

MISSING AND DEAD FROM SREBRENICA: THE 2005 REPORT AND LIST

Helge Brunborg, Ewa Tabeau and Arve Hetland

Office of the Prosecutor

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1. EXECUTIVE SUMMARY

In the year 2000, the OTP demographers, Helge Brunborg and Henrik Urdal, compiled a list of missing and dead persons from the Srebrenica territory, see the expert report of Brunborg and Urdal (ERN 0092-6372-0092-6384), hereafter the **2000 OTP report**. The names in the attachment to this report will be called the **2000 OTP list**. Originally, the report was presented to the Trial Chamber in the KRSTIĆ case (IT-98-33), and later also to the Trial Chambers of VIDOJE BLAGOJEVIĆ et al. (IT- 02-53) and SLOBODAN MILOŠEVIĆ (IT-02-54). The 7,475 persons reported on this list disappeared as a result of the fall of Srebrenica in July 1995. The number of missing and dead on this list was obtained on the basis of two sources: the 1997 and 1998 editions of the ICRC¹ list of missing persons, and the 1999 version of the PHR² list of missing persons.

Because of new information that has become available to the OTP between the year 2000 and September 2005, and in particular the 2005 version of the ICRC list of missing persons, and also because of the progress made in the identification of bodies exhumed from the Srebrenica territory, the OTP decided that an update of the 2000 list of missing and dead persons from Srebrenica was required (hereafter called the **2005 OTP report** and the **2005 OTP list**). In order to present the Trial Chamber with the most recent available evidence related to Srebrenica victims, two projects were conducted at the OTP in August-September 2005:

- **Compiling the 2005 OTP list** of missing and dead from Srebrenica by exploring the 2005 version of the ICRC list of missing persons from Bosnia and Herzegovina. The resulting 2005 OTP list on Srebrenica victims largely confirmed the names included on the 2000 OTP list. In addition to this, 186 new names of missing and dead persons were added to the 2005 list.
- **Validating the number of known deaths** on the 2005 OTP list for Srebrenica, by tracing the **identified persons** exhumed from the Srebrenica territory, that at the same time were reported on the 2005 OTP list of missing and dead from Srebrenica. This issue is discussed in a separate report, (the so-called Addendum to the 2005 Report), where we found that out of the overall total of 2,591 exhumed and identified Srebrenica-related bodies (ICMP; closed as well as open cases; as of 9 September 2005), exactly 2,488

¹ ICRC stands for the International Committee of Red Cross.

² PHR stands for the Physicians for Human Rights, an American non-governmental organisation that collected records of missing persons from the Srebrenica territory, see the Brunborg and Urdal 2000 report for more information.

names (96%) appear on the OTP 2005 list of missing and dead persons, which is a strong evidence that almost all, with perhaps a few exceptions, of the missing are dead. Moreover, exactly 2,395 of the exhumed and identified persons were also found on the 2000 OTP list.

The relatively small number of the new names added to the 2005 OTP list on Srebrenica victims and the large number of identified persons found on both the 2005 and 2000 lists confirms that the 2000 list was highly complete and reliable.

Both projects were conducted by Helge Brunborg, an external expert to the OTP (formerly an OTP staff member; currently at Statistics Norway), in cooperation with Ewa Tabeau and Arve Hetland of the Demographic Unit, the Office of the Prosecutor (DU-OTP).

The detailed results of these two endeavours are the following:

- The 2005 OTP list of missing and dead related to the fall of Srebrenica contains 7,661 names, i.e. 186 additional names compared with the 2000 OTP list.
- We found a high degree of consistency between the previous list from 2000 and the current list, meaning that almost all names are on both lists.
- Comparisons with post-war lists of voters and displaced persons indicate that it is quite unlikely that many, if any, of the missing persons survived the war, but to be on the conservative side we have excluded 12 (out of 27 potential) such cases from the 2005 OTP list of missing and dead persons.
- Only 27 persons have been removed from the 2005 OTP list of missing persons for administrative or other reasons, such as errors.
- 2,054 missing persons from the 2005 OTP list have been confirmed to be dead, (as the ICRC closed cases – dead), as of 17 August 2005, but the identification process is continuing.
- In a public statement made on 10 July 2005, the ICMP³ announced that 2,079 individuals (closed cases only) have so far been identified through the DNA matching and that every week new matches are found.
- The age and sex distribution of those still missing and those confirmed dead are remarkably similar.
- 96.4 % of those reported as missing or dead disappeared in July 2005
- 97.2 % of those reported as missing or dead were the residents of Srebrenica and four other municipalities in the region (Bratunac, Vlasenica, Zvornik and Han Pijesak))

Our overall conclusion is that a minimum of 7,661 persons from the Srebrenica enclave are missing and presumed dead, i.e. 186 more than in the 2000 OTP report. More than 2,000 of the persons registered as missing have been confirmed dead, most of them through DNA analysis of victims and their relatives. These results are corroborated by the ICMP announcement that 7,789 Srebrenica victims are registered in the ICMP blood donors database, of which (as mentioned already) 2,079 have been identified and closed until 10 July 2005.

³ ICMP stands for the International Commission for Missing Persons in Sarajevo, which is the main international organization mandated to conduct the identification of human remains exhumed from graves in the area of Srebrenica and the entire Bosnia and Herzegovina. As the identification method, the ICMP applies the DNA matching of the exhumed bone samples and the blood sampled collected from the relatives.

⁵ The 1997-1998 ICRC list of missing persons for Bosnia and Herzegovina is actually a merge of two lists: version 3 of the ICRC list from January 1997 and version 4 from July 1998.

These findings support the conclusion that the remaining missing persons, who have not been accounted for, are dead. As in the 2000 report we have found that only a very small number of the persons registered as missing could be alive. Finally, we have found no proof that persons registered as missing are fictitious persons.

2. BACKGROUND

When the enclave of Srebrenica fell on 11 July 1995 a number of men tried to escape by walking through the forest, and many of them were killed on the way or after surrendering or being captured. Others were separated from their families in Potočari and later executed. Several women, children and old men were also killed. Many dead bodies were buried in mass graves, which were often disturbed soon after, while others were left in the forest. The total number of victims is not known. Exhumations conducted by the ICTY and local Bosnian Commissions for Tracing Missing Persons have uncovered more than 7,000 bodies out of the (broadly defined) Srebrenica territory. Of these more than 2,000 have so far been identified.

Information sources that reliably cover the fall of Srebrenica allowing for a detailed statistical analysis of victims, and in particular making it possible to obtain the total number of Srebrenica victims, and its basic demographic distributions, are limited. The 1997-1998 ICRC⁵ and 1999 PHR lists of missing persons belong certainly to the best existing sources in this regard. These two lists (the 1997-1998 ICRC and 1999 PHR editions) were used by OTP in producing the 2000 list of missing and dead persons from Srebrenica (i.e. Brunborg and Urdal's list).⁶ Since July 1998 (when 4th 1998 edition of the ICRC list was published), the ICRC has systematically up-dated their list for Bosnia, the latest up-date being from July 2005. All subsequent up-dates of the ICRC list are available from the ICRC website on the Internet (http://www.familylinks.icrc.org/mis_bos.nsf/). Despite the fact that the vast majority of ICRC records of missing persons from Bosnia was collected before 1998, and that the post-1998 up-dates of the ICRC list of missing persons were limited, there are several hundreds of new records on the 2005 ICRC list when compared with the previous editions of the ICRC list. Whereas the ICRC has continued their activities in Bosnia until the present time, the PHR has unfortunately closed their Srebrenica project after 1999, and this source is not up-dated any longer.

The new 2005 OTP list of Srebrenica-related missing persons is based almost solely on the most recent, i.e. as of August 2005, version of the ICRC list of missing persons for Bosnia and Herzegovina. The previously reported PHR records have been kept exactly as reported on the 2000 OTP list. There are now (i.e. on the 2005 OTP list) very few missing persons registered only on the PHR list and not on the ICRC list, just 23, whereas there were 192 such persons on the 2000 list. Consequently, the 2005 OTP list of missing and dead persons is almost entirely based on the ICRC list and this report therefore focuses on the ICRC and to a much lesser extent on the PHR data.

The objective of this report is to use the sources on missing persons and other data (i.e. on identified persons), to arrive at a reliable estimate of the number of people who were killed or

⁶ Most of the work on the 2000 OTP list of missing persons was done in 1999. The report by Brunborg and Urdal was submitted to court in February 2000 and the list of missing persons in May 2000.

who are still missing after the fall of Srebrenica. We have paid particular attention to data on missing persons who have been confirmed dead. This report gives relatively more attention to results and less to methodology and data quality as compared to the 2000 report. A more thorough discussion of these issues can be found in the previous report. Importantly, the methodology applied in the 2005 OTP report is basically the same as the one used for the 2000 OTP report, although some methodological improvements have been done. The data quality has also improved in 2005 as compared with 2000.

This report contains the following sections:

1. Executive Summary
2. Background
3. Definition of Terms for Srebrenica victims
4. Data Sources of This Report
5. Sources on “Missing-Exhumed-Identified” Persons
6. Methodology
7. Results

The 2005 OTP list of persons reported dead or missing in relation to the events in the Srebrenica territory in July-December 1995 is attached as a separate document.

3. DEFINITION OF TERMS FOR SREBRENICA VICTIMS

In this report, the terms “missing” and “disappeared” are used interchangeably. To qualify as a Srebrenica-related missing person, i.e. a person missing in connection with the fall of the enclave on 11 July 1995, the following definitions were applied:

- *Date of disappearance:* This phrase refers to the date a missing person was last seen alive.⁷ This is, however, not necessarily the date the person may have been killed. Records with a reported disappearance or death between 11 July, (or immediately before, but not earlier than 1 July), and 31 August 1995, were considered the most relevant, but also records with disappearances between 1 September and 31 December 1995, from locations in or near the enclave, were included in our analysis.
- *Place of disappearance:* This phrase refers to the place a missing person was last seen alive.⁸ Again, this is not necessarily a reference to where the person may have been killed. A person may, for example, have left Srebrenica on 11 July and started to walk through the forest, been picked up by the RS Army and transported to a place, say Nova Kasaba, where he was executed. The place of disappearance in this example could be any of Srebrenica, “Forest” or Nova Kasaba, depending on who saw him last alive. For this project a list was compiled of “missing”-locations related to the fall of the enclave. This compilation was done in close co-operation with investigators knowledgeable of refugee flows from the enclave, and after consulting with people from the area on difficult cases.⁹

⁷ This could either be the date the informant her/himself last saw the person alive, *or* a date based on information provided by an eyewitness through the informant.

⁸ This could either be the place the informant her/himself last saw the person alive, *or* information provided by an eyewitness through the informant.

⁹ PHR asked the specific question “Did he/she disappear after the fall of Srebrenica in July 1995?”, and the answers to which were provided to us for each Srebrenica-related person. We have used this information in conjunction with date and place of disappearance to make the list of Srebrenica-related

For the OTP 2005 list the municipalities covering these locations, together with the date of disappearance, was used to decide whether a person disappeared in relation to the fall of Srebrenica. The following municipalities were considered relevant: Bijeljina, Bratunac, Han Pijesak, Kalesija, Kladanj, Rogatica, Šekovići, Srebrenica, Vlasenica and Zvornik. Brunborg and Urdal (2000) also included in their list a few records of citizens of Bosnia who disappeared in three municipalities in Serbia (bordering the Srebrenica area): Bajina Bašta, Ljubovija, and Valjevo. Also these three municipalities were considered relevant.

4. DATA SOURCES OF THIS REPORT

4.1 SUMMARY OF SOURCES

The major source used in the compilation of the 2005 OTP list of missing and dead persons from Srebrenica was the 2005 version of the ICRC list of missing persons for Bosnia and Herzegovina, dated 17 August 2005. A second major source, as in the case of the 2000 OTP list, was the PHR Ante-Mortem Database, versions from May, July and October 1999 merged together and analysed jointly with the 2005 ICRC list. Due to a large overlap with the ICRC list, only very few exclusive PHR records (23) entered the 2005 OTP list of missing and dead from Srebrenica, whereas all remaining records were from the ICRC list.

The ICRC and PHR lists were the major but not the only sources used, however. This report is also based on the following additional sources for Bosnia and Herzegovina with data on individuals:

- Population Census 1991.
- Voters' Registers from 1997, 1998 (merged: 1997-98), and 2000.
- Database of Displaced Persons and Refugees (DDPR), version 2000.

The 1991 Census served as a reference source linked with the ICRC and PHR lists and searched through in order to check the personal details of individuals reported missing or dead in relation to Srebrenica, to study their ethnicity or place of residence reported in the 1991 Census, and to eliminate possible duplicates on the Srebrenica missing persons list. The Voters' Registers 1997-98 and 2000, and the DDPR-2000, were used as sources on the post-war population that survived the conflict of 1992-95. These three lists were used to attempt to identify possible survivors reported on the Srebrenica missing persons list.

Finally, several comparisons were made of the new 2005 OTP list with the previous 2000 OTP list of missing and dead persons related to Srebrenica.

All above-mentioned sources are summarized below.

4.2 THE 2005 ICRC LIST OF MISSING PERSONS FROM BOSNIA AND HERZEGOVINA

places of disappearance. ICRC did not pose any precise question to the informants but defined Srebrenica-related victims on the basis of the story given by the informant, which usually starts with: "During the fall of Srebrenica" or "After the fall of Srebrenica". (Fax to ICTY from ICRC, Sarajevo, 7.12.99.) However, this information was not provided to ICTY for the missing persons.

The ICRC started the registration of missing persons from the territory of Srebrenica and neighbouring municipalities soon after the fall of the Srebrenica enclave (already in July 1995), primarily to register persons believed to be in detention. The registration of Srebrenica victims, as of all other victims of the Bosnian war, has continued until the present. The work of ICRC in Bosnia and Herzegovina has so far resulted in the publication of six editions of their list of missing persons (the 6th edition published in October 2004), as well as an addendum containing about 1,000 entries (published in 2000). The 4th, 5th and 6th editions of the ICRC books contained records of still missing persons as well as known deaths.

In addition to publishing these books, ICRC maintains a website where the names of (still) missing persons from Bosnia and Herzegovina are presented. The website, available at http://www.familylinks.icrc.org/mis_bos.nsf/bottin, is regularly up-dated.

The 2005 up-date of the ICRC list of missing persons for all of Bosnia and Herzegovina used for this report was provided directly by the Geneva Office of the ICRC on 17 August 2005 (ERN: D000-1714-D000-1714). The list sent to the OTP in August 2005 is broader than the web-based list of “still missing” only, including some information about the body for those still missing and about persons who are not missing any more. The 2005 ICRC list provided to the OTP has five components:

- still missing with information about the body not yet available (14,105 records);
- still missing with information about the body already available (1,528);
- ICRC closed cases, i.e. confirmed deaths (6,093);
- alive persons, i.e. cases no more valid as part of the missing persons list (434);
- administrative exclusions (52).

Altogether these lists contain 22,212 records, of which 21,726 are related to still missing or dead persons and 486 are no more relevant.

The 2005 ICRC list, as all previous editions of the list, includes data on surname, first name, father’s name, sex, date and place of birth, and date and place of disappearance (reported as the “place – municipality”).

It is noteworthy that even though ICRC obviously has improved their records throughout the years since the publication of their first list in 1996, empty or incomplete fields are still seen on the 2005 ICRC list. The most frequently incomplete items are date of birth (28.8 % incomplete; 6,403 incomplete DoB out of 22,212 records; but only 12 without year of birth) and date of disappearance (11.8 % incomplete; 2,624 incomplete out of all 22,212, but only one record without year of death). The other variables are recorded for almost everybody – but that does not necessarily mean that they are always correct. Errors are seen in the spelling of names of persons and places. Moreover, from comparing several lists we know that there are errors, although mostly small, in variables such as date of birth. Such errors are common all over the world in data collected through questionnaires in surveys, censuses and elsewhere. It is, therefore, not surprising that there are errors in variables concerning tragic events collected in a chaotic and traumatic situation.

4.3 THE PHR ANTE-MORTEM DATABASE FOR PERSONS REPORTED MISSING FROM THE SREBRENICA AREA

PHR started their registration process somewhat later than ICRC, in July 1996. Their objective was to produce an ante-mortem database that could later be used in the identification of exhumed bodies. The process included, therefore, very detailed questions about the missing persons, such as special physical characteristics and clothing, which were often emotionally difficult for the informants to answer. At the same time, the informants were often far better prepared for the interview situation than when they reported their relatives as missing to ICRC, with many providing identification papers for the missing persons. The PHR Ante-Mortem Database has been and is still used today in the identification process of Srebrenica victims in the framework of the Podrinje Identification Project in Tuzla, which was established and co-funded by both local Bosnian state authorities (Entities) together with the ICMP in Bosnia and Herzegovina.

As the ICRC, the PHR collected data on surname, first name, father's name, sex, date and place of birth, date and place of disappearance. The PHR also registered the ethnicity of missing persons.

Although the objectives and the procedures for the two registration activities of ICRC and PHR seem somewhat different it is our conclusion that the type of cases registered were very similar. Both activities were done to trace missing persons; more than 95 % records were reported by close relatives; and registration of persons known to be dead was accepted in several cases. The PHR list has fewer cases than ICRC most likely because PHR started later than ICRC and worked actively to register persons in only two areas (Tuzla and Sarajevo).

The PHR Ante-Mortem Database (AMDB) we used was updated in July 1999 but we also received some additional information from PHR in May and October 1999, totalling 7,269 persons, about 80 per cent being Srebrenica-related.

4.4 THE 1991 POPULATION CENSUS FOR BOSNIA AND HERZEGOVINA

In statistical practice, the population census is usually the largest and most complete source of information about the population in a country. The 1991 Population Census covered the entire population of Bosnia and Herzegovina as of 31 March 1991. During the Census, information was collected about a total of 4,4 million individuals. The information about individuals was obtained in face-to-face interviews based on a census questionnaire designed in a uniform way for the whole country, i.e. the former Yugoslavia.

The census files contain one record for each enumerated person. These records include information on a large number of variables, such as the municipality and settlement of residence, name and surname, father's name, household sequential number, personal ID number, date and place of birth, sex, occupation, ethnicity, mother tongue, religion, educational attainment, the number of children born (for women only), and many more.

The overall data quality is good, except for frequent errors in the persons' names. These errors are mostly consequences of poor optical scanning of the original forms (for example misreading V for U, as in MVSIC) and no subsequent checking and editing. To correct the scanning errors we employed several strategies. First, computer software was developed and applied to detect combinations of letters that are impossible in the B/C/S language. The software used the B/C/S syntax in order to access the viability of combinations. The impossible combinations were corrected by eliminating miss-shaped (illogical) characters and inserting their most likely equivalents. Secondly, we developed correction tables to eliminate scanning mistakes from the names. The tables contained the actual names and their correct

versions which both were used by a computer programme to produce suggestions regarding the corrections needed. Then, these suggestions were controlled manually to discard any wrong corrections produced by the software. The accepted corrections were then applied to the data. Native speakers of the B/C/S language, who in addition were familiar with naming traditions in Bosnia and Herzegovina, undertook all these tasks. Furthermore, we also developed and applied computer software that utilised household information to correct surnames within households. The software checked the correctness and consistency of family names within the same households. Household members, whose family name was different from the (correct) name of others in this particular household, received the correct name. For instance, if MUSIĆ was the correct surname in a household, the person enumerated as part of this household under the name MVSIC would become MUSIĆ.

A second data quality problem is that for a number of records the unique 13-digit personal ID number (*jedinstveni matični broj*, JMB), introduced in the former Yugoslavia in 1981, is only partly available. The JMB consists of date of birth (DOB, 7 digits), region of birth (2 digits), a sex-specific sequential number (3 digits), and a check digit (1 digit). For our needs the date of birth is essential, other components of the JMB being of less value. The date of birth is missing only for a few per cent of the 1991 population.

In our opinion, data-related problems do not discredit the census as a powerful source of information about the pre-conflict population in Bosnia and Herzegovina.

The census includes a variable on the ethnicity of the enumerated individuals. This allows us to study the population in the context of the 1991 ethnicity for all those individuals whose records have been linked between the two data sources (in the 1991 census and ICRC list). The question on ethnicity in the census questionnaire was open-ended meaning that individuals could declare themselves as belonging to any ethnicity. The majority of the 1991 census population declared themselves as belonging to one of the three major ethnic groups in Bosnia and Herzegovina: Serbs, Muslims, or Croats. Other ethnic declarations in the 1991 census included Yugoslavs (relatively frequently), combinations of ethnicities, such as “Serb-Croat” or “Muslim-Serb” (infrequently), and other national (e.g. Vlach or Gypsies) or foreign (e.g. Hungarians) ethnicities (less frequently). Those who called themselves Yugoslavs, or by names combining two ethnicities, were often children from mixed marriages. The Yugoslavs did not feel they belonged to any particular ethnic group and frequently disliked ethnic categorisation.

For this report, four ethnic groups were distinguished on the basis of ethnicity declarations in the 1991 census: Serbs, Muslims, Croats, and Others. The last group, Others, is a residual category and covers persons who declared themselves as Yugoslavs, combinations of ethnic groups, and other national or foreign ethnic groups.

4.5 THE VOTERS’ REGISTERS OF 1997, 1998, AND 2000 FOR BOSNIA AND HERZEGOVINA

The Voters’ Registers discussed in this section were established under the auspices of the OSCE; i.e. the Organization for Security and Co-operation in Europe; they are therefore often referred to as the OSCE Voters’ Registers. The basis for establishing these registers was the 1991 Population Census that after the conflict was the latest available complete source of information about the population of Bosnia and Herzegovina, and in particular about the eligible voters. Note, however, that Voters’ Registers cannot be used as a source on the overall population size in 1997, 1998, or 2000. In these years the population of Bosnia was

certainly larger than the approximate 2,7 million voters covered in the Registers (probably around 3.5 or more million). However, all Registers can be safely seen as a large sample of the population that survived the 1992-95 conflict in Bosnia and Herzegovina. Noteworthy this population was aged 18 years or older at the time of elections; children below 18 years of age, who are not eligible to vote, are not represented in the Registers.

The 1997-98 Voters' Register is a large sample of the 1997-98 population of eligible voters of Bosnia and Herzegovina. All voters who registered to vote in 1997 and in 1998 are covered in this source. We merged the two Voters' Registers (1997 and 1998) in one (1997-98). The overlap of these two lists is large. Only about 150,000 records are new in 1998 (1st registration in 1998). All other records reported in the 1998 register are also covered in the 1997 register. While merging the registers, we included all records from 1997 (1st registration in 1997) and additionally the new records from 1998 (150,000 records from the 1st registration in 1998). In most cases, the 1998 records appeared to cover municipalities where the registration was less complete in 1997. The total size of the merged 1997-98 Voters' Register is 2,674,506 records and it mainly covers the year 1997. The size of the 2000 Voters' Register is 2,296,308 records.

Voters' Registers contain information about surname, first name, JMB, DoB, municipality of residence in 1991, municipality of registration to vote, and the municipality they wanted to vote for.

The Voters' Registers have some of the same deficiencies as those discussed for the Census (e.g. spelling mistakes, incomplete or missing JMB, etc.). These deficiencies were corrected in the same way as for the Census.

4.6 THE REGISTER OF DISPLACED PERSONS AND REFUGEES 2000 FOR BOSNIA AND HERZEGOVINA

The register of Displaced Persons and Refugees (DDPR) is an official source of information of the government of Bosnia and Herzegovina and UNHCR. The development of the database was co-ordinated by UNHCR, while municipal authorities provided the input data for the database. The database covers the entire country. The 2000 version, made available to the Demographic Unit, reports persons who in the year 2000 were still registered as displaced from their pre-war homes and in need of a durable solution. A copy of the DDPR was acquired from the State Ministry of Human Rights and Refugees (MHRR) in Sarajevo in mid August, 2002.

The database contains information for about 583,816 persons. Among them it also includes about 60,000 persons born after 1 April 1991, who can not be matched with the 1991 Census. For about 1/3 of the persons reported in DDPR the available information is very complete (this is the third that actually made the application, 191,954 persons). Items such as names, date and place of birth, place of residence before the conflict, marital status, ethnicity etc. are all available. For the remaining 2/3 (i.e. families of the applicants, 391,862 persons), the information is more limited and includes only names, date of birth, sex, kinship with applicant, and JMB. There is no information about place of birth or ethnicity of the family members. The only additional information is the work status and occupation of the spouse of the applicant, and the implied information about current residence. In this situation, assumptions or linked information are needed to process the data (e.g. assuming the same ethnicity as the applicant for all the other family members).

The overall quality of the data seems quite good, although there are some problems, such as the personal identification numbers (JMBs) which are incomplete or invalid in about 1/4 of all cases.

5. SOURCES ON “MISSING-EXHUMED-IDENTIFIED” PERSONS

The OTP list of missing persons related to the fall of Srebrenica in 1995 has been occasionally criticised for the fact that it mainly presents missing persons, whereas the confirmed deaths reported on this list constitute only a small fraction of the overall total of Srebrenica victims. This was indeed the case with the 2000 version of the OTP list, when only a few individuals of the 7475 missing persons had been confirmed dead. This is not the case for the 2005 OTP list, however. The number of known deaths on the 2005 list is 2,054 out of the 7,661 reported names, which is 26.8% of the total. This number is based on the ICRC closed cases. In addition, we have good reasons for believing that the known deaths on the 2005 OTP list are underrepresented at the expense of persons reported as “still missing”. The reason for this is that organizations operating in the area of exhumations and identification likely have more records of known deaths than the ICRC. It is also obvious that the number of known deaths generally will increase in the future, reflecting the progress made in the exhumation of human remains from graves in the Srebrenica area and in the identification of these remains.

It has been one of the goals of this report to find out how many of the missing persons have been exhumed and identified so far. With regard to the exhumed bodies, this task appeared to be rather complex, however.¹⁰ The number of identified persons also varies, depending on the identification approach considered (DNA matching versus other methods of identification, such as presumptive identification cases based on IDs, clothing, other personal belongings etc. of the exhumed victims).

A concise yet exhaustive overview of the exhumation and identification status in the former Yugoslavia, and in Srebrenica in particular, is not available from one single organization. For Srebrenica alone, which is by far the most elaborated area, this information is scattered among several agencies. Information and documentation related to Srebrenica, are available from the Cantonal Court in Tuzla, Podrinje Identification Project in Tuzla (PIP; a joint project of ICMP and local authorities in Bosnia), ICMP Identification Coordination Centre (ICC-ICMP) in Tuzla, ICMP Office for Bosnia in Sarajevo, and University Clinical Centre in Tuzla (UCC). In addition to these, the newly established (August 2005) Institute for Missing Persons (IMP), funded by ICMP together with the Bosnian Government, and the BH State Commission for Tracing Missing Persons (CTMP), are in charge of much of the existing information about exhumations and identification of victims of the Bosnian war. The IMP and CTMP are now creating a central database on exhumations and identifications. Unfortunately, this database does not yet exist in a usable electronic format.

¹⁰ One reason for this is that several new grave sites have been found, some being rather large, the documentation of which yet needs to be studied. A second reason is that the re-association of remains has been considerably advanced by applying the DNA matching methodology to the exhumed bone samples. These new results need to be taken into account when producing an up-date on the Srebrenica-related sites and new estimates of the exhumed bodies, which is the main goal of a separate OTP project.

Despite of these difficulties we can conclude that of the about 22,000 missing persons reported in Bosnia, human remains of (at least) more than a half of this total have been exhumed so far (more than 13,000)¹¹. A majority of these remains relate to Srebrenica, which is also best represented in the DNA matching and identification process. According to the PIP, about (at least) 7,000 body bags are stored in the Tuzla morgues. According to the ICMP estimate based on the blood samples collected so far, the number of missing persons from Srebrenica is 7,789.

The most reliable source on the exhumed and identified persons is with no doubt the ICMP. We used this source to check whether the number of known deaths is equal to or higher than the ICRC-based total of 2,054 deaths. The results of this exercise are discussed elsewhere; in the present report we only generally summarize the method of the ICMP operation.¹²

The International Commission on Missing Persons (ICMP) believes that as a legacy of the 1992-1995 war there are an estimated 40,000 persons missing from the former Yugoslavia, of which about 22,300 are from Bosnia and Herzegovina. ICMP, which was created in 1996 at the G-7 summit in Lyon, France, assists families, regardless of their ethnic or religious origin, in determining the fate of their loved ones lost during this conflict.

Many of these family members are most likely dead. The problem is how to identify them when, as in the case of those from Srebrenica, traditional forensic methods have only identified five to eight percent of the exhumed bodies. To address this problem, the ICMP employs modern technology to ensure that the bodies can be identified quickly and accurately, by using DNA sampling and matching. Bone samples taken from dead bodies and blood samples from living relatives are matched. Such samples, if matched, provide a reliable basis for the identification of a missing person.

Each human being has a distinct DNA code. Humans inherit this distinct code from their parents, therefore their DNA will bear similarities with their relatives: The closer the relative, the closer the match. The laboratories analyse certain points of the genetic code to determine whether a body's DNA matches a living relative's. When a comparison is said to result in a match, it is considered very accurate (probability of 0.9999, or probability of a false match of 0.0001). In order to keep this probability high, blood samples are ideally taken from *three* relatives of every missing person. The ICMP will have to collect at least about 100,000 blood samples in order to identify all missing persons from the territory of the former Yugoslavia.

Once a match is made, the result is sent to the pathologist, who, if satisfied, will sign the death certificate. To ensure that the system works, bodies have to be recovered from graves and elsewhere and blood samples have to be taken of relatives. Family outreach centres for collecting blood samples have been established in Tuzla, Sarajevo, Mostar, Sanski Most and

¹¹ The FBH Exhumations Commission reported in December 2003 that they were aware of 8,188 bodies exhumed so far, of which 2,512 persons had been identified, (graves containing 5 or more bodies). The RS Exhumations Commission reported in January 2004 that they were aware of 2,525 bodies exhumed and 54 re-exhumed, of which 911 had been identified (during 1995-98, more identifications have probably been made since 1998). About 2,570 bodies were exhumed in the ICTY exhumations between 1996 and 2001, (graves with 2 or more bodies). These three totals add up to 13,283 bodies.

¹² The review of the ICMP operation is based on materials from the ICMP website on the Internet and on interviews with staff members of the ICC-ICMP and PIP in Tuzla conducted during the missing of Ewa Tabeau (Demographic Unit, OTP) and Ronald Turnbull (Evidence Unit, OTP) to Bosnia in August 2004.

Banja Luka. There are also ICC-ICMP mobile teams that collect blood samples from all over BiH and other regions of the former Yugoslavia. Most of the staff have worked for a long time with the ICMP, and are trained on how to approach people (relatives) and how to take blood samples.

The process of blood donating is entirely voluntary, and ensures complete confidentiality for the donor. Once either blood or bone samples have been taken, they are bar coded (done at the ICC-ICMP by computer) so that no one outside of the central office is aware of the details behind the sample. The DNA profile is separated out of the blood samples at the Tuzla University Clinical Centre.

Exhumations are the source for obtaining bone samples. Informants (e.g. witnesses or victims) report possible graves to the local Bosnian commission for missing persons, or to international organisations, such as SFOR, ICMP or ICTY. After a pre-visit to an exhumation site, with an assessment of the location and history of the site, the local court issues an exhumation warrant. It is at this point that the ICMP co-ordinates the proceedings. The digs are closely monitored by several agencies, to ensure that they are conducted legally and thoroughly. SFOR can provide information for the pre-visits and enhanced security for the site and surrounding area, if the dig is sensitive. The corpses go to one of the many morgues in the area of Sarajevo or Banja Luka, or in Tuzla for the Podrinje Identification Project (PIP).

PIP helps the DNA sampling project by extracting bone samples, as well as by carrying out more traditional forensic work, such as identifying bodies through old injuries and from clothes, which is also done at the Tuzla hospital. Small bone samples are taken, bar-coded for anonymity, and sent to a laboratory in Sarajevo, where the DNA is extracted.

The DNA profiles of the blood and bone samples are returned to the ICC-ICMP in Tuzla, where the matching is done. At the ICC-ICMP, all blood and bone samples are archived, all of them bar-coded, with names of donors being removed from the samples. The ICC-ICMP also maintains the ICMP databases containing among others the following modules:

- Blood donors (i.e. relatives of the missing)
- DNA matches and reports on matches
- Closed cases (i.e. positive identification), with names and other available personal details.

All ICMP records are identified through unique bar codes. The bar codes are consistently used throughout all databases and serve to establish unique links between them. The most valuable databases are those of the blood donors (relatives of the missing), DNA matches and identified persons.

Importantly, from our visits to the PIP and ICC-ICMP in August 2004 we learned that the identification of Srebrenica victims has been done very thoroughly. Thus, records on the identified persons can safely be presented in court.

6. METHODOLOGY

The methodology used for this report was the same as the methodology for the 2000 OTP list, i.e. matching of records on individuals from the 2005 ICRC list, 1999 PHR list, 1991

Population Census, and 1997-98 and 2000 Voters' Registers. The following steps were completed:

- First of all, a searchable database was established from the 2005 ICRC list of missing persons for Bosnia and Herzegovina,
- The 2005 ICRC list was matched with the 1991 Population Census. This was done through the link with the 2004 ICRC & PHR list, which resulted from merging all ICRC lists up to and including version 6 from 2004 and also PHR records. Information about the ethnicity and the place of residence according to the 1991 Census was incorporated into the 2005 ICRC list,
- The 2005 ICRC list was checked for duplicates; duplicates were marked and excluded from further analysis,
- The 2005 ICRC list was searched for Srebrenica-related missing persons, using the criteria of relevance to the fall of Srebrenica in 1995 (see Section 3) in order to select records for the 2005 OTP list,
- Srebrenica-relevant PHR records that were not reported in the 2005 ICRC list were added, resulting in the first version of the 2005 OTP list,
- An additional check for survivors was conducted, using the first version of the 2005 OTP list on one hand and all three Voters' Registers on the other hand.
- All matches of potential survivors reported in the 1997, 1998, 2000 Voters' Registers and/or DDPR-2000 were checked manually in the 1991 Population Census.
- A small number of potential survivors was excluded from the 2005 OTP list, which at this point became final.

6.1 MATCHING METHODOLOGY

When matching various lists with data on individuals our approach was to use the Access database program to search for records on one list that represent the same individuals on another list. If key variables are identical in two given lists the matched records are assumed to correspond to the same person, otherwise not. This would have been a fast and easy procedure if all individuals on each list were uniquely determined by one or more variables, such as an ID number, but this is not the case with all lists available to us. Although a unique ID number (*JMB; jedinstveni matični broj*) was introduced in Yugoslavia in 1981, it is not used by ICRC and PHR in their databases. Moreover, when it is used, such as in the 1991 Census and the OSCE Voters' Register, it is sometimes missing or wrong.

The matching of two lists was always begun by searching for records with identical names and date of birth. It is very unusual that two different persons have identical names *and* are born on exactly the same date, especially if we are only considering the population of a small area, such as a municipality or Eastern Bosnia. Quite often, however, names are spelled differently or the date of birth is recorded slightly differently – or missing altogether in one or both lists. Consequently, for persons not matched in the first round we made the search criteria gradually broader for one or more variables, for example by including only the *year* (and not the full date) of birth, or only the *initial* of the first name, in addition to the surname. The results of such matches have to be inspected visually, however, to decide if the matches are likely to be of the same person or not, by looking at the other available information, such as municipality and place of birth or residence. For example, the place of birth may be given as a municipality on one list and a small hamlet, located in the same municipality, on the other list. It would be very complicated, if possible at all, to automate such checks.

For difficult cases we checked the 1991 Census for more information about the persons in question, for example when one of the lists has information on an item which is also included

in the Census but not on the other list, such as ID number or place of birth. The spelling of names was also checked in this way, often by looking at the names of other family members contained in the Census files.

Matching records from the ICRC and PHR lists of missing persons with the Voters' Registers presents a special problem, since only a limited number of variables are included in *all* of these lists. The father's name, for example, which is important for identifying people in BiH, is recorded in the lists of missing persons but not in the Voters' lists, whereas the opposite is the case with the national ID number (JMB). Thus, when we attempted to match records from these sources a large number of potential matches were often found since there were not always enough variables common to the two data sources to distinguish between real and false matches, for example when the full date of birth was lacking. To allow for errors in the date of birth we also searched for matches of records with a difference of up to several years in the year of birth. Such matches were not accepted, of course, before the likelihood of a match was confirmed after comparing information on other items, for example on various locations such as place of birth, residence or disappearance on the missing persons lists, *and* current municipality or municipality of voting in the Voters' list. A match of missing people and registered voters was not accepted if the locations were clearly inconsistent, for example if a person was born, lived and went missing in Eastern Bosnia according to the missing lists, but registered to vote in and for a municipality in a completely different part of the country, according to the Voters' list.

The use of data from the 1991 Census was crucial in concluding whether a pair of potential matches of records from two different lists represented the same person. When, for example, a set of matched records from the ICRC/PHR lists and the Voters' list were also identified in the Census file, both the ID number and the father's name were checked in order to ascertain whether the matched records represented the same person. In some cases only one of a pair of matched persons was identified in the Census and not the other. In such cases the match was rejected if the father's name recorded in the Census differed significantly from the father's name recorded by ICRC/PHR. If only the person from the ICRC/PHR list was found in the Census file the match was rejected if the Census ID number differed significantly from the Voter's list ID number. There were no examples of matches where neither of the persons was found in the Census. This is both an indication of the completeness of the 1991 Census and the quality of the registers of missing persons, showing that false persons were not registered as missing to inflate the numbers or for other reasons.

To record the quality and basis for a match, a parameter was assigned to each matched person depending on the criteria used for the match. This parameter was used to study the number of accepted matches according to the type and quality of the match.

6.2 THE COMPILATION OF THE 2005 OTP LIST AND DUPLICATE CHECKS

As noted in the beginning of Section 6, the first step in the compilation of the 2005 OTP list of Srebrenica victims was related to establishing a database containing the 2005 ICRC records. The five original tables of ICRC were combined into one data table, and the five categories of records were marked in this table, i.e. still missing, still missing with info on death, closed cases alive, closed cases dead, and administrative exclusions. The resulting list (22,212 records) was checked for duplicates and 28 records were marked for exclusion. The remaining records were all considered unique.

In the next step, the 2005 ICRC list was compared with the latest *previous* version of the ICRC data at the OTP, i.e. the 2004 joined ICRC&PHR list, which contains all previous versions of the ICRC data, as well as the PHR records. The match of the 2004 and 2005 lists, based on the ICRC BAZ number i.e. the ICRC ID, was excellent: 21,800 records on the 2004 list were matches of the 22,212 records on the 2005 ICRC list. The remaining 412 records on the 2005 list were expected to represent new records unique to the 2005 ICRC list only. In order to make sure that they do not overlap with the 2004 ICRC&PHR records, several matching attempts were made using criteria other than the BAZ, mainly names. A few of these records were indeed successfully matched with the 2005 ICRC list (5 records), but the vast majority were not (407 records). The 407 unmatched records were considered to be additions to the 2005 ICRC list, i.e. missing persons that had not previously been registered by ICRC or PHR. We checked these records for the Srebrenica relevance criteria in order to identify records to add to the 2005 OTP list for Srebrenica.

During the matching of the 2005 ICRC list with the 2004 ICRC&PHR list, the consistency of the BAZ numbers was checked as well as the consistency of the names. The BAZ numbers were generally the same on both lists for the same missing persons, but some of the names were different (76, with all other information identical). The majority of these names were very similar, almost identical, and the differences were most likely due to spelling mistakes or errors in entering the names in the computer. Only two persons had completely different surnames in the two lists, both being women who most likely changed their last name because of marriage. The first names were the same. Thus, there was no reason to exclude them from the analysis.

Using the links between the joined ICRC&PHR database and the 1991 Census, several items were copied from the 1991 Census to the 2005 ICRC list, including ethnicity and place of residence as reported in the Census.

In the next step records related to Srebrenica were selected from the 2005 ICRC list. Whether or not a record was previously, i.e. in 2000, marked as Srebrenica-related was not considered. The criteria used to select the Srebrenica-related records were the same as those specified in Section 3.

All records conforming to the range for date of disappearance and the municipalities of disappearance were marked as Srebrenica-related. Ten records previously marked as duplicates were excluded, bringing the overall total of relevant records to 7,677, see Table 1.

Table 1. Srebrenica-Related Records According to the Category in the Original 2005 ICRC Table

| ICRC Category | Srebrenica-Related Records | |
|-----------------------------------|----------------------------|----------------|
| | Number | Per cent |
| Still missing | 5,278 | 68.75% |
| Still missing, with info on death | 318 | 4.14% |
| Closed cases, alive | 26 | 0.34% |
| Closed cases, dead | 2,054 | 26.76% |
| Administrative exclusions | 1 | 0.01% |
| Total | 7,677 | 100.00% |

From Table 1 it can be seen that the new list of missing from Srebrenica, based on the 2005 ICRC list, includes records of 7,650 missing persons (7,677 minus 26 survivors and 1 administrative exclusion).

The selection of 7,650 records was made from the 2005 ICRC list, together with the 407 new ICRC records not reported on the 2004 or earlier lists. The 2005 ICRC list did not include several old PHR records, however. There were exactly 400 such records.¹³ It was, therefore, necessary to check whether these 400 old records were overlapping with the 2005 ICRC list or not, using criteria other than the BAZ-number.¹⁴ In order to check their status as overlapping/non-overlapping, the 400 records were matched with the 2005 ICRC list based on the following three criteria:

- Same first name, same last name, and same first initial of father's name
- First three letters of first name, first three letters of last name, and first initial of father's name
- First initial of first name, first three letters of last name, and first initial of father's name

All potential matches were checked manually and only unquestionable links were kept. This procedure resulted in identifying 33 Srebrenica-related records (out of the 400) that are additional to the 2005 OTP list obtained so far. Of these 33, only 23 are marked as being from PHR (only), the rest are from various older ICRC lists (9 from older lists, 1 from 2004). Although we do not have information as to why ten names no longer appear on the ICRC list, it is most reasonable to assume that ICRC removed them for a reason, such as a technical error or being found alive, and that they therefore should not be included on the new list of missing. The 23 PHR records may be considered to be still missing, but were never reported to ICRC for various reasons. The new list of missing from Srebrenica can therefore be extended by the 23 missing persons reported by PHR only; none of those 23 are marked as duplicates. Thus, the new total of Srebrenica-related records on the 2005 OTP list is now 7,673 (7650 + 23).

In the last step we subtracted from the above-mentioned total (7,673) the 12 potential survivors identified in the Voters' Registers. The final number of records on the 2005 OTP list of missing and dead persons related to the fall of Srebrenica in 1995 is 7,661, as of September 2005.

6.2 SEARCH FOR POTENTIAL SURVIVORS

The 2005 OTP list of 7,661 missing and dead persons related to Srebrenica should, in principle, include no survivors. However, some of the registered missing persons could be later found in detention etc. and the relatives may have forgotten to strike them off the list. On the other hand, it is also possible that dead persons could be reported among the survivors such as voters, displaced persons or refugees. Political or economic advantages to be registered as a voter or a displaced person include the right to an additional vote for a party or additional economic support for the family, which can work as incentives for false registration. For both kinds of registration some kind of ID was required but it is difficult to

¹³ After matching the 2004 ICRC&PHR with the 2005 ICRC list using the BAZ numbers, 401 records from the 2004 ICRC&PHR remained unmatched; one of those records *had* been matched, but the BAZ-number was duplicated; this record was therefore ignored, and only 400 records considered relevant. These 400 records consist mostly of old PHR records and represent a possible extension to the 2005 ICRC list.

¹⁴ The PHR and ICRC do not use the same system of records' IDs.

say how strict the checking of the IDs was or how easy it was to obtain false identification documents. In addition to that, unintentional errors may have been made for a variety of reasons, such as typing and computer errors. Thus, the quality of such lists may not be trusted one hundred per cent and we need to explicitly address all names that appear on the list of missing on one hand and on the lists of survivors, i.e. voters or displaced persons, on the second hand.

In order to make sure that no survivors are indeed included in the 2005 OTP list, a search for possible survivors was conducted. This was achieved by two approaches:

1. Records marked as possible survivors by OTP in 2000 and consequently excluded from the 2000 OTP list, were checked to find out if they were still registered on the 2005 OTP list.
2. The 2005 OTP records were checked against the Voters' Registers (1997, 1998 and 2000) and against the BH Database of Displaced Persons and Refugees (2000).

The results of this exercise are reported in Table 2 below.

Table 2. Matches Between the 2005 OTP List of Missing Persons Related to the Fall of Srebrenica and Post-War Sources on the Surviving Population

| Source on the Post-War Surviving Population | Included in the 2005 OTP list | | | Excluded Still missing | Total |
|---|-------------------------------|----------------|------------------|---------------------------|-------|
| | Still missing | Confirmed dead | Info about death | | |
| Voters 1997-98 (only) | 7 | 2 | | | 9 |
| Voters 1997-98 & Voters 2000 & DDPR 2000 | | 1 | | 5 | 6 |
| Voters 1997-98 & Voters 2000 | | 1 | | 5 | 6 |
| Voters 2000 (only) | | 1 | | | 1 |
| DDPR (only) | | 2 | 1 | 2 | 5 |
| Total | 7 | 7 | 1 | 12 | 27 |

Abbreviations: DDPR: Database of Displaced Persons and Refugees, Voters: Voters' Register

When compiling the 2000 OTP list, the ICRC and PHR lists of missing persons were compared with the 1997 and 1998 Voters' lists, finding a total of 9 Srebrenica-related matches.¹⁵ The identities of these 9 persons have been checked with the 1991 Census for Eastern Bosnia.¹⁶ We are convinced that the matches are matches of the same people and not a mix-up of persons with the same name and identical or similar date of birth.¹⁷ Eight out of those 9 records can still be found on the 2005 OTP list of missing and dead from Srebrenica, (i.e. on the first selection of Srebrenica-relevant records from the 2005 ICRC list), under the

¹⁵ The comparison was done separately with three different combinations of data sets, including data for all of Bosnia and Herzegovina (BH): ICRC 3 and Voters' Register 1997; ICRC 4 and Voters' Register 1998 (done by OSCE Sarajevo); and PHR AMDB and Voters' Register 1998.

¹⁶ A special census file for Eastern Bosnia was compiled for this purpose, including the municipalities of Bratunac, Han Pijesak, Rogatica, Šekovići, Srebrenica, Vlasenica and Zvornik.

¹⁷ We found four additional genuine matches of persons disappearing in 1992 (2 from Bratunac, 1 from Srebrenica, and 1 from Zvornik). We also investigated thoroughly the identities of three additional matches, which revealed that each pair of matched records represented two *different* persons. We found, for example, that there were two persons with identical first names, last names and dates of birth, but different father's names, and another example of two persons having the same first names, surnames and father's names, but with different dates of birth and ID numbers.

same BAZ numbers. However, only 3 of the 9 possible survivors could be found on the 2000 Voters' Register, possibly indicating that the remaining 6 were not survivors after all.

The increase in the number of possible survivors from 9 in 2000 to in total 27 in 2005 is due to improved matching methodology, improved data quality, and an increase in the matching rate of the Voters' Registers with the 1991 Census achieved in the years after 2000. We have, e.g., corrected the misspelling of a large number of names in especially the 1991 Census, and the ICRC has improved the quality of its missing list considerably. For example, the proportion of records with full date of birth has increased from 65.8% in the ICRC 1997-98 list to 71.2% in the 2005 list.

Of the 27 matches on the 2005 OTP list of missing and dead persons related to Srebrenica with the post-war lists of survivors, exactly 8 matches represent persons that are recorded by the ICRC as confirmed deaths, i.e. the body has been identified (7 cases), or is believed to be dead based on information about the body from family members (1 case). The very same 8 matches are also seen among voters or displaced persons. This shows that the quality of the post-war lists is not perfect, as indicated above. In particular, it strengthens our suspicion that some or all of the matches of the missing list with lists of survivors may be due to errors, intentional or not, in the post-war lists - rather than errors in the missing lists.¹⁸

However, to be on the safe side, we have decided to exclude some of these 27 potential survivors from the 2005 OTP list of missing and dead persons, while others will remain. We keep the 7 missing persons who only appeared in the 1997-98 Voters' Register but not in the more recent Voters' list or in the database of displaced persons and refugees (DDPR-2000). These matches are most likely the result of errors or fraud in the registration to vote. We also, quite obviously, include the 8 persons recorded by the ICRC as being dead. We exclude, however, the 12 persons who have been matched with the 2000 Voters' list and/or the DDPR-2000 list. We think, though, that the missing persons found in the DDPR are highly questionable since 3 of these 5 persons are dead, according to ICRC.

Thus, we conclude that of the 27 matches of the ICRC 2005 missing list with the three post-war lists of survivors, 15 can be quite safely regarded as missing while 12 should be excluded from our list of dead and missing. This does not mean that we are convinced that these persons are survivors. On the contrary, we think that it is more likely that all or most of them are wrongly registered as voters or displaced persons, rather than being wrongly registered as missing. Only further investigation may clarify this. The 12 (excluded) names are listed in an addendum to the OTP 2005 list of missing that is available with this report.

In any case, the number of such inconsistencies is very small compared to the total number of the 7,661 missing persons. This indicates that there cannot have been any large-scale campaign of registering living persons as missing.

¹⁸ Table 2 also includes the 9 matches of missing persons with the Voters' list that we found previously and excluded from the OTP 2000 list of missing and dead persons. Analysis of more recent data sources revealed that of these 9 matches, one is dead according to ICRC, 3 are still on the Voters' list (2000 version), whereas 5 cannot be found in any other post-war list available to us. The appearance of the dead person on the Voters' lists 1997-1998 is most probably a case of error or fraud in the registration to vote.

7. RESULTS

7.1 GENERAL OBSERVATIONS

As already stated before in this report, the total number of victims related to the fall of Srebrenica in 1995 is at least 7,661 (Table 3). This number is 186 higher than the overall total of 7,475 individuals reported on the 2000 OTP list. The two OTP lists were compiled applying exactly the same methodology and almost the same sources (although more sources and more recent versions were used in 2005). The ICRC list of missing persons was still our main source. The 1997 and 1998 versions of the ICRC list were used for the 2000 OTP list and the 2005 ICRC version for the 2005 OTP list, in addition to the 1999 PHR list in both cases. The OTP lists were compiled separately from each other using, however, the same formal criteria. A large number of records appear on both lists (7,264, see next section). 397 records are new on the 2005 OTP list and were identified on the basis of the 2005 ICRC list of missing persons for Bosnia and Herzegovina.

As summarized in Table 3, 2,054 (26.8 %) of the victims are known to be dead (i.e. have been identified). Together with those not-yet identified but whose bodies are already found the number of dead is even higher and equals 2,372 (31.0%). The remaining individuals are still missing (68.7%).

Table 3. Number of Cases on the 2005 OTP List of Missing and Dead Persons Related to the Fall of Srebrenica By Victim Categories

| Victim Category | Count | Percent |
|-----------------------------------|-------|---------|
| Still missing | 5,266 | 68.7 |
| Still missing, info about death | 318 | 4.2 |
| Closed cases, dead | 2,054 | 26.8 |
| Still missing, PHR | 23 | 0.3 |
| Total number of cases on the list | 7,661 | 100.0 |

It needs to be noted that the actual number of confirmed deaths on the Srebrenica list is much higher than the number of the ICRC closed cases (dead) and the ICRC still missing whose bodies are now available. This observation is drawn based on additional recent sources of information that we have at our disposal and which will be discussed in an addendum to this report.

7.2 CONSISTENCY WITH THE 2000 OTP LIST

The two OTP lists, from 2000 and 2005, were compiled independently. The overlap of these two lists is large, however; 97.2 % of cases included in the 2000 OTP list were also registered on the 2005 list (7,264 out of 7,475, see Table 4).

The largest overlap, in relative terms, is seen for the closed cases (i.e. dead), where 1,979 out of 2,054 deaths were included on the OTP list in 2000, but almost all of them with unknown status as to death.

Table 4. Cases Reported Both on the 2000 and 2005 OTP Lists of Missing and Dead Related to the Fall of Srebrenica in 1995 by Category

| Victim Category | 2000 | 2005 | % Overlap |
|---------------------------------|-------|-------|-----------|
| Still missing | 4,969 | 5,266 | 94.4 |
| Still missing, info about death | 295 | 318 | 92.8 |
| Closed cases, dead | 1,979 | 2,054 | 96.3 |
| Still missing, PHR | 21 | 23 | 91.3 |
| Total Overlap | 7,264 | 7,661 | 94.8 |

The number of additional missing persons on the 2005 OTP list is about 400 (i.e. 397). The number of 2000 records that are not on the 2005 OTP list is about 200 (i.e. 211). Many in the latter group are old PHR entries that are now reported by the ICRC. Some of these records were also dropped by the ICRC from their 2005 list, for reasons such as, for example, withdrawal by families, and technical reasons such as duplicates and replacing deficient records.

7.3 DETAILED RESULTS

The period analysed in this report, from July to December 1995, is relatively broad relative to the events in July 1995. The results shown in Table 5 confirm that the fall of Srebrenica and the following massacre was a rapid and short-term incident. 96.4 % of victims were reported as disappearing in July 1995. By the end of August 1995 almost 99% of victims had been reported missing; i.e. 7,558 out of 7,661. In absolute terms, “only” 103 victims disappeared in the period from September to December 1995.

Table 5. Srebrenica-Related Missing and Dead by Month of Disappearance

| Month of disappearance | Count | Percent | Cumulative |
|------------------------|-------|---------|------------|
| July | 7,384 | 96.4% | 96.4% |
| August | 174 | 2.3% | 98.7% |
| September | 64 | 0.8% | 99.5% |
| October | 28 | 0.4% | 99.9% |
| November | 8 | 0.1% | 100.0% |
| December | 3 | 0.0% | 100.0% |
| Total | 7,661 | 100.0% | 100.0% |

Figure 1a below illustrates these findings graphically. Figure 1b focuses on the daily distribution of disappearances during the month of July (7,384 out of the overall total of 7,661 missing). Most individuals disappeared on the 11, 12 and 13 July 1995 - 5,506 out of 7,661 cases (71.9% of all disappearances).

Figure 1a. Srebrenica-Related Missing and Dead by Month of Disappearance

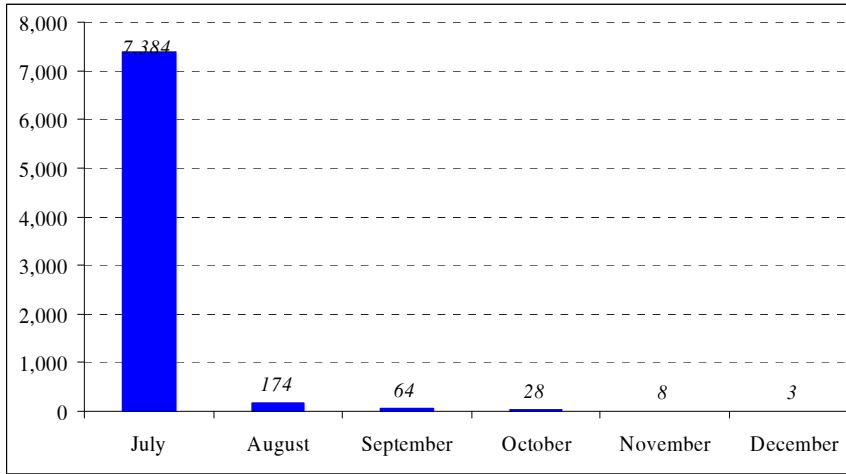
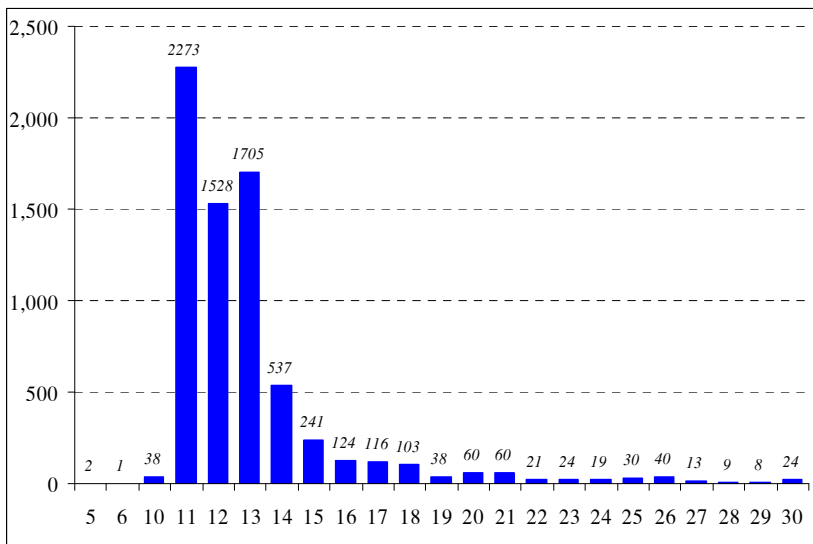


Figure 1b. Srebrenica-Related Missing and Dead by Day of Disappearance in July 1995



Note: Excluding 348 persons for whom the day of disappearance was not reported

The next topic analysed in this report is the place of disappearance. Table 6 and Figure 2 concentrate on the most frequent places of disappearance of the missing from Srebrenica. Only places with 50 or more disappearances are shown individually. All other places are combined into the category “Total < 50”. A distinction is made between place of disappearance of those still missing and those already known to be dead.

The first observation is that 7,121 individuals, i.e. about 93% of all missing, disappeared from only 14 locations, most notably that 3,155 persons (41.2%) disappeared from Potočari and in the forest. Another 2,338 persons (30.5%) disappeared from the three locations Kravica, Konjevic Polje and Kamenica. These five places of disappearance are almost equally frequent among the still missing persons and the closed cases (i.e. dead).

However, the ratio of those confirmed dead to still missing persons, (which shows more clearly the progress of victims’ identification for any given place of disappearance), is

relatively higher for those who disappeared from Potočari (“dead to missing ratio” of 51%) than on average for all places with 50 or more disappearances (“dead to missing ratio” of 37%). The ratio is relatively low for those who were reported missing from the forest (32%), which is not surprising since many (or most) of these individuals were not buried in mass graves. The high proportion of identified persons who disappeared from Potočari is probably due to the fact that most of these were buried in near-by mass graves.

Table 6. Number of Srebrenica-Related Missing by Place of Disappearance

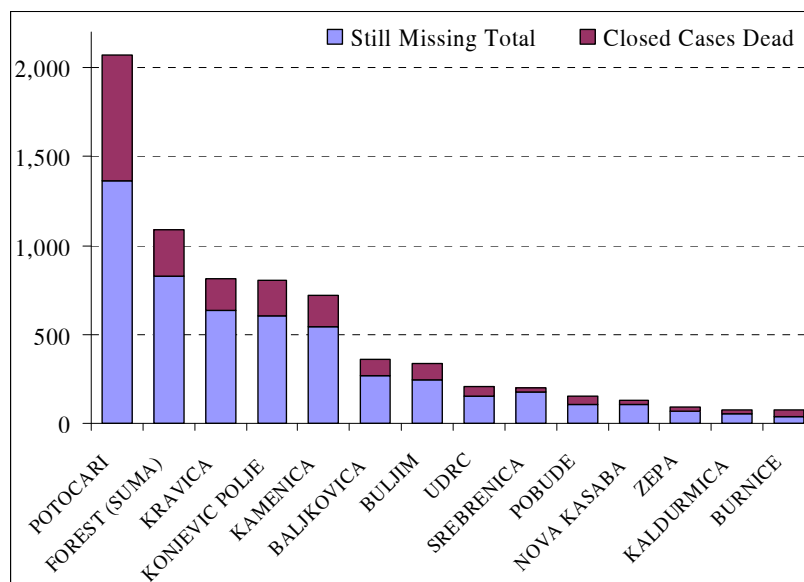
| PLACE OF DISAPPEARANCE | Still Missing ICRC (1) | Still Missing ICRC (2) | Closed Cases ICRC | Still Missing PHR | Total | Percent | Proportion Dead/Missing | Proportion Dead/Total |
|------------------------|------------------------|------------------------|-------------------|-------------------|-------|---------|-------------------------|-----------------------|
| POTOCARI | 1,365 | 3 | 702 | 0 | 2,070 | 27.0 | 51.3 | 33.9 |
| FOREST (SUMA) | 825 | 0 | 260 | 0 | 1,085 | 14.2 | 31.5 | 24.0 |
| KRAVICA | 378 | 256 | 177 | 0 | 811 | 10.6 | 27.9 | 21.8 |
| KONJEVIC POLJE | 605 | 1 | 198 | 0 | 804 | 10.5 | 32.7 | 24.6 |
| KAMENICA | 539 | 3 | 181 | 0 | 723 | 9.4 | 33.4 | 25.0 |
| BALJKOVICA | 257 | 9 | 92 | 0 | 358 | 4.7 | 34.6 | 25.7 |
| BULJIM | 232 | 13 | 95 | 0 | 340 | 4.4 | 38.8 | 27.9 |
| UDRC | 153 | 1 | 50 | 0 | 204 | 2.7 | 32.5 | 24.5 |
| SREBRENICA | 157 | 3 | 28 | 15 | 203 | 2.6 | 16.0 | 13.8 |
| POBUDE | 107 | 0 | 47 | 0 | 154 | 2.0 | 43.9 | 30.5 |
| NOVA KASABA | 102 | 0 | 26 | 2 | 130 | 1.7 | 25.0 | 20.0 |
| ZEPA | 68 | 1 | 20 | 0 | 89 | 1.2 | 29.0 | 22.5 |
| KALDURMICA | 55 | 1 | 20 | 0 | 76 | 1.0 | 35.7 | 26.3 |
| BURNICE | 37 | 0 | 37 | 0 | 74 | 1.0 | 100.0 | 50.0 |
| TOTAL >50 | 4,880 | 291 | 1,933 | 17 | 7,121 | 93.0 | 37.3 | 27.1 |
| TOTAL <50 | 386 | 27 | 121 | 6 | 540 | 7.0 | 28.9 | 22.4 |
| OVERALL TOTAL | 5,266 | 318 | 2,054 | 23 | 7,661 | 100.0 | 36.6 | 26.8 |

Only places with 50 or more victims are reported; all other places are reported jointly

ICRC (1) covers "Still Missing" with no information about death yet available

ICRC (2) covers "Still Missing" with information about death already available

Figure 2. Srebrenica-Related Missing and Dead by Place of Disappearance



Note: Only places with 50 or more victims are reported

As shown in Table 7, almost all of the Srebrenica-related missing and dead are men (7,593 or 99.1%), only 68 being women (0.9%). The vast majority of them are of Muslim ethnicity (at

least 85.7%, but more correctly 99% obtained having excluded the unknown ethnicity category). The absolute number of missing Muslims, 6,568, must be seen as a lower estimate as the ethnicity shown in Table 7 is taken from the linking of the 2005 OTP list with the 1991 Population Census, and records of 1,030 missing persons remain unlinked. The ethnicity of the unlinked individuals is unknown but a plausible estimate would be that the proportion of Muslims among them is about the same, i.e. at least 85.7 but more correctly 99 per cent, which would bring the total number of missing Muslims to 7,588 (99% estimate).

Table 7. Srebrenica-Related Missing and Dead by Ethnicity and Sex

| Ethnicity | Male | Female | Total | Percent |
|-----------|-------|--------|-------|---------|
| Muslim | 6,531 | 37 | 6,568 | 85.7 |
| Croat | 1 | 0 | 1 | 0.0 |
| Serb | 4 | 0 | 4 | 0.1 |
| Other | 58 | 0 | 58 | 0.8 |
| Unknown | 999 | 31 | 1,030 | 13.4 |
| Total | 7,593 | 68 | 7,661 | 100.0 |
| Percent | 99.1 | 0.9 | 100.0 | na |

Table 8 and Figure 3 show the age and sex distribution of the Srebrenica victims. The statistics confirm that most of the missing persons were men at age between 15 and 69. More specifically, some 7,442 out of all 7,661 missing persons were men aged from 15 to 69, which is 97.1% of all missing.

Table 8. Sex and Age Distributions of Srebrenica-Related Missing and Dead

| Age | Men | Women | Men | Women |
|---------------|-------|-------|---------|---------|
| | | | Percent | Percent |
| 5-9 | 0 | 2 | 0.0 | 0.0 |
| 10-14 | 20 | 0 | 0.3 | 0.0 |
| 15-19 | 891 | 4 | 11.6 | 0.1 |
| 20-24 | 1,083 | 11 | 14.1 | 0.1 |
| 25-29 | 769 | 2 | 10.0 | 0.0 |
| 30-34 | 835 | 2 | 10.9 | 0.0 |
| 35-39 | 758 | 4 | 9.9 | 0.1 |
| 40-44 | 728 | 2 | 9.5 | 0.0 |
| 45-49 | 628 | 2 | 8.2 | 0.0 |
| 50-54 | 514 | 2 | 6.7 | 0.0 |
| 55-59 | 591 | 6 | 7.7 | 0.1 |
| 60-64 | 389 | 4 | 5.1 | 0.1 |
| 65-69 | 256 | 7 | 3.3 | 0.1 |
| 70-74 | 83 | 4 | 1.1 | 0.1 |
| 75-79 | 34 | 6 | 0.4 | 0.1 |
| 80-84 | 9 | 4 | 0.1 | 0.1 |
| 85-89 | 5 | 6 | 0.1 | 0.1 |
| Total | 7,593 | 68 | 99.1 | 0.9 |
| Overall Total | 7,661 | | 100.0 | |

Figure 3. Sex and Age Distributions of Srebrenica-Related Missing and Dead

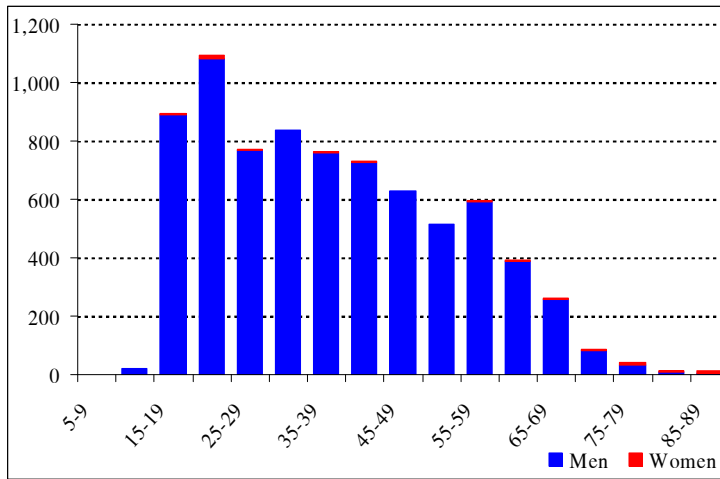


Figure 4 shows the age distribution of all missing persons reported on the 2005 OTP list (7,661) and of the persons known to be dead as of mid-2005 (2,054). The age distributions are strikingly similar. Among the closed cases, relatively more persons at higher ages were identified as compared with all missing. This may be related to the place of disappearance, in particular because the men who went missing from Potočari were on average older than those who disappeared from other places. Approximately two thirds of them were 50 years or older (66.6%), versus only one tenth (9.7%) of those that disappeared from other places. The reason for this is that most of the older men walked with their families to Potočari.

Figure 4. Age Distribution of Srebrenica-Related Missing and Dead Persons: All Missing versus Closed Cases (Dead)

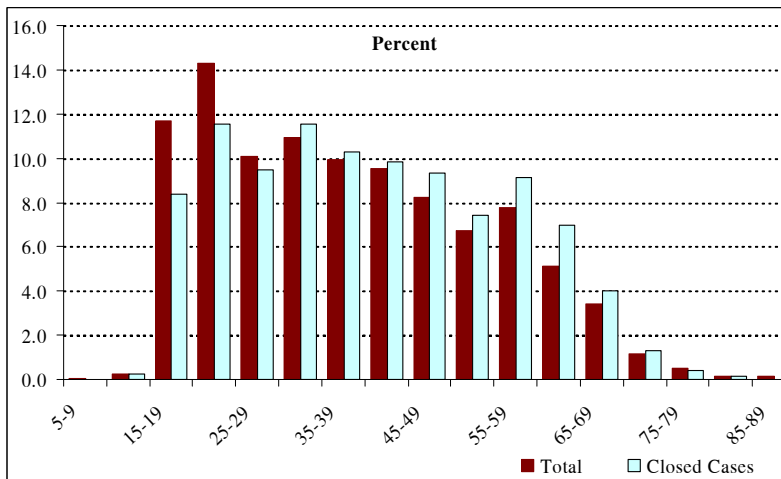


Table 6 and Figure 3 (discussed earlier in this section) clearly indicated that the highest proportion of closed cases (known deaths) were for persons who disappeared from Potočari. Table 9 and Figure 5 below show that those who went missing from Potočari were on average older than persons missing from other places.

Table 9. Age Distribution of Srebrenica-Related Missing and Dead by Place of Disappearance and Category

(a) All Places

| Age | Still Missing ICRC (1) | Still Missing ICRC (2) | Closed Cases ICRC | Still Missing PHR | Total | Percent | Proportion Dead/Total |
|--------------|---------------------------|---------------------------|----------------------|----------------------|--------------|--------------|--------------------------|
| 5-9 | 2 | 0 | 0 | 0 | 2 | 0.0 | 0.0 |
| 10-14 | 15 | 0 | 5 | 0 | 20 | 0.3 | 25.0 |
| 15-19 | 670 | 49 | 172 | 4 | 895 | 11.7 | 19.2 |
| 20-24 | 804 | 50 | 237 | 3 | 1,094 | 14.3 | 21.7 |
| 25-29 | 527 | 48 | 195 | 1 | 771 | 10.1 | 25.3 |
| 30-34 | 555 | 43 | 237 | 2 | 837 | 10.9 | 28.3 |
| 35-39 | 507 | 41 | 211 | 3 | 762 | 9.9 | 27.7 |
| 40-44 | 490 | 37 | 202 | 1 | 730 | 9.5 | 27.7 |
| 45-49 | 416 | 22 | 192 | 0 | 630 | 8.2 | 30.5 |
| 50-54 | 348 | 13 | 152 | 3 | 516 | 6.7 | 29.5 |
| 55-59 | 399 | 8 | 188 | 2 | 597 | 7.8 | 31.5 |
| 60-64 | 246 | 4 | 143 | 0 | 393 | 5.1 | 36.4 |
| 65-69 | 174 | 3 | 82 | 4 | 263 | 3.4 | 31.2 |
| 70-74 | 60 | 0 | 27 | 0 | 87 | 1.1 | 31.0 |
| 75-79 | 32 | 0 | 8 | 0 | 40 | 0.5 | 20.0 |
| 80-84 | 10 | 0 | 3 | 0 | 13 | 0.2 | 23.1 |
| 85-89 | 11 | 0 | 0 | 0 | 11 | 0.1 | 0.0 |
| Total | 5,266 | 318 | 2,054 | 23 | 7,661 | 100.0 | 26.8 |

ICRC (1) covers "Still Missing" with no information about death yet available

ICRC (1) covers "Still Missing" with information about death already available

(b) Potočari

| Age | Still Missing ICRC (1) | Still Missing ICRC(2) | Closed Cases ICRC | Total | Percent | Proportion Dead/Total |
|--------------|---------------------------|--------------------------|----------------------|--------------|--------------|--------------------------|
| 5-9 | 2 | 0 | 0 | 2 | 0.1 | 0.0 |
| 10-14 | 4 | 0 | 4 | 8 | 0.4 | 50.0 |
| 15-19 | 86 | 0 | 25 | 111 | 5.4 | 22.5 |
| 20-24 | 39 | 0 | 14 | 53 | 2.6 | 26.4 |
| 25-29 | 40 | 0 | 22 | 62 | 3.0 | 35.5 |
| 30-34 | 48 | 1 | 23 | 72 | 3.5 | 31.9 |
| 35-39 | 59 | 1 | 28 | 88 | 4.3 | 31.8 |
| 40-44 | 75 | 0 | 37 | 112 | 5.4 | 33.0 |
| 45-49 | 117 | 0 | 66 | 183 | 8.8 | 36.1 |
| 50-54 | 191 | 0 | 95 | 286 | 13.8 | 33.2 |
| 55-59 | 276 | 0 | 150 | 426 | 20.6 | 35.2 |
| 60-64 | 207 | 0 | 129 | 336 | 16.2 | 38.4 |
| 65-69 | 147 | 1 | 76 | 224 | 10.8 | 33.9 |
| 70-74 | 48 | 0 | 25 | 73 | 3.5 | 34.2 |
| 75-79 | 20 | 0 | 6 | 26 | 1.3 | 23.1 |
| 80-84 | 2 | 0 | 2 | 4 | 0.2 | 50.0 |
| 85-89 | 4 | 0 | 0 | 4 | 0.2 | 0.0 |
| Total | 1,365 | 3 | 702 | 2,070 | 100.0 | 33.9 |

ICRC (1) covers "Still Missing" with no information about death yet available

ICRC (1) covers "Still Missing" with information about death already available

(c) Forest

| Age | Still Missing ICRC (1) | Still Missing ICRC (2) | Closed Cases ICRC | Total | Percent | Proportion Dead/Total |
|-------|---------------------------|---------------------------|----------------------|-------|---------|--------------------------|
| 5-9 | 0 | 0 | 0 | 0 | 0.0 | na |
| 10-14 | 2 | 0 | 0 | 2 | 0.2 | 0.0 |
| 15-19 | 115 | 0 | 31 | 146 | 13.5 | 21.2 |
| 20-24 | 146 | 0 | 35 | 181 | 16.7 | 19.3 |
| 25-29 | 102 | 0 | 33 | 135 | 12.4 | 24.4 |
| 30-34 | 122 | 0 | 45 | 167 | 15.4 | 26.9 |
| 35-39 | 99 | 0 | 32 | 131 | 12.1 | 24.4 |
| 40-44 | 88 | 0 | 28 | 116 | 10.7 | 24.1 |
| 45-49 | 75 | 0 | 21 | 96 | 8.8 | 21.9 |
| 50-54 | 39 | 0 | 16 | 55 | 5.1 | 29.1 |
| 55-59 | 26 | 0 | 9 | 35 | 3.2 | 25.7 |
| 60-64 | 7 | 0 | 6 | 13 | 1.2 | 46.2 |
| 65-69 | 1 | 0 | 1 | 2 | 0.2 | 50.0 |
| 70-74 | 3 | 0 | 1 | 4 | 0.4 | 25.0 |
| 75-79 | 0 | 0 | 1 | 1 | 0.1 | 100.0 |
| 80-84 | 0 | 0 | 1 | 1 | 0.1 | 100.0 |
| Total | 825 | 0 | 260 | 1,085 | 100.0 | 24.0 |

ICRC (1) covers "Still Missing" with no information about death yet available

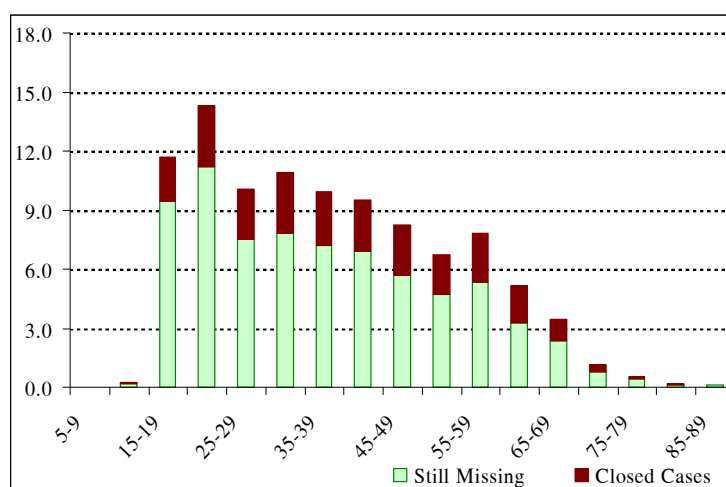
ICRC (2) covers "Still Missing" with information about death already available

Clearly, the majority of the missing persons from Potočari were aged from 45 to 69 years, whereas those missing from other places, in particular from the Forest, were much younger, i.e. mainly between 15 and 49 years of age.

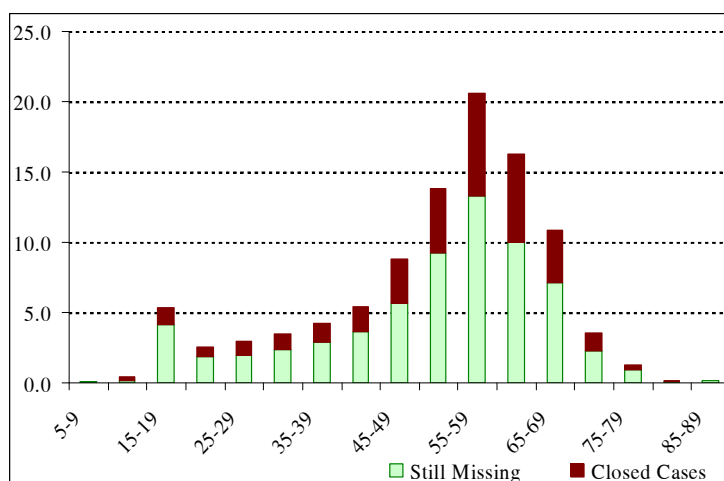
The same pattern is seen for both the still missing and the closed cases.

Figure 4. Age Distribution of Srebrenica-Related Missing and Dead by Place of Disappearance and Category

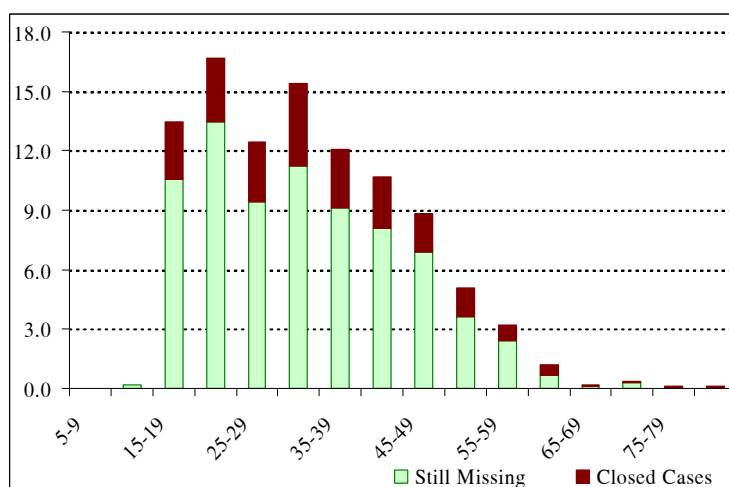
(a) All Places (Percent)



(b) Potočari (Percent)



(c) Forest (Percent)



The last item discussed in this report is the death ratios (or proportions) of the missing persons relative to their 1991 municipality of residence (MoR). The ratios are relative measures that show the proportion of deaths of a given population. Ideally, the deaths and the population at risk should be measured at the same time. The resulting measure would then be the mortality rate. This is unfortunately not possible in the case of Srebrenica, for reasons explained below. Instead, we calculated the proportions of Srebrenica-related deaths in relation to the 1991 Census population (as of 31 March 1991) in the affected municipalities. In this analysis we focus on men as almost all of the missing were men (99.1 %).

Between the outbreak of the war in April 1992 and the fall of Srebrenica in July 1995, there were several flows of the population into and out of Srebrenica due to the conflict in the surrounding areas. Some of those who were enumerated in Srebrenica in the 1991 census fled, while most of them probably stayed until July 1995, to be joined by people who came from neighbouring areas and who had been enumerated there. Some of the people who were enumerated in Srebrenica in March 1991 died from natural or other causes before the fall of Srebrenica and were thus not part of the population at risk of being killed. The local

authorities and international humanitarian organisations are said to have compiled lists of people in the enclave but we have not been able to locate such lists and we doubt their existence. It is assumed that about 40,000 people were in the town of Srebrenica before it fell, but the exact size of this population is not known. The lack of data on the population at risk makes it difficult to calculate the proper mortality rates, so we had to choose another methodology, i.e. ratios, or proportions, of deaths.

In our approach we matched the missing persons from the 2005 OTP list with the 1991 Census records. After employing a number of techniques to detect and correct errors in the data, particularly misprints in names, we managed to match fully 87 per cent of the missing persons. This gave us access to the Census records for these persons, in particular ethnicity and the municipality of residence in 1991. Moreover, it seems quite safe to assume that the matched persons constitute an unbiased representative sample of the total population of missing persons, which implies that the remaining 13 per cent of the missing persons have the same age and residence distribution etc. as the matched persons.¹⁹

Furthermore, the high proportion of missing persons found in the 1991 Census proves that the persons on the missing lists are not fictitious.

To get a better picture of the scale of the atrocities, we computed the proportion of men that went missing after the fall of Srebrenica relative to the number of men of Muslim ethnicity who were enumerated in the 1991 Census, broken down by age and pre-war municipality of residence.

We found that the majority of the missing men lived in Srebrenica in 1991 or in one of the neighbouring municipalities that were captured by Serb forces early in the war, Bratunac, Vlasenica, Zvornik, and Han Pijesak, see Table 10.

Table 10. Srebrenica-Related Missing and Dead Males by Ethnicity and Municipality of Residence in 1991

| Residence in 1991 | Muslim | Croat | Serb | Other | Total |
|-------------------|--------|-------|------|-------|-------|
| Srebrenica | 4,168 | 1 | 0 | 44 | 4,213 |
| Bratunac | 1,802 | 0 | 0 | 8 | 1,810 |
| Vlasenica | 915 | 0 | 0 | 2 | 918 |
| Zvornik | 397 | 0 | 2 | 7 | 406 |
| Han Pijesak | 96 | 0 | 0 | 2 | 98 |
| Total | 7,379 | 1 | 2 | 63 | 7,446 |

Note: Figures in this table have been adjusted for the unmatched records (999 for men) according to the original distribution of the matched records by their 1991 municipality of residence and ethnicity

For these five municipalities, Table 11 (below) shows the proportions of Muslim men that disappeared from the enclave in 1995, by age. Srebrenica is the municipality with the highest proportion of missing Muslims, as expected, with fully 34 %. The proportions of missing for the other municipalities decline with the geographic distance from their major settlements to Srebrenica. Bratunac (19.2 %), the municipality with the second highest proportion, has a

¹⁹ An argument against this is that some of the missing persons we did not manage to match may have been enumerated in other republics of the former Yugoslavia (or elsewhere), particularly in Serbia which is only a few kilometres away from Srebrenica, on the other side of the river Drina. The number of such persons is not likely to have been very high, however.

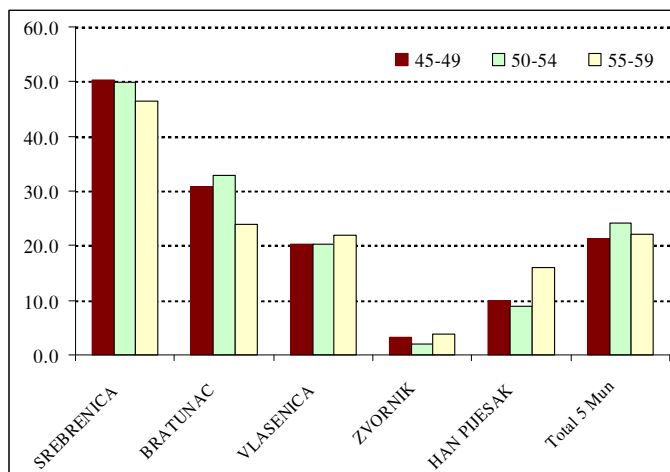
long border with Srebrenica, whereas Zvornik is farther away. Consequently, we would expect that persons from Zvornik to a larger extent fled to other Muslim-held areas in Bosnia.

Table 11. Proportion of Srebrenica-Related Missing and Dead Muslim Men Relative to the 1991 Census Population, by Municipality of Residence in 1991 and Age in 1995

| Age 1995 | SREBRENICA | BRATUNAC | VLASENICA | ZVORNIK | HAN PIJESAK | Total 5 Mun |
|----------|------------|----------|-----------|---------|-------------|-------------|
| 10-14 | 0.4 | 0.4 | 0.4 | 0.0 | 0.0 | 0.2 |
| 15-19 | 31.7 | 17.5 | 11.4 | 1.1 | 12.5 | 13.7 |
| 20-24 | 37.2 | 22.7 | 10.3 | 2.0 | 9.0 | 16.1 |
| 25-29 | 31.9 | 17.5 | 9.2 | 1.1 | 10.1 | 13.1 |
| 30-34 | 40.2 | 20.8 | 8.5 | 2.0 | 4.8 | 15.0 |
| 35-39 | 37.9 | 23.7 | 12.8 | 2.0 | 10.4 | 15.2 |
| 40-44 | 44.6 | 24.4 | 14.6 | 2.8 | 11.4 | 17.3 |
| 45-49 | 50.2 | 30.7 | 20.3 | 3.2 | 10.0 | 21.3 |
| 50-54 | 49.9 | 32.8 | 20.2 | 2.0 | 8.9 | 24.1 |
| 55-59 | 46.5 | 23.8 | 21.8 | 3.8 | 16.0 | 22.0 |
| 60-64 | 40.2 | 27.5 | 14.8 | 3.4 | 8.3 | 17.7 |
| 65-69 | 33.0 | 20.9 | 16.7 | 2.8 | 6.5 | 14.4 |
| 70-74 | 26.0 | 9.1 | 15.0 | 2.3 | 10.1 | 9.4 |
| 75-79 | 16.6 | 11.9 | 13.4 | 3.0 | 6.4 | 9.2 |
| 80-84 | 12.4 | 4.4 | 0.0 | 2.0 | 0.0 | 3.8 |
| 85-89 | 7.9 | 0.0 | 4.1 | 0.0 | 0.0 | 2.4 |
| Total | 33.9 | 19.2 | 11.2 | 1.9 | 8.7 | 14.1 |

Three age groups were particularly seriously affected: 45-49, 50-54 and 55-59 years, see Figure 5. The highest death ratios, about 50% of the 1991 population, are noted for age group 45-49.

Figure 5. Srebrenica-Related Missing and Dead by Age Group and Municipality of Residence in 1991



Noteworthy, these missing proportions should be considered low estimates, because of demographic and other events that occurred between the Census on 31 March 1991 and the fall of the enclave on 11 July 1995, which reduced the population at risk of disappearing:

- Deaths from natural causes, especially among the elderly.
- Deaths from war-related causes, especially among young men.

- People migrating or fleeing from Srebrenica.
- Men of military age fighting in the army elsewhere.

On the other hand, people who had gone to Srebrenica from other municipalities have been included in the population at risk in the municipalities they came from, since the matching procedure yielded information about their 1991 residence.

Only a few young children (10-14 years of age) from the four municipalities went missing, but the proportions are very high for Srebrenica boys (31.7 % for ages 15-19 years) and young men (37.2 % for ages 20-24 years). In Srebrenica the proportion of missing is extremely high for Muslim men of almost *all* ages - 1/3 of all Muslim men between 15 and 70 went missing in 1995. The proportion is in fact the highest, around 50 per cent for middle-aged men, aged 45-59. This may seem surprising, since such "old" men should be less likely to be suspected of being soldiers and singled out for execution.

There are several possible explanations why the missing proportions are higher for middle-aged than for young men: older men probably had lower propensities to leave at the beginning of the war because most of them were fathers and had families. It is much harder to flee with a family with children than by oneself. Younger men are generally healthier which increased the likelihood that they would manage to make the 70-km trek through the woods to Tuzla. Moreover, many of the men aged 20-40 years would more likely be fighting elsewhere (or may already have been killed or captured) and consequently not be at risk of disappearing from the enclave. The youngest boys, aged 15-19 in 1995, were also less likely to be in the army, which may explain their elevated risk of disappearance compared to their preceding cohorts.