

This is the so-called “numbers make leaders” phenomenon (“shu zi chu guan” in Chinese). Second, the statistical organizations are not independent entities in China. They are a part of the government and hence are vulnerable to government interference. Without specific laws and regulations to punish statistical corruption, government leaders can intervene in statistical reporting with low political risks. They may tailor statistics for different purposes, such as inflating statistical numbers that indicate economic achievements and decreasing statistical numbers for environmental pollution and damage (2). This is the so-called “leaders make numbers” phenomenon (“guan chu shu zi” in Chinese).

The previous Statistics Law in China has been in effect since 1983, but it was too vague to enforce. Although it stated the penalty for illegal acts, the law did not clearly specify the types of the illegal acts and the extent to which penalties should be imposed. In contrast, the new regulation lists four types of statistics cheating: revising statistics without permission, or making up statistics; forcing or ordering statistics departments or individuals to revise or make up statistics or refuse to report statistics; retaliation against individuals who refuse to issue false statistics; and retaliation against individuals who report statistics violations (3). The degree of punishment depends on consequences of the violations, and the punishments include a warning, recording a demerit, or even removing officials from their positions.

The new regulation is an important step in the fight against statistical corruption in China. Nevertheless, to eradicate illegal acts in statistical work, further actions are needed, such as reform of the evaluation system for officials and the establishment of independent statistical organizations. Without progress in these areas, the goal of an 8% GDP growth rate for 2009 announced by the Chinese government could be merely another number created by leaders.

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Organics: Evidence of Health Benefits Lacking

MANY CONSUMERS CITE “HEALTH AND NUTRITIONAL concerns” as the primary reason for purchasing organic food (1). There are several hypotheses to explain why organic foods might be nutritionally superior to conventionally produced foods, including (i) the idea that nutrient uptake is enhanced because organic fertilizers release nutrients slowly, and (ii) the theory that conventional pesticides and herbicides may disrupt nutrient absorption or synthesis, potentially lowering nutrient levels in crops. However, systematic literature reviews over three decades, including a very recent one (2), have demonstrated neither consistent nor meaningful differences in nutrient levels.

Furthermore, almost all reviews and much of the original research report only the statistical significance of the differences in nutrient levels—not whether they are nutritionally important (3). To determine the latter, nutrient comparisons must be made on a per serving basis and then set against a standard, such as the FDA/USDA requirement that a nutrient must be 10% higher than it is in a comparison product to make the claim that the product has more of the nutrient.

Levels of phytochemicals—compounds found in plants that are not classified as nutrients but appear to play a role in reducing the risk of certain diseases—are frequently reported to be higher in organic foods compared with conventional foods. Although the production environment appears to affect the level of phytochemicals by as much as 30% [e.g., (4)], the genotype (variety) can vary the composition by a factor of three to ten, or more [e.g., (5)]. Therefore, cultivar selection may be as important or more important than the production method in increasing overall intake of these important compounds. However, data on phytochemical content are generally insufficient, and standards on which to base diet recommendations are lacking.

Studies demonstrate that it is the total amount of dietary phytochemicals, not the amounts of individual compounds in a single food, that is important in reducing the chronic disease risk (6).

As Magkos *et al.* (7) state, “the quality of a food product should be considered as the result of the general quality of its production system.” We can’t stress enough the many potential public health and environmental benefits from organic production methods and the consumption of organic foods (e.g., low pesticide residues and reduced soil loss). Given these important benefits, supporting unsubstantiated claims of nutritional superiority is an unwise and unnecessary argument for promoting dietary change. For now, we urge scientists, producers, and others to carefully “identify the boundaries of accurate messaging” (8) and not to mislead themselves and the public.

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CORRECTIONS AND CLARIFICATIONS

Reports: “Avian paternal care had dinosaur origin” by D. J. Varricchio *et al.* (19 December 2008, p. 1826). Incorrect Akaike weights and evidence ratios were used in the comparison of clutch volume–body mass data of three nonavian dinosaurs (Troodon, Citipati, and Oviraptor) to four a priori models generated from extant archosaurs. Erroneous Akaike information criterion values were calculated using base 10 rather than the natural logarithm. The corrected Akaike weights for the four models are bird-paternal, 0.698; bird-maternal, 0.174; crocodile-maternal, 0.093; and bird-biparental, 0.036. Thus, clutch volume–adult body mass ratios of these dinosaurs are 4.0, 7.5, and 19.5 times more likely to fit the bird-paternal model than the bird-maternal, crocodile-maternal, and bird-biparental models, respectively. These corrected values do not alter but instead lend greater support to the original interpretation.

Letters: “Optimizing ecosystem services in China” by W. J. Mitsch *et al.* (24 October 2008, p. 528). The distance between the Three Gorges Dam and Chongqing city center is 600 km, not 300 km. Chongqing province and the site of our investigations, however, is well within 300 km of the dam. Flooding in the pool behind the dam is currently being investigated so that it will be lower than originally predicted 600 km upstream at Chongqing city.