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The Globalization of Food and How Americans Feel about It: Results of Two Surveys

Brenda J. Vander Mey

The two surveys used for this presentation were conducted in South Carolina and across the United States. It was found that "globalization" includes global food supply. Americans prefer American-grown and -processed foods over imported foods. They are willing to pay more for locally grown and organically grown foods. Americans believe that their food is tastier and more nutritious than ever, but disagree that it is safer than ever. Respondents were uncertain about the health and environmental impacts of GM foods, but prefer that GM foods be labeled. Farmers, university professors, and the USDA are trusted sources of knowledge about food safety, while celebrities, business executives, and foreign governments generally are not. Since 9/11, Americans harbor serious concerns that the food supply could become a target of terrorists. These and other findings are presented in this paper and are discussed in terms of their implications for previous and current research.

Key words: Food safety, food security, bioterrorism, global food supply, food preferences.

What comes to mind when people hear the word "globalization?" What role do Americans believe the United States should have in the global world? How has globalization affected peoples' personal lives and communities? With all the changes that continue to take place in agriculture in the U.S. and around the world, what are Americans' preferences regarding food production and processing and what do they think about foods derived from modified organisms? How safe do Americans believe their foods to be? Who do Americans trust for information about food safety? And how have the terrorist attacks on the United States affected Americans' concerns about the future security of their food?

These are some of the questions that were raised in a nationwide survey of American people. In addition, several of these questions were asked of South Carolina residents. In this paper I present some of the findings from the two surveys.

Background

Agriculture in the United States has been in various stages of change since white settlers first learned to grow corn from the Indian natives in the early 1600s. Early models of American agriculture, how-

ever, were co-opted primarily from European farm practices and innovations from England. Regional variations in farming systems emerged from differences in culture of origin, climate and ecosystems, and political orientations. For instance, the South was ideologically and economically dominated by large plantations dependent on slave labor, the Mid-Atlantic states had independent family farms that co-existed with small-scale manufacturing, the New England states commonly had small-scale family farming, and the Western states used open, large tracts of land for farming. Given scientific discoveries that increased yields, mechanized modes of farming, and the use of chemicals throughout the 1800s and early 1900s, the trend in the U.S. was toward fewer farms; scientific, rational approaches to farming as a business; and reduced need for human labor in farming (Rasmussen 1960; Kirkendall 1991; Vander Mey and Wimberley 2001).

Since the Great Depression of the 1930s the trends in the United States have increasingly been toward more concentrated agricultural production, larger operations, vertical integration of operations, and globalization of agriculture. This globalization has been enhanced by the emergence of transnational food and agriculture corporations, precision agriculture, and agricultural biotechnology (Vander Mey and Wimberley 2001; see also Kohl 2001). In many parts of the U.S. these trends have been compounded by urban sprawl and encroachment on farmlands.

Brenda J. Vander Mey is sociologist and research and extension specialist, Clemson University, Clemson, SC.

A PowerPoint presentation of this paper is available at <http://www.clemson.edu/scg/food/>.

Globalization

“Globalization” is a term heard in everyday conversation in many parts of the world today. There are, not surprisingly, many competing ideas about what globalization is and is not. Many writers emphasize globalization as an economic phenomenon; others emphasize cultural changes. Other writers contextualize globalization as an environmental phenomenon. Criticisms of globalization abound. Some critics are concerned that a few multinational corporations will eventually own and control most of the world’s wealth and resources, that citizenship will be eroded, that family farming will be replaced by corporate farming, that there will be greater environmental degradation leading to a high level of unsustainability, and that developing countries will be further disadvantaged. Others, however, contend that globalization will liberate individuals from oppressive governments, that a broader concept of citizenship will emerge, and that technological innovations caused by globalization will lead to improved environmental quality (see, for example, Greider 1997; Giddens 1999, 2001; Hardt and Negri 2000; Seis 2001; as reviewed by Vander Mey and Wimberley 2001).

When reviewing the titles for the talks, papers and posters to be presented at the FDRS conference, I realized that each and every presentation in some way or another had globalization as a factor. I therefore thought it might be important to include items from our surveys that would help to contextualize this year’s conference.

The Two Surveys

The two surveys used for this presentation are the statewide survey of South Carolina residents conducted in 2000¹ and the nationwide survey conducted in the United States during 2001.² Sample

¹ This survey was part of Project No. SC-1100573, “Globalization and Rural Change: The Future of Food and Agriculture in South Carolina.”

² S-276 multi-state, land-grant university project on “Rural Restructuring: The Consequences of Globalized Agriculture and Natural Resource Systems,” funded by the participating land-grant universities and the Farm Foundation. Team members: R. C. Wimberley, North Carolina State University; B. J. Vander Mey, Clemson University; B. L. Wells, Iowa State University; G. D. Ejimakor, North Carolina A & T University; C. Bailey, Auburn University; L. Burmeister, University of

selection was made by independent survey-sampling companies. The South Carolina survey had 201 respondents and the nationwide survey had 819 respondents.

Findings

What Globalization Means

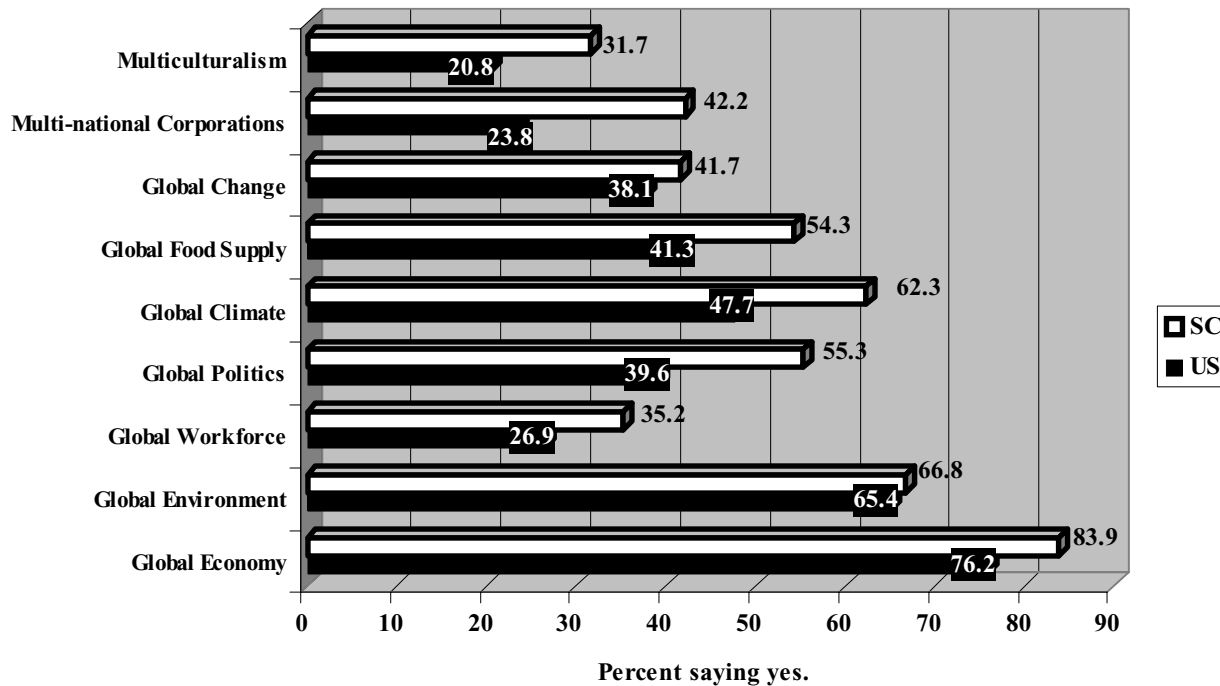
In conducting very extensive reviews of the literature about globalization and globalization in relation to food and agriculture, we found that every author defined globalization, what it means, and what its impacts are or will be. We thought it time to find out what people in general think globalization means. We asked respondents to look at a list of words and decide whether they see these as associated with globalization. As can be seen in Figure 1, respondents generally agreed that economics is associated with globalization, as is the environment. Respondents also generally agreed that globalization is associated with global food supplies, global climate, and global politics. Some respondents also associated globalization with multi-national corporations, multiculturalism, and global change. In open-ended fashion, the South Carolina respondents added global warfare, global defense, global mission, the influences of multiple religions, and different nationalities to the list. Thus, to these respondents, globalization is not merely economic, nor is it strictly political or environmental. Globalization has multiple meanings, including a more global food supply.

The United States in Global Context

In both surveys, respondents were asked seven questions about the role of the United States in global context. The statements were: “*Americans have more to gain than to lose in the global economy;*” “*It is impossible for the U.S. to be isolated in today’s world;*” “*Our country would be better off if we just stayed home and did not concern ourselves with*

Kentucky; C. K. Harris, Michigan State University; M. A. Lee, University of Wisconsin; E. L. McLean, Clemson University; J. J. Molnar, Auburn University; G. W. Ohlendorf, Louisiana State University; T. J. Tomazic, St. Louis University; and, G. Wheelock, Alabama A & M University. Some of the findings in the current presentation/article previously were presented in Wimberley et al. 2003.

Figure 1. Words Associated with "Globalization," US and SC.



problems in other parts of the world;” “The U.S. has more global influence than any other nation in the world today;” “Multi-national corporations have too much influence over people in the U.S.,” “There is a divine purpose for the U.S. role as a world leader;” and “U.S. citizens should ‘buy American’ even if it means higher prices.” These statements were rated on a 5-point scale from strongly agree to strongly disagree.

As can be seen in Figure 2, most respondents believed that it is impossible for the United States to be isolated and that the U.S. has more global influence than any other nation in the world today. Respondents also generally agreed that the U.S. has more to gain than to lose in the global economy. About half of the respondents believed that there is a divine purpose for the U.S. as a world leader and that multinationals have too much influence. Very few believed that the U.S. would be better off if its people just stayed home and did not get involved in the problems of other nations. Whether Americans should “buy American” even if it means higher prices did not receive overwhelming approval by the respondents.

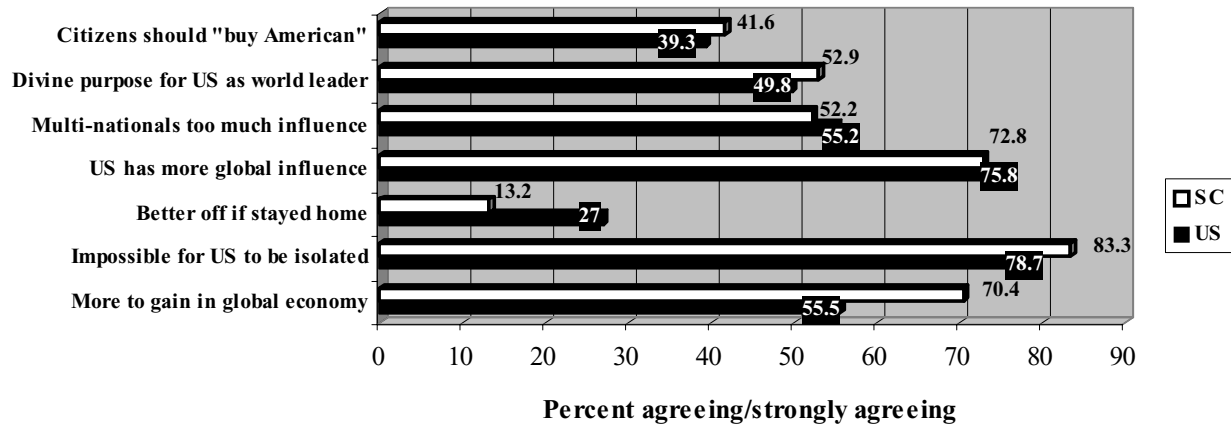
Effects of Globalization

The South Carolina respondents were asked, in open-ended fashion, how globalization had affected their personal lives and their communities. Respondents indicated that their personal lives had been affected by globalization through higher taxes, greater awareness of global matters, products from foreign companies, impacts on the work place, the closing of textile mills, increased stress, and increased dismay. Respondents indicated that while more and cheaper clothing was available, this was not necessarily a good thing, since the clothes were being made overseas by cheaper labor, thus cutting into the textile industry in the state. At the community level, respondents indicated that globalization had fostered a better-informed citizenry, job loss and creation, immigration and population changes, and an array of environmental impacts.

Food-Consumption Practices of Americans

Respondents in the nationwide survey were asked to indicate how often they eat food from various

Figure 2. Views of the US in Global Perspective, US and SC.



places. These places included the supermarket, small neighborhood groceries, food grown in the U.S., and food grown in other countries. As can be seen in Figure 3, respondents get food from supermarkets on a weekly basis and also fairly often purchase food grown in the United States. The respondents rarely purchase food directly from farmers, and only about one-third of the respondents purchase food from other countries on a daily or weekly basis.

Importance of Attributes of Food Bought by Americans

Respondents in the nationwide survey were asked to rate the importance of several attributes of the food they buy. The attributes included food with contents listed on the label, food with nutrition levels listed on the label, taste, price, name brand, and whether the food was grown in the United States and/or processed in the United States. As can be seen in Figure 4, taste mattered a great deal to most of the respondents. After that, whether the contents were on the label, the price, and whether nutrition values were on the label mattered a great deal to slightly over half of the respondents. Whether the food was grown or processed in the U.S. mattered a great deal to about one-third of the respondents. Whether the food was a name-brand product was not terribly important to the respondents.

Respondents also were asked if they thought that the U.S. should buy all of its food from other countries if this could be done more cheaply than producing food in the U.S. Only 4.9% of the re-

spondents in the nationwide survey strongly agreed with this statement, while 17.1% agreed, 8.6% were undecided, 42.9% disagreed and 31.4% strongly disagreed with this statement. Thus while respondents might be inclined to buy other products from other countries if they can get them more cheaply, when it comes to food Americans value food source over food price (figure not shown; available at <http://www.clemson.edu/scg/food/>).

Likewise, respondents in the nationwide survey showed a strong preference for having U.S. companies process and distribute their foods. When asked whom they prefer to have process and distribute their foods, 73% of the respondents in the U.S. survey said they prefer U.S. companies, while 20% said it made no difference, 7% preferred multinational corporations, and none preferred foreign companies (figure not shown; available at <http://www.clemson.edu/scg/food/>).

For What Foods Are Americans Willing to Pay More?

Respondents in the nationwide survey were asked what types of food, in relation to production practices and location of production, they were willing to pay more for. The results are displayed in Figure 5. As can be seen, most respondents were willing to pay more for food that is grown using good environmental practices (80.7%), grown and processed in safe conditions (78.2%), produced in ways that protect the environment (71.2%), and grown locally (70.5%). Respondents also preferred food grown in the U.S. rather than abroad (68%). More than half

Figure 4. Importance of Attributes of Food Bought by U.S. Consumers.

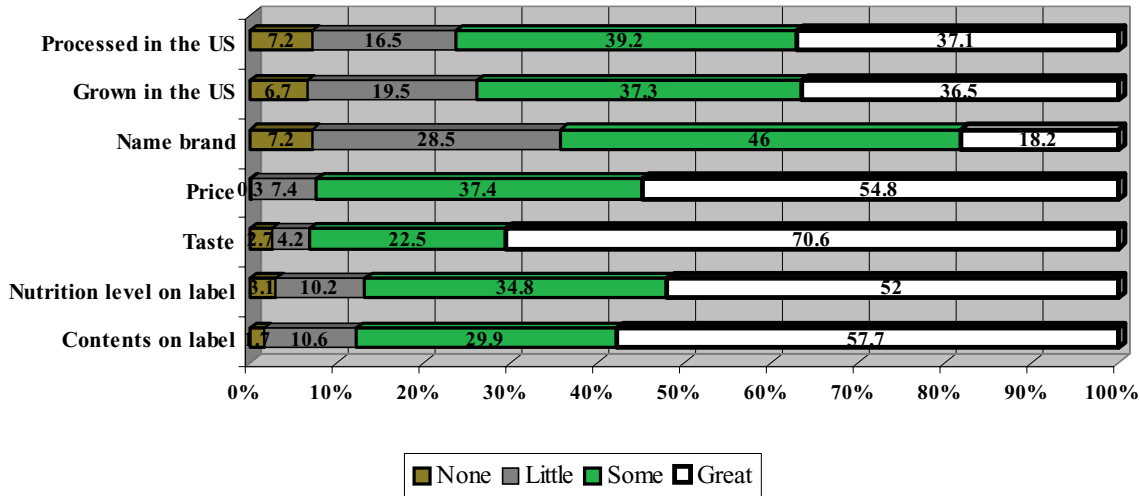
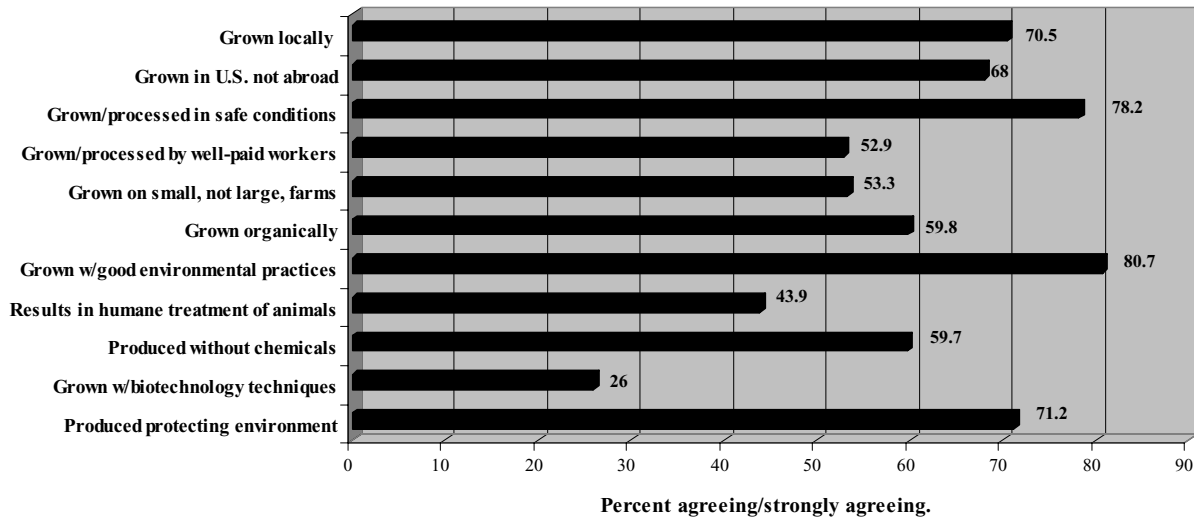


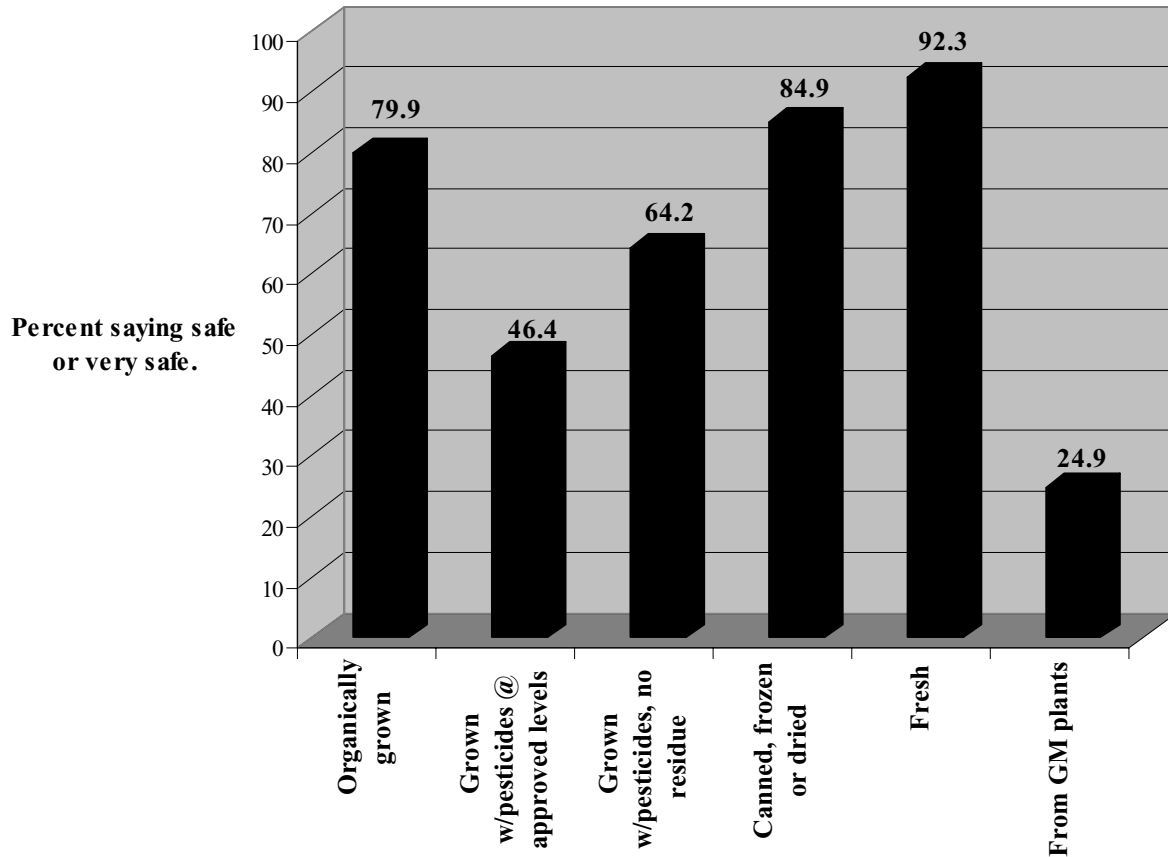
Figure 5. Food that Americans are Willing to Pay More For.



of the respondents agreed or strongly agreed that they are willing to pay more for foods grown organically (59.8%), produced without chemicals (59.7%), grown on small rather than large farms (53.3%), and grown and processed by well-paid workers (52.9%). Slightly more than one-fourth (26%) indicated that they would be willing to pay more for foods that were grown using biotechnology.

Perceptions of Food Safety

Respondents in the nationwide survey were asked how safe they thought fruits and vegetables are when grown different ways or sold in different states. As can be seen in Figure 6, most respondents (92.3%) believed that fresh fruits and vegetables were safe or very safe and 84.9% believed that canned, fro-

Figure 6. How Safe are Fruits & Vegetables? American Responses.

zen or dried fruits and vegetables were safe or very safe. Most respondents also thought (79.9%) that organically grown fruits and vegetables are safe or very safe. More than half (64.2%) believed that fruits and vegetables are safe or very safe to eat if they have been grown with pesticides but in ways that leave no pesticide residue, while less than half (46.4%) agreed that fruits and vegetables grown with pesticides applied only at acceptable levels were safe or very safe. Only one-fourth (24.9%) of the respondents agreed or strongly agreed that fruits and vegetables from genetically modified plants are safe or very safe.

In estimating the safety of meats, however, respondents tended to be far more conservative than in their estimates of the safety of fruits and vegetables. As can be seen in Figure 7, only slightly more than

one-third of the respondents (37.7%) agreed that meats from animals given antibiotics are safe or very safe to eat, 22.9% agreed that meat from animals given hormones is safe or very safe to eat, and only 17.3% indicated that they perceived meats from animals that had been genetically modified to be safe or very safe for consumption.

The respondents in the nationwide survey also were asked their preference for the origin of the meat that they consume. Overwhelmingly, most (92%) preferred meat with an origin in the United States. Less than one-quarter (21%) said they would accept meat from South America, 14% said they would accept meat from England, and only 10% said that they would accept meat from other European countries (figure not shown; available at <http://www.clemson.edu/scg/food/>).

Qualities of Today's Foods

Respondents in the nationwide survey were asked what they thought about selected qualities of today's food. As can be seen in Figure 8, almost half (45.6%) agreed that today's foods are fresher than ever. More than one-third (39.2%) agreed that today's foods are more nutritious than ever, one-third (33.6%) agreed that today's foods are better tasting than ever, and just under one-third (32.1%) agreed that today's

foods are safer than ever. This last factor, safety, received the highest rating (39.9%).

Views on Genetically Modified Crops and Foods

The respondents in the South Carolina survey were asked several questions in relation to genetically modified crops and foods: if they thought GM foods and crops cause environmental problems, pose health problems, and should be banned.

Figure 7. How Safe are Meats? American Responses.

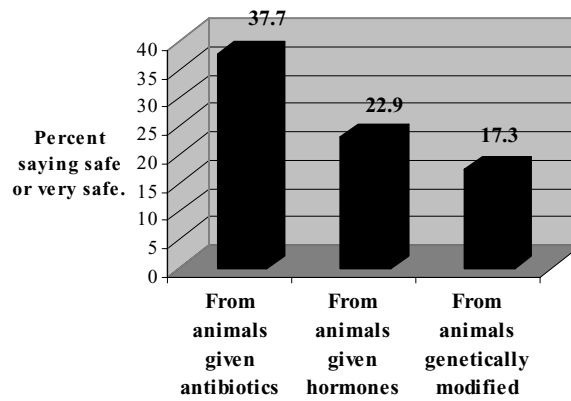


Figure 8. Qualities of Today's Foods: American Responses.

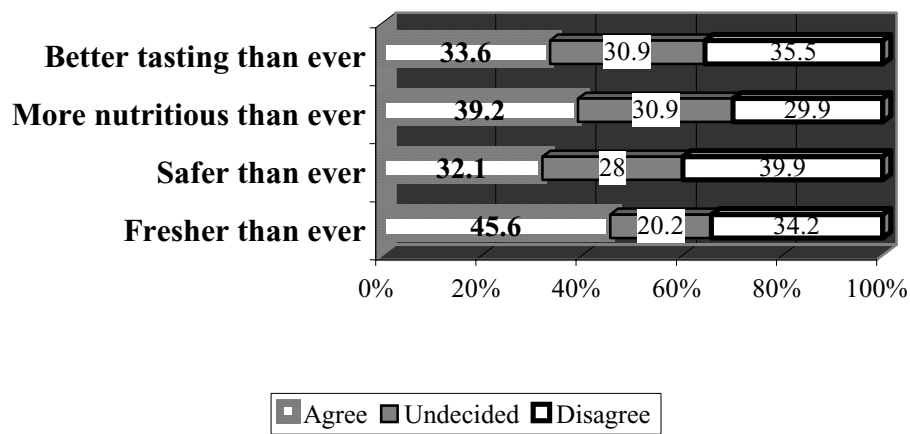


Figure 9. South Carolina Opinions About Genetically Modified Crops & Foods.

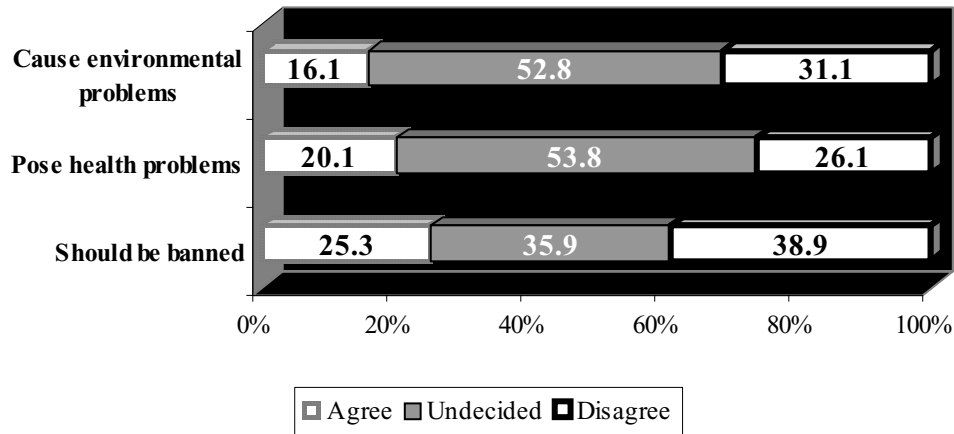
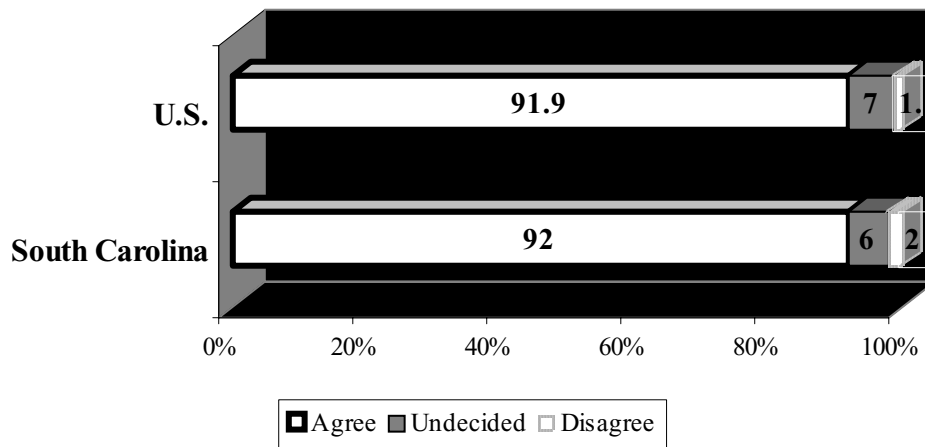


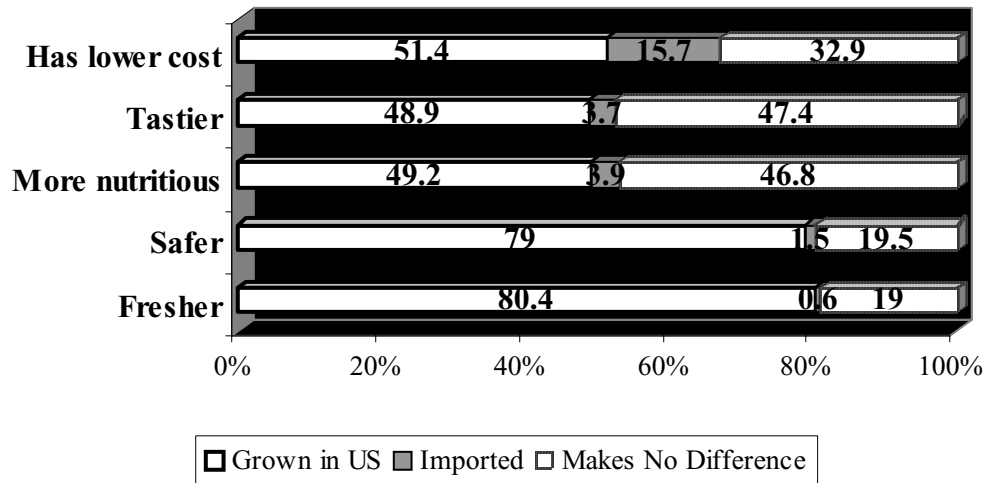
Figure 10. Should Genetically Modified Foods be Labeled as Such? US and SC Opinions.



As shown in Figure 9, anywhere from one-third to one-half of the respondents simply were unsure about genetically modified foods and crops. More than half (53.8%) were unsure whether GM foods and crops pose health problems and 52.8% were unsure if GM foods and crops cause environmental problems. One-third (35.9%) were not sure if GM foods and crops should be banned.

Both the nationwide and South Carolina respondents were asked if genetically modified foods should be labeled as such. Almost all respondents in both surveys agreed that these foods should be labeled as such. Very few respondents were unsure about this, and extremely few disagreed with labeling GM foods as such (Figure 10).

Figure 11. Attributes of U.S. Grown versus Imported Foods: American Opinions.



Attributes of U.S.-grown versus Imported Foods

Respondents were asked their opinions about five attributes of American-grown food in comparison with imported foods. As can be seen in Figure 11, most respondents agreed that American grown food is fresher (80.4%) and safer (79%) than imported food. Slightly more than half (51.4%) thought that American-grown food has a lower cost than imported food, and almost half agreed that American grown food is more nutritious (49.2%) and tastier (48.9%).

Americans' Trust in Sources of Knowledge about Food Safety

Respondents in the nationwide survey were asked whom they trust for knowledge about the safety of their food. The types of sources were divided between professional sources and government agencies. The results are displayed in Figures 12 and 13.

Among the professional roles inventoried, farmers are trusted the most (70%) and business executives the least (11%) regarding the safety of Americans' food. In terms of agencies and governments, the USDA is highly trusted (82%), while

foreign governments are generally not trusted. In addition, university professors are trusted, while elected officials and celebrities are not trusted as sources of knowledge regarding the safety of Americans' food.

American Perceptions of Food Security After 9/11

The nationwide survey was released in three waves during 2001. When terrorists attacked the United States on September 11, 2001, two of the three waves of surveys had been released. Prior to releasing the third and final wave of surveys, the research team added three questions pertaining to 9/11 and its effects on food security in the U.S. This third wave included 186 respondents.

The respondents were asked how much they thought about food security prior to 9/11, how concerned they were over the U.S. food supply after 9/11, and whether they thought in the aftermath of 9/11 that the food supply in the U.S. might be a way terrorists could attack Americans in the future.

Prior to the terrorist attacks on the United States on September 11, 2001, more than half (54%) of the respondents had not given much thought to food security. After the attacks, 9% were particularly concerned about the American food supply

Figure 12. Who Do Americans Trust for Knowledge About the Safety of Their Food? Professional Roles.

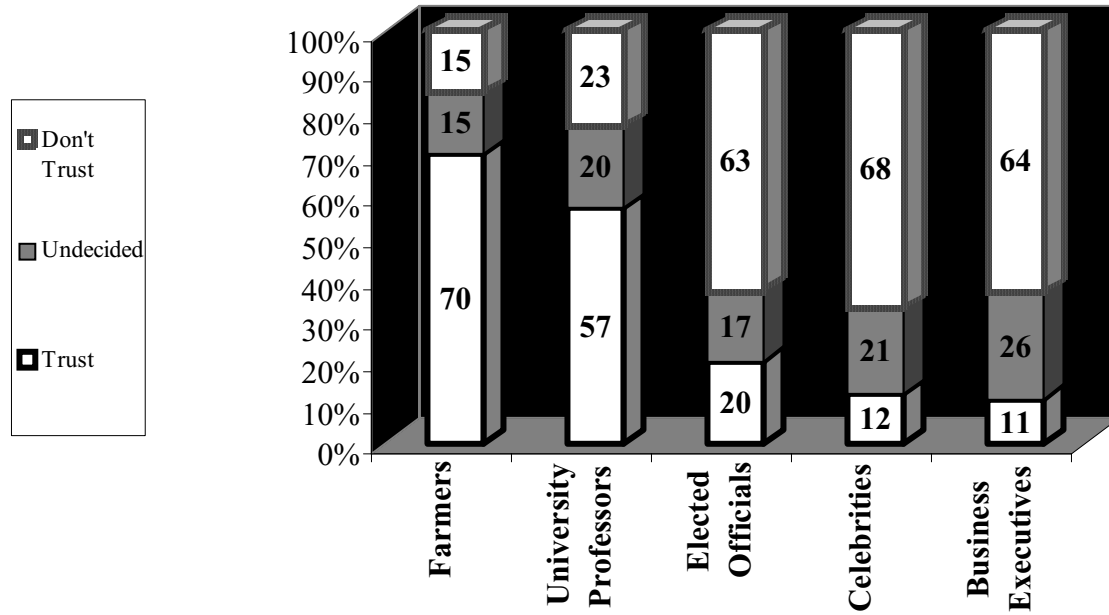
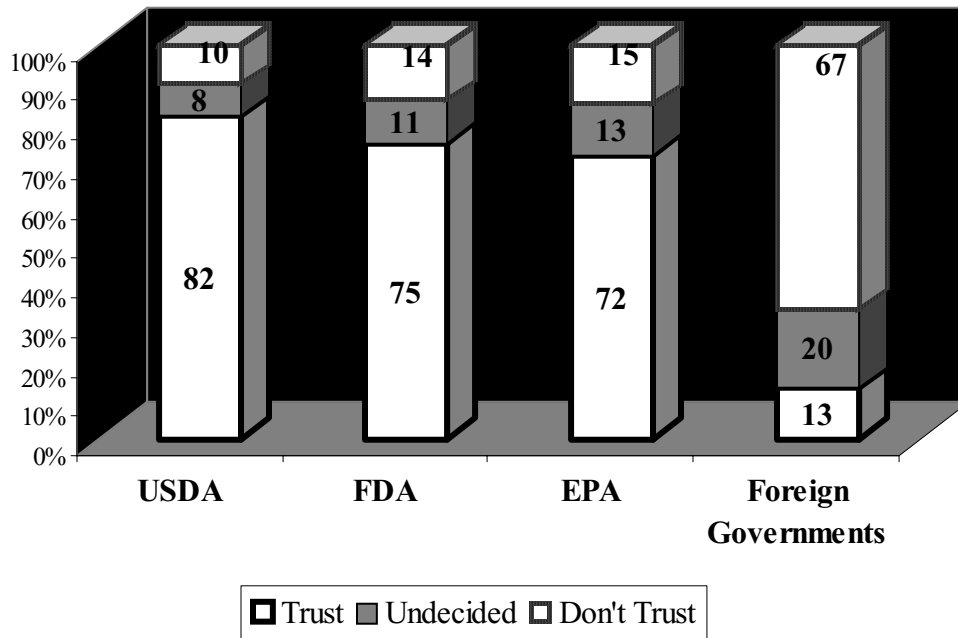


Figure 13. Who do Americans Trust for Knowledge About the Safety of Their Food? Agencies & Governments.



as a result of the attacks while 55% were very concerned, 36% were somewhat concerned, and no respondents were not at all concerned. Finally, 85% of the respondents participating in the nationwide survey after the terrorist attacks indicated they agree that hits on the American food supply might be one way that terrorists could attack Americans in the future (figures not shown; available at <http://www.clemson.edu/scg/food/>).

Conclusions And Discussion

Based on the data from the nationwide survey and the one conducted in South Carolina, it appears that globalization has many dimensions and meanings, among which are global food supply and the economy. Most of the respondents believe that the United States has a strong role to play globally and that U.S. isolation is not possible.

In terms of food safety and security, Americans prefer American-grown and -processed foods and foodstuffs, which they generally perceive to be of better quality and safer. Generally, Americans have greater confidence that fruits and vegetables, regardless of where or how grown, are safer than meat. In terms of food safety, concern is strongest for foreign-produced and -processed foods than for American-grown or -processed foods and foodstuffs.

There appear to be a number of gray areas regarding genetically modified foods, such as whether they pose health problems or cause environmental harm. In both surveys, however, respondents overwhelmingly agreed that foods and foodstuffs containing genetically modified materials should be labeled as such.

Farmers, university professors, and the USDA all got relatively high marks as trusted sources of knowledge about food safety. Celebrities, business executives, and foreign governments received little support as trusted sources of knowledge about food safety.

The third wave of the nationwide survey revealed that the terrorist attacks also turned Americans' attention to the security of their food and whether or not the U.S. food supply might be an avenue through which terrorists could attack Americans in the future. Prior to the terrorist attacks, respondents had given little thought to their food supply. After 9/11 they harbor serious concerns about the vulnerability of the food supply as a target of terrorist activity.

Certainly, researchers and policy makers had recognized the possibility that bioterrorism against the U.S. food supply needed to be addressed and studied (see, for example, Dunn 1999). Since 9/11, efforts to prevent and/or thwart such attacks have been decidedly stepped up (United States Congress 2002).

Many of the findings here reinforce previous research. This includes the preference for locally grown food, organically grown food, and food grown with no pesticide residue (Pimentel, Westra, and Noss 2000). The uncertainty about genetically modified foods and foodstuffs in terms of their health effects and environmental impacts supports a growing recognition that Americans don't know a lot about GMs and that perhaps more and different public-education programs are called for (Brown and Ping 2003). And, while one speaker at the FDRS conference stated that Americans do not care whether genetically modified foods and foodstuffs are labeled as such, the two surveys presented here indicate to the contrary. This preference also is supported in a more recent survey (Harrison 2003).³

That Americans believe today's foods are more tasty and nutritious than ever but perhaps not as safe warrants further exploration. This is especially justified when we see that respondents also have serious reservations about meats not grown and processed in the U.S. and that Americans think it important that their food be grown and processed in the U.S. Compounded with American distrust of foreign governments as a source of information about food safety, and worry that the American food supply might be a target of terrorist attacks, these findings speak loudly to several things. First, greater support should be given locally grown foods and foodstuffs. Second, food industries outside the United States may have their work cut out for them in terms of establishing, sustaining, and/or maintaining a U.S. customer base. Third, in the context

³ There is much research available on perceptions of environmental and health impacts from biotechnology. In addition, there is a growing body of writings that stake claims as to biotechnology's safety and its dangers. One review of this research revealed that the bulk of the writings focus on authors' opinions rather than solid scientific findings, leading the authors to conclude that because risk assessment is relatively absent in the research at this time, science-based decision making is not currently possible (Clark and Lehman, 2001). The uncertainty about biotechnology that has been revealed in the two studies presented here would indicate that continued research and public education both are called for.

of food and agriculture, it appears that Americans accept or tolerate globalization only to certain limits. Increasingly, this tolerance is not extended to foods and foodstuffs.

Given the apparent faith that Americans have in farmers, university professors, and the USDA as sources of knowledge about the safety of their foods, it is reasonable to suggest that these entities continue to work with one another—and with the food industry—in providing unbiased information to food consumers.

These suggestions necessarily are contextualized to the findings of these two surveys, and any limitations therein. Given the changing landscape of food, agriculture, and globalization, replication of these surveys is warranted.

At least one individual commented that these surveys only reflect peoples' opinions, and the respondents may not have been terribly knowledgeable about food safety and food security. That always is a possibility. However, we would do well to remember the theorem put forth by American sociologist W. I. Thomas: "If men define situations as real, they are real in their consequences" (Thomas and Thomas 1928).

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