

Reflection on Survey-Based Estimates of Mortality in War-Time Iraq

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Survey research has a long-standing and valued tradition in sociology (De Vaus, 2002, Bryman, 2001). Classic surveys such as Rowntree's (1902) *Poverty: A Study in Town Life* as well as contemporary research using data from the British Household Panel Survey, the British Crime Survey, and the British Social Attitudes Survey are regularly featured in the curriculum in sociology departments. However, lessons about survey research are dominated by discussions of sampling, question wording, response rates, and analysis techniques. Whilst these issues are very important, and must be addressed if survey researchers are to attain a level of methodological rigor in their work, courses on survey research rarely touch upon the role of politics in the design, implementation, and evaluation of surveys. A consequence of this is that many students in disciplines such as sociology come to see survey research (and statistical analysis more generally) as being divorced from the world of politics; in the minds of many students, surveys have come to be associated only with market research and public opinion polls. Their use within the context of critical social science is therefore unexplored and unacknowledged.

A research group from Johns Hopkins University has recently published two articles in the *Lancet* which use surveys to estimate the extent to which the 2003 invasion of Iraq has lead to an increased mortality rate in that country. Elsewhere I discuss the potential use of these studies in the classroom (De Maio, 2007). In this paper, I highlight some of the ways in which we can use these studies (and the reaction to their findings published in the popular press) to examine the role of politics in survey research. The first article, published days before the US presidential election, concluded that the invasion had resulted in 98,000 (95% CI = 8,000 to 194,000) excess deaths as of September 2004 (Roberts et al., 2004). More recently, the research team followed up the 2004 study and, based on the results of an expanded cross-sectional

cluster sample survey, estimated that the invasion has resulted in 655,000 (95% CI = 392,979 to 942,636) excess deaths as of July 2006 (Burnham et al., 2006).

Both figures are substantially higher than other available estimates, such as the Iraq Body Count (IBC) passive surveillance project (see <http://www.iraqbodycount.org>), which does not attempt to estimate the total number of excess deaths but rather tracks mortality reports in the press (see Gordon, 2003).¹ More specifically, the IBC estimate includes “civilian deaths caused by coalition military action and by military or paramilitary responses to the coalition presence (e.g. insurgent and terrorist attacks). It also includes excess civilian deaths caused by criminal action resulting from the breakdown in law and order which followed the coalition invasion” (Iraq Body Count, 2007: no pagination). At the time of the publication of the Roberts et al (2004) study, this project estimated that between 13,000 to 15,000 civilians had been killed as a result of the 2003 invasion (as of August 2006, their estimate has risen to 40,000 to 45,000; and as of April 2007, their estimate is 60,000 to 66,000). In contrast, the *Lancet* surveys examined mortality in Iraq by comparing mortality rates before and after the invasion; the surveys therefore attempt to measure deaths directly *and* indirectly attributable to the invasion (De Maio, 2007).

The publication of the two studies has generated a wide range of commentary in the media; most reports highlight US and UK government spokespeople who cast doubt on the validity of the studies and often provide quotes from ‘experts’ who claim that the studies have produced unrealistically high estimates as a result of faulty methodology (De Maio, 2007, Reynolds, 2006, Bennett-Jones, 2007). Some of the debate has surrounded the appropriateness of the cluster sampling technique, and correctly so, given that cluster samples are particularly prone to being influenced by anomalous data. But to their credit, the Johns Hopkins team has followed an appropriately conservative strategy for dealing with anomalous clusters, by excluding data from Falluja in the 2004 analysis for example (Roberts et al., 2004).

¹ Along with the IBC project, other estimates of mortality in Iraq are available from the Brookings Institution (2007), and more recently, the Iraqi Ministry of the Interior (see Burnham et al., 2006).

Other points of debate have centered on the interpretation of the estimates' confidence intervals, and the accuracy of self-report survey data. Perhaps of most interest to readers of *Radical Statistics* has been the discussion of the timing of the publication of the studies and the accusations of political bias. Both studies were published shortly before a US election; the 2004 article just days before the Presidential election that saw George W. Bush re-elected to office. According to an editorial published in the *Washington Post*, this amounted to the "egregious politicization of what is supposed to be an objective and scientific journal" (Guterman, 2005: no pagination). The 2006 article was published a few weeks before the mid-term elections; for Anthony Cordesman, a spokesman for the Center for Strategic & International Studies in Washington, "this is not analysis, this is politics" (quoted in Rising, 2006). In both instances, the controversy has involved criticism of the studies for their political stance that questions the morality of US military policy towards (not) acknowledging and (not) documenting civilian deaths. And in both cases, the studies have been criticized for violating the stereotypical view that statistical research ought to be 'value-neutral'.

Whilst critics of the Johns Hopkins studies have tried to argue that politics have no role in statistical research, their very reactions highlight the profound role of politics in the interpretation of statistical findings. This is clear when one compares the reaction to a very similar study Roberts previously led in the Congo. The Congo survey, conducted on behalf of the International Rescue Committee, estimated that 1.7 million people died in the Congo war during the late 1990s; these results were widely accepted in the popular press and quoted in speeches by Tony Blair and Colin Powell (Guterman, 2005). The contrast is striking: "when the US and British governments rejected the Lancet's 100,000 figure as wildly exaggerated and flawed, the US and British media simply fell into line. But flawed methodology cannot be the determining factor, because the same media entities expressed zero dissent in response to the same lead researchers using the same methods in Congo" (Medialens, 2005: no pagination). As Roberts notes, "It is odd that the logic of epidemiology embraced by the press every day regarding new drugs or health risks somehow changes when the mechanism of death is their armed forces" (quoted in Medialens, 2005a: no pagination).

Readers of *Radical Statistics* will know very well that statistical research can rightfully be used in the support of progressive social aims. In this case, the Johns Hopkins University team has provided us with two inspiring examples of how statistical analysis of survey data can be brought to bear on one of the most important issues of our time.

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