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REVIEW ARTICLE

# Food Policy Research in the US Government

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# **ABSTRACT**

Evidence-based advice informs pubic decisions about US food and nutrition policies and about food security. The US Department of Agriculture's Economic Research Service is a provider of economic research and analysis to the food policy dialogue and has sought scientific advice from the US National Academies. One case had to do with a survey of the US population to determine the extent of food security nationally and the other with the need for new data to advance understanding of patterns of food consumption in the United States. Especially when political interest in a topic is high or when new funding is sought, the perspective of an objective, evidence-based panel report can add credibility to government agency results and decisions.

Key words: Evidenced-based, policy, US, food, nutrition.

# INTRODUCTION

Scientific evidence and advice are critical to good governance and effective policy. The world changes, politics change, people change, such that the need for evidence-based science advice is always present. Public policy must be continually measured against change. We should heed what the French Philosopher Michael Eyquen de Montaigne (1533-1592) wrote 500 years ago, "Combien de choses nous servoient heir d'articles de foy, qui nous sont fables aujourd hui". "How many things served us yesterday for articles of faith, which today are fables to us". I take that as a reminder that new knowledge and new circumstances act together to change our minds.

Today, I will address the use of evidence-based advice to inform public policy decisions about food and nutrition policies and about food security. My position in the public policy dialogue in the U.S. is as a provider of economic research and analysis. I will tell you about two situations when my agency asked the National Research Council of the National Academies for advice. One case had to do with a survey of the US population to determine the extent of food security nationally and th4e other with the need for new data to advance understanding of patterns of food consumption in the United States. Both cases illustrate how the prescription for policy evolves with experience and new evidence.

Let me explain briefly how my agency operates. The Economic Research Service (ERS) is an agency of the U.S. Department of Agriculture. ERS is one of the dozen principal Federal statistical agencies in the U.S. government, which means that its major function is the compilation and analysis of data and the dissemination of information for statistical purposes. Statistical purposes include description, evaluation, analysis, inference and research. The ERS staff is comprised of applied economists whose research spans a range of topics including food security and nutrition and also farm and commodity policy, natural resource management and rural development. Data on the behaviour of

individuals, business firms and other actors in the economy are crucial to successful and useful empirical analyses.

As ERS performs research, it is guided by a set of principles and practices for Federal statistical agencies. Not quite coincidentally, this set of principles has been set forth by the National Research Council (NRC) to help statistical againcies carry out their mission effectively. The three basic principles are relevance to policy issues, credibility among data users, and trust among data providers. First issued in 1992, these principles and associated best practices - found in the "purple book" - provide a clear and transparent set of "rules of the road" to which ERS can turn in running its business.

These rules are important in this context because two of the practices bear on the way that evidence-based advice should be used in decision making. One recommended practice is that the research program of a statistical agency should include research on the substantive issues for which the data were compiled. Ten years of research relevant to the survey on food security motivated the request to the National Research Council to reconsider the survey's methodology. Another recommended practice is the continual development of more useful data, meaning, for example, the combination of multiple surveys or rebalancing data collection to address new information requirements. Consistent with this practice, ERS asked the National Research Council to consider how to improve data to analyse food and nutrition policies.

In seeking the advice of the NRC, it is important to understand that ERS, as a research agency, informs policy makers but does not make policy decisions. While ERS exists in a political environment, its own research program is meant to be relevant to politics and policy yet objective in its findings. This research orientation may make ERS a better customer for evidence-based advice. Once a political decision has been taken for ideological reasons, it is hard for any evidence to cause a near-term change in course. In that

case, advice may not be well received. The American novelist John Steinbeck said," No one wants advice - only corroboration." In the heat of politics that is the case, which is why asking for evidence-based advice early and often is indeed good practice.

#### FOOD SECURITY

Most Americans can readily afford to put enough nutritious food on the table each day. USDA estimates that nearly 9 out of 10 U.S. households were food secure throughout 2005, meaning that they had consistent access to enough food for active, healthy living. Yet, for some households it is a struggle to put enough food on the table. USDA sponsors a national household survey each year to estimate the number of households facing such difficulties. The December 2005 survey indicated that 12.6 million households (11 percent) were *food insecure* at some time during the year, meaning that they had difficulty meeting basic food needs because they lacked of money and other resources for food.

What does it mean for a household to be food insecure? How serious are the conditions represented in the statistics? Do the statistics accurately depict differences among population groups and across regions? Is the measure reliable? Over the past decade, USDA has sponsored a vigorous research program on the measurement, meaning and reliability of the food security statistics. Despite these efforts, some major questions continue to be raised regarding the underlying concepts, the estimation methods and the design and clarity of the questions used to construct the food insecurity scale. Thus, ERS requested the NRC committee on National Statistics (CNSTAT) to convene a panel of experts to undertake a study to review the concepts and methodology for measuring food insecurity and hunger and the uses of the measures.

An independent consideration of the food security measure is critical to maintaining its credibility in use as a guide to Federal policy. The measure is important in determining the level of public effort that should go toward reducing food insecurity. But because it is computed at the national and state levels, the measure also tells something about the distribution of food insecurity. It is the publication of these state level measures that make the indicator especially sensitive politically. Therefore, it is important to explain why it varies from one state to the next as well as to affirm the conceptual validity of the measure.

States with high poverty rates tend, in general to have high rates of food insecurity, but there are notable exceptions. Both poverty and food insecurity rates were relatively high during the period 2003-05 New Mexico, Mississippi, and Texas, and both rates were low in New Hampshire, Minnesota, and Delaware. On the other hand, Utah and Idaho had food insecurity rates above the national average and poverty rates below the national average, while the opposite was true in West Virginia. These disparities between the levels of poverty and food insecurity does, infact, fairly represent differences in food hardship across states. However, most of these apparent anomalies have now been accounted for by factors other than official poverty status that affect households' food security.

Economists examined a number of householdlevel and State-level factors, that were expected to affect households' food security. They confirmed the expected relationships between food insecurity and income, education, demographics, employment, and disability of households resident in the state. Then, controlling for those household-level factors, they assessed the associations of food insecurity with selected state characteristics. Food insecurity was more prevalent (other factors equal) in States with: low average wages; high rental cost for housing; low summertime participation in the National School Lunch Program and Summer Food Service Programs; high unemployment rate; residential instability; low participation in the Food Stamp Program; and high tax burden on low-income households. Taken together, identified household and State factors account for a large proportion

of State-to-State variation in food insecurity - as much as 86 percent in some analyses. Household-level and State-Level factors contributed about equally to the inter-State differences.

The food security measure has passed a milestone with the review of the CNSTAT panel. The panel affirmed the validity of the food insecurity measure as a measure of households' economic access to adequate food. The panel recognized the contribution food security statistics make in the policy and program arenas and recommended that USDA continue to measure and monitor food insecurity. The panel also identified several potential improvements to the measurement methods and recommended that USDA explore those further.

One recommendation in particular will attract attention form participants in the policy dialogue. The panel concluded that hunger is a concept distinct from food insecurity. The survey measures food insecurity at the level of the household. Hunger itself is an important concept that should be measured at the individual level distinct from, but in the context of, food security. Accordingly, USDA has made changes in the language used to describe food insecurity in order to more explicitly differentiate food insecurity from hunger. Removing "hunger" from the descriptors of the survey results may well be seen as downplaying the significance of food insecurity in the U.S., although that was definitely not the intention of the CNSTAT panel of experts.

At the same time, the CNSTAT panel's assessment and the accumulated research of the last decade confirm the reliability of the food security measure as an assessment of households' economic access to enough food. A consistent picture emerges from these studies. The food access problems reported by households in response to the questions in the food security survey can, in general, be taken at face value. Statistics on food security and food insecurity can be used with confidence to conform policy and program decisions.

# FOOD AND NUTRITION DATA

Increasingly, the preferences of U.S. consumers define what is produced, how food production takes place and with what effects. With more secure supplies of food, consumer interest has shifted to the forms in which foods are available and the services these products include. This consumer driven focus is increasingly important as population growth has slowed and prosperity has grown, thereby changing the nature of demand for food. Policymakers need information on consumption patterns to accurately interpret in demand shifts and help ensure supplies of safe and nutritious food and help farmers to prosper with new ways of doing business in divers and ever-changing markets.

These developments raise important and intriguing policy and research questions. What has caused the increase in overweight and obese Americans? Are people eating more, eating the wrong foods, exercising less, or some combination of these? How do changes in food markets - food process and availability - affect what people consume? How do other factors, such as income, time resources, and consumers' preferences and knowledge affect food consumption decisions and how have they changed over time? How do factors outside of homes, such as the availability of stores and restaurants, food and food preparation technology, food marketing and labeling policies and incorporation of advances in dietary knowledge into health care delivery, affect what people are consuming and the consequences for their health and safety?

ERS asked CNSTAT to convene a panel of experts to provide advice for improving the data infrastructure on food consumption and nutrition. The panel was charged to review data needs to support research and decision making for food and nutrition policies and programs in USDA and to assess the adequacy of current data infrastructure and recommend enhancements to improve it. The panel was asked to consider improvements to current systems, not to propose major new systems. Its main recommendations included better interagency cooperation for the

management of data sources and specify the consideration of low cost ways to enhance the usefulness of federal surveys by linkages with administrative records. It also urged exploration of the use of data on food purchases, process and consumption from proprietary retail scanner systems, household scanner panels, and household consumption survey.

In parallel with the work of the CNSTAT panel, ERS requested from the Congress additional funds to build an integrated and comprehensive data and analysis framework. The Department traditionally has monitored production of food commodities at the farm level and food consumption at the individual level. But it has had no way to trace food commodities from the farm-gate to the dinner plate - through the production, manufacturing, and distribution systems to specific foods purchased at the store or at restaurants and eaten by individuals. In addition, changing demographic patterns in the United States and other countries, rising incomes, and differing preferences for food safety and quality in the world are reshaping global markets. Considerable investment is needed to consistently link different levels of food production, preparation, marketing, and consumption. This linkage is vital for evaluating the impact of alternative agricultural research activities on food choices and nutrient intake as well as the impact of food choices on commercial agriculture.

The ERS request was successful. The agency received almost \$4 million additional each year to fund the augmented consumer Data and Information System. The centerpieces of this framework are nationally representative consumer and retail surveys of food prices, retail sales, consumption and purchases of food for at-home and away-from-home eating, and data on consumer behaviour, reactions, attitudes, knowledge, and awareness. The CNSTAT panel's findings and recommendations buttressed the agency's arguments in favor of the increased investment. And, just as important, the panel report boosted the significance of food and nutrition data collection on the agendas of other

statistical agencies. New ventures to link survey and administrative records have been enabled by the panel report's guidance.

#### CONCLUSION

The three CNSTAT reports have provided ERS with the guidance it needs to ensure that its food policy research is based on sound concepts and methodologies. Especially when political interest in a topic is high or when new funding is sought, the perspective of an objective, evidence-based panel report can add credibility to government agency results and decisions. Moreover, as a research agency, ERS appreciates the advice and expertise of colleagues in the university and private sectors.

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