample survey, while questions on ethnic affiliation have been included in recent demographic and social surveys. These include "Women and Men in the period of transition" carried out in 1995 (Naidenova et al., 1996), and the "Fertility and Family Survey" conducted in December 1997.

In the second part of this report, we use the available official statistical information to discuss the demographic situation of the ethnic/minority groups. Most of the analysis is based on 1992, when the questions on ethnic affiliation were free from the distortions typical of the totalitarian regime. The study focuses on the Bulgarians themselves and on the two largest minority groups - the Turks and Roma/Gypsies.

1. Population Size and Growth

According to Mihov (1920), the population census carried out in the Ottoman Empire in 1830 enumerated 3 million Bulgarians, and the census of 1844 4.5 millions. The Bulgarian national revival writer Gavril Krustevich noted in his book "Bulgarian History", printed in Istanbul in 1862 that Bulgarians numbered 4.5 million around 1840 but the census of 1866 reported only 2,920,000 and that conducted in the Danubian province in 1874-75 1,185,000 (Mihov, 1920). The censuses carried out in the period between the Liberation in 1878 and 1900 did not distinguish between ethnic group, nationality, and mother tongue. In the official census results, the number of persons speaking Bulgarian are shown as "Bulgarians", and analogously with the Turks, Roma/Gypsies (referred to in some censuses as Bohemians) and other minorities.

The first census taken in the Principality of Bulgaria in 1881 reported a total of 2,008,000 inhabitants, while that in Eastern Rumelia in 1880 enumerated a population of nearly 943,000. From these data, Popov (1916) estimated that the ethnic composition of the population in the two parts of Bulgaria immediately after the Liberation in 1881 was made up of 1,345,507 Bulgarians, 527,284 Turks and 37,600 Roma/Gypsies. The first count by nationality was performed in the census taken in Eastern Rumelia in 1885, i.e., just before the unification with the Principality of Bulgaria. This showed that of the 975,030 persons enumerated, 681,734 were Bulgarians, 200,489 Turks, 27,190 Roma/Gypsies, 53,028 Greeks, 6,982 Jews, 1,865 Armenians, and numerous other smaller groups of less than 1,000 (Central Statistical Office, 1887). This was the only census to gather data specific to nationality before 1900. The first census in the unified Principality of Bulgaria were held on 1.1.1888, and gives the following information about mother tongue: 2,326,250 Bulgarians, 607,331 Turks, 50,291 Roma/Gypsies, 58,326 Greeks, 23,541 Jews, 5,768 other Slavs, and 82,868 others, altogether 3,154,375 persons (Central Statistical Office, 1890).

Regular observations by ethnic group and mother tongue have been held in the country since 1900, and the results are presented in table 2(a) and 2(b) for the three main ethnic groups. The size of each group has been influenced by three major factors: changes in the boundaries of the state; population resettlement, particularly significant in the case of the Turkish minority due to the bilateral conventions between Bulgaria and Turkey; and changes in fertility, mortality, and international migration (other than resettlement).

The first two factors have already been covered. The effect of the third is difficult to assess because of the lack of data. Vital statistics differentiated by ethnic group are available only for the period 1965-1974 (table 8), while the demographic surveys undertaken before 1990 failed to touch upon this topic. As a result, it is difficult to disaggregate the impact of each of the three factors on population size and growth and the long-run trends in absolute population numbers presented in table 2(a) may be misleading.

Table 2(a): Population Size of the Main Ethnic Groups in Bulgaria, 1885-1992

Year	Total	Bulgarians	Turks	Roma/Gypsies	Others[1]
1900	3,744,283	2,888,219	531,240	89,549	235,275
1905	4,035,575	3,203,810	488,010	99,004	244,751
1910	4,337,513	3,518,756	465,641	122,296	230,820
1920	4,846,971	4,036,056	520,339	98,451	192,125
1926	5,478,741	4,557,706	577,552	134,844	208,639
1934	6,077,939	5,204,217	591,193	149,385	133,144
1946	7,029,349	5,903,580	675,500	170,011	280,258
1956	7,613,709	6,506,541	656,025	197,865	253,278
1965	8,227,966	7,231,243	780,928	148,874	66,921
1975	8,727,771	7,930,024	730,728	18,323	48,696
1985	8,948,649	-	-	-	-
1992	8,487,317	7,271,185	800,052	313,396	102,684

[1] Includes not known

Table 2(b): Percentage Distribution of the Main Ethnic Groups in Bulgaria, 1900-1992

Year	Total	Bulgarians	Turks	Roma/Gypsies	Others[1]
1900	100	77.14	14.19	2.39	6.28
1905	100	79.39	12.09	2.45	6.06
1910	100	81.12	10.74	2.82	5.32
1920	100	83.27	10.74	2.03	3.96
1926	100	83.19	10.54	2.46	3.81
1934	100	85.62	9.73	2.46	2.19
1946	100	83.98	9.61	2.42	3.99
1956	100	85.46	8.62	2.60	3.33
1965	100	87.89	9.49	1.81	0.81
1975	100	90.86	8.37	0.21	0.56
1992	100	85.67	9.43	3.69	1.21

[1] Includes not known

(Source: Population Census 1992, Vol. I, p.112, table 10. National Statistical Institute, Sofia.)

The conclusions that can be drawn from table 2(b) are less ambiguous and suggest that the share of the Turkish and Roma/Gypsy minorities has been comparatively stable this century. After the decrease of the first decade of the century, the Turkish share has ranged between 9.5 and10.5 per cent of total population, and the Roma/Gypsy population has stayed around 2.5 per cent. The anomalous figures for 1975 stand out clearly and are due to the forced registration of Turks, but especially of Roma/Gypsies, as Bulgarians. The proportion of Roma/Gypsies in 1965 is also understated for unknown reasons, while the higher shares of the two groups in 1992 are due to a slowdown in the growth rate of the Bulgarians.

The demographic transition in the Bulgarian population as a whole is known to have started towards the end of the First World War and to have ended around the middle of the 1960s. Ethnic-specific studies of the demographic transition are not available but the prevalence of. traditional patterns of behaviour among the Turks and Roma/Gypsies right up to the present day suggests that their demographic transition has been considerably delayed. Hence, it is reasonable to assume that their populations have been very nearly stable until very recently and have been characterised by virtually constant age structures and growth rates.

Under the assumption of stability, data from consecutive censuses can be used to assess population growth rates in the Turkish and Roma/Gypsy minorities. The effect of territorial change was absent from the censuses held in 1920, 1926 and 1934, as well as from those conducted after the Second World War. Data reliability in 1920 is low as far as the Roma/Gypsies are concerned. In the post-war period, the 1946 and 1956 censuses are regarded as reliable, but the results from the 1965 enumeration are doubtful and those for1975 are biased.

Roma/Gypsies

No significant migrations have been recorded for this minority. Applying the exponential equation[3] of population growth gives an average annual rate of increase during the period 1926-1934 of 1.28 percent, and during the period 1946-1956 of 1.52 percent. Taking 1946 as the starting point and applying the former growth rate gives an estimated Roma/Gypsy population of 306,345 persons in 1992, while the latter growth rate gives 341,649 persons. Both numbers are close to the 313,396 actually enumerated in 1992, and an estimated annual growth rate in the range of 1.3 to 1.5 percent would therefore seem to be reasonable.

The 1992 age distribution of the Roma/Gypsy population suggests a fall in fertility during the 10 preceding years and, accordingly, the size of the group falls a little below what would be expected under the assumption of stability (figure 1). If this is disregarded, hand fitting the age distribution gives a population of approximately 330,00-340,000 persons. Hence, the most probable growth rate over the two periods 1946-1992 and 1956-1992 would to be of the order of 1.4-1.5 per annum. The lower population figure in 1965, as compared to 1956 and 1946, is certainly not due to negative growth and is to be attributed to an increase in the number of Roma/Gypsies preferring to register as Bulgarians or Turks in the census. A corrected estimate of around 225,000 is obtained for 1965 by applying a growth rate of 1.45 percent, and the corresponding figure for 1975 becomes 260,000.

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[3] Age-aggregated population growth is usually presented by the following exponential equation:
(1) P(t)=P90).exp(rt)
where P(t) is the population at time t, and r is the annual rate of population growth. It gives correct estimates where the population is stable and closed to external migration.

Recently, part of the media alleged that the Ministry of Home Affairs had conducted a secret enumeration of the Roma/Gypsies in 1989, which suggested a number as high as 600,000. At present little is known about the quality of this enumeration or the validity of the estimate and although it is possible that information will become available now that the formerly classified archives have been opened to the public. Evidently, there is a striking difference between the 1989 and the 1992 numbers. But while the validity of the 1989 estimate is doubtful, it would be no surprise if the true number of Roma/Gypsies were higher than the 313,000 recorded in 1992. For example, the 1992 census enumerated just under 14,000 Roma/Gypsies in Sofia, a number that does seem too low. One cause of such under-enumeration is the known preference of some members of the group to register themselves as non-Roma/Gypsies. There is no information about the possible size of this group, but it would be unlikely to explain the difference between a figure of 313,000 and 600,000.

Turks

Although this population has experienced significant emigration, with the exception of the years 1956 and 1965, applying the same methodology as before gives an estimated growth rate for the period of 1.94 percent. As already mentioned, the Convention of 1925 led to the resettlement of many Bulgarian Turks in Turkey and the annual distribution of this outflow is discussed more fully in section 6. Given that Turkish emigration was minor before the 1926 census, it is estimated that the average annual growth rate during the period 1920-1926 was 1.88 percent. This agrees quite well with the estimated growth rate for 1956-1965 and verifies to some extent the assumption of stability during those years. As discussed in section 6, 155,558 Bulgarian Turks moved to Turkey in 1950 and 1951, and correcting for this loss[4] gives an annual growth rate of 2.07 percent over the period 1946-1956. This again coincides well with the two rates given above. It is interesting to note that on the assumption of no emigration and an annual growth rate of 2 percent, the Turkish population would have grown from 675,500 to nearly 1,700,000 by 1992, i.e. more than double the observed figure for that year. That the estimated growth rate of the Turks is higher than for the Roma/Gypsies could be due to a higher level of Roma/Gypsy mortality but no data are available to test this proposition.

For purposes of comparison the average annual growth rate of the Bulgarians determined by the same method was 2.03 percent for the period 1920-1926, and 1.66 percent for 1926 to 1934. After the Second World War, it declined to about 1.0 percent per annum.

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[4] Emigration of Turks from Bulgaria between 1946 and 1956 was distributed as follows: ap. 100,000 in 1950, and ap. 50,000 in 1951. In order to incorporate the effect of this emigration wave, equation (1) can be rewritten as:

(2) $P(1956) = P(1946).e^{10.r} - M(1950).e^{6.r} - M(1951).e^{5.r}$

where M(1950)=100,000 and M(1951)=50,000.

It can be inferred from table 2a that the higher growth rate of the Turkish minority has been more or less offset by emigration. The constant proportion of Roma/Gypsies would appear to result from a lower growth rate, which appears to have been similar to that in the Bulgarian population up to the 1950s. But with the substantial decline in the Bulgarian growth rate, the Roma/Gypsy proportion had risen to 3.69 per cent of the total population in 1992.

2. Age and Sex Composition

Age Composition and Ageing

Age data are available from the 1965 and 1992 censuses. Table 3 presents the enumerated age distribution for 1965 for the published age groups. The same information for 1992 is available by 5-year age group and is given in table 4 and figure 1. The 1965 data are too crude to depict in the form of age pyramids and are used here for comparative analysis only.

Table 3: Age Composition and Sex ratios of the Main Ethnic Groups in 1965

	Population			Males per Thousand Females		
Age	Bulgarians	Turks	Roma/Gypsies	Bulgarians	Turks	Roma/Gypsies
0-7	817,345	157,495	36,213	1,052	1,050	1,051
8-15	910,975	146,620	31,791	1,042	1,039	1,080
16-19	482,100	57,280	11,358	1,032	1,037	1,006
20-24	502,787	65,616	11,443	1,013	1,034	981
25-54	3,073,060	268,579	45,444	1,006	1,097	1,028
55-59	436,605	26,881	4,380	988	995	961
60+	1,008,371	58,457	8,245	868	828	823
Total	7,231,243	780,928	148,874	996	1,041	1,024

(Source: Central Statistical Office, Population Census 1965, Vol.1)

The 1992 age distribution for the Bulgarians implies three phases of fertility decline: before and during the Second World War, in the mid-1960s, and during the 10-15 year period preceding 1992 (Table 4). The age pyramids of the other two groups are only suggestive of the last mentioned decline. The old age distribution of the Bulgarian population is also clearly contrasted with the younger age profiles of the Turks and especially the Roma/Gypsies. The age distribution of the Roma/Gypsies resembles an exponential curve from the age of 15 upwards and is characteristic of populations with high and almost constant levels of fertility and mortality. Most probably it reflects the stable growth rate of the group over previous decades. During the 10-15 years immediately prior to 1992, however, Roma/Gypsy growth would appear to have departed from the stable pattern probably because of declining fertility as evidenced by the narrowing of the base of the age pyramid.

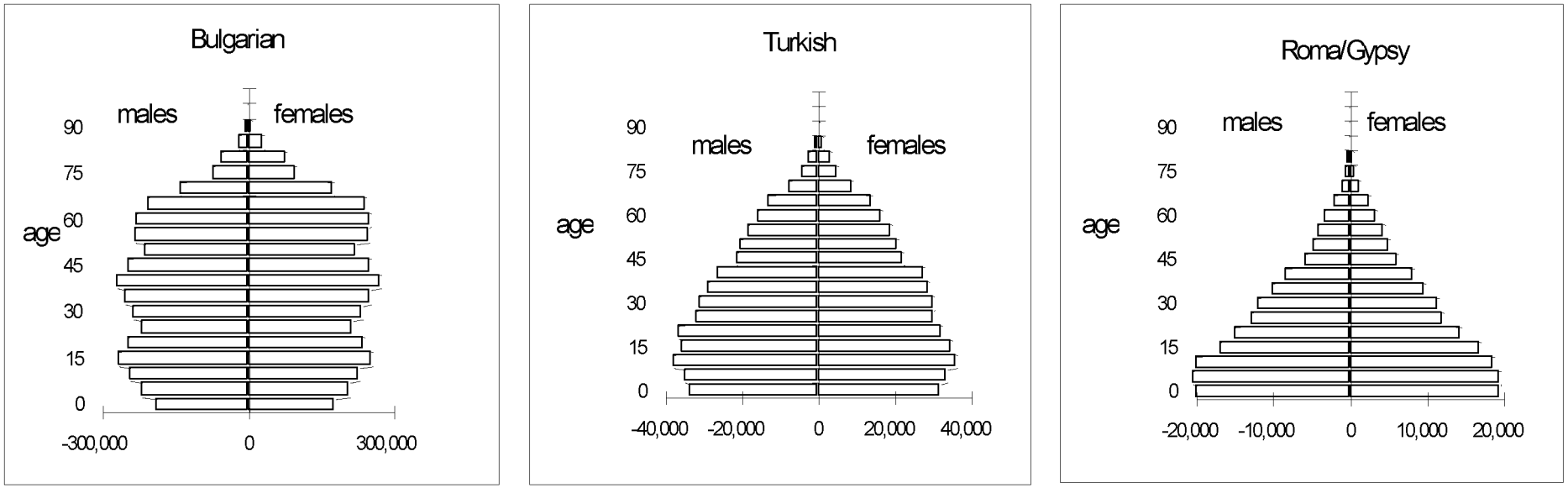
In order to compare the 1965 and 1992 data, the 8-15 and 16-19 age groups in 1965 were adjusted pro rata to approximate the age groups 8-14 and 15-19. The full age breakdowns for 1965 and 1992 were then aggregated into the major age groups 0-14, 15-59 and 60+. The comparative figures, including a rural urban breakdown for 1992, are presented in table 5. The mean ages for 1965 were interpolated from the grouped data.

Table 4: The Age Composition of the Main Ethnic Group in 1992

	Total				Males				Females			
age	Total	Bulg.	Turks	Roma/ Gypsies	Total	Bulgarians	Turks	Roma/ Gypsies	Total	Bulgarians	Turks	Roma/ Gypsies
0	476,423	366,733	65,625	39,634	244,542	188,437	33,745	20,066	231,881	178,296	31,880	19,568
5	542,012	428,071	68,590	39,978	277,625	219,394	35,066	20,438	264,387	208,677	33,524	19,540
10	590,597	472,146	73,858	38,794	304,075	243,232	37,791	20,056	286,522	228,914	36,067	18,738
15	635,684	523,990	70,891	33,954	323,550	267,176	35,831	16,841	312,134	256,814	35,060	17,113
20	592,929	485,349	69,322	29,410	303,067	246,488	36,782	14,836	289,862	238,861	32,540	14,574
25	531,318	435,692	62,032	25,033	268,817	219,699	31,816	12,819	262,501	215,993	30,216	12,214
30	567,640	473,622	61,335	23,418	284,940	237,671	31,264	11,885	282,700	235,951	30,071	11,533
35	592,166	505,029	57,837	20,087	294,294	251,629	29,064	10,146	297,872	253,400	28,773	9,941
40	625,355	545,929	54,073	16,818	309,608	271,189	26,478	8,445	315,747	274,740	27,595	8,373
45	563,027	501,300	43,309	12,010	277,537	247,526	21,193	5,855	285,490	253,774	22,116	6,155
50	493,990	436,702	41,518	9,852	241,033	213,286	20,463	4,754	252,957	223,416	21,055	5,098
55	536,421	484,465	37,614	8,491	258,846	233,819	18,479	4,040	277,575	250,646	19,135	4,451
60	525,304	481,087	32,329	6,791	250,036	228,529	15,910	3,209	275,268	252,558	16,419	3,582
65	484,017	447,314	27,166	4,596	221,988	204,579	13,244	2,003	262,029	242,735	13,922	2,593
70	338,905	316,759	16,397	2,445	149,684	139,546	7,672	1,042	189,221	177,213	8,725	1,403
75	182,412	170,084	9,339	1,083	78,007	72,402	4,398	447	104,405	97,682	4,941	636
80	142,224	133,986	5,984	744	57,827	54,508	2,428	279	84,397	79,478	3,556	465
85	53,457	50,693	1,983	190	20,369	19,446	663	56	33,088	31,247	1,320	134
90	11,792	10,839	672	53	4,212	3,916	193	17	7,580	6,923	479	36
95	1,287	1,125	123	3	460	414	30	2	827	711	93	1
100+	357	270	55	13	105	78	11	6	252	192	44	7
Total	8,487,317	7,271,185	800,052	313,397	4,170,622	3,562,964	402,521	157,241	4,316,695	3,708,221	397,531	156,155

Source: Population Census 1992, Vol. 1, p.196-197. National Statistical Institute.

Figure 1: Age distribution of the main Ethnic Group in 1992



(Data Source: Table 3)

Table 5: Percentage Age Distributions and the Mean Ages of the main Ethnic Groups in 1965 and 1992

Age-group	State 1965			State 1992		
	Bulg.	Turks	Roma/ Gypsies	Bulg.	Turks	Roma/ Gypsies
0-14	22	37	43	17	26	38
15-59	64	56	52	60	62	57
60+	14	7	5	22	12	5
	100	100	100	100	100	100
Mean age	33.7	25.6	22.5	39.5	31.4	24.6
Age-group	Urban 1992			Rural 1992		
	Bulg.	Turks	Roma/ Gypsies	Bulg.	Turks	Roma/ Gypsies
0-14	19	28	37	13	25	38
15-59	64	65	58	50	61	56
60+	17	8	4	36	14	6
	100	100	100	100	100	100
Mean age	36.6	29.0	24.3	46.7	33.2	25.0

(Source: Estimated from the data in tables 3 and 4. Percentages may not sum to 100 due to rounding errors.)

The data in table 5 exemplify the process of population ageing, which began with the demographic transition around the time of the Second World War and is still continuing. It is caused by falls in fertility and mortality, the effect of the former being the stronger, and first presents itself as a decline of the size the youngest age groups, i.e. the population pyramid shrinks at the base. The proportion of adults and older groups rises correspondingly, but at a later stage the adult share of the population also begins to shrink, leaving the proportion of elderly to increase further. Each of the three ethnic groups has its own pattern of population ageing. Ageing in the Bulgarian population has been more long lasting as can be judged from the high proportion aged 60 and over. The Turkish population has also shrunk considerably at the base of the pyramid with the proportion under the age of 15 dropping by 11 points between 1965 and 1992, although the evidence suggests that in this case ageing is a more recent phenomenon.

The ageing of the Roma/Gypsy population began even later, as can be judged from the more marginal fall in the proportion aged 0-14. The impact of fertility decline in the 10 years preceding 1992 can be more fully assessed by interpolating the 0-4 and 5-9 age groups as described earlier. This suggests that, in the absence of any decline in fertility, the 0-14 age group would have comprised 41 per cent of the total in 1992, while 54 per cent would have been aged 15-59, and 5% 60 and over. These numbers suggest that, as yet, very little ageing has in fact occurred in the Roma/Gypsy population, which to all intents and purposes was stable until one or two decades ago.

These trends can be summarised in terms of the differences in the mean ages of the three groups. Hence, the Roma/Gypsies are markedly younger than the Bulgarians, with the Turks lying somewhere in between. Between 1965 and 1992, ageing was equally strong in the Bulgarian and Turkish populations but considerably less among the Roma/Gypsies. Moreover, Bulgarians living in rural areas are significantly older than those residing in the towns and cities, but this difference is small among the Turks and practically non-existent for Roma/Gypsies. Urban-rural differences are mainly a result of the rural-to-urban migration flows of the 1950s and the 1960s, when the share of urban population increased substantially.

Table 6: Dependency Ratios, 1965 and 1992
(per 100 persons)

Dep. ratio	Year	Bulg.	Turks	Roma/G.
(0-14) + (60+)/	1965	56	79	92
(15-59)	1992	65	61	75
(0-14)/15-59)	1965	34	66	83
	1992	28	42	67
(60+)/(15-59)	1965	22	13	10
	1992	37	19	9

(Source: estimated from the data in table 4 and table 3)

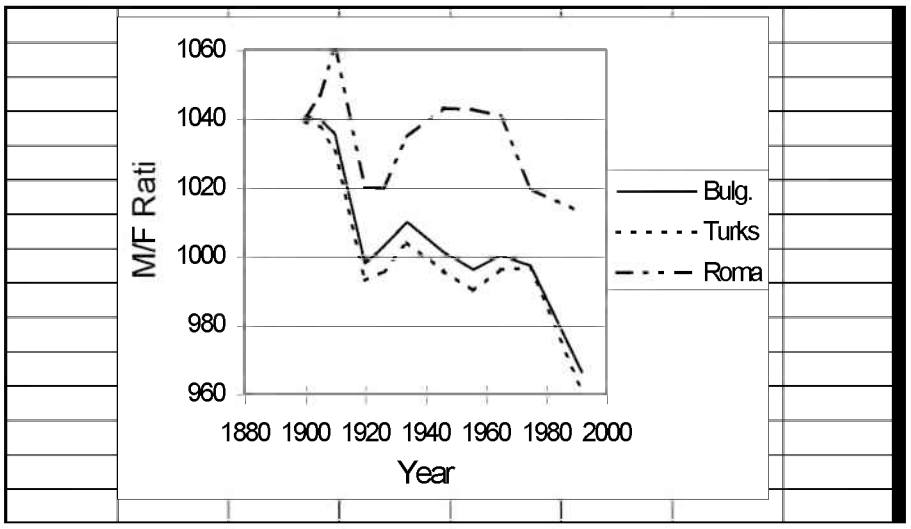
The data from table 5 were used to compute the dependency ratios presented in table 6. The first set of figures approximate the overall dependency burdens in the three groups. It shows that, among Bulgarians, there were 56 persons of non-working age for every 100 in the economically active age groups in 1965, rising to 65 per 100 in 1992. A similar rise occurred in the dependency burden of the population as a whole, whereas that in the Turkish and Roma/Gypsy minorities declined. Otherwise young age dependency decreased in all three groups. Against that, old age dependency grew among Bulgarians but was down for the Turks and Roma/Gypsies.

The growth of overall dependency implies increasing problems with respect to social policies although this macro judgement does not necessarily apply to the individual ethnic groups because social policy does not differentiate by ethnic origin. None the less, at the micro level of the family, one can deduce that a working Roma/Gypsy has more persons to care for than either a working Bulgarian or a working Turk. However, the care of the elderly in Turkish and Roma/Gypsy families is more favourable from the demographic point of view than in the Bulgarian population.

Sex Composition

Figure 2 presents changes in the respective sex ratios (males per thousand females) as given in successive censuses. Three periods can be distinguished: before the First World War males outnumbered females in all the three ethnic groups; between the end of the First World War and 1975 the sex ratio fell to parity among Bulgarians and Turks, but not among Roma/Gypsies; most recently, females have come to outnumber males in the Bulgarian and Turkish populations. There is no information from which to deduce possible explanations for these changes.

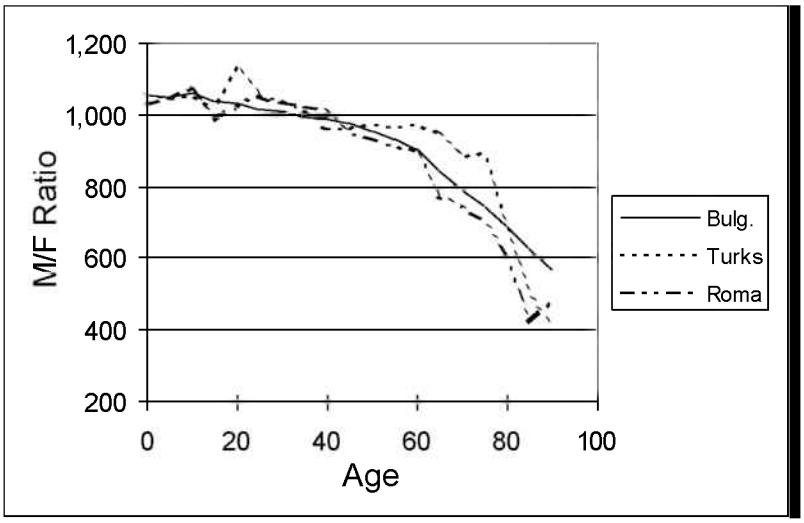
Figure 2: Sex Ratios (Males per Thousand Females), 1900-1992



(data source: Population Census 1992, Vol.1, p.106, table 9, National Statistical Institute, Sofia)

Variations in the respective sex ratios by age in 1992 are presented in figure 3 and are similar in each ethnic group. The relative number of males tends to fall with increasing age, particularly among Roma/Gypsies. At very old ages relatively more Bulgarian males survive than among Turks and Roma/Gypsies. The patterns in 1965 were very similar (table 3).

Figure 3: Sex Ratios by Age (Males per Thousand Females), 1992



(data source: Table 3)

3. Fertility and Mortality

Statistical information about fertility and mortality differentiated by ethnic group is scarce. Here we discuss three types of measure: (1) directly observed rates for the period 1965-1974; (2) indirect estimates inferred from census data; (3) the indirect measurement of the fertility and mortality of the Turks, using community level data for 1993.

(3.1) Observed 1965-1974 data

The National Statistical Institute (then named Central Statistical Office) only collected vital statistics differentiated by ethnic group between 1965 and 1974. Although these data were never officially published and the original records were destroyed, some of the information has been preserved. Donkov (1994) has estimated the crude birth and death rates using this source as well as the rates of natural increase and these are given in table 7.

Table 7: Crude Birth and Death Rates, and Rates of Natural Increase (CBR, CDR, CRNI) by Ethnic Group (per thousand population)

Year	CBR				CDR				CRNI			
	Total	Bulg.	Turks	Roma/ G.	Total	Bulg.	Turks	Roma /G.	Total	Bulg.	Turks	Roma /G.
1965	15.3	13.8	29.0	18.5	8.1	8.3	7.3	4.2	7.2	5.5	21.7	14.3
1966	14.9	13.5	26.7	24.1	8.3	8.4	7.6	5.4	6.6	5.1	19.1	18.7
1967	15.0	13.6	26.3	23.2	9.0	9.1	8.0	6.3	6.0	4.5	18.3	16.9
1968	16.9	15.4	28.9	25.7	8.6	8.8	7.0	5.4	8.3	6.6	21.9	20.3
1969	17.0	15.7	27.3	24.5	9.5	9.7	7.8	6.2	7.5	6.0	19.5	18.3
1970	16.3	15.1	26.4	23.0	9.1	9.3	7.0	5.4	7.2	5.8	19.4	17.6
1971	15.9	14.8	25.2	18.3	9.7	10.3	7.5	5.6	6.2	4.8	17.7	12.7
1972	15.3	14.4	23.2	18.2	9.8	10.2	7.3	5.7	5.5	4.2	15.9	12.5
1973	16.2	15.5	23.2	18.5	9.5	9.9	6.7	5.1	6.7	5.6	16.5	13.4
1974	17.2	16.5	24.5	18.3	9.8	10.3	6.8	5.3	7.4	6.5	17.7	13.0

(Source: Donkov, 1994)

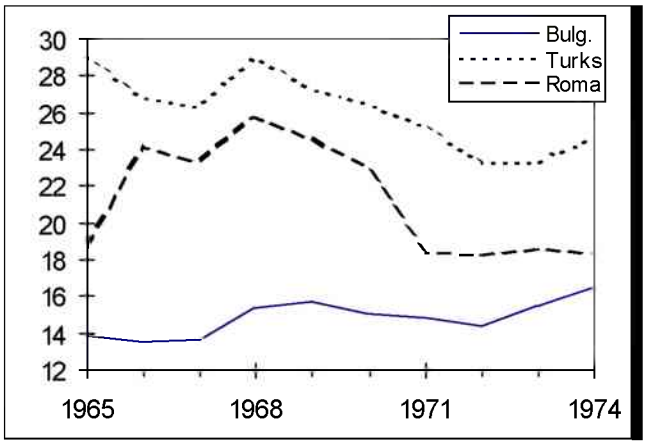
It is clear that the rates for the country as a whole differ from those of the Bulgarians, despite their large share of the total population. In other words, understanding the ethnic-specific composition of demographic trends leads to a better appreciation of demographic changes in the total population.

Figure 4 depicts trends in the CBR's over the period 1965-1974 and picks out the impact of the pronatalist policy introduced in 1968, when the CBR's of all three groups increased. Two years later a compensatory downturn emerged which, in turn, led to the implementation of an enhanced pronatalist policy in 1973. The impact of the latter was either small or practically non-existent in the case of the Roma/Gypsies.

Difficulties exist in interpreting the Roma/Gypsy CBR. The figures pick out two levels: a lower rate of around 18.5 per thousand observed in 1965 and after 1970; and a higher rate of approximately 24 per thousand recorded between 1966 and 1970. The resulting overall trend is not easily reconciled and possibly results from inadequate data. It should be recalled that the Roma/Gypsies were under-enumerated in the 1965 census.

Turning to the death rate, the CDR increased for Bulgarians because of population ageing but was virtually static in the other two groups. As a result, the trends in natural increase tend to mirror those in the CBR's. It may be noted that the rates of natural increase for Turks and Roma/Gypsies were broadly consistent with the values inferred values earlier, namely 2 and 1.5 percent respectively.

Figure 4: Trends in the Crude Birth Rate, 1965-1974



(data source: table 7)

(3.2) Indirect measures inferred from census data

Indirect fertility measures can be derived from the population age distributions enumerated in 1965 and 1992. Two approaches are used here: computation of indices directly from the age distribution, and via the reverse survival method.

Approximated CBR and child-woman ratios

Approximated ethnic-specific CBR's are presented in table 8 for 1965 and 1992, together with the child-woman ratios for 1992. The CBR's for 1965 were computed by taking 1/8 of the 0-7 age group (table 3) and dividing it by the appropriate population total. In an analogous fashion, the CBRs for 1992 were derived by taking 1/5 of the 0-4 age group in 1992. The values arrived at in this way provide estimates of the average rates in the period immediately before the observed year, that is 8 years before 1965, i.e. 1958 to 1965, and 5 years before 1992, i.e. 1988 to 1992, provided infant and child mortality are low. Although the latter assumption is open to question, these estimates are the only means of comparing the CBR's for these two time intervals.

Table 8: Approximated CBRs and Child-Woman Ratios
(per thousand)

Measure	Year	Bulg.	Turks	Roma/G.
Approximated CBR	1958-1965	14.1	25.2	30.4
	1988-1992	10.1	16.4	25.3
Child-woman ratio	1988-1992	42.4	63.6	99.2

(Source: estimated from the data in tables 3 and 4)

The CBR of each group decreased significantly over the period under examination, which is consistent with the previous findings. The downward trend is the result of two interacting factors - a real decline in the fertility of women together with population ageing particularly among the Bulgarians. Although the relevant data are not available, it would appear that ethnic-specific infant mortality also dropped substantially. The infant mortality rate in the total population dropped from 60 to 30 per thousand in the 8 years before 1965, and was in the range 16-20 per thousand between 1988 and 1992. The point is that this downward trend in infant mortality may well have kept the estimated CBRs higher than the real values.

In a growing population the approximated CBR will be lower than the real CBR, but for the Roma/Gypsies in both 1958-1965 and in 1988-1992, it is above the level derived from the vital statistics given in table 7. Since the former establish the lower bounds of the real CBR, they are to be preferred to the birth rates suggested by the vital statistics.

Using the same reasoning, the approximated CBR for the Turks in 1958-1965 will also be lower than the real CBR, since growth in the minority was strongly positive at the time. But unlike the values for the Roma/Gypsies it agrees quite well with the corresponding figures in table 7. In 1988-1992, on the other hand, Turkish population growth was negative because of emigration, and the approximated CBR should therefore not in this instance be viewed as a lower bound.

The average CBR for the total population for the period 1988-1992 was 11.6 per thousand and differs from the approximated CBR for the Bulgarian ethnic group by as much as the estimate given by the vital statistics in table 7.

The child-woman ratios are derived as one-fifth of the population aged 0-4 in 1992 (table 4) to the number of females of reproductive age, i.e. aged 15-49. The child-woman ratio approximates the general fertility rate (GFR) and the values it takes can be assessed in relation to a GFR of 49.8 per 1000 women aged 15-49 for Bulgaria as a whole over the period 1988-1992. This is considerably higher than the child-woman ratio for the Bulgarian ethnic group alone because of the higher fertility of the two minorities. However, other reasons should not be neglected and these are discussed below.

The reverse survival method

This method can be used to draw inferences about the value of the GFR and hence of the total fertility rate (TFR), which is approximately equal to the GFR X .35.[5] Appropriate life tables for the population under examination are needed to operationalise the method, but since these are not available survivorship rates derived from model life tables[6] have been used in the estimation procedure. The number of female survivors in each age group is determined by back projection.

For the Turks, a life table can be constructed based on community level data for 1993 and this is discussed more fully below. The following assumptions have been made: that life expectancy at birth for Turkish females averaged 70,0 years during the period 1988-1992, 69 years between 1983 and 1987, and 68 years between 1982 and 1988. The corresponding values for males are about 6 years lower in each case.

The identification of a specific life table appropriate for the Roma/Gypsy population is not possible. Instead, mortality estimates for the period 1988-1992 are derived from the 'west' model life tables that equate with female life expectancies at birth of 60 years, 55 years and 50 years. The equivalent male life expectancies were determined by applying the procedures described in the UN manual of model life tables and were between 2.5 to 4 years lower. A life expectancy at birth of 60.0 years corresponds to the life expectancy of Roma/Gypsies in the Czech Republic.[7] But the equivalent value for Roma/Gypsies in Bulgaria was probably lower. The Bulgarian ethnic group was assumed to have a life expectancy at birth equal to that in the total population, i.e. 72 years for females and 67 years for males. The estimated results are presented in table 9.

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5 Acknowledgement: the method was suggested and applied for the Turks by Youssef Courbage.

6 United Nations, *Model Life tables for developing countries*, New York, 1982. General Pattern : pages 202-243.

7 Kalibova, Kveta (this volume): *Demographic Characteristics of Roma/Gypsies in Central and Eastern Europe*.

Table 9: Indirect fertility estimates inferred from the reverse survival method

	1978-1982	1983-1987	1988-1992
Bulgarians			
GFR	56.1	52.4	44.7
TFR	1.96	1.83	1.56
Turks			
GFR	89.9	77.1	68.6
TFR	3.15	2.70	2.40
Roma/Gypsies			
e^o	*57.0*	*58.0*	*60.0*
GFR	155	139	117
TFR	5.4	4.9	4.1
e^o	*50.0*	*53.0*	*55.0*
GFR	164	149	123
TFR	4.3	5.2	5.7
e^o	*45.0*	*48.0*	*50.0*
GFR	176	168	134
TFR	6.1	5.9	4.7

(e^o = expectation of life at birth for females; GFR is per thousand females 15-49)

The GFR for the total population of the country declined from 60.7 per thousand in the period 1982-1978, to 56.7 per thousand in 1983-1987, and to 48.8 per thousand in 1988-1992. The GFR of the Bulgarian ethnic group was about 4 per thousand lower in each instance. The data suggest that fertility in both minorities also decreased significantly over the same time period as both populations undergo demographic transition, the fall in the TFR of the Roma/Gypsies being particularly marked. The Turks are perhaps in the last phase of transition and their fertility and mortality rates are now close to the low levels expected. The respective CBR's can also be inferred from the same data for the period 1988-1992. For the Turks, this is put at 17.3 per thousand, and for the Roma/Gypsies at 29.3 per thousand, assuming an e^o of 60, or at 31 per thousand, assuming an e^o of 50.

The reverse survival method is robust with respect to the assumptions made and the choice of life tables. This is readily illustrated for the Roma/Gypsies for the period 1988-1992, where a change in life expectancy of 10 years only induces a change of 0.6 in the TFR (table 9). Similarly, a 5 year reduction in life expectancy for the Turks would raise their TFR by only 0.05.

The impact of emigration is likely to have been small and would be negligible in the case of family emigration. But where the Turks are concerned some parents emigrated without their children to avoid the restrictions imposed on emigration by the Bulgarian and Turkish authorities in the hope of later family reunification. Thus they tried. Family reunification still presents problems.[8] It has an impact on age structure and, because the denominator may be understated, the fertility measures presented here may be somewhat overestimated. It should be noted that no reliable indirect measures of mortality can be derived from Bulgarian census data.

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[8] The Bulgarian newspaper "Standart" writes on 12 July 1998, that the Turkish Parliament adopted a law in May 1998 that allows for family reunification.

(3.3) Fertility and mortality of Turks according to 1993 data

The National Statistical Institute has published detailed vital statistical information for all 278 communities in the country, which gives the numbers of live births, deaths, departures and arrivals as well as the estimated population at the end of 1993 (NSI, 1994a). Since the population at the end of 1992 is available from the census it therefore becomes possible to compute crude birth and death rates at the community level for the year in question. The information is complemented by the share of Bulgarians, Turks and Roma/Gypsies in each community recorded in the 1992 census, which shows that while the Roma/Gypsy population is widely dispersed throughout the country, Turks tend to be concentrated in a limited number of communities. Accordingly, the estimation procedure can only be applied to the Turks. There is, however, a difficulty in the sense that that there are comparatively few communities where the proportion of Turks is very high and the problems associated with small numbers would arise if the procedure was based solely on these. For instance, the Turkish share is only above 90 per cent in two communities with a total population of 22,000 persons. The problem has been resolved by applying the procedures at different levels of Turkish homogeneity.

Consider the three aggregations of communities where Turks constitute more than 40 per cent, more than 65 per cent, and more than 75 per cent of the total population (table 10). For instance, the table shows that there were 17 communities with a total population of 280,117 in which Turks comprised more than 65 per cent of the total in 1992. In this case, the Turkish share actually amounted to 76 per cent, which was equivalent to about 25 per cent of the whole group in the country.

The estimation procedure is as follows. Consider the case where Turks are more than 40 per cent of the total. The national age- and sex-specific mortality rates are applied to the 36 per cent who are non-Turks to estimate the number of deaths in the non-Turkish population by age group and sex. Since the sum total of these deaths is 2,801, the number of Turkish deaths can be estimated as 3,948, i.e. 6,749-2,801. The age and sex specific mortality rates for the Turks are then determined from the age and sex distribution of the Turkish population enumerated in the 1992 census. The age-specific fertility rates for the Turks are similarly estimated and the procedure repeated for each level of homogeneity. The results are presented in table 11 with the last row of the table giving the corresponding values for the total population of Bulgaria. The estimates are based on the assumption that the national age- and sex composition is an adequate surrogate for the non-Turkish population and that the age- and sex composition of the whole Turkish population is a satisfactory substitute for Turks residing at each level of homogeneity.

It may be noted that the three sets of results presented in table 10 are all very close, which adds weight to the validity of the assumptions underlying the procedure. Furthermore, it suggests that the results can be accepted as reasonably representative of the Turkish population as a whole, e.g. their TFR would seem to lie in the range 1.67 to 1.86.

That table 11 should signify that Turkish fertility is now below replacement level is surprising. It is about equal to the overall rural TFR which was 1.76 in 1993 and is in line with the fact that that the rural element in the communities examined is rather higher than in the country as a whole. The comparatively low figure is also consistent with the findings previously presented, i.e. the approximated CBR during the period 1988-1992 was 16.4 per thousand and by the reverse survival method 17.3 per thousand (table 8). It is known that fertility fell abruptly in the whole population during this particular period and the CBR estimates are clearly a weighted combination of a high CBR at the beginning of the period and a CBR as low as 14 per thousand at the end of the period.

The TFR for the national population was about 2.0 in 1988, and had dropped to just under 1.5 by 1993. If we accept an average TFR of 2.4 for the Turks for the period 1988-92 (arrived at by the reverse survival method) and a value of 1.8 in 1993, this suggests an even steeper rate of decline. It should be mentioned that the Turkish population was subjected to factors contributing to fertility decline over and above those present in the whole population. The effects of a massive out-migration followed by a return flow in 1989 and 1990 involving nearly 40 per cent of Turkish population but especially the causes of these movements should not be disregarded. It is hard to believe that migrations on such a massive scale would not influence the group's fertility rate in succeeding years. However, these considerations are necessarily speculative and question remains as to whether this abrupt decline in fertility was real or just an artifact of the data and estimation procedure applied. The age distribution of Turkish fertility is practically identical to that in the national population, except that the age-specific fertility rates are moved a little to the left, as indicated by the younger mean age of childbearing. Figure 5(a) shows the age-specific fertility rates for the community aggregates where Turks comprise more than 65 per cent and 75 per cent of total population. Each schedule exemplifies early entry into childbearing, a high level of birth control and the early completion of family building, which also characterise the whole population of Bulgaria.

Table 10: Population and vital statistics in 1993 based on aggregate data for communities where Turks comprised more than 40, more than 65 and more than 75 per cent of the population

Share of Turks more than	Number of Communities	Population on 31.12.1992	% Bulg.	% Turks	% Roma/ G.	Births	Deaths	Infant Deaths	Arrivals	Depart.
40%	33	597611	31%	63%	5%	7450	6749	139	18390	25086
65%	17	280117	19%	76%	4%	3556	3032	71	5363	8042
75%	8	116686	11%	85%	4%	1578	1251	35	2607	3675

Source: NSI (1994 and 1994a)

Table 11: Fertility and mortality estimates for the Turkish minority, 1993

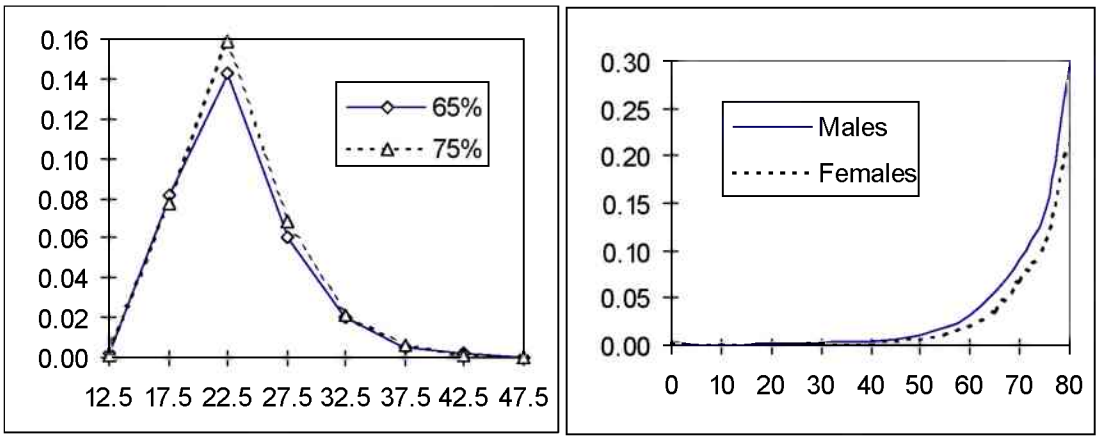
Share of Turks more than	CBR	CDR	TFR	Mean age of childb.	Infant Mortality	e^o males	e^o females
40%	14.0	10.4	1.72	22.9	25.8	65.5	71.7
65%	13.6	10.2	1.67	23.0	24.6	66.2	71.7
75%	14.2	10.3	1.86	23.1	24.9	65.8	71.4
Bulgaria	*10.0*	*12.9*	*1.47*	*23.8*	*15.5*	*67.6*	*75.2*

Note: CBR = Crude Birth Rate; CDR = Crude Death Rate; TFR = Total Fertility Rate;

e^o = Expectation of life at birth; CBR, CDR, and Infant Mortality are rates per thousand.

(Source: estimations of the author)

Figure 5:Turkish age patterns of (a) fertility and (b) mortality



(a) *(b)*

Turning to mortality, the indications are that this is significantly higher in the Turkish than in the national population, although the disparity is not as large as one might expect. The gap is even narrower in the case of the rural population because Turkish life expectancy is only about a year lower than nationally. The level of infant mortality is, however, significantly higher and a life table analysis for the group of communities with more than 40 Turks showed that a rapid decline in infant deaths to the national level would raise the life expectancy for both sexes by about half a year.

It is clear that the CDR is now higher than given in table 7 due to population ageing. The latter has more than offset the real decrease in mortality that certainly took place between 1974 and 1993. The age patterns of male and female mortality in the communities where more than 40 per cent of the population are Turks are shown on Figure 5(b). They are typical for the population of Bulgaria as a whole, except that the latter is shifted a little to the right.

Comparative information is presented in Appendix 2 on the demographic situation of the Turkish minority and the population of the Republic of Turkey.

Table 12: Population by Age, Sex and Ethnic Group, 1992

MALES	TOTAL	<15	15-19	20-24	25-29	30-34	35-39	40-49	50-59	60-69	70-79	80+
SINGLE	1,591,906	825,409	315,031	206,800	78,578	45,942	33,096	44,748	21,833	13,393	5,018	2,058
Bulgarians	1,317,451	651,023	263,708	179,647	89,977	41,578	30,619	41,955	20,160	12,302	4,626	1,856
Turks	171,914	106,588	33,885	18,295	5,112	2,581	1,518	1,733	1,141	700	269	92
Roma/Gyps.	83,668	60,537	14,193	5,104	1,470	816	488	521	284	179	42	34
MARRIED	2,323,911	72	8,024	94,381	184,618	228,037	245,083	501,244	442,865	408,891	171,420	39,276
Bulgarians	2,016,549	36	3,402	85,722	145,331	186,827	206,891	439,501	395,471	376,053	160,113	37,202
Turks	215,890	14	1,928	18,235	26,132	27,846	26,521	43,976	35,719	25,179	8,811	1,529
Roma/Gyps.	68,231	21	2,610	9,540	11,045	10,678	9,228	13,004	7,789	4,193	995	128
DIVORCED	99,804	3	100	1,481	5,049	10,030	14,591	35,010	20,072	9,986	2,823	659
Bulgarians	91,426	2	47	1,045	4,194	8,821	13,195	32,566	18,846	9,405	2,682	623
Turks	5,096	0	15	231	522	747	896	1,507	757	340	78	13
Roma/Gyps.	2,218	0	37	184	285	361	371	599	255	105	15	6
WIDOWED	150,645	3	23	104	270	567	1,134	5,381	14,574	39,362	48,303	40,924
Bulgarians	137,538	2	19	74	197	445	924	4,693	12,628	35,348	44,527	38,681
Turks	9,621	0	3	21	50	90	139	455	1,325	2,935	2,912	1,691
Roma/Gyps.	2,124	1	1	8	19	30	59	176	466	735	437	192

(Continued on next page)

Table 12 (Continued)

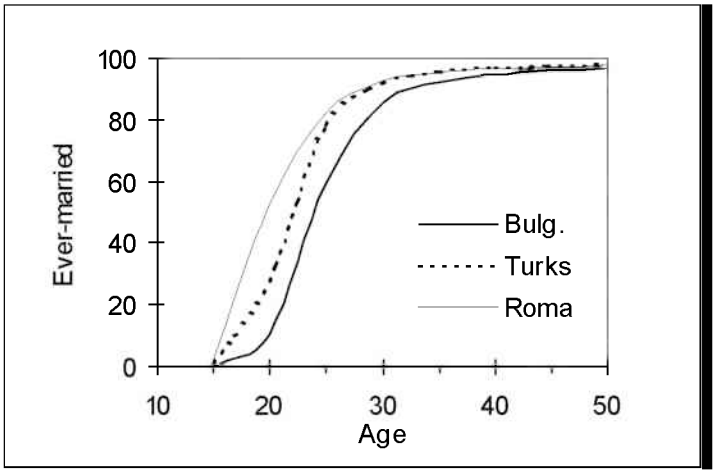
FEMALES	TOTAL	<15	15-19	20-24	25-29	30-34	35-39	40-49	50-59	60-69	70-79	80+
SINGLE	1,284,943	781,379	268,226	108,746	35,472	20,253	14,164	20,382	13,390	13,492	6,549	2,890
Bulgarians	1,057,578	615,657	229,627	97,019	31,531	17,973	12,718	18,744	12,480	12,825	6,266	2,738
Turks	141,236	101,281	25,795	7,432	2,492	1,394	861	935	496	340	141	68
Roma/Gyps.	73,342	57,546	10,329	2,709	956	599	378	423	219	129	32	22
MARRIED	2,335,481	712	42,664	174,434	213,683	240,845	253,690	505,830	418,393	345,160	118,970	21,100
Bulgarians	2,018,300	222	26,692	137,036	173,454	199,486	214,550	442,612	373,403	318,825	111,975	20,045
Turks	217,168	187	9,057	24,301	26,551	27,130	25,914	44,516	33,242	20,046	5,440	784
Roma/Gyps.	69,798	297	8,525	11,182	10,514	10,020	8,528	12,123	6,846	3,119	564	80
DIVORCED	156,232	13	899	5,792	11,754	18,415	24,106	46,049	25,700	16,898	5,422	1,184
Bulgarians	142,516	7	448	4,385	10,002	16,224	21,696	42,885	24,185	16,287	5,254	1,143
Turks	7,037	3	198	719	977	1,191	1,302	1,641	703	235	60	8
Roma/Gyps.	4,396	3	243	628	668	743	730	884	364	110	15	8
WIDOWED	535,914	1	75	569	1,291	2,828	5,518	28,247	72,589	161,385	162,503	100,908
Bulgarians	489,827	1	47	421	1,006	2,268	4,436	24,273	63,994	147,356	151,400	94,625
Turks	32,091	0	10	88	196	356	696	2,619	5,749	9,720	8,025	4,632
Roma/Gyps.	8,619	0	16	55	76	171	305	1,098	2,120	2,817	1,428	533

(Source: Population Census 1992, Vol. 1, p276, table 33. National Statistical Institute, Sofia.)

4. Marital Status

Table 12 shows the population by marital status, sex and ethnic group as given in the 1992 census. The cumulative percentages of ever-married women by age are given in figure 6 and it is clear that practically all women have married by the age of 50 regardless of ethnic group. The small differences that can be observed may, in part, be attributed to enumeration errors. A traditional marriage pattern still prevails in Bulgaria and marriage is practically universal by the age of 21-22 years for females and by 25-26 in the case of males. In other words, universal marriage is not an ethnic-specific characteristic. The cumulative age curves outline a traditional marriage pattern with perhaps the exception of the Roma/Gypsies, who enter very early into marriage.

Figure 6: Percent Ever-married Women, 1992



(Data Source: Table 12)

The data contained in table 12 can be used for the estimation of the singulate mean age at marriage[9] (table 13). This is an approximation of the mean age at first marriage and is used when the latter cannot be estimated directly due to a lack of data.

Table 13: Singulate Mean Ages at Marriage, 1992

Ethnic Group	Males			Females		
	Total	Urban	Rural	Total	Urban	Rural
Bulgarians	28.1	26.9	28.7	22.7	22.8	21.3
Turks	23.6	22.9	23.8	20.6	20.8	20.4
Roma/G.	21.7	21.5	21.9	19.8	19.7	19.2

(Source: estimated from table 12)

[9] The singulate mean age at marriage was introduced by J. Hajnal in his article: *Age at Marriage and Proportion Marrying*, *Population Studies*, 7/1953, pp.111-132.

These confirm a pattern of early entry into marriage. The singulate mean age at first marriage of females in the population as a whole estimated from 1992 census data is 22.2 years and is very close to the 21.6 value for the mean age at first marriage obtained from vital statistics. It should be noted that the singulate mean age does not refer to a particular calendar year but to a longer time span. In this case the time span is the 15 years or so before 1992, in so far as the majority of females marry before the age of 30.

Early marriage is most pronounced among the Roma/Gypsies and the age differences for both males and females are narrower than in the other two groups. At the opposite end of the spectrum are the Bulgarians. The table also indicates that females marry at younger ages in rural than in urban areas. Since the reverse holds true for males, the sex differential in mean age at marriage is wider in rural areas for all three ethnic groups.

Table 14 presents data on divorce rates by ethnic group derived from the information contained in table 12. The Turkish divorce is about half that recorded in the Bulgarian population while the rate amongst the Roma/Gypsies is not as low as might be expected. There are also relatively more divorced females than males most probably because of the higher chances of female survival to old age.

Table 14: Divorce Rates by Ethnic Group: the ratio of the population divorced to the population married in per cent.

	Males	Females
Bulg.	4.5	7.1
Turks	2.4	3.2
Roma/G.	3.3	6.3

(Source: estimated from Table 12)

5. Household Composition

The 1992 census was the first to record information on household composition by ethnic group. This shows that the average size of Bulgarian households is 2.7 people, while for Turks it is 3.7 people, and for Roma/Gypsies 4.4 people. Given their young age structure and higher fertility, it is not surprising that Roma/Gypsy households are the largest.

Average household size varies slightly according to the sex of the head of household. Where the head is male, the average number of household members is 3.0, 3.9, and 4.6 persons among the Bulgarians, Turks, and Roma/Gypsies respectively. However, households with female head, which make up 10 to 15 per cent of the total, are smaller, the respective values being 1.8, 2.6, and 3.6.

The average size of urban households is 2.8, 3.5, and 4.3 people respectively compared 2.6, 3.8, 4.6 persons in rural areas. Although these differences are not large, it is worth noting that among Bulgarians rural households are smaller than urban households, with the reverse holding for the Turks and Roma/Gypsies. The explanation for this is connected with the relatively old age structure of rural Bulgarians.

6. Migration and Settlement

External migration

Bulgarian statistics document emigration primarily among Bulgarians and Turks. There are no data regarding the emigration of Roma/Gypsies and researchers have therefore tended not to discuss this question. However, it is reasonable to presume that external movements on the part of this group are small. Obviously this would not apply to nomadic Romas who often crossed boundaries before the First World War.

In the reviews of emigration undertaken by Totev (1989) and Philipov and Tzvetarsky (1993) emphasis was placed on the emigration of ethnic Turks (Table 15). Many Turks left Bulgaria during the decades following the Liberation of the country in 1878. Moreover, during the inter-war period around two thirds of all the people who left the country were also Turks. The largest outflows occurred during the period 1935-1939, when about 20-30,000 left annually, amounting in all to a total of 100-150,000 persons. These were the result of the bilateral convention signed in 1925 referred to in the first part of this report.

There are no data about emigration during the Second World War. After the war emigration was restricted by the totalitarian regime and leaving the country was only possible in accordance with the bilateral agreements between Bulgaria and Turkey. Within the framework of these agreements, ethnic emigration was very strong towards the end of the 1940s and the beginning of the 1950s. Between 1948 and 1949 about 35,000 Jews left Bulgaria, and between 1950 and 1951 155,558 Turks emigrated.

Again, as a result of bilateral agreements, several thousand Turks left the country annually during the period 1969-1978; but from the middle of the 1980s, the government initiated a campaign to change the names of Muslims, as a part of a larger drive towards assimilation. This was conducted against a background of strong repression, which is perhaps the reason for the very low level of emigration recorded at this time with only a few hundred Turks leaving each year up to 1988.

However, the change of regime in 1989 resulted in the largest outflow ever, when 218,000 people emigrated. This arose spontaneously, and from the next year on - 1990 - emigration was freed from all restrictions and fully legalized. The official statistics for 1990 cite 88,000 emigrants, of whom 71,000 were ethnic Turks. In 1991 the figure was down to 40,246, including 32,600 ethnic Turks, but rose to 65,250 in 1992, with two thirds of these being ethnic Turks. In overall terms, since 1935 when the statistics become more reliable, 915,000 people have left Bulgaria, with around 80 per cent of this total being Turks.

Table 15: Emigration since 1935

Period	Number	*Period*	Number
1935-1946	153,795	*1975-1979*	74,236
1947-1949	38,499	*1980-1984*	336
1950-1954	158,027	*1985-1988*	501
1955-1959	1,702	*1989*	218,000
1960-1964	568	*1990*	87,895
1965-1969	3,291	*1991*	40,246
1970-1974	37,824	*1992*	65,250

(Source: Philipov and Tzvetarski, 1993)

Immigration to Bulgaria is small and consists primarily of returning emigrants. A large flow was observed though in the beginning of the 1990s when nearly 2/3 of all Turks that left since 1989 returned back to Bulgaria. Otherwise, there has been some primary inflow, notably from Moldova, on the part of the small number of ethnic Bulgarians living in other countries.

Internal migration

Data about ethnic-specific internal migrations are available from the 1992 census by place of destination only (table 16). The information refers to individual migrants as opposed to number of moves and covers the period since the previous census, i.e. from the beginning of 1986 to December 1992. Where multiple moves have occurred only the last migration is recorded. The data refer to permanent change of residence between settlements. The distinction between rural and urban settlements is based on legal definition.

***Table 16: Migrants recorded in the 1992 census, by ethnic group and place of destination*[(1)]**

Ethnic Group	TOTAL			URBAN			RURAL		
	Total	migrants	%	Total	in-migrants	%	Total	in-migrants	%
Total	8,487,317	345,711	4.1	5,704,552	222,968	3.9	2,782,765	122,743	4.4
Bulg.	7,271,185	291,924	4.0	5,209,060	200,834	3.9	2,062,125	91,090	4.4
Turks	800,052	36,112	4.5	253,119	15,730	6.2	546,933	20,382	3.7
Roma/G.	313,396	14,454	4.6	163,896	4,429	2.7	149,500	10,025	6.7
Males	4,170,621	162,779	3.9	2,792,330	105,637	3.8	1,378,291	57,142	4.2
Bulg.	3,562,963	138,190	3.9	2,547,995	94,672	3.7	1,014,968	43,518	4.3
Turks	402,521	16,382	4.1	126,805	8,037	6.3	275,716	8,345	3.0
Roma/G.	157,241	6,779	4.3	81,606	2,044	2.5	75,635	4,735	6.3
Females	4,316,696	182,932	4.2	2,912,222	117,331	4.0	1,404,474	65,601	4.7
Bulg.	3,708,222	153,734	4.2	2,661,065	106,162	4.0	1,047,157	47,572	4.5
Turks	397,531	19,730	5.0	126,314	7,693	6.1	271,217	12,037	4.4
Roma/G.	156,155	7,675	4.9	82,290	2,385	2.9	73,865	5,290	7.2

(1) See text for a fuller explanation of the table.

(Source: Population Census 1992, Vol. 4, National Statistical Institute)

The first column of table 16 shows the total population in the given category, and the second and third columns the number of migrants in absolute terms and as a percentage of total population. The remainder of the table is to be interpreted in like fashion except that in-migrants to urban and rural areas are given in columns six and nine respectively. The total number of migrants is equal to the sum of the values in columns six and nine.

It is clear from the table that over 4 per cent of the population were involved in a migration over the seven year period. Turks and Roma/Gypsies were more mobile than Bulgarians and females moreso than males, especially in the two minority groups. The most probable explanation for this is that young wives are more likely to join their husbands after marriage than vice versa. Although no cause-specific data are available by ethnic group, this observation is known to hold where the whole population is concerned.

Turks were more likely to move to urban settlements than Roma/Gypsies and the differentials by sex were comparatively small. The reverse pattern holds for rural areas and the sex differential was rather more significant. That more females than males migrate may be connected with the size of the settlements. Since urban places are generally larger, marriages involving urban residents are less likely to entail a change of settlement than marriages between individuals from neighbouring villages, assuming identical marriage distances. The greater propensity of Turks to migrate to urban areas may also be connected with high rural to urban migration among this minority, but unfortunately there are no data available to test the validity of this hypothesis.

The age distribution of in-migrants is also recorded in the 1992 census. It is useful to recall that the age profile of a typical migration schedule displays a peak among the youngest age groups because children migrate together with their mobile parents. The curve then falls away to a minimum at around compulsory school leaving age before gradually rising to a second peak among the population in their early to mid-twenties, when the factors inducing migration, like marriage, setting up an independent home and employment change, are most intense. Thereafter, the propensity to migrate declines with a third more minor peak sometimes occurring at around the age of retirement.

The migration age profiles presented in figure 7 are based on data for age groups that are uneven, namely 0-15, 16-19, 20-24, 25-29, 30-39, 40-49, 50-54, 55-59, 60-69, 70+; for the purposes of plotting each profile, the observed numbers were considered to be evenly distributed within each age group. Although this leads to a significant loss of information, especially for those aged 0-15, it is still a useful way to portray the data. In each figure, in-migrants are plotted against age as a proportion of total in-migrants; hence, the area under each profile is equal to one. This is at variance with the usual methodology which is to construct such profile from true migration rates.

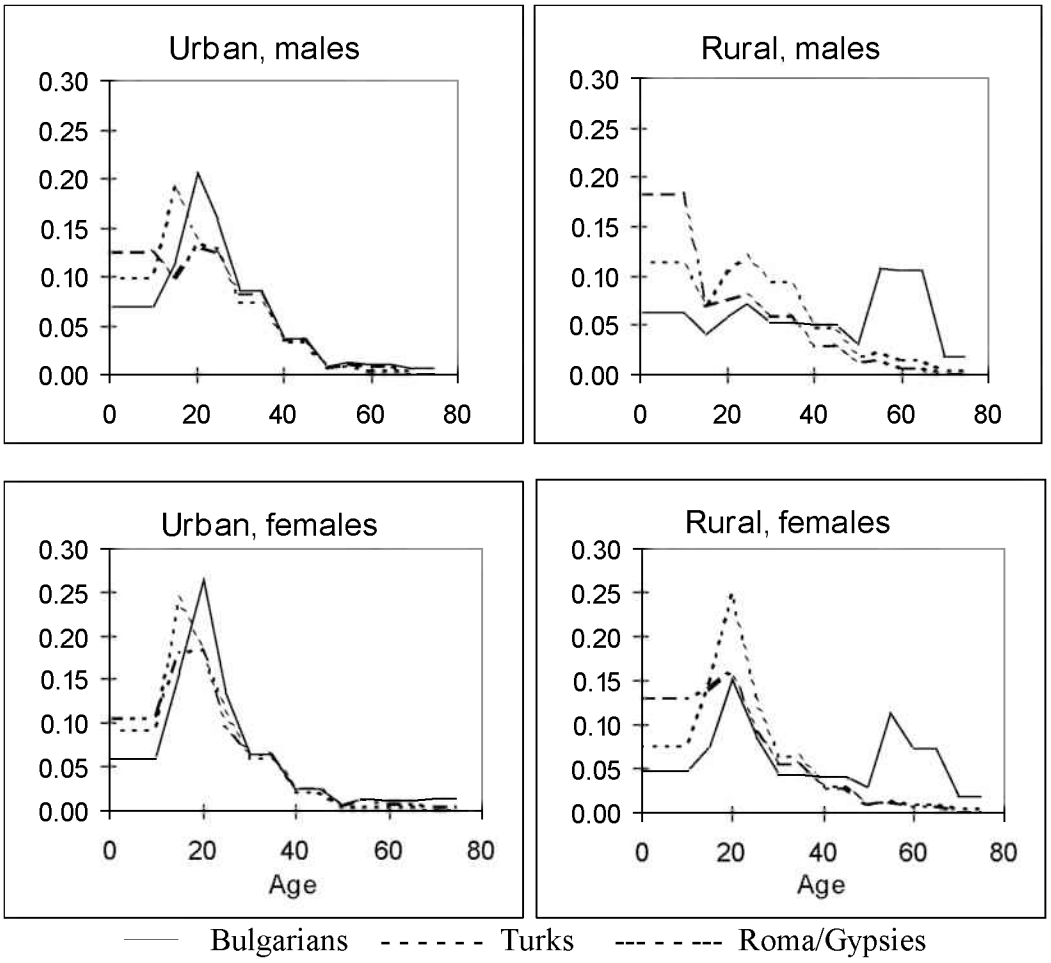
We restrict our comments on the four profiles to the following:

(1) Roma/Gypsy males do not display a migration peak in the 15 to 24 age range and the greatest propensity to migrate occurs in the child population, especially in the case of in-migration to rural areas. The same pattern is not, however, replicated among females. A plausible explanation for these features does not come readily to mind and further research base on more comprehensive data is clearly needed;

(2) Turkish migration to urban areas peaks in the 15-19 age group and not in the 20-24 age range;

(3) "retirement" peaks can only be observed among Bulgarian males and females moving to rural areas; for males this is actually the highest value recorded.

Figure 7: Age Profiles of Bulgarian, Turkish and Roma/Gypsy Male and Female in-migrants to Urban and Rural areas, 1992 (as a proportion of all in- migrants)



Settlement

From the data in table 16 it can be deduced that 67 per cent of the overall population of the country reside in urban areas, with the respective ethnic proportions being 72 per cent for Bulgarians, 32 per cent for Turks and 52 per cent for Roma/Gypsies. There are no significant differences in these figures by sex. Hence, urbanisation is most pronounced in the case of the Bulgarians and less so for the two minorities. The Turks are predominantly rural dwellers and the Roma/Gypsies are more or less equally divided between urban and rural areas, contrary to the common perception of Bulgarian society that they are mainly an urban population.

Table 17 provides a more detailed picture by size of settlement. The first column gives the settlement size, the second the number of settlements in each size category, and the third the total population associated with each category. The next four columns show the percentage breakdown of the ethnic groups in each size category and the last three columns the percentage distribution of the ethnic groups across the range of size categories.

There is no official classification of settlements by size and grouping are usually devised to suit the specific purposes of the analysis. Table 17 reproduces the size categories adopted in census publications, except that the smallest categories have been aggregated. A further aggregation that is often performed is to divide settlements into "large", "average", and "small". The precise quantitative meaning of these terms is unclear but they are defined here as follows. Small urban settlements are places with less than 50,000 population, average settlements have populations of between 50 and 100,000, large urban places between 100,000 and 500,000 and Sofia is identified separately as the largest city. Small rural settlements are those with less than 1,000 inhabitants, average have 1,000 to 2,000 people, while large rural settlements have populations in excess of 2,000.

Table 17 shows that the proportion of Turks is highest in small and average size villages and towns. Fully 25 per cent of the population of the small villages of the country is Turkish and, when the Roma/Gypsies are added to this, it is clear that 30 per cent of the inhabitants of small villages are non- Bulgarians. The Roma/Gypsies are also settled predominantly in small and average size towns and villages, but to a lesser extent than the Turks. Otherwise, nearly 60 per cent of Turks reside in small and average size villages and those that reside in urban settlements are also mainly small town dwellers. A similar observation also applies to the Roma/Gypsies.

The pattern of Turkish settlement is connected with the fact that they are engaged predominantly in agriculture and Turks are still found in the regions where they have lived for many decades, even centuries. Thus tradition plays an important explanatory role. The occupational structure of Roma/Gypsies is more diverse and their preference for small settlements needs to be investigated further. For both minorities, however, it would appear that their wish to live with their own people in order to maintain their own culture and life style is a very significant factor.

Table 17: Ethnic Groups by settlement size category and type

Settlement size categories (persons)	No. of settle-ments	No. of persons	Percentage distribution by settlement size category				Percentage distribution within ethnic group		
				Bulg.	Turks	Roma/ Gypsies	Bulg.	Turks	Roma/ Gypsies
URBAN Total:	238	5,626,075	100	92.6	4.5	2.9	71.6	31.7	52.5
-9,999	151	727,371	100	86.1	8.5	5.4	8.6	7.7	12.6
10,000 - 24,999	45	665,382	100	89.9	4.8	5.4	8.2	4.0	11.5
25,000 - 49,999	18	608,315	100	89.4	7.4	3.2	7.5	5.6	6.2
50,000 - 99,999	15	1,053,402	100	92.7	4.7	2.5	13.4	6.2	8.4
100,000 –199,999	6	845,626	100	93.2	4.2	2.6	10.8	4.4	7.0
200,000-499,999	2	635,990	100	94.8	4.0	1.2	8.3	3.2	2.4
500,000 +	1	1,089,989	100	98.4	0.4	1.2	14.7	0.5	4.2
RURAL Total:	5,001	2,758,558	100	74.8	19.8	5.4	28.4	68.5	47.7
-999	4,140	1,257,583	100	70.3	25.3	4.4	12.2	39.8	17.7
1,000 - 1,999	635	868,850	100	76.6	16.8	6.6	9.2	18.3	18.4
2,000 - 4,999	219	588,693	100	80.5	13.5	6.0	6.5	9.9	11.3
5,000 - 9,999	7	43,441	100	88.6	9.2	2.1	0.5	0.5	0.3

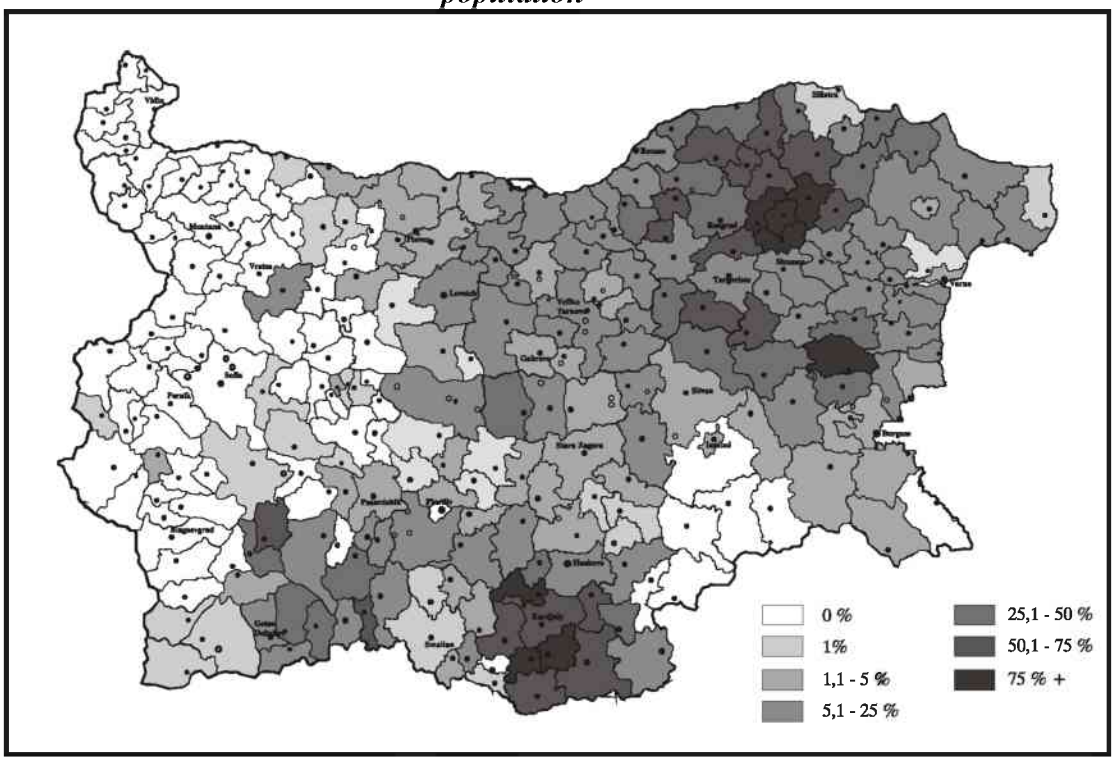
(Source: Population Census 1992, Vol. 1, National Statistical Institute, Sofia, and estimations of the author.)

Geographical Distribution

The observations on the settlement system can be complemented by examining the distribution of ethnic groups among all 278 communities in the country (8(a) and 8(b)[10].

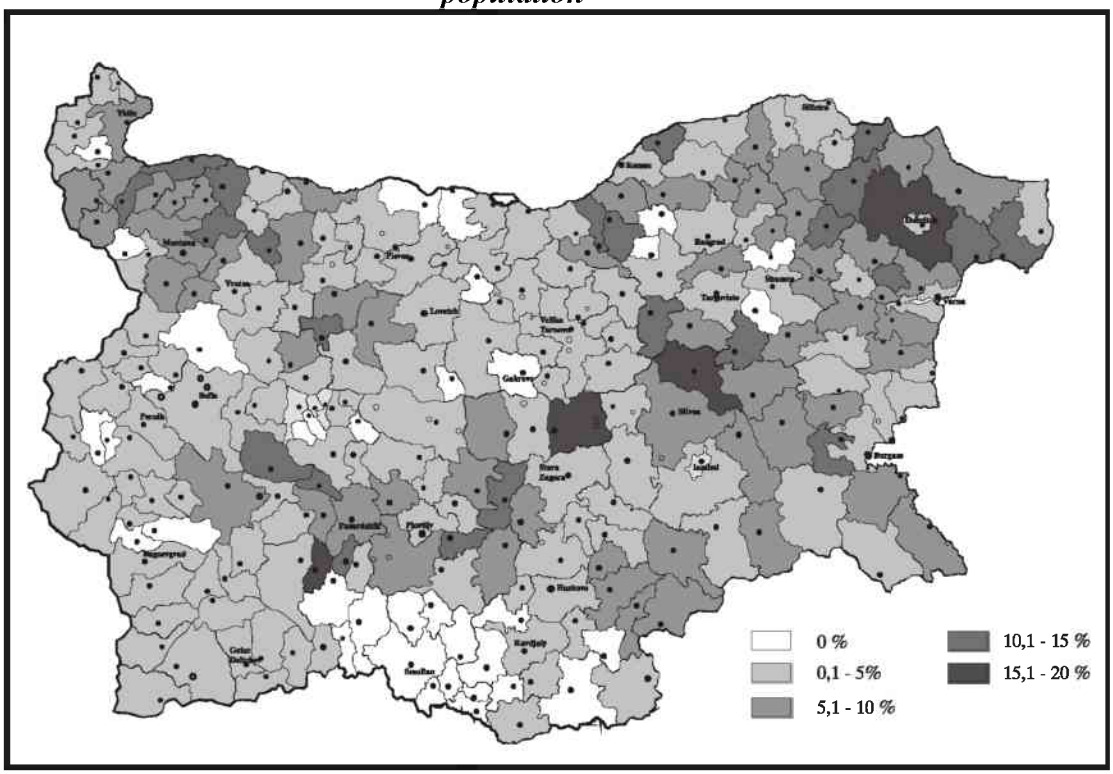
[10] Acknowledgement : the figures were drawn by Donjo Donev.

Figure 8(a): Territorial distribution of the Turkish minority as a percentage of total population



(Source: Population Census 1992, Vol. I)

Figure 8(b): Territorial distribution of the Roma/Gypsy minority as a percentage of total population



(Source: Population Census 1992, Vol. I)

The Turks reside predominantly in the Rhodopes mountain region of southern Bulgaria, especially in Kurdjali and also in northeastern Bulgaria in the regions of Shumen, Razgrad and Silistra. The map picks out their dominance in these regions and to a lesser extent in north-central Bulgaria. On the other hand, many communities, for example in western Bulgaria, are practically devoid of Turks.

The map portraying the distribution of the Roma/Gypsies shows that they are less sharply clustered. Although a slight prevalence can be observed in northeastern and northwestern Bulgaria, there are very few communities that contain no Roma/Gypsy element.

7. Population Projection

The 1993 data discussed in section 3 form the basis for the construction of a population projection of the Turkish minority, while the results from the reverse survival method are used to project Roma/Gypsy numbers. The residual population, i.e. the national population minus the Turks and Roma/Gypsies, forms a third projection group in which Bulgarians constitute 98.6 per cent of the total. The initial population is based on the December 1992 census results and is taken as 1993. The projection is broken down by 5-year age group and sex.

The fertility and mortality assumptions for the Turks are derived from the estimated rates for those communities in which Turks make up more than 40 per cent of the population, although a TFR of 2.00 is adopted in order to reconcile the community-based figure with the higher TFR suggested by the reverse survival method. The initial population is just over 800,000 Turks.

The Roma/Gypsy TFR of 4.1 was derived from the reverse survival method. This may well be a little higher than the true value but has been adopted here to test the possibility that Roma/Gypsies may eventually out-grow the Bulgarian population, as is assumed by public opinion in the country. The mean age of childbearing is assumed to be equal to 24.0 years and mortality rates are derived from the UN model life table defined by a female e^0 of 60 years and a male e^0 of 56 years.

The associated parameters in the residual population were obtained by subtracting the sum totals of births and deaths among the Turks and Roma/Gypsies broken down by age from the corresponding figures for the total population of the country. The basic demographic parameters used in the projection are summarised in table 18 and may be compared with those for the national population given in the last row of table 11.

Table 18: 1993 Basic Demographic Parameters

Population	CBR (per 1000)	CDR (per 1000)	TFR	Exp. of life at birth	
				Males	Females
Turks	16.3	10.4	2.00	65.6	71.7
Roma/Gypsies	37.0	9.6	4.1	56.0	60.0
Rest of Bulg.	8.1	13.3	1.24	69.0	76.7

(Source: table 10 and estimations of the author)

The fertility levels differ substantially among the three populations. Roma/Gypsy fertility is the highest and is well above the replacement level of 2.4 for the group. Turkish fertility, on the other hand, is just below the specified replacement level of 2.2, while in the rest of Bulgaria it is considerably below replacement, which is presumed to be 2.1.

Mortality also varies substantially among the groups. The e^0 for the rest of Bulgaria is more than a year higher than in the national population indicating that mortality among ethnic Bulgarians is actually considerably lower than would be inferred from an analysis of the population as a whole (table 9). In this way, desegregating the population of the country by ethnic group can aid our understanding of national demographic patterns.

The projection utilises the conventional cohort-survival (Leslie) method. It is assumed that the fertility of each group will move to replacement level by the year 2023, the time horizon of the projection, after an initial decline to 1998 (Table 19). This implies that the Roma/Gypsy TFR will fall from 4.1 to 2.4, which at the moment looks a less likely assumption than an unchanged level of fertility. Mortality is assumed to remain constant throughout and each population is closed to migration. That fertility will reach replacement level by the year 2023 is open to question but is based on two considerations. First, cohort fertility has been comparatively stable at about replacement level during recent decades. Second, recent period TFRs have been heavily distorted by a timing effect and adjusting for this raises their level substantially.[11] The projection results are given in table 19.

[11] Philipov, D. and H.-P. Kohler (1999): *The Tempo Effect on Fertility in Bulgaria, the Czech Republic, Hungary, and Russia: An Application of the Bongaarts-Feeney Formula* (unpublished manuscript). Paper presented at the Workshop on Lowest-Low Fertility held in the Max-Planck Institute for Demographic Research, Rostock, 10-11 December 1998.

Table 19: Projection Results, 1993-2023

	1993	1998	2003	2008	2013	2018	2023
TURKISH MINORITY							
0-14 %	26.0	23.3	21.9	21.4	21.7	21.5	21.3
15-59 %	62.2	64.2	65.1	65.4	64.1	63.3	62.5
60+ %	11.8	12.5	13.0	13.2	14.2	15.2	16.2
Total	800,052	820,389	842,269	863,542	881,553	895,882	908,857
Mal/Fem	1.013	1.007	1.001	0.997	0.995	0.995	0.996
TFR	2.00	1.70	1.80	1.90	2.00	2.10	2.20
CBR ‰	16.3	14.3	14.8	14.7	14.0	13.7	14.4
CDR ‰	10.4	11.1	11.7	12.4	12.9	13.5	14.2
nat.gr. ‰	5.9	3.2	3.1	2.3	1.1	0.2	0.2
Share %	9.4	9.8	10.2	10.6	11.0	11.4	11.8
ROMA/GYPSY MINORITY							
0-14 %	37.78	36.88	36.22	36.33	33.29	30.72	28.68
15-59 %	57.14	57.57	57.96	57.53	59.76	61.49	62.65
60+ %	5.08	5.56	5.82	6.14	6.95	7.79	8.67
Total	313,397	354,792	394,868	431,388	463,096	494,009	521,230
Mal/Fem	1.007	1.010	1.013	1.015	1.016	1.016	1.017
TFR	4.1	3.8	3.5	3.2	2.9	2.7	2.4
CBR ‰	37.0	34.4	31.1	26.9	24.2	24.0	21.5
CDR ‰	9.6	10.6	10.8	10.9	11.1	11.6	12.0
nat.gr. ‰	27.5	23.8	20.2	16.0	13.1	12.4	9.5
Share %	3.7	4.2	4.8	5.3	5.8	6.3	6.8
REST OF POPULATION OF BULGARIA							
0-14 %	17.4	14.6	13.3	13.2	15.0	15.5	15.8
15-59 %	60.5	61.0	61.5	60.5	57.4	56.0	55.4
60+ %	22.1	24.4	25.2	26.3	27.7	28.5	28.8
Total	7,373,868	7,182,124	7,020,161	6,854,664	6,673,622	6,471,672	6,273,423
Mal/Fem	0.960	0.944	0.932	0.923	0.918	0.915	0.914
TFR	1.24	1.00	1.30	1.50	1.70	1.90	2.10
CBR ‰	8.1	6.8	8.6	9.3	9.2	8.9	10.1
CDR ‰	13.3	15.5	17.8	19.6	20.6	21.3	21.7
nat.gr. ‰	-5.2	-8.7	-9.2	-10.3	-11.5	-12.4	-11.6
Share %	86.9	85.9	85.0	84.1	83.2	82.3	81.4
TOTAL	8,487,317	8,357,305	8,257,298	8,149,594	8,018,271	7,861,564	7,703,511

Notes: "nat.gr." = natural growth (CBR – CDR); Mal/Fem is the sex ratio of males to females.

Growth Rates and Shares

During the 30-year projection period the Roma/Gypsy minority will retain its high growth rate although on a declining trend. Growth in the Turkish minority will fall to about zero and any intervening increase will result solely from age structure effects. By contrast, despite rising fertility, the rest of Bulgaria will experience continuous population decline because of its old age structure. The share of Turks in the overall population of the country will increase slightly, while that of the Roma/Gypsies will nearly double. However, this increase will not bring about any substantial change in the ethnic composition of the country over the 30 year time horizon of the projection, contrary to public expectations. Substantial deviations from these patterns would only be brought about by migration. This conclusion is supported by the results of a projection that assumes no fertility decline among Roma/Gypsies. According to this scenario, they would number 813,000 by the year 2023 when they would make up 10.1 per cent of the population.

Age structure

The pattern of age structure change in the three populations is consistent with those discussed in section 2.

The proportion of Turks aged 0-14 is expected to continue to fall leading a relative increase in the size of the 15-59 age group up to the early years of next century with the proportion aged 60 and over rising thereafter. This pattern of ageing represents a continuation of the processes discussed in section 2. Among Roma/Gypsies the share of the 0-14 age group decreases rapidly after 2008 and, to the extent that this produces a sympathetic rise in the proportion aged 60 and over, typifies rapid ageing. In the rest of Bulgaria group the proportion aged 60 and over increases throughout the projection period and marks a later stage of ageing than seen in the two minority populations.

Additional projection scenarios were constructed for the Turkish minority to assess the effect of external migration. If we assume emigration of 10,000 persons in each 5 year period concentrated in 20 to 29 age group, of whom two thirds are male and one third female and retain the same fertility and mortality assumptions as before, the Turkish minority would be nearly 60,000 persons smaller by 2023. If emigration is now raised to 10,000 persons per annum, then they would number only 463,000 in 2023. These simulations show how sensitive the population is to external migration in that, given the lack of information about the size and ethnic composition of emigration, any migration assumption will distort the projection results substantially. In fact, emigration was very strong in the beginning of the 1990s but thereafter decreased significantly, while return migration and primary immigration would appear to have increased.

Finally, given the possibility that the size of the Roma/Gypsy minority might have been higher than assumed in 1993, one should test the effect of adopting a larger initial population on the projection results. Suppose, for example that the initial population of Roma/Gypsies was twice as large in 1993 as assumed in the projection and that fertility and mortality levels are as before. In this case, the Roma/Gypsy population would be twice as large as the number projected in 2023 but would still constitute only 15 per cent of the national total. In other words, even assuming an implausibly large initial population, it is clear that Roma/Gypsies cannot outnumber Bulgarians on any reasonable assessment of the future.

III. CONCLUSIONS

Demographic information about the minorities of Bulgaria is scanty and form an insufficient basis for drawing sound conclusions about demographic change in these populations. Past trends are difficult to construct and most of our knowledge stems from the 1992 population census.

None the less, there are a number of general inferences that can be drawn. Hence, the largest differentials tend to be between Bulgarians and Roma/Gypsies, while the demographic indicators for the Turkish minority lie mid-way between the two. Moreover, the Bulgarian population is characterised by its low fertility and mortality, while the Roma/Gypsies are typical of a population with high fertility and mortality, although it seems that in the few years preceding the last census fertility abruptly decreased. The Turkish minority does not fit either of these patterns. In 1993, it recorded low fertility and average mortality, but a few decades before that the description would have been very different.

The discussion here suggests that there are no grounds for accepting the widely held view that non-Bulgarian ethnic groups, particularly the Roma/Gypsies, will become the dominant population in the country in the foreseeable future. The projection shows that both Turks and Roma/Gypsies are far from achieving this position and it seems likely that the ethnic composition of the country will change in a way that is hardly apparent to the public.

By studying the population of Bulgaria disaggregated by ethnic group, one is able to contribute to a better understanding of demographic change. It is clear, for instance, that both Turkish and Bulgarian life expectancy is higher than in the respective national populations. Conversely, the decline in fertility has been even steeper.

The population policy of Bulgaria is not ethnic-specific. It may have been seen as such in the past, when child allowances were dependent on parity and the highest amount was paid for the third child, and the least for the first, since it was mainly Roma/Gypsies that had more than three children. But while it is right that it should not be ethnic-specific, policy has still to take account of the higher mortality of the Turkish and Roma/Gypsy minorities and have regard to the fact that reproductive health problems are also more prevalent in these two groups.

In order to further our understanding of these problems and to assist with the formulation of appropriate policies, there is an urgent need for more ethnic-specific population data. These can be most readily collected through the vehicle of carefully targeted specialist surveys.

REFERENCES

(Note: all references are written in Bulgarian, with the exceptions indicated. The titles are translated in English for the convenience of the reader.)

Arkadiev, Dimitar (1992): "A study of the Ethnic Composition in Population Censuses in Bulgaria". *Nasselenie*, Institute of Demography, 1992, N.2, pp.47-57.

Chalukova, Diana (1996): "Adolescent Reproductive Behaviour in Bulgaria". *Nasselenie*, Institute of Demography, N.2, pp.138-154.

Central Statistical Office (1887): *General Results from the Population Census in Southern Bulgaria, 1 January 1885*. Sofia.

Central Statistical Office (1890): *General Results from the Population Census in the Principality of Bulgaria, 1 January 1888*. Sofia.

Central Statistical Office (1967): *Population Census 1965*.

Chankov, Kiril (1935): *The Population of Bulgaria*. pp.55-207. Sofia.

Donkov, Kiril (1994): "Ethnic Composition of the Population of Bulgaria". *Statistika*, National Statistical Institute, Sofia, N. 2, pp.34-46 (in Bulg.).

Geshev, Gesho (1995): "Ethnic Structure of Bulgaria", *Nasselenie*, Institute of Demography, N. 3-4, pp. 66-81 (in Bulg.).

Mihov, N. (1920): *The Population of Bulgaria and Turkey in the XVIII and XIX Centuries*. Sofia.

Mutafchiev, Petar and Vera Mutafchieva (1995): *History of the Bulgarian People from the Beginning of Life on our Lands till the Bulgarian Renaissance*. Sofia.

Naidenova, Penka *et al.* (1996): "Women and Men during the Transition to a Market Economy". *Nasselenie*, Institute of Demography, N1, pp.3-24.

National Statistical Institute (1994): "Internal Migration of the Population". *Results from the Population Census 1992*, Vol. 1.

National Statistical Institute (1994): "Demographic Characteristics". *Results from the Population Census 1992*, Vol. 4.

National Statistical Institute (1994a): *Territorial Distribution, Concentration, and Urbanisation of the Population in the Republic of Bulgaria*.

Philipov, Dimiter and Sergei Tzvetarski (1993): *External migrations in Bulgaria*. Foundation "Initiative" series, Sofia, 40 pp. (in Bulg.).

Pimpireva, Jenia (1995): *The Karakachans in Bulgaria*. University of Sofia "St. Kl. Ohridski".

Popov, Kiril (1916): *The Economy of Bulgaria*, pp.20-50. Sofia.

Sarafov, Mihail (1883): "The Nationalities in the Western Part of the Principality". *Periodic Journal*, 1884, N. 8, pp.46-67. Bulgarian Literary Society.

Sougareva, Marta (1995): "Marriage and Divorce among the Minorities of Bulgaria". *Nasselenie*, Institute of Demography, N. 1-2, pp. 113-123 (in Bulg.).

Todorov, Nikolai (1993): *La situation démographique de la Péninsule Balkanique au cours des XVème et XVIème sèecles*. Nauka i izkustvo, Sofia (in French)

Todorova, Maria (1993): *Balkan Family Structure and the European Pattern: Demographic Developments in Ottoman Bulgaria*. (in English)

Totev, Anastas (1989): "Internal and External Migration of the Population of Bulgaria (A Demographic-Historical Sketch)". *Nasselenie*, Institute of Demography, N.3, pp.66-75.

Tupkova, Jordanka (1966): *Raids and Ethnic Change in the Balkans*. pp.40-62. Sofia.

APPENDIX 1: Bulgarian Muslims

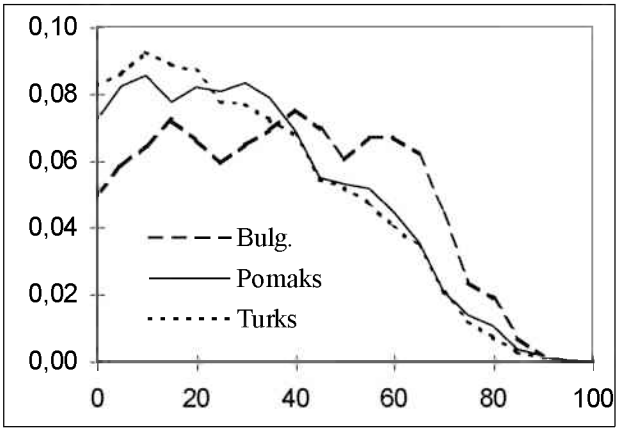
During the Turkish suppression, large groups of Bulgarian were forced to adopt Islam in order to preserve their lives and possessions. Other Bulgarians converted to Islam voluntarily, often in order to make use of social, economic, and political benefits. For example, in being Muslim, they were exempted from a number of taxes, and could rise in the administrative structure of the Ottoman Empire. Bulgarian Christians called them "Pomaks". Although the origin of this word is unclear, the predominant view is that it derives from "followers" or "helpers" (of the Turks). Other researchers argue that it originates from "suffering". Today its meaning can be pejorative.

Bulgarian Muslims inhabit predominantly southwestern and southern Bulgaria, particularly the mountainous areas in Pirin and the western and central Rhodopes. They have idiosyncratic cultural characteristics, which result from the intermingling of traditional Bulgarian characteristics formed under the influence of Christianity, and customs adopted from Islam. Bulgarian Muslims live in their own closed societies and have little cultural contact with Christian Bulgarians or Turks. This has contributed to the preservation of the old Bulgarian language, traditional Bulgarian folklore and a traditional style of living that are not preserved by any other group in the country.

Population censuses do not count Bulgarian Muslims separately from other Bulgarians, but using the distribution of the population by minority, mother tongue, and religion one can derive an approximation of their number. Thus, according to the 1992 population census the number of Bulgarians practicing Islam is about 177,000. Of these, 88,000 are males while 49,000 live in urban settlements and the remaining 128,000 in rural areas.

The age distribution of Bulgarian Muslims can also be inferred from these data (figure A1). This involves subtracting the number of Turks and Muslim Roma/Gypsies from the total number of Muslims. The calculation is broken down by age on the assumption that Roma/Gypsy Muslims have the same age distribution as the whole Roma/Gypsy Population.

Figure A1: Age Distribution of non-Muslim Bulgarians, Bulgarian Muslims, and Turks



(Source: for Bulgarians and Turks, Table 4; for Pomaks, estimations by the author).

Although the age distribution of the Bulgarian Muslims is seen to be closer to that of the Turks, it also suggests that fertility decline began earlier and hence population ageing is more advanced (table A1). The data presented in this table may be compared with the ethnic group data given in tables 5 and 6. In both cases, the comparisons again reveal that Bulgarian Muslims are closer to the Turks than to either of the other groups.

Table A1: Age distribution and dependency ratios for Bulgarian Muslims, 1992

Age distribution		Dependency ratios	
0-14	24	(0-14)+(60+) / (15-59)	59
15-59	63	(0-14)/(15-59)	38
60+	13	(60+)/(15-59)	21

The same pattern holds for fertility. The approximated CBR for Bulgarian Muslims is 14.4 per thousand, as against 16.4 for the Turks and 10.1 per thousand for the Bulgarian ethnic group. The age distribution of Bulgarian Muslim females is not available and the reverse survival method cannot be applied. However, the age distribution of the total population indicates that the reverse survival method would probably give a TFR a little lower than that of the Turkish minority.

APPENDIX 2: A comparison of demographic indicators for Turks in Bulgaria with the population of the Republic of Turkey

These two populations have a common culture but, since they reside in different social, economic, and political environments, they might well be expected to exhibit different types of demographic behaviour. The indicators given in table A2 contribute to such an analysis.

Table A2: Demographic indicators for the population of Turkey and the Turkish minority in Bulgaria

Indicators (in 1993)	Population of Turkey		Turkish Minority	
Mean age at first marriage	21.7		20.6	
Mean age of childbearing	27.2		22.9	
TFR	2.76		1.7-1.9	
CBR	23.3		14.0	
CDR	6.7		10.4	
Infant mortality	49.3		25.8	
Exp. of life	Males	Females	Males	Females
1990	64.4	69.0	-	-
1993	-	-	65.6	71.7
1995	65.7	70.3	-	-

TFR=total fertility rate; CBR=crude birth rate (per thousand); CDR=crude death rate (per thousand); infant mortality is per thousand; mean age at first marriage refers to women; for the Turkish minority it is the singulate mean age at marriage estimated from 1992 census data.

(Source: Recent demographic developments in Europe 1997, Council of Europe, for Turkey, and tables 10 and 12 for Turkish ethnic group.)

Fertility is considerably lower among the Turks in Bulgaria. This would seem to largely a function of the degree of fertility control. Turks in Bulgaria clearly begin their family formation earlier in line with the earlier mean age of women at first marriage in the group and earlier mean age at childbearing in the group.

Mortality among Turkish females in Bulgaria is lower and the difference in infant mortality is large. The substantial differential in the CDR (and to some extent also in the CBR) can be attributed to the fact that the population of Turkey has a younger age structure.