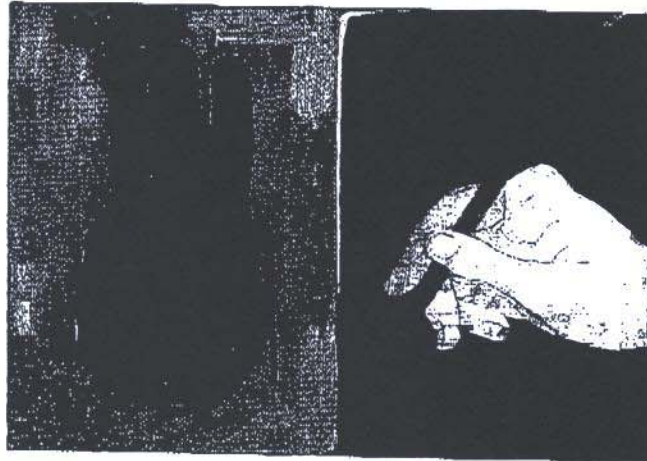


# Why Journalists Can't Add

**N**EW YORK TIMES COLUMNIST William Safire is a smart guy, with extraordinary insights about politics, national security or anything else he chooses to write about. But nobody's perfect, and this wordsmith has trouble with numbers, as evidenced in a column last summer that offered the following "early morning line" on 2004 Democratic presidential nominees: Tom Daschle (4-1); Joe Biden (5-1); Richard Gephardt (15-1); John Edwards (9-1); John Kerry (4-1); Pat Leahy (6-1); Joe Lieberman (5-1); Chris Dodd (4-1); Russell Feingold (8-1); and Al Gore (2-1). What Safire doesn't seem to realize is that odds translate into percentage probabilities (e.g., 4-1 means the guy has a 20% chance) and that his probabilities add up to 168%. Alas, mutually exclusive contingencies cannot have probabilities summing up to more than 100%.

After many years of observing media colleagues at work, I would say most of them were standing behind the door when quantitative skills were handed out. They quote T. S. Eliot but are babes in the woods when it comes to correlations or the basic laws of probability. Even when the math is simple, they get bollixed up. *Fortune* recently ran an article on convertible bonds and accompanied it with a table demonstrating that stock prices were far below conversion prices. At eight of the companies, the magazine told us, the stocks were doing so badly that they were selling at more than 100% below the conversion price. How's that? A stock selling below zero? But the scary percentages lent a certain excitement to the copy.

Journalists have trouble distinguishing between the increase or decrease in economic output during a quarter and the annual rate of change. Typical was the



**Liberal arts graduates control the media, which doubtless helps the prose—but generates endless screwups in numbers.**

BY DAN SELIGMAN

*New York Times* editorial following release of last year's third-quarter figures. The editors cited a 0.4% decline in the quarter as a reason for heavy grieving. But that number was, of course, the annual rate, meaning that the decline in the quarter was only 0.1%.

Schools have evidently stopped teaching the difference between "million" and "billion." The *Wall Street Journal* reported Ford's fourth-quarter dividend at \$270 billion. The *Times* had some New York City reservoirs holding 63,804 billion gallons. *Business Week* had OPEC cutting production by 1.7 billion barrels a day. Even small numbers are treacherous. A recent howler in *FORBES*: FedEx packages going down the conveyor at 540 feet per second. (Read "per minute.")

Another common dereliction is coupling a precise number to an undefined term, as in the *New Yorker* article a year

ago worrying about the fact that "Americans spent \$27 billion on unproven remedies in 1997." Given the conspicuous absence of agreement about which remedies are "unproven," the statement must be rated meaningless.

High-profile media persons endlessly signal that they themselves don't know what the numbers mean. On Nov. 12 *Washington Post* media critic Howard Kurtz

was registering amusement over what he judged to be conflicting reports on unemployment. The *New York Times* had run an article stating "400,000 Americans lost jobs last month," while the *Post's* own headline said "Unemployment soars by 700,000." Howie neglected to note that the unemployment totals are affected by a lot more than job-losing—by, for example, more people looking for work.

Also recently getting things wrong in the *Post* (and many other papers) was syndicated columnist Ellen Goodman, wrestling with the latest news about mammograms and breast cancer. The news is a study indicating that breast cancer mortality rates do not appear to be reduced by regular mammograms. This is contrary to what women have been told for years and leads Ellen to reflect as follows: "We've been told that picking up cancer on a mammogram, before it's big enough to feel, improves the odds of survival by 30%. Of course I can do the math. Those same figures mean that mammograms make no difference in 70% of the cases." No, she cannot do the math. It is quite consonant with a 30% overall survival gain that mammograms have some benefit in 100% of breast cancer cases.

If only the math majors could write. ■

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