How Many Dead (Really?): Fact and Fiction Regarding Civilian Casualties in Iraq

By

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A talk given at the George Mason University School of Public Policy, November 29, 2007

Why are we here?

Let's begin with an unscientific survey.

1. With the benefit of hindsight how many people think it was a good idea for the US (and partners) to invade Iraq in 2003? (Ten "no's", two "yes's" and one person with a half "yes".)

2. For the people who answered "no" to question number 1 suppose I could prove to you that fewer than 100,000 civilians have been killed violently in Iraq since the invasion. Would you switch to a "yes"? (Nobody)

3. For the people who answered "yes" to question number 1 suppose I could prove to you that more than 600,000 civilians have been killed violently in Iraq since the invasion. Would you switch to a "no"? (One and a half would switch)

I believe that nothing I will say today will change anyone's opinion on whether or not it was a mistake to invade Iraq in the first place: that is not what this is about.[2]

Today I will use scientific methods to evaluate a number of efforts that have been made to measure Iraqi civilian deaths during the war.

This analysis does not support some of the higher estimates that have been put forward.

This is not a veiled way for me to say that I think the invasion of Iraq was a good idea – in fact, I think the invasion of Iraq was quite a bad idea.

Iraqi civilian deaths are a terrible loss whether they number 10,000, 100,000 or 1 million.

What can we accomplish through scientific study of civilian (and wider) mortality in post-invasion Iraq?

1. We can honor the victims of the war. These are many and varied but today we will focus on Iraqi victims, particularly civilian victims.

2. We can partially reverse some of the callousness communicated to the world by the failure of the US government and its partners to properly account for civilian mortality in Iraq encapsulated by Tommy Franks' famous comment:

[We don't do body counts.](#)

3. We can gain understanding of the human consequences of our actions and those of other agents, insurgents, extremists, the Iraqi government, etc., with whom we have become entwined.

This understanding can improve future policy in Iraq and beyond.

From a practical policy perspective it makes sense not only to do "body counts" but to collect the most detailed data possible on civilian casualties that relate to military operations.

Misunderstanding numbers and causes of deaths can cause policy errors.

4. Accurate data collection will counteract political manipulations of Iraq mortality numbers which can only aggravate world tensions.

"Manipulations with numbers not based on facts nor empirical research, appeared as the additional element for incitement of political atmosphere and deepening of the misunderstandings instead of rational dialogue"

Mirsad Tokača, director of the [Research and Documentation Center](#) in Sarajevo.

Tokača's center has documented beyond a shadow of a doubt nearly 100,000 direct deaths due to the war in Bosnia and Herzegovina between 1991 and 1994.

Tokača was attacked repeatedly by people falsely claiming the moral high ground by virtue of their higher estimates that could not, in the end, be backed up by facts.

The truth must occupy the moral high ground.

Instead we often see [competition in death numbers where advocates for the victims of different wars try to convince people that their war is the worst one](#)

There are some inevitable results of these competitions.

a. The general public is numbed and paralyzed by a parade of higher and higher impossible-to-comprehend numbers.

b. Our perceptions of the world are distorted.

We wonder if the latest disaster is as big as claimed or whether its advocates are just less scrupulous than the advocates for other disasters; rhetorical appeals replace rational discussion.

What information do we have on Civilian Mortality in the Iraq War?

There is a confusing maze of often contradictory sources onto which I will try to impose some order.

The following four sources either have or should have large influence.

"Iraq Body Count (IBC) records the violent civilian deaths that have resulted from the 2003 military intervention in Iraq. Its public database includes deaths caused by US-led coalition forces and paramilitary or criminal attacks by others.

IBC's documentary evidence is drawn from crosschecked media reports of violent events leading to the death of civilians, or of bodies being found, and is supplemented by the careful review and integration of hospital, morgue, NGO and official figures." (From the IBC Website)

As of November 24, 2007 the IBC range of documented violent deaths of civilians since the invasion of Iraq was 77,321 – 84,238.

"The Iraq Living Conditions Survey 2004 (ILCS) reports and analyses the living conditions in Iraq as they were approximately one year after the change of regime in the country, as a result of the 2003 war. This representative survey of 21,668 households is the first in recent years to cover all governorates in Iraq. The larger part of the survey took place in April and May 2004, while fieldwork in the governorates of Erbil and Dahouk was carried out in August 2004." (From the ILCS website)

The ILCS estimated 24,000 "war-related deaths" with a 95% Confidence Interval (CI) of 18,000 to 29,000 based on field work conducted mainly between March 22, 2004 and May 25, 2004.

[Mortality before and after the 2003 invasion of Iraq: cluster sample survey,"](#) (L1) by Roberts et al., was published in *The Lancet* in 2004.

"A cluster sample survey was undertaken throughout Iraq during September, 2004. 33 clusters of 30 households each were interviewed about household composition, births, and deaths since January, 2002. In those households reporting deaths, the date, cause, and circumstances of violent deaths were recorded. We assessed the relative risk of death associated with the 2003 invasion and occupation by comparing mortality in the 17.8 months after the invasion with the 14.6-month period preceding it." (From L2)

"Making conservative assumptions, we think that about 100,000 excess deaths, or more have happened since the 2003 invasion of Iraq." (From the summary of results on the first page of L1)

Mortality after the 2003 invasion of Iraq: a cross-sectional cluster sample survey (L2) by Burnham et al. published in *The Lancet* 2006.

"Between May and July, 2006, we did a national cross-sectional cluster sample survey of mortality in Iraq. 50 clusters were randomly selected from 16 Governorates, with every cluster consisting of 40 households. Information on deaths from these households was gathered." (From L2)

"We estimate that as of July, 2006, there have been 654,965 (392,979 – 942,636) excess Iraqi deaths as a consequence of the war, which corresponds to 2.5% of the population in the study area. Of post-invasion deaths, 601,027 (426,369-793,663) were due to violence, the most common cause being gunfire." (From the summary on the first page of L2).

ILCS and IBC

Recall that the ILCS obtained a central estimate of 24,000 "war-related deaths" of *civilians and combatants* with a CI of 18,000 to 29,000.

ILCS interviewing ran from March 22 to May 25, 2004, covering more than one year since the invasion that began March 20, 2003.

IBC has ranges of *11,089 to 13,022* violent deaths of *just civilians* through March 22, 2004 and *13,050 to 15,079* through May 25, 2004.

To compare properly we must add to IBC some estimate of Iraqi combatants killed.

There are recently released [figures from the US military](#) for the occupation starting in June of 2003 that give about 800 deaths through March of 2004 and 2,700 through May of 2004.

The [Project on Defense Alternatives](#) gave a *very rough* estimate that between 7,600 and 10,800 Iraqi combatants were killed during the invasion phase of the war.

Combining these two sets of numbers with the IBC numbers gives a range of between *19,489 and 25,579* for civilians plus combatants killed, well contained within the ILCS 95% CI of *18,000 to 29,000*.

This comparison suggests slight undercount by IBC, larger to the extent that combatant mortality might have been overestimated.

The ILCS and IBC even agree well region by region, except in the South; in Baghdad and the North even the lower IBC number for civilian deaths makes it into the ILCS CI for war-related deaths; in the Center the upper IBC number is within the ILCS CI.

	ILCS Lower	IBC Lower	IBC Upper	ILCS Central	ILCS Upper
North	0	176	222	500	1,000
South	8,000	3257	4,126	12,000	16,000
Baghdad	4,000	6,045	7,992	7,500	11,000
Center	2,000	1,427	2,417	3,500	5,500

(Gabriel Guerrero-Serdan, a Ph.D. student in the department of economics at Royal Holloway calculated the ILCS CI's based on the ILCS data which she obtained.)

"IBC lower" is IBC's minimum number through March 22, 2004 and "IBC upper" is IBC's maximum number through May 25, 2004.

Notice that most of the fighting in the first phase of the war was in the South so the South probably suffered a disproportionate number of combatant deaths.

Even the lower IBC figure could enter the ILCS CI also in the South if at least 5,800 combatants living in the South were killed during the ILCS period.

IBC is within ILCS CI's even governorate by governorate except in three southern governorates, Najaf, Qadisiya and Missan, plus Anbar (in the center) for the lower IBC number.

(Note that the table is missing a few hundred deaths that IBC has been unable to assign to particular governorates.)

Provisional Conclusion

For a conservative lower bound on the number of civilians killed through April or May of 2004 the ILCS does not improve on IBC.

The ILCS numbers are very much like IBC figures plus plausible numbers for combatants killed.

Through May 1, 2004 this lower bound on civilians killed is **12,853**.

For an upper bound we can take 29,000, the top of the ILCS CI and subtract off something less than 8,400, the low figure obtainable from the US military figures and the Center on Defense Alternatives figures.

This suggests an upper bound of something like **23,000** civilian deaths for the ILCS period.

A range of 13,000 to 23,000 violent deaths of civilians in slightly more than a year is truly appalling carnage.

As a proportion of population the civilian death toll in Iraq just in the first year plus of the war was roughly *50 to 100 times the size of the 9/11 death toll*, itself appalling carnage.

L1

Bottom line – L1 was such a blunt measurement tool that its marginal contribution, given the presence of the ILCS and IBC, is virtually zero.

"Making conservative assumptions, we think that about 100,000 excess deaths, or more have happened since the 2003 invasion of Iraq." (From the summary of results on the first page of L1)

Before proceeding, note that "excess deaths" means deaths above the pre-war baseline measured by L1 which turns out to be 5.0 per 1,000 per year with a 95% confidence interval of 3.7 – 6.3. The idea is that without the war this baseline level would have been carried forward beyond March of 2003 and into 2004.

1. L1 did not distinguish between civilians and combatants but the authors persistently misrepresent their figures as covering only civilians: Here are a few examples:

The Johns Hopkins Press Release

Radio Interview with Les Roberts

Lancet Editor Richard Horton also misrepresents L1 as a study of civilian mortality.

2. The L1 signature number of 100,000 excess deaths is presented by sleight of hand as essentially *a lower bound*: for example

'"We were shocked at the magnitude but we're quite sure that the estimate of 100,000 is a conservative estimate," said Dr. Gilbert Burnham of the Johns Hopkins team.' [In the New York Times.](#)

A. L1 suppresses the CI on excess deaths for the full dataset.

B. The L1 authors refuse to release a household-level dataset, so that someone can calculate a proper CI for excess deaths for the full dataset or pieces of it; lead author Les Roberts has stated that the data are "no longer available."

C. The L1 authors also have not provided a calculation of this CI themselves.

D. Despite these obstacles [David Kane of Harvard](#) used information appearing in L1 to calculate a 95% CI for excess deaths based on the full L1 sample of *negative* 130,000 to 659,000. (David Kane, "Critique of the first *Lancet* survey of mortality in Iraq")

L1 reports an incorrect CI for the ratio of post-to-pre-war mortality rates that implies, falsely, that the full L1 data rejects the hypothesis that the pre-war mortality rate exceeds the post-war mortality rate.

> "The risk of death was estimated to be 2.5-fold (95% CI 1.6-4.2) higher after the invasion when compared to the pre-invasion figure." (From the summary on the first page of L1)

Kane's CI for this ratio is 0.3 to 5.0 rather than 1.6 to 4.2.

In other words, using the full dataset and the most standard significance level the L1 data cannot reject the hypothesis that Iraq's mortality rate actually decreased after the invasion.

Surely in reality the mortality rate increased after the war started but the L1 data are simply unhelpful here.

E. The L1 authors note correctly that their cluster done in the city of Falluja in the governorate of Anbar is a massive outlier that contains 2/3 of all violent deaths in the L1 sample.

F. Therefore, L1 gives an estimate for excess deaths excluding Anbar of 98,000 with a 95% CI of 8,000 to 194,000 but:

    i. This CI is extraordinarily wide, with a 24-fold difference between the top and the bottom.

    ii. Even an 80% CI is still very wide, 39,500 to 156,500, with the top about four times the bottom.

H. It is hard to conclude *from L1 data* that the war caused any excess violent deaths of civilians.

a. Must throw out Falluja outlier to be able to reject the hypothesis of negative excess deaths.

b. Excess violent and non-violent deaths occurred in roughly 60-40 proportions outside Falluja, leaving a lower bound of perhaps 5,000 excess violent deaths outside Falluja.

c. Excess deaths include both civilians and combatants while the figures from the US military alone covering the post-invasion phase of the war report about 5,000 Iraqi combatants killed just since June of 2003.   Of course, more combatants were killed during the initial invasion.

I. L1 invokes Anbar to convert the central estimate outside Anbar into a "conservative" estimate of 100,000 excess deaths nationwide.

This transformation requires near certainty of something like 100,000 excess deaths in Anbar governorate itself.

This "conservative" reckoning is then based on a sample of 30 contiguous households in a city of perhaps 350,000 people within a governorate containing perhaps 1.2 million people.

J. How many civilians were killed in Anbar during the L1 sampling period?

    i. IBC - between 1,206 and 1,299.

    ii. ILCS - a central estimate of 2,000 war-related deaths for Anbar governorate with a 95% CI of 500 to 3,000 for a slightly shorter period than L1 that may or may not have captured the first siege of Falluja.

    iii. L2 during the L1 sample period - a central (and hence not conservative) [estimate ranging from roughly 26,900 – 31,000 excess deaths of civilians plus combatants in Anbar](#).

    iv) David Kane's calculation based on L1 – a central estimate for Anbar of 164,000, which is obviously so far out of line with reality that this measurement can only be discarded.

We cannot view 100,000 excess deaths as a conservative estimate of either the number of civilians or of civilians plus combatants killed in Iraq into September of 2004.

Any conservative lower bound for excess deaths of civilians outside Anbar governorate based on L1 data has to be pretty close to 0 and L1 gives no usable information on Anbar governorate.

In contrast IBC gives a much higher and more plausible range of 15,784 to 18,122 violent deaths of civilians during the L1 period.

L1 makes no marginal contribution to placing a lower bound on deaths of either civilians or civilians plus combatants in post-war Iraq into September of 2004.

K. If there is any contribution for L1 it is to hint at the possibility of an extremely high number of deaths during its sample period.

Apparently L1's central estimate for violent deaths outside Anbar is [57,600 according to an interview with Richard Garfield,](#) a number that would include both combatants and civilians.

But this number is pretty hard to reconcile with the upper limit of the ILCS CI of 29,000 for the whole country so it should be treated very cautiously.

i. The L1 period extends four or five months beyond the ILCS period but during this period IBC shows fewer than 3,000 deaths outside Anbar and this five-month period does not seem to be particularly violent relative to other periods.

ii. Some violent deaths might have been reported to the ILCS as "other" rather than "war-related" but the crude non-violent mortality rate in the ILCS is only about 4.8 per 1,000 per year which is quite low so there is little scope for many "other" deaths to be violent.

iii. The non-violent crude mortality rate in L1 is about 5.3 per 1000 per year, in line with the ILCS, and not suggesting that the ILCS has classified many violent deaths as "other".

Summary on L1

1. L1 is of no use in establishing a lower bound on civilian deaths in the Iraq war.

2. L1 hints at the possibility of higher numbers than those suggested by IBC and the ILCS but it is too imprecise to cause us to attach much weight to this possibility.

L2

For this section I have benefited enormously from information supplied to me by **David Kane** on L2 and by **Gabriel Guerrero-Serdan** on the ILCS.

L2 has a non-violent death rate of about 4.5 per 1,000 per year for the ILCS period, very similar to the 4.8 of the ILCS.

But violent deaths diverge dramatically, L2 versus ILCS, in central governorates. The table below only takes L2 through March 30, although ILCS field work continued for a further 8 weeks.

Violent Deaths: ILCS vs. L2 - March, 2004

	ILCS lower CI limit	ILCS central estimate	ILCS upper CI limit	L2 central through March 30, 2004	(L2 central)/ (ILCS upper limit)
Total	18,000	23,500	**29,000**	**68,000**	**2.3**
North	0	500	1000	0	0
South	8,000	12,000	16,000	13,000	0.8
Baghdad	4,000	7,500	11,000	14,000	1.3
Center	2,000	3,500	**5,500**	**41,500**	**7.5**
Nineveh	0	500	**1,000**	**3,500**	**3.5**
Al-Tameen	0	0	500	0	0
Diala	0	500	**1,000**	**23,000**	**23.0**
Al-Anbar	500	2000	**3000**	**8,500**	**2.80**
Salahuddin	0	1000	**1500**	**6500**	**4.30**

The next table goes through May 31, just after the L2 field work finished.

Violent Deaths: ILCS vs. L2 - May, 2004

	ILCS lower CI limit	ILCS central estimate	ILCS upper CI limit	L2 central through May 31, 2004	(L2 central)/ (ILCS upper limit)
Total	18,000	23,500	**29,000**	**89,000**	**3.1**
North	0	500	1000	0	0
South	8,000	12,000	16,000	13,000	0.8
Baghdad	4,000	7,500	11,000	15,500	1.4
Center	2,000	3,500	**5,500**	**60,500**	**11.0**
Nineveh	0	500	**1,000**	**5,500**	**5.5**
Al-Tameen	0	0	**500**	**3,500**	**7.0**
Diala	0	500	**1,000**	**27,000**	**27.0**
Al-Anbar	500	2,000	**3,000**	**18,000**	**6.0**
Salahuddin	0	1,000	**1,500**	**6,500**	**4.3**

Summary

1. Nonviolent deaths match up well, ILCS versus L2.

2. Violent deaths also match up well in the North and South.

3. In Baghdad L2 is definitely high for violent deaths but not dramatically out of line with the ILCS.

4. *In the center L2 has vastly more violent deaths than the ILCS.*

Something is wrong with L2 in the central governorates and possibly in Baghdad as well.

The ILCS seems to perform fine relative to L2 in discovering non-violent deaths throughout Iraq and the ILCS also seems just as capable as L2 in discovering violent deaths in the North and South.

Therefore, we cannot argue that the ILCS, perhaps due to weaknesses in its questionnaire, was not as good as L2 in finding deaths that have really occurred.

The discrepancy only arises for violent deaths in one particular region where the sudden large distance of L2 from both the ILCS and IBC casts doubt on L2.

The following anomaly was discovered by Olivier Degomme and Deberati Guha-Sapir of CRED in Belgium.

Here is a BBC story about a marketplace car bombing in Sadr City that killed 66 people.

24 out of the 66 victims of this car bombing appeared in the L2 sample in a single cluster: 12 households with 1 death and 6 households with 2 deaths.

According to the L2 methodology, in each cluster a field team did interviews in 40 *contiguous* households.

There seems to be virtually no chance that such a large number of victims of a blast in a crowded market could have lived, essentially, along a line of residences.

It seems likely that most of these deaths entered L2 through abnormal channels.

A natural step to take at this point would be to analyze how the pattern of recorded deaths varies by interviewer in L2.

It is standard practice in surveys to link interviewer IDs with interview results to facilitate searches for irregular patterns, such as those occurring in L2 in the central region and in Sadr City.

There is no security issue here since such an analysis does not require interviewer *names*; interviewers can be identified anonymously as, for example, "interviewer 1, interviewer 2, …".

The L2 authors have refused repeated requests to provide this basic information.

The very high rates of violent deaths measured in L2 have been defended on the grounds that a high percentage of the deaths recorded by L2 were confirmed through death certificates.

According to L2 and [a lecture given by Gilbert Burnham](#):

1. Field teams requested death certificates for 545 out of 629 (87%) of deaths.

2. When field teams did not request death certificates this was because they "forgot" (Burnham lecture).

3. When requested, interviewees produced proper death certificates 501 out of 545 times.

4. "The pattern of deaths in households without death certificates was no different from those with certificates." (from L2)

In the table below "no" means that a death certificate was requested but not produced, "yes" means that a death certificate was requested and produced and "forgot" means that a death certificate was not requested.

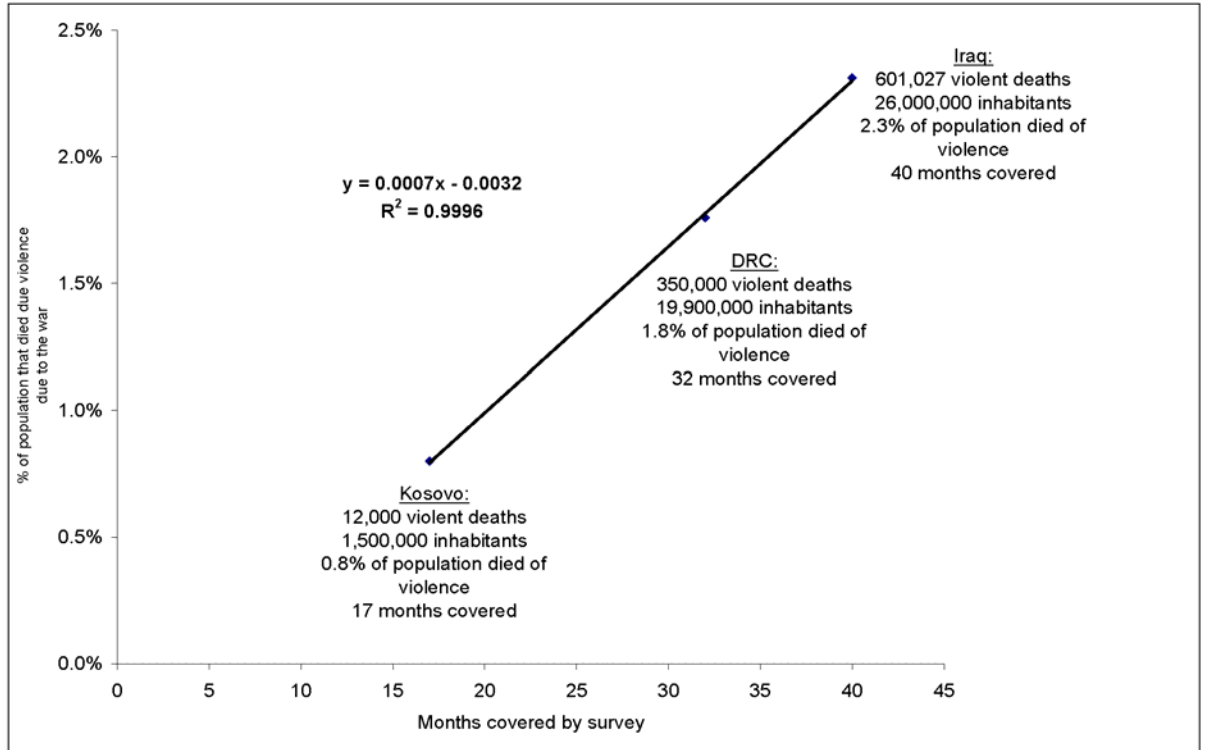| Governorate	No Violent	No Non-Violent	Yes Violent	Yes Non-Violent	Forgot Violent	Forgot Non-Violent
Babil	**0**	**0**	6	22	**0**	**0**
Kerbala	**0**	**1**	3	5	**0**	**0**
Wasit	**0**	**0**	0	5	**0**	**0**
Al-Najaf	**0**	**2**	0	14	**0**	**0**
Al-Qadisiya	**0**	**0**	4	11	**0**	**0**
Thi-Qar	**0**	**11**	4	15	**0**	**0**
Missan	**0**	**0**	3	7	**0**	**0**
Basra	**0**	**1**	16	35	**0**	**1**
Suleimaniya	**0**	**2**	0	6	**0**	**0**
Erbil	**0**	**1**	3	18	**2**	**0**
Baghdad	**0**	**0**	27	73	**50**	**10**
Nineveh	**22**	**2**	30	34	**7**	**0**
Al-Tameem	**0**	**0**	0	1	**2**	**2**
Diala	**0**	**3**	51	18	**3**	**0**
Al-Anbar	**0**	**0**	38	19	**6**	**0**
Salahuddin	**0**	**0**	25	8	**0**	**0**

It is clear that the pattern of deaths with death certificates differs strongly from those without.

1. All failures to produce death certificates when asked for violent deaths were in a single governorate (Nineveh) whereas for non-violent deaths these failures were spread across eight governorates.

2. "Forgetting" to ask was far more common in Baghdad than outside Baghdad and six times more likely for non-violent deaths than for violent deaths. (David Kane was the first to notice this.)

3. Baghdad, Nineveh and Thi-Qar all display strange patterns and need to be looked at with particular care.

Under a variety of reasonable assumptions the perfect run of 180 death certificate confirmations in 180 attempts for violent deaths outside Nineveh is a statistical impossibility, e.g.,:

1. Using the death-certificate confirmation rate for L1 of 80%, the odds against 180 confirmations in a row are $2.7x10^{17}$ to 1.

2. Using the confirmation rate for non-violent deaths in L2 of 92%, the odds against are more than three million to 1.

3. Even if we arbitrarily and implausibly assume a 0.98 probability that death certificates can be produced for each violent death we still get odds of 38 to 1 against.

The death certificate data in L2 are not credible and cannot be used to back up L2's very high estimate of violent deaths.

Chart plotting "% of population that died due to violence due to the war" (y-axis, 0.0% to 2.5%) versus "Months covered by survey" (x-axis, 0 to 45).

y = 0.0007x - 0.0032
$R^2 = 0.9996$

Iraq:
601,027 violent deaths
26,000,000 inhabitants
2.3% of population died of violence
40 months covered

DRC:
350,000 violent deaths
19,900,000 inhabitants
1.8% of population died of violence
32 months covered

Kosovo:
12,000 violent deaths
1,500,000 inhabitants
0.8% of population died of violence
17 months covered

The picture covers three surveys:

1. Kosovo study of Paul Spiegel and Peter Salama: "War and Mortality in Kosovo, 1998-99: an epidemiological testimony", cited in L2.

2. In a letter to the *Lancet* the L2 authors respond to skepticism about the L2 finding that roughly 90% of all excess deaths were violent, contrary to other war studies such as those done in the DRC in the following way:

"We feel a better comparison would be to the data collected during that war which showed that 1.8% of the 19.9 million people in the eastern part of the country died of violence in the first 33 months of the conflict, a proportion similar to that measured in Iraq."

3. The last point on the graph is L2 itself.

All three points are central estimates about which there is a great deal of uncertainty.

The regression line has an extraordinary Rsquared of 0.9996

The chances that L2 central estimate for violent deaths would happen to land so precisely on this regression line would seem to be extremely small.

To summarize, it appears at this stage that the L2 data are unsound and should be disregarded.

There are a number of other reasons for thinking this that I cannot expand on here.

1. The L2 authors have given a series of contradictory accounts of their sampling procedures and have destroyed evidence that could be used to evaluate these procedures.

2. The claimed near-perfect contact rate of households selected for interviews is not credible, particularly in light of the extremely compressed 40-interviews-in-a-day schedule of L2.

3. The ASA document "Interviewer Falsification in Survey Research" lists a number of risk factors for falsification, most of which are clearly present in L2.

What exists post-ILCS besides L2 and IBC?

1. [The United Nations Assistance Program for Iraq (UNAMI)](#) produced monthly figures on killings (and injuries), supposedly of civilians, in 2006.

2. MoH figures based on hospital monitoring of violent deaths of civilians and combatants, released to UNAMI in 2006 and leaked to the various media sources at other times.

3. Figures compiled by the Multi-National Corps-Iraq and made public by [General Petraeus in his testimony to Congress](#).

4. Figures from "Iraqi ministries" usually described something like this: "the Interior Ministry official provided Reuters with figures compiled by his own ministry as well as the ministries of defence and health…"
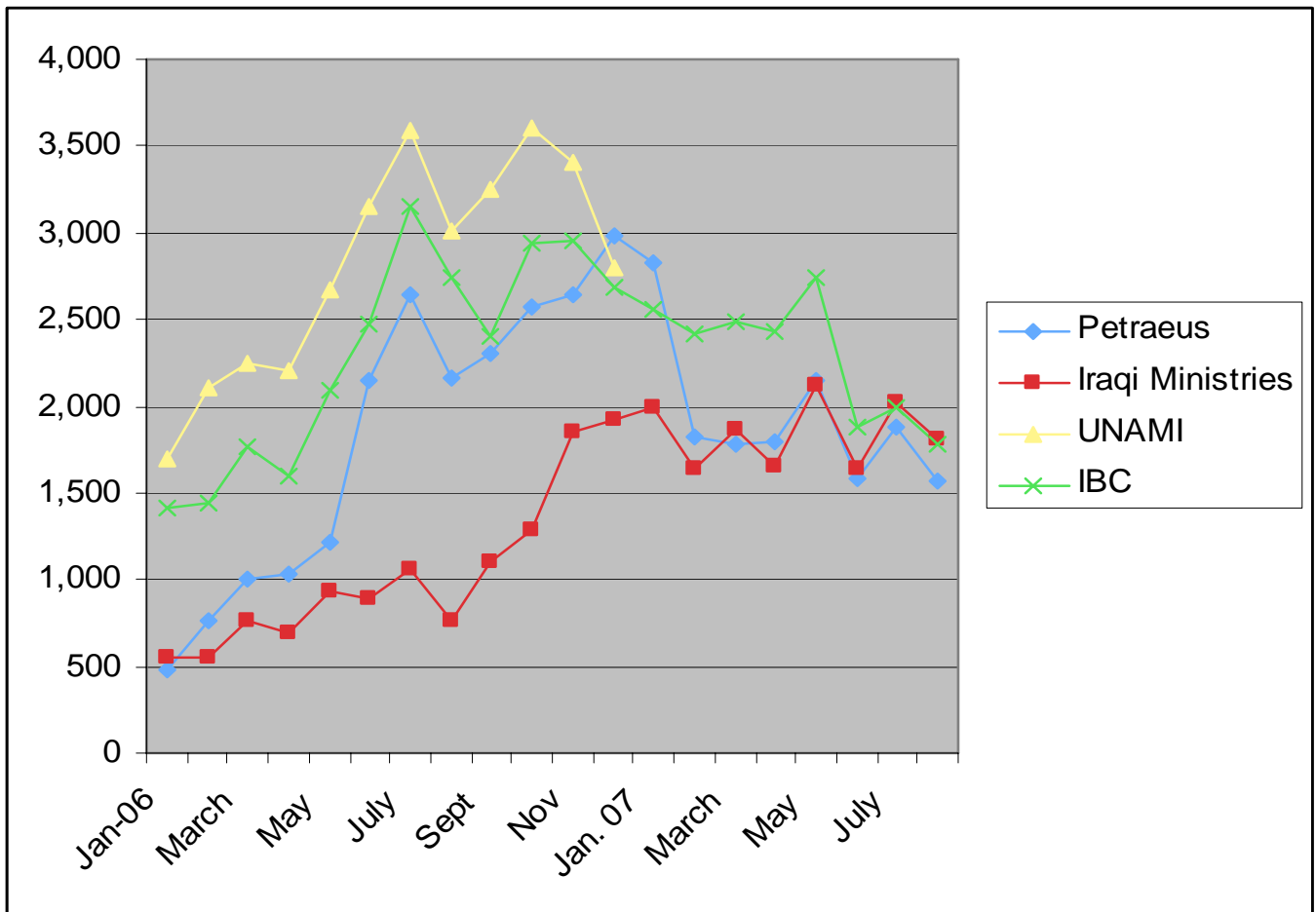
This [picture from the IBC website](#) compares IBC maximum figures with MoH figures.

IBC and MoH timelines compared
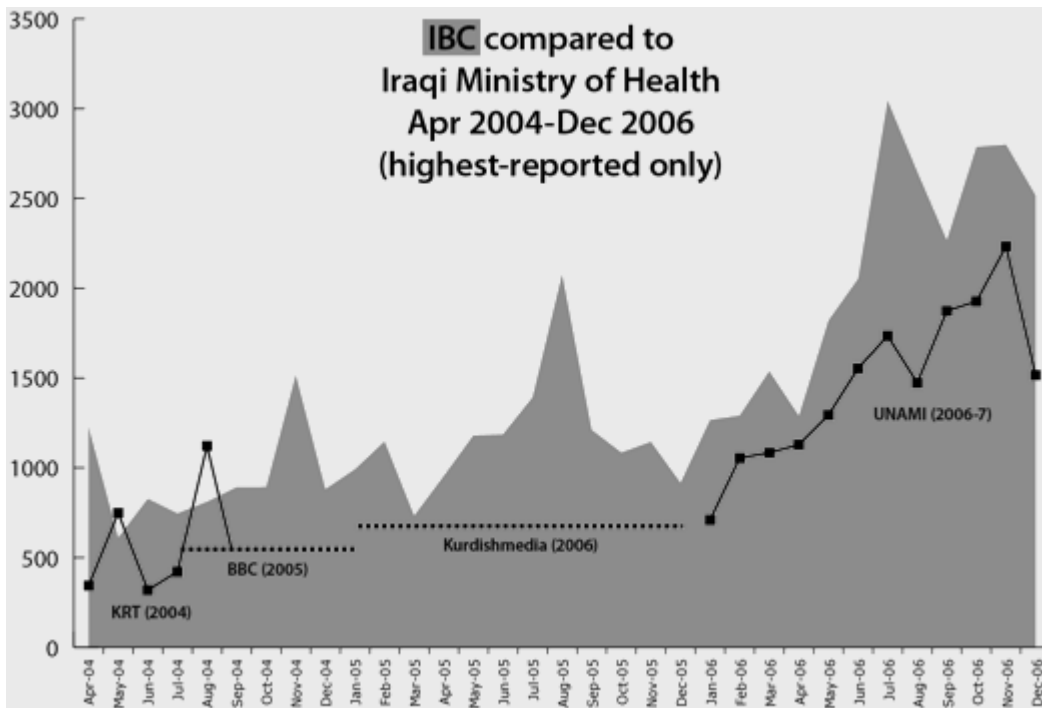
MoH figures tend to be a bit lower than IBC's and display similar trends.

Here are the other three sources together with IBC again for 2006 and through August of 2007.

All series increase sharply in 2006 and then decrease or flatten out.

The up-down trend is most pronounced for "Petraeus" and least evident for "Iraqi Ministries".

The levels for these sources are much more similar to each other than they are to *L2, which suggests something like 30,000 deaths per month in the first half of 2006*, whereas only UNAMI ever tops 3,500, but just barely and for only two months.

"UNAMI" is slightly higher than IBC and much higher than "Iraqi Ministries" in 2006.

UNAMI just added together Baghdad morgue figures and MoH figures and called them deaths of civilians, ignoring double counting from bodies that passed through both hospitals and morgues and the fact that both sets of figures included both combatants and civilians.

An evident weakness of MoH figures is that they are not released systematically; they tend to appear only as media "scoops".

[This article by Michael Dobbs](#) gives the best available information on how the Petraeus data is built, which is some as-yet murky combination of incident reports and Iraqi official figures with no further releases since the Petraeus testimony.

There has never been a decent explanation of how the "Iraqi Ministries" information is compiled and these numbers will often vary from one news report to another.

5. At the end of June, 2006 [The Los Angeles Times reported](#) that "well beyond" 50,000 civilians and combatants had been violently killed in Iraq, a figure apparently similar to IBCs range of 43 to 47 thousand civilians for this period and far below L2s 600,000 civilians plus combatants.

"The *Times* attempted to reach a comprehensive figure by obtaining statistics from the Baghdad morgue and the Health Ministry and checking those numbers against a sampling of local health departments for possible undercounts."

Times reporter [Borzou Daragahi said in an interview that](#) "We went to morgues, cemeteries, hospitals, health officials,…"

The *Times* has provided few details on what their underlying data look like, how it was used to reach their conclusion, and how precisely to interpret "well beyond" 50,000.

6. Opinion Research Business (ORB) issued [a press release](#) about an Iraq poll in September of 2007 from ORB concluded that "more than 1,000,000 Iraqis" had been murdered since the invasion, later suggesting a precise figure of 1,220,580.

ORB reports that 22% of their respondents reported at least one *household* member killed whereas just in March of 2007, in another ORB poll, only 26% reported *a family member or relative murdered*.

These two figures are not even statistically distinguishable and, given the very large extended family networks in Iraq, they are incompatible with one another.

It seems likely that many respondents to the September survey included many deaths of extended family members not living within their households, significantly inflating ORB's estimate.

a. ORB claims 264,000 deaths *just in car bombs*, most in Baghdad, compared to IBC's roughly 11,000 nationwide, 5,000 in Baghdad, in vehicle bombs; the international media would never overlook so many car bombings, especially in Baghdad.

b. About 2/3 of ORB's claimed deaths were in Baghdad where IBC records about 39,000 deaths for this period; it is farfetched that the international media, Baghdad hospitals and the Baghdad morgue would overlook 100's of thousands of Baghdad deaths.

c. ORB's claimed ratio of injuries to killings is very low, barely above one, but still implies a tremendous number of injuries in Baghdad for which there is little evidence.

d. ORB only gave a few uncommunicative bullet points on its methodology, at least one of which turned out to be wrong.

7. Various news agencies often release figures for a just-completed month which are often compared with figures for previous months to give a sense of recent trends.

The methods underlying these comparisons are generally unclear and it is a daunting task to try to string them together in a consistent manner.

8. There are some other derivative efforts, such as the Brookings Iraq Index that has mixed and fiddled with numbers released from other sources.

9. There have been a number of spurious sources injected into public debate such as a UPI news story reporting that a jihadi web site (Mafkarat al-Islam or "Islam Memo") had reported that an Iraqi humanitarian organization had done a study that found 128,000 war dead, a claim that was subsequently laundered into an L2 citation.

Conclusion

The ILCS is high quality but now nearly three and a half years behind.

IBC is high quality, consistent with the ILCS and broadly consistent with a variety of post-ILCS sources on both levels and trends: MoH, Petraeus, Iraqi Ministries, UNAMI and the *Los Angeles Times*.

These last five sources suffer in various degrees from being opaque and sporadic but have some potential.

Validation/calibration of IBC against a really good recent source would be valuable.

L1 contains little, if any, useable information.

L2 has serious quality problems and a number of unexplained anomalies.

At the moment IBC is the best source on violent killings of civilians in Iraq.

On November 23, 2007 IBC showed a range of 77,321 to 84,238.

IBC Monthly Series: Civilians Killed
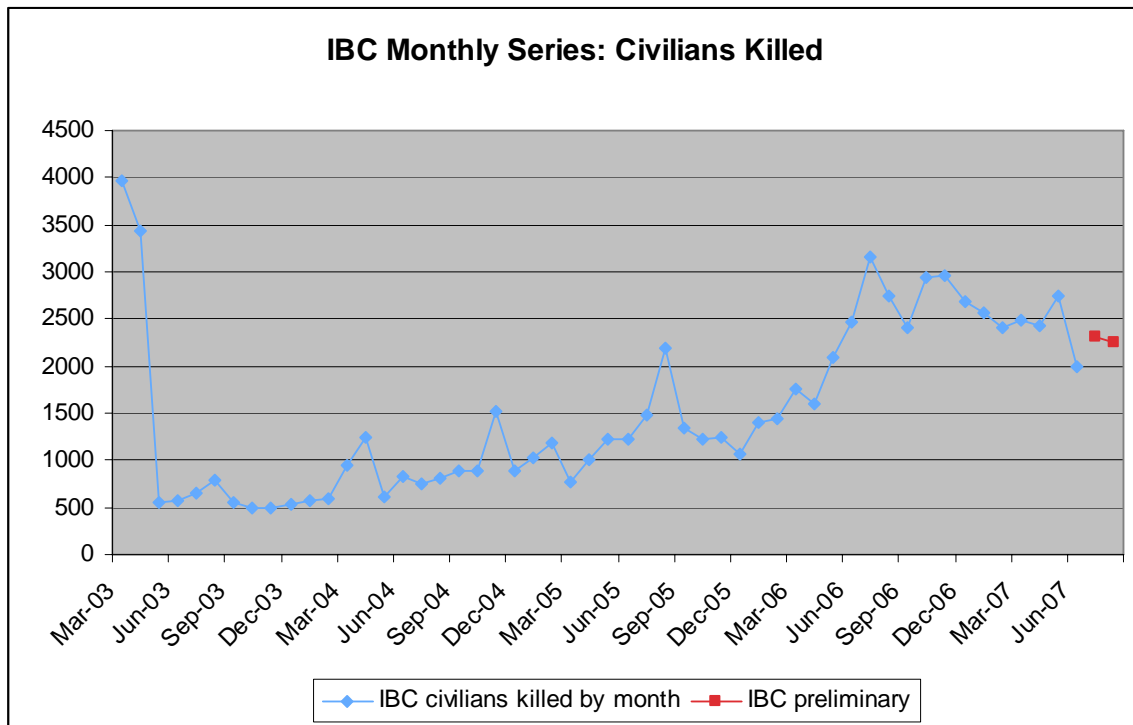
Figures for September and October of 2007 were too preliminary to include in the above graph, even as "preliminary, but are expected to settle at around 1,100 for both months, i.e., at levels not seen since 2005 but still very high.

The national homicide rate for 2007 will be near 100 per 100,000, *even excluding all combatants*, well over 20 times the US homicide rate.

This is an exceptionally high rate, compared to [international rates that have been recorded](#).

Even if Iraq stabilizes on 1,100 per month this would be an extremely high national homicide rate, around 50 per 100,000 per year excluding combatants.