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More Damned Lies and Statistics: How Numbers Confuse Public Issues, by Joel Best

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analysis shows how Jesus directs the content of the conversation with her and how she then comes to know God and asks Jesus for a drink.

In the reflection piece of the chapter, Shea refers to Mother Teresa's prayer about the fruits of silence, prayer, faith, love, service, and peace, and connects the woman at the well story to this prayer by explaining the patterns of experience that we all must witness in the journey from silence to peace. This experience is similar to the woman's understanding of Jesus as Jew, prophet, and Messiah, "to receiving his revelation of himself as 'I am'" (p. 127). It is in this pattern of experience that one reaches the fullness of joy.

This reviewer finds *On Earth as It is in Heaven* to be a valuable resource for anyone searching for wisdom as it is revealed in the Gospels. Jesus' compassion and unconditional love and mercy are thoughtfully and spiritually presented with a sound foundation in Scriptural knowledge and a fresh perspective in the spiritual wisdom of those Scriptures. This resource would be beneficial for teachers of Scripture and for personal or small group studies.

On Earth as It is in Heaven is for those still searching for wisdom and who want to more fully realize the promise that Jesus makes in the Gospels.

Peggy Elson is the executive director of the Teacher Advancement Program for the Archdiocese of Indianapolis, IN.

MORE DAMNED LIES AND STATISTICS: HOW NUMBERS CONFUSE PUBLIC ISSUES

JOEL BEST
UNIVERSITY OF CALIFORNIA PRESS, 2004
\$19.95, 217 pages

Reviewed by Jennifer Ketchum

In a time when we are inundated with information through various forms of media, discerning fact from fiction, truth from lies, and reality from idealism has become a daily task. When confronted with statistics, do we ever think about where these numbers come from, how they are produced, how they are interpreted, or how we interpret them? Best provides us with some

interesting ideas regarding the misuse of information in the book, *More Damned Lies and Statistics: How Numbers Confuse Public Issues*, a sequel to *Damned Lies and Statistics*.

Best begins with “Missing Numbers” in chapter 1. This section warns the reader that most likely, not all of the information in a study has been accounted for. This may be because the data in a study are too difficult to find and, in some cases, it is impossible to take a true count. Numbers are often misinterpreted regarding social problems. For example, a single catastrophic event, such as the Columbine school shooting in 1999 or the attack on the World Trade Center in 2001, has great emotional power; therefore, with influence from the media, we tend to look at that one event, and overlook the lesser or absent numbers in the more common events within the same social problem, that is, actual number of school violence incidents or terrorist attacks. The distortion skews our perception regarding the extent of certain social problems today and how the numbers compare to those of the past.

Sometimes, it is just too difficult to calculate the numbers. Researchers disagree about what to count, there are intangible factors, and people place values on different factors. Other times, information is intentionally left out. Since money and time are limited, researchers must decide to leave out certain research. Often incorrect or irrelevant numbers are included, and those statistics are repeated and spread. Anytime numbers are gathered for research, the process may not be perfect.

Reading the numbers can be very confusing. Presumably most people understand what averages, percentages, and correlations are, but statistics might be used in such a way that leads to misinterpretation. An average can only give an accurate picture of a situation if the scores do not vary widely. To illustrate this point, Best invites us to

imagine a factory with ninety workers, each earning \$40,000 a year; nine managers, each earning \$80,000; and a chief executive officer, who brings home—I am somehow hesitant to write “earns”—say \$6 million....That average figure (\$103,000) is far removed from either the workers’ earnings or the CEO’s income. (p. 29)

Percentages tend to lend themselves to information that is more complicated than one would expect. Percentages can be calculated in the wrong direction to seem impressive. Therefore, deciding which way to produce a percentage often depends on the side you are on or the point you are trying to make. Confusion also occurs when we research a correlation. Certainly, there can be a relationship between two variables, but as the relationships become more complex, moving beyond simple cause and effect, we need to look at

the strength of the relationship. For example, B might be caused by A, but due to several factors, A does not necessarily cause B. Best tells us how

contemporary critics of drug use try to gloss over the issue by declaring that marijuana is a “gateway” drug—that is, marijuana use may not cause heroin addiction, but it might be a gateway....[However] most heroin addicts have passed through the marijuana gateway, but relatively few of the people who go through that gateway go on to become addicts. (p. 41)

Reading graphs can also be confusing. Often the visual proportions do not accurately reflect the numbers and many times graphs are created in a way that pleases the eye and intentionally or unintentionally sways one’s viewpoint.

Best speaks of scary numbers, meaning some statistics are meant to invoke anxiety and fear in order to draw attention to a particular social problem. These statistics tend to get a great deal of media coverage, more than those reporting good news. The theory is that large numbers make the problem seem more grave and therefore in need of immediate attention. Scary numbers are a common tool used by social advocates who “seek to scare us because, they insist, we face real threats and because we need to be jarred out of our comfortable complacency” (p. 90). Each group competes with the next for our attention. The public needs to respond to such statistics with some doubt and decide whether alarm is necessary.

Authoritative numbers and magic numbers are also discussed in *More Damned Lies and Statistics*. Authoritative numbers are those research statistics reported in reputable, professional, and supposedly reliable sources, especially of the scientific and intellectual communities. Research conducted in these fields is thought to be more impartial and accurate. However, it is helpful to remember that as these statistical reports are published to fit within a certain journal or article, the research must be condensed, therefore, leaving out some of the research. We must also remember that the research itself has limited resources of time and money. Even though we may have more confidence in reports found in authoritative sources, we should question how the study was produced. Magic numbers are those that we rely on to assess and compare society’s progress in certain areas. They are often from authoritative sources and “appear at our culture’s fault lines—at those spots where conflict, uncertainty, and anxiety seem particularly intense, where we feel the need for a firmer foundation on which to base our actions” (p. 118). We see these as a means to place social issues into concrete and objective terms. Standardized test scores are a good example of magic numbers because certain scores serve as a concrete goal, which when met, supplies an answer to the issue of student achievement. Again, we must be careful in accepting these numbers, as they are easily manipulated by someone with certain interests at hand.

Best also writes about contentious numbers, which he sees as a means for people to use for “spinning” and “cherry picking.” Numbers are selected to support a certain issue at a certain time depending on the issue at hand. All other statistics that are relative to the numbers selected are ignored for the time being.

By the end of the book, the reader learns not to take statistics at face value; statistics are calculations, but the interpretation of these calculations makes an enormous difference in how the numbers are presented and how we understand them according to our own biases and social realities. Best suggests that as a society, we should learn how to better read statistics and calls for a statistical literacy movement that goes beyond mathematical statistic classes. Best suggests teachers of social sciences give lessons on how to actually read statistics and dedicates a few pages at the end of the book to names of sources that promote statistical literacy. *More Damned Lies and Statistics* is a book that could be of interest to people from all walks of life and any profession. For those in the field of education, it serves as a reminder that there are several different variables to consider when serving our students. Societal views often shift, and it is important to balance fluctuating data and theories with a consistent purpose. Anyone who reads this book will look deeply into the true meaning of statistics, how our society directs their outcome, and in turn, how statistics affect the direction of our society.

Jennifer Ketchum teaches fifth grade at St. Ann's Academy in Washington, DC.

LETTERS TO A YOUNG CATHOLIC: THE ART OF MENTORING

GEORGE WEIGEL
BASIC BOOKS, 2004
\$22.95, 208 pages

Reviewed by Bradden R. Kluesner

Weigel offers young Catholics reflections on a pilgrimage through the Catholic world, focusing on what had a great influence on his own under-