EC3320 2016-2017 Michael Spagat

Lecture 3

## War in Kosovo – 1998 - 1999



# How many People were Killed? In Scientists we Trust?



# Who was Killed? A Technical Issue?



#### **Kosovo Memory Book Database Presentation and Expert Evaluation**

February 6<sup>th</sup> 2015, 11.00 a.m. Media Centre, Belgrade Terazije 3/II – Main Hall

The Humanitarian Law Center (HLC) and the Humanitarian Law Center Kosovo (HLCK) will present their joint project, the Kosovo Memory Book Database. The Kosovo Memory Book Database records the people who lost their lives or went missing in connection with the war in Kosovo during the period from January 1<sup>st</sup> 1998 to December 31<sup>st</sup> 2000.

#### **Facts**

A total of **31,600 documents** were used to document the deaths or disappearances of **13,535** people – 10,812 Albanians, 2,197 Serbs and 526 Roma, Bosniaks, Montenegrins and other non-Albanians – in connection with the war between **January 1**<sup>st</sup> **1998 and December 31**<sup>st</sup> **2000**.

**Kosovo Memory Book** achieves the highest possible standards within the field of **Casualty Recording**.

Kosovo Memory Book memorializes the war dead, preserving some vestige of their humanity.

This is very different from counting the dead or estimating their number.

# everycasualty

promptly recorded, correctly identified, publicly acknowledged.

The goal of the Every Casualty project is to bring about a "world where no casualty of armed conflict is left unrecorded."

(http://www.everycasualty.org/)

Kosovo Memory Book is an exemplary achievement from the point of view of the Every Casualty Project.

# Estimation – Household Survey (Spiegel and Salama)

**Findings** The survey included 1197 households comprising 8605 people. From February, 1998, through June, 1999, 67 (64%) of 105 deaths in the sample population were attributed to war-related trauma, corresponding to 12 000 (95% CI 5500–18 300) deaths in the total population. The



# Estimation – Capture-Recapture (Ball and co-authors)

Through a statistical analysis of these data, this study concludes that approximately 10,500 Kosovar Albanians were killed between March 20 and June 12, 1999, with a 95 percent confidence interval from 7,449 to 13,627. This estimate is consistent with others made by political, legal, and scientific observers.



## Advantages of Estimation

- 1. The estimates were available already in the year 2000.
- 2. There might never have been a Kosovo Memory Book so the estimates might have been the whole historical record on war deaths in Kosovo.
- 3. The estimates help to validate the accuracy of Kosovo Memory Book.

In fact, the **estimates** turn out to be **quite accurate** .....subject to rather large error margins.



The **household survey** worked for Kosovo so let's try it for **Iraq**..........



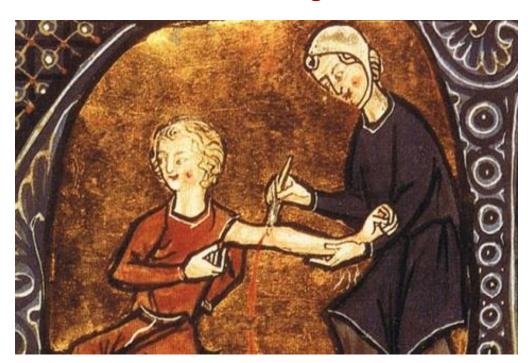
It's a train wreck.....multiple surveys with irreconcilable contradictions between some of them. For example - two surveys with estimates of 150,000 violent deaths and 600,000 violent deaths for the same time periods.



This did not happen....

Getting things wrong is not a problem. This happens constantly in science.

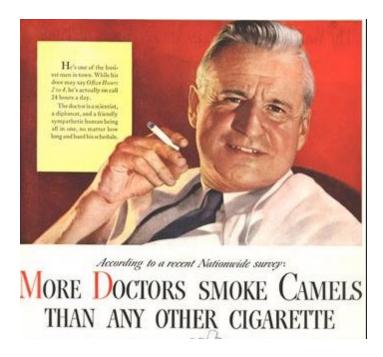
# Bloodletting.....



Problems start when scientists dig in and insist they are right.

The situation worsens when **friendly colleagues leap to their defence**.

Worse still is when scientists invoke **credentials** rather than arguments to cover up their errors.



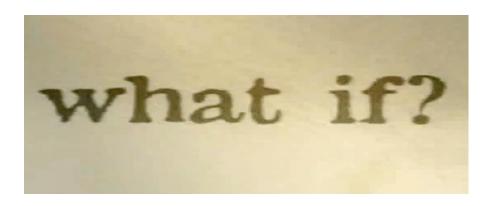
## Excess Deaths in the Democratic Republic of Congo (DRC)

#### International Rescue Committee

In 2002, IRC reported that 3.3 million Congolese in the insecure *East* had died in excess of regional norms during the war <sup>4</sup> For the post-war period January 2003 to April 2007, we estimate that an additional 2.1 million excess deaths have occurred across the whole country: 1.3 million in the five eastern provinces and 0.8 million in the *West* and *Transition East*. These estimates include the period for which we have no data, May 2004 to December 2005 (the assumptions for this period are described in the results section). We now estimate the excess death toll in DR Congo since 1998 to be 5.4 million, of which 4.6 million occurred in the five insecure eastern provinces.

Excess death calculations are always based on a counterfactual.

In this case actual death rates in the DRC (very poorly measured) are compared against "regional norms" meaning the average death rate for the whole of Sub-Saharan Africa.



Notice that "excess deaths" are meant to include not just violent deaths but also non-violent deaths, e.g., deaths resulting from deterioration of water quality under war conditions.

The International Rescue Committee then makes two jumbled up claims:

- 1. If the DRC had managed to achieve the average death rate for Sub-Saharan Africa between August 1998 and April 2007 then 5.4 million people additional people would have survived than was actually the case.
- 2. There was a war in the early years of that period so the war must be the only reason why DRC death rates were above the Sub-Saharan average during this period.



The field of war-deaths estimation has accumulated **some knowledge and much pretence of knowledge**.

There is some **seduction of technique** as if the application of a scientific technique, such as a survey, guarantees success regardless of how the technique is applied.



Over the last 12 slides we have **wandered far from** the perspective of the **Every Casualty Project**.



# We started with **listing victims one by one**.

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## **Estimating Violent Deaths**

We then considered statistical techniques to estimate the number of violent deaths

When we have a correct estimate like this then then it is possible, at least in principle, to list all these victims. The number of people on such a list should equal the estimate.

### **Estimating Excess Deaths**

From there we moved to statistical estimation of actual deaths relative to deaths under a counterfactual scenario, i.e., we ask how many lives would have been saved if a war had never occurred?

Even in principle, it is not possible to list the "excess dead".

#### Gaza 2014

. . . . .

1396. Ala Mohamed Dib Rajab, 19, Male

1397. Zakaria Mohamed Hassan Karim, 49, Male

1398. Ala Abd al-Karim Hussein al-Suluk, 44, Male

1399. Mousa Hussein Mousa Hashim, 80, Male

1400. Ibrahim Sa'd Ahmed al-Haddad, 21, Male

1401. Hamza Faiq Ahmed al-Haddad, 21, Male

1402. Abdullah Khaled Mohamed Zarnadah, 7, Male

1403. Ibrahim Abd al-Karim al-Louh, 29, Male

. . . . . .

The Israeli-Palestinian conflict is documented to the point of exhaustion.

The human rights organization <u>B'Tselem</u> has substantial **field presence** that complements **extensive media coverage** of the conflict.

B'Tselem has compiled <u>very detailed data</u> on the 2014 Gaza crisis that is roughly at the quality level of Kosovo Memory Book.

### Syria

On the surface data collection for Syria resembles data collection for the Israeli-Palestinian conflict.

1. Multiple groups with field presence in Syria record casualties. Among these groups are the Syrian Center for Statistics and Research, the Syrian Network for Human Rights, Syria Tracker and the Violations Documentation Center (VDC).

2. An NGO named "**HRDAG**", working for the UN on this project used to integrate data from multiple sources and tally them up although HRDAG is no longer pursuing this gargantuan task.

But the data are far less reliable than the Israeli-Palestinian data are.

- 1. It is **not possible to investigate individual deaths at anywhere near the reliability level achieved for the Israeli-Palestinian case**. Reports of deaths pour in and it is only possible to weed out potential duplicate reports based on matching reports according to basic characteristics like names of victims and dates/locations of their deaths. This situation is typical of conflict data **not a specific flaw of Syria data**.
- 2. Much of the information is **scraped off of social media sources** such Twitter or Facebook and is of unknown quality and origin. This social media dependence is a special characteristic of the Syria data and is likely to become a common feature conflict data in the future.

The image of scientists relentlessly pursuing truth is comforting but is probably not an accurate description of very much real science.

There is no reason to expect that the study of armed conflict should be lucky enough to elude common human weaknesses such as **self-interested analysis**, **clashes of egos and denial of mistakes**.

In fact, **emotions** about war run **high** and **debates** in the conflict field are often quite **charged**. **Moral intimidation** is common.

Trust will always be in short supply.

Transparency of data and methods is the only viable counter to mistrust.

We will now back up a bit and take a closer look at the sample survey approach to estimating war deaths.

One estimation approach can be to take a census of the entire population and ask respondents to list household members who have been killed.

Unfortunately, it is extremely expensive to interview representatives of every household in an entire population. So this is usually not a feasible option.

A cheaper alternative is to do a *sample survey*. You select a random sample of households that is meant to be representative of the whole population.

I want to immediately stress the word "household". The basic units here are households, not "families". The problem is that extended families can be very large and overlapping across many households. It is very important not to mix the two up.

To illustrate the problem suppose we try to estimate the number of first-year students at RHUL. We attempt to do this department by department so we add the number of students taking Principles of Economics to the number of students taking Accounting to the number of students taking Introduction to International Relations, etc. This would work fine if every student were housed 100% within a single department. But we have joint programmes so this method leads to a lot of double counting and we will overestimate the number of first year students at RHUL.

The quality of any survey depends crucially on how its sample is built, yet it is often very challenging to draw a good sample in a conflict environment.

Researchers will be lucky to have a reasonably complete list of the households comprising the population affected by a conflict.

Such a list may exist if, for example, there has been a recent census. If so, then it might be possible to draw a *simple random sample*, which can be conceived as follows. Assign a number to every household in the affected population. Write each number on otherwise identical balls and place them in a huge urn. Draw balls at random and do interviews with the households that correspond to the chosen balls.

Suppose that you choose a bunch of households at random from a population of 5,000,000 people with each household having an equal chance of being selected.

Then if 1% of the population living in the selected households were killed in the war it is reasonable to estimate that a total of 50,000 (1% of 5,000,000) were killed in the war.

This calculation is just an application of the idea introduced in lecture 2 for estimating averages. There are a few calculations like this for next week's seminar. These are fairly straightforward and intuitive.

Mostly to save money, researchers do not usually draw simple random samples.
Instead, they conduct what are known as cluster surveys.
This means that one household is interviewed then interviews are also conducted at a number of nearby households.
The idea is that, while you're in the neighbourhood you might as well just do a bunch of interviews rather than only one.

Doing cluster surveys makes a lot of sense.

However, you need to take into account that when you interview in clusters it is likely that you will need to widen your confidence intervals to reflect the fact that households that are near to one another are likely to have similar experiences to one another.

Effectively, when you sample this way then your sample size is not as big as it may seem to you because all your observations within each cluster are very similar to one another.

For example, suppose I want to get a sense of how much RHUL students like statistics so I sample a bunch of classrooms and ask people to raise their hands if they love statistics. Once I enter a classroom I might as well get a response from all students in the room, however I need to bear in mind that within a single room people will be similar to one another. In an economics class everyone will raise their hands while in a music class maybe no one will.

There are techniques for calculating appropriate confidence intervals for cluster surveys but we will not talk about these techniques here.

The good news concerning cluster surveys is that clever statisticians can figure out how to calculate reasonable confidence intervals for them so they do not present a fundamental challenge to the use of surveys for estimating conflict deaths.

#### **IMPORTANT NOTE –**

Slides 31-35 were about what we call *sampling error*. These errors come from the fact that we are picking a random sample from a known population, not interviewing every single person in the population.

Sampling error can be reasonably well summarized by confidence intervals.

The material on the next two slides cannot be captured by traditional confidence intervals and is generally known as non-sampling error.

Another problem is that often there is no proper list of households to work with.

This means that you can't really draw a proper random sample so researchers have to improvise in the field.

For example, people go to the "middle" of a village (somehow defined), spin a bottle and interview people living along the direction the bottle is pointing. There is an element of randomization in such methods. However, the problem is that we do not really understand the properties of estimates and confidence intervals based on such randomization techniques. This means that estimates and confidence intervals in the context of spin-the-bottle randomization are pretty speculative.

Another common (bad) practice is to do interviews just in easily accessible places, such as refugee camps, and then extrapolate the results as if they apply beyond the areas surveyed. Such a practice is akin to doing a survey in London to gauge support for Scottish independence.....not a good idea.

Another problem that is rarely acknowledged is that information collected in the field can be false. Interviewers may fake results out of political motivations or just to save themselves the trouble of actually doing interviews. Respondents may give false information to interviewers, again for political reasons or perhaps to try to attract foreign aid to their country.

Summing up this section

There are good reasons to think that household surveys can produce good estimates of the number of people killed in an armed conflict.

Moreover, this method was successful in Kosovo.

On the other hand, there are many things that can go wrong in such a survey and at least some such surveys failed in Iraq. It is important to look at the details of particular surveys and evaluate them for quality rather than assuming that household surveys automatically give good estimates.