

Global Opinion Leader Survey

Perspectives on Food Biotechnology

International Findings



Thomas J. Hoban, Ph.D.

*Professor of Sociology
and Food Science*

NC STATE UNIVERSITY

Project Overview

- Opinion leaders serve as gatekeepers for biotechnology to enter the food system
- Project goal = Understand views of key worldwide leaders (US/EU Food Industry, and Global Government officials)
- Outcome = development and implementation of educational and communication initiatives
- Funding provided by American Farm Bureau Foundation for Agriculture
- High-level advisory committee
- Project is still underway –report by year's end

Analytical support provided by McAllister Opinion Research

Contact: angus@mcallister-research.com



MCALLISTER
opinion research

Research Methodology

- Telephone survey of food industry leaders (N = 242)
 - Food producers
 - Manufacturers
 - Food retailers
- Mail survey of global government leaders (N=184)
 - Delegates to Codex
 - Delegates to Biosafety Protocol
 - Ministers at U.S. Embassies
- Analysis examines similarities and differences among key groups

International Context

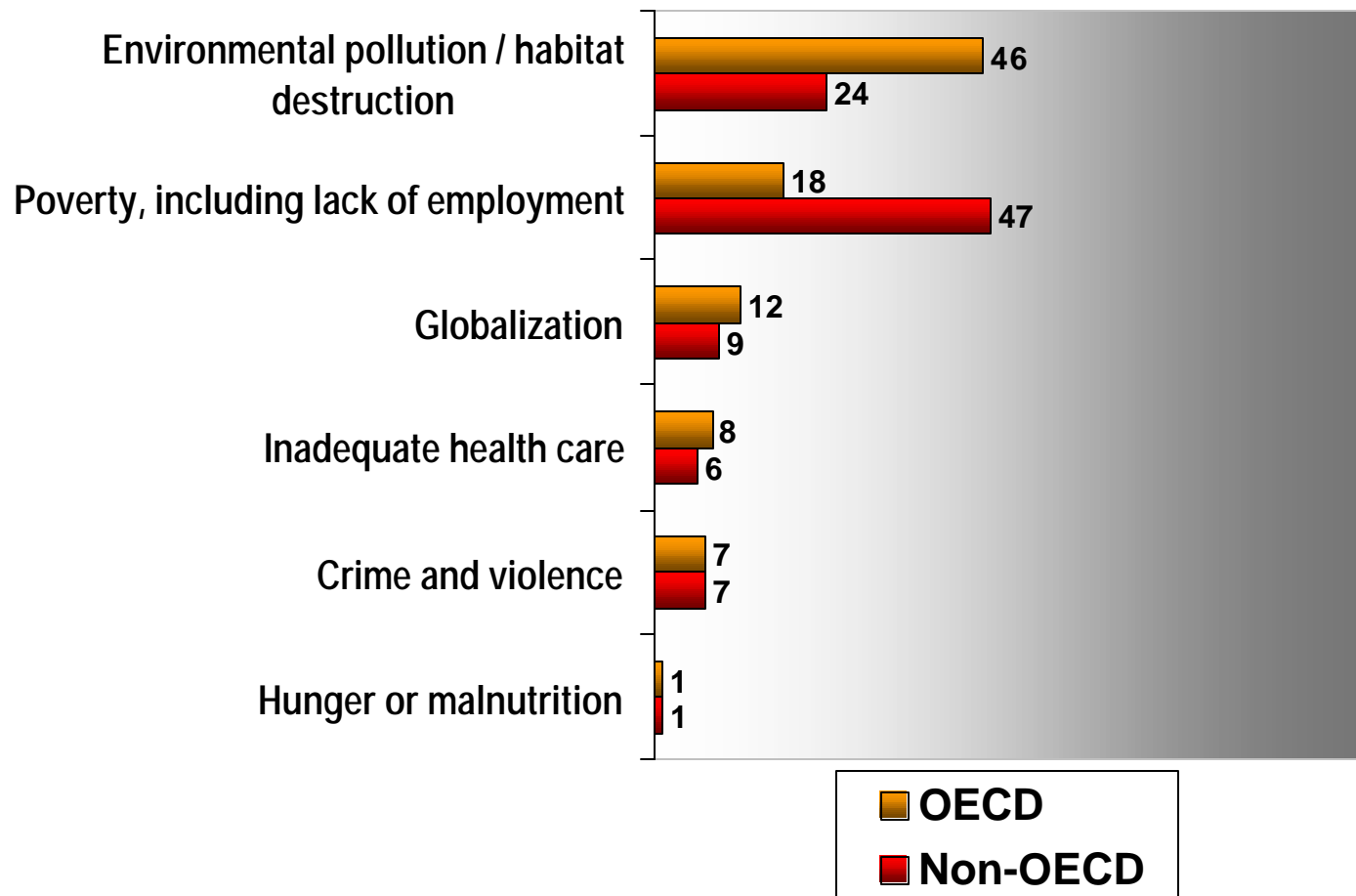
OECD vs. Non-OECD Countries

International Context

- OECD government leaders are more concerned about environmental issues while non-OECD leaders are more concerned about poverty alleviation
- Only a minority of leaders in both OECD and non-OECD countries say we “worry too much about the environment”
- Both OECD and non-OECD leaders are optimistic about the future, but non-OECD leaders are more worried about losing culture and traditions
- OECD and non-OECD leaders are enthusiastic about new technologies, but the latter are more likely to feel that changes are happening so fast that things seem out of control

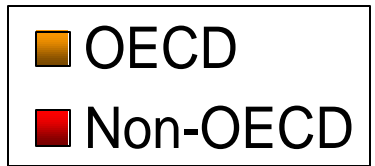
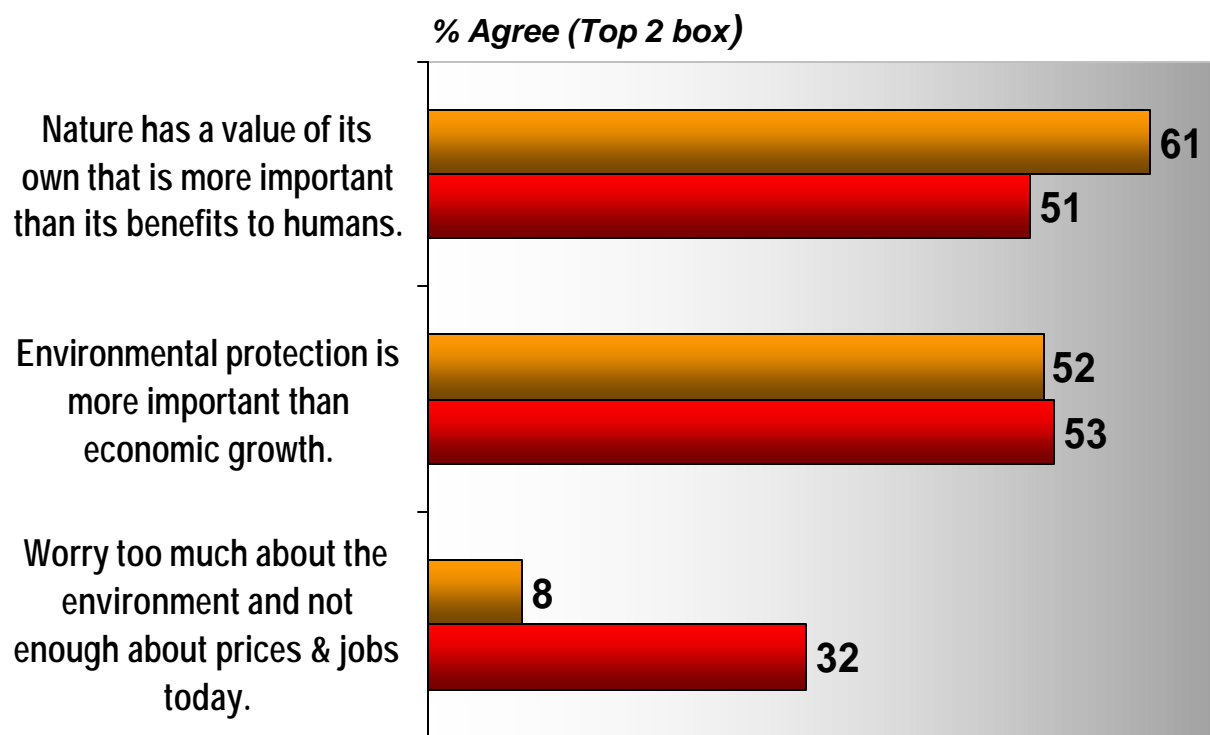
Top Issue Facing Nation

Government Leaders



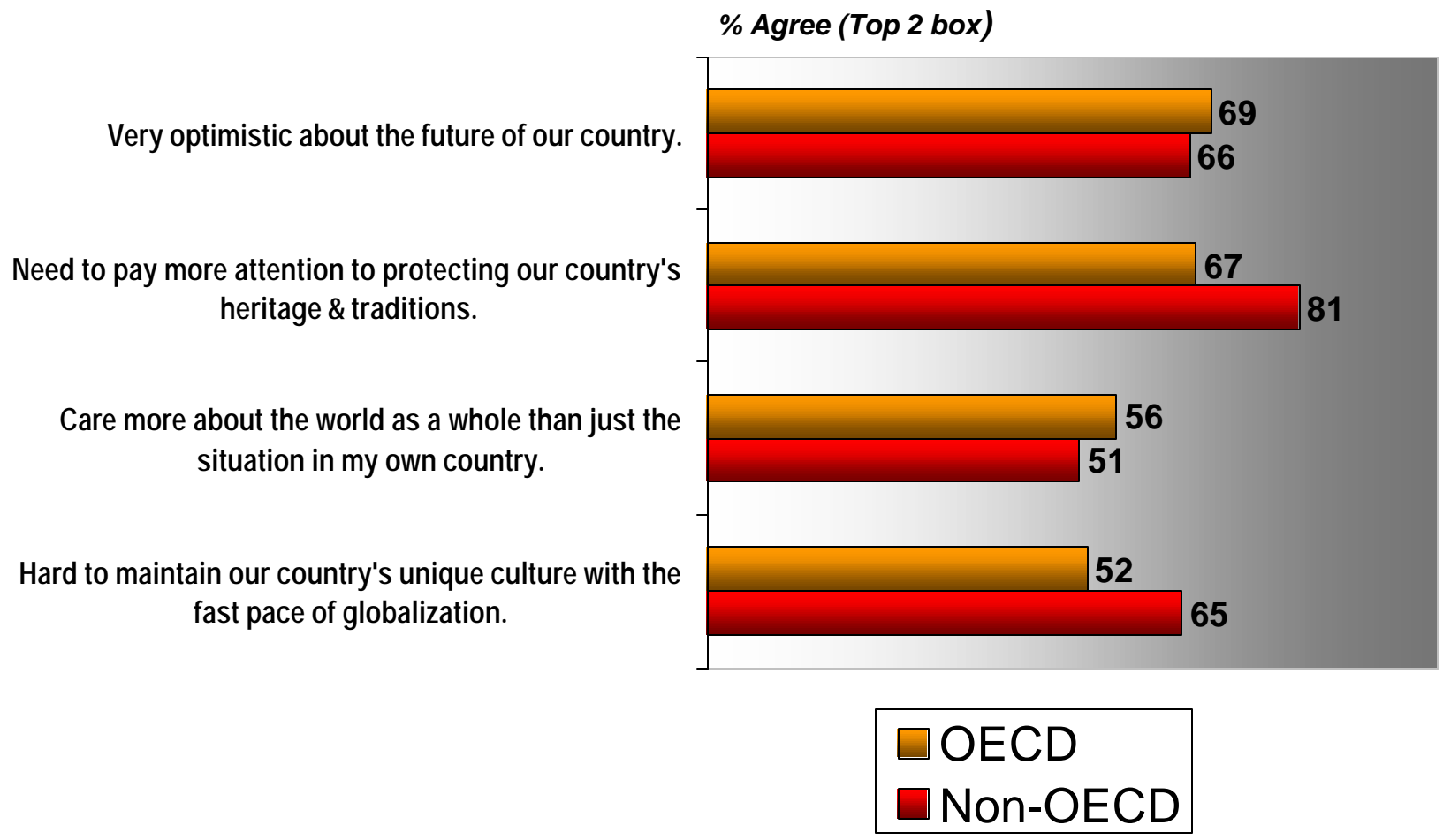
Environmental Attitudes

Government Leaders



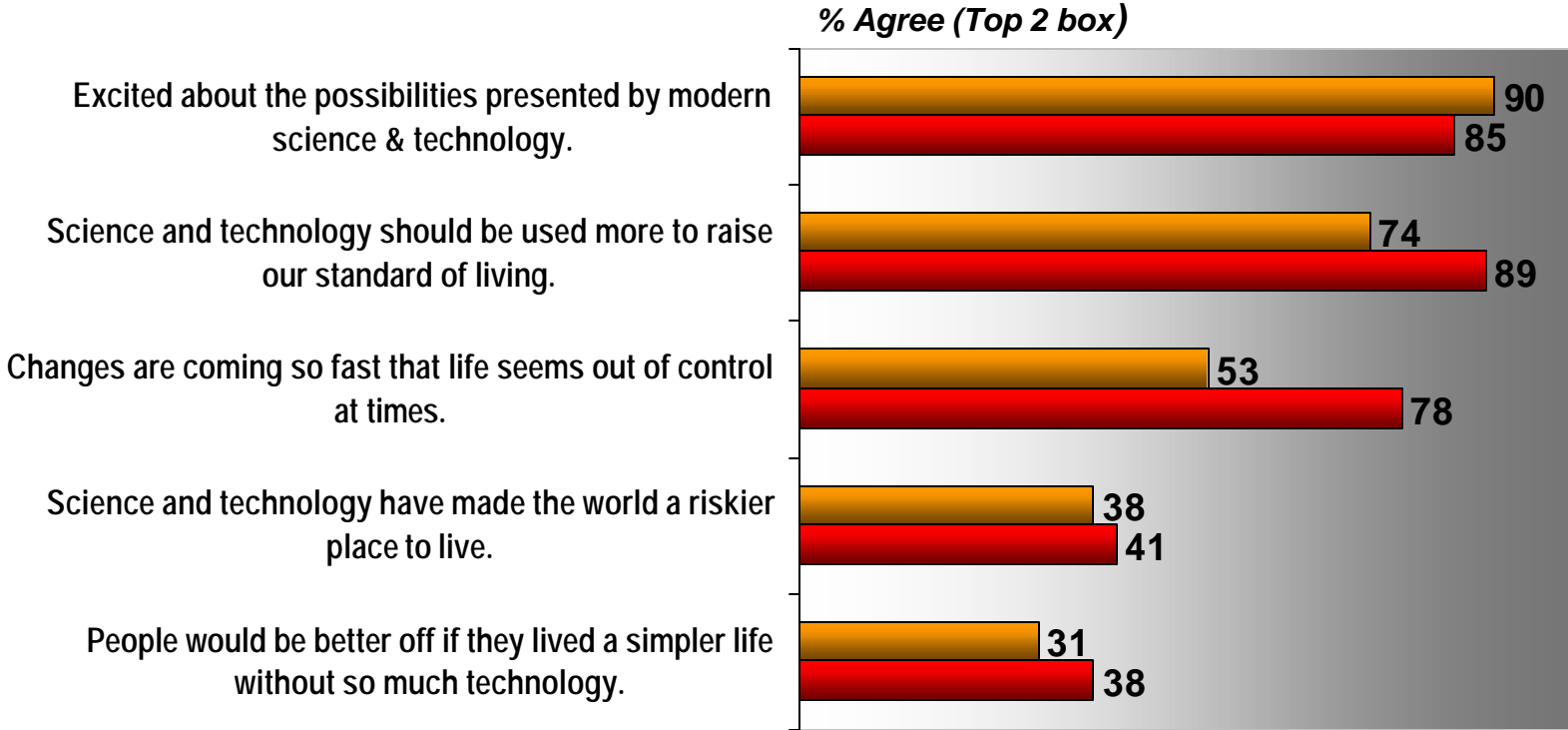
Globalization Attitudes

Government Leaders



Technology Attitudes

Government Leaders



*Attitudes Towards
Biotechnology*

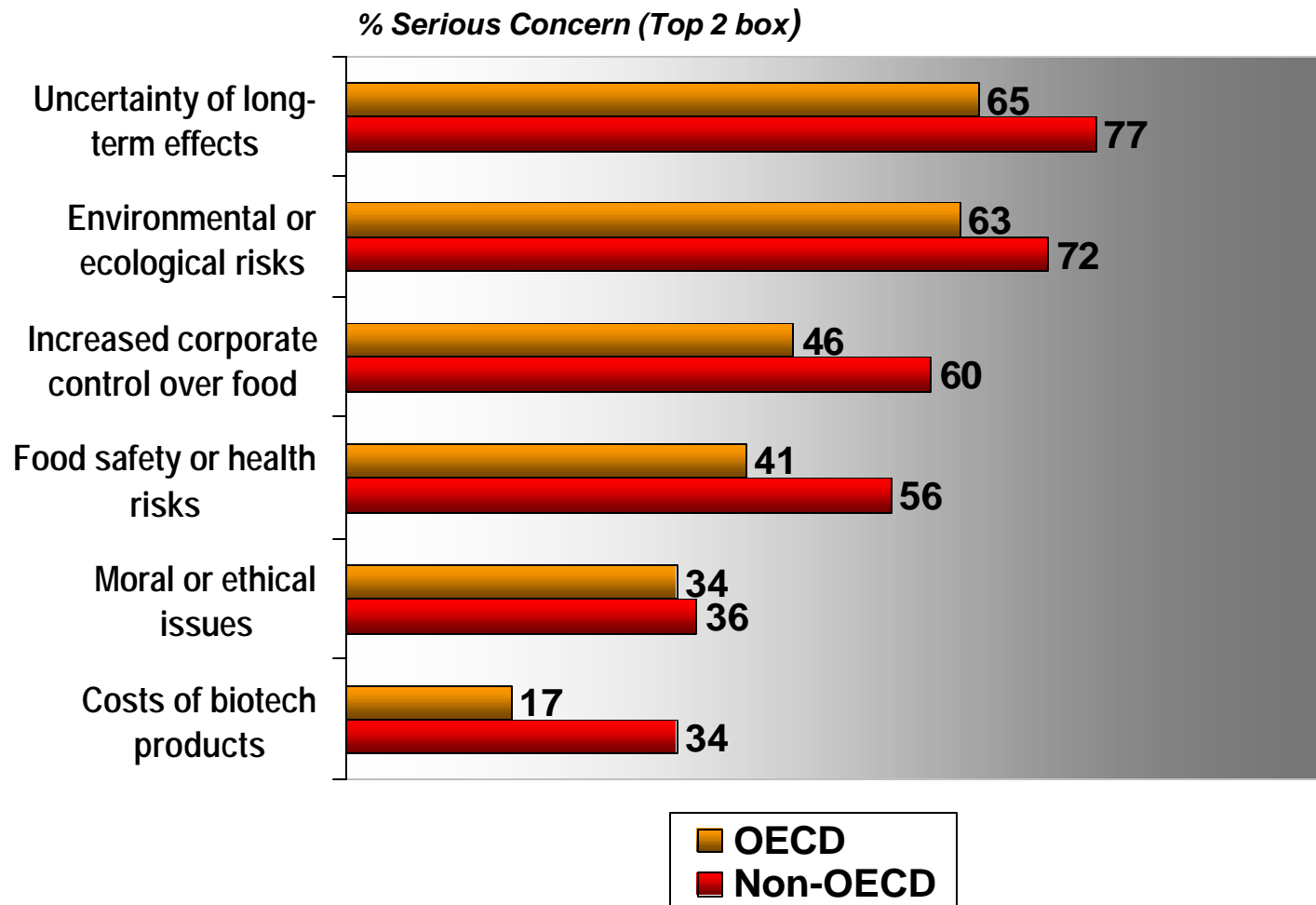
Attitudes Towards Biotechnology

- Government leaders are much more skeptical of biotechnology than food industry leaders.
- Non-OECD government leaders are much more likely to express concern about the risks of biotechnology than OECD government leaders
- Food industry and government leaders agree that increasing crop yields is a priority for the food industry
- Food industry leaders tend to be more likely to say that biotech has already provided benefits (81%) compared to global governments (48%)
- The food industry believes very strongly (94%) that benefits of biotechnology to create food crops without pesticide is worth the risk

Q5m. How serious are each of the following **concerns** that have been raised about the use of biotechnology in agriculture and food production? Use a scale from 1 to 5 (where 1 is not at all serious, 3 is somewhat serious, and 5 is very serious):

Concerns about Biotechnology

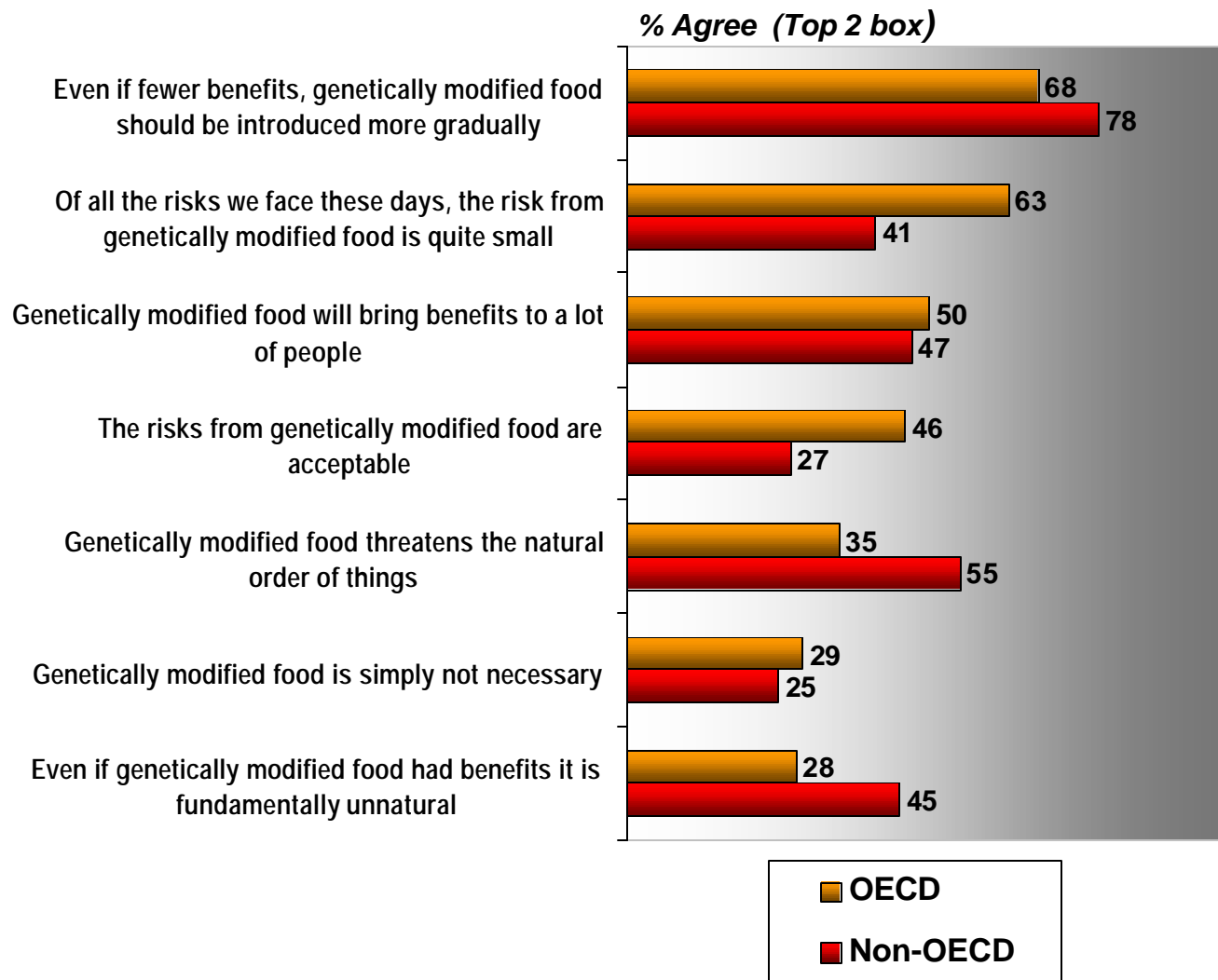
Government Leaders



Q6m. For each of the next statements about the use of modern biotechnology in agriculture and food production, please respond with one of the following categories: "strongly agree, somewhat agree, somewhat disagree, or strongly disagree" to best indicate your response to each statement.

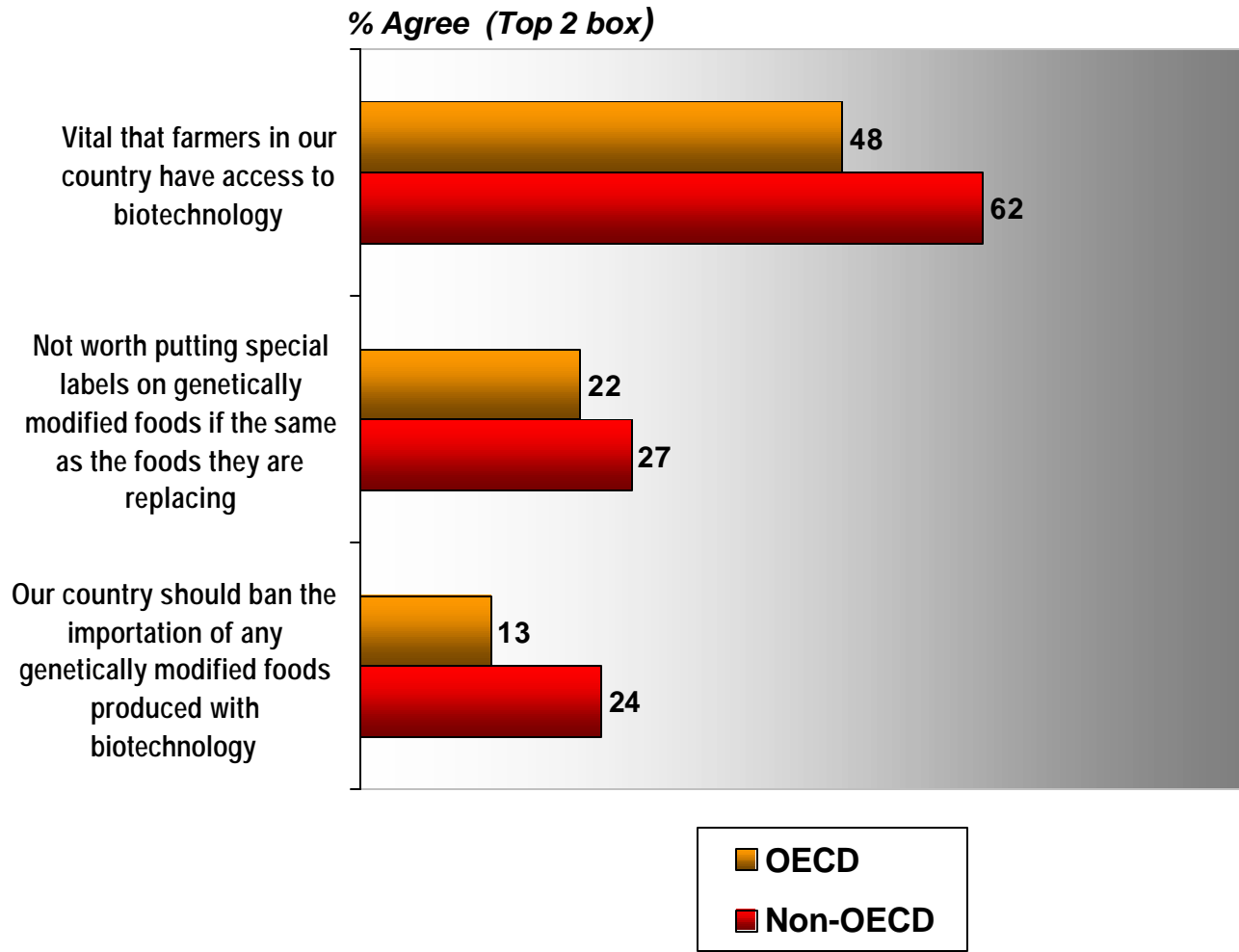
Attitudes Toward Biotechnology – I

Government Leaders

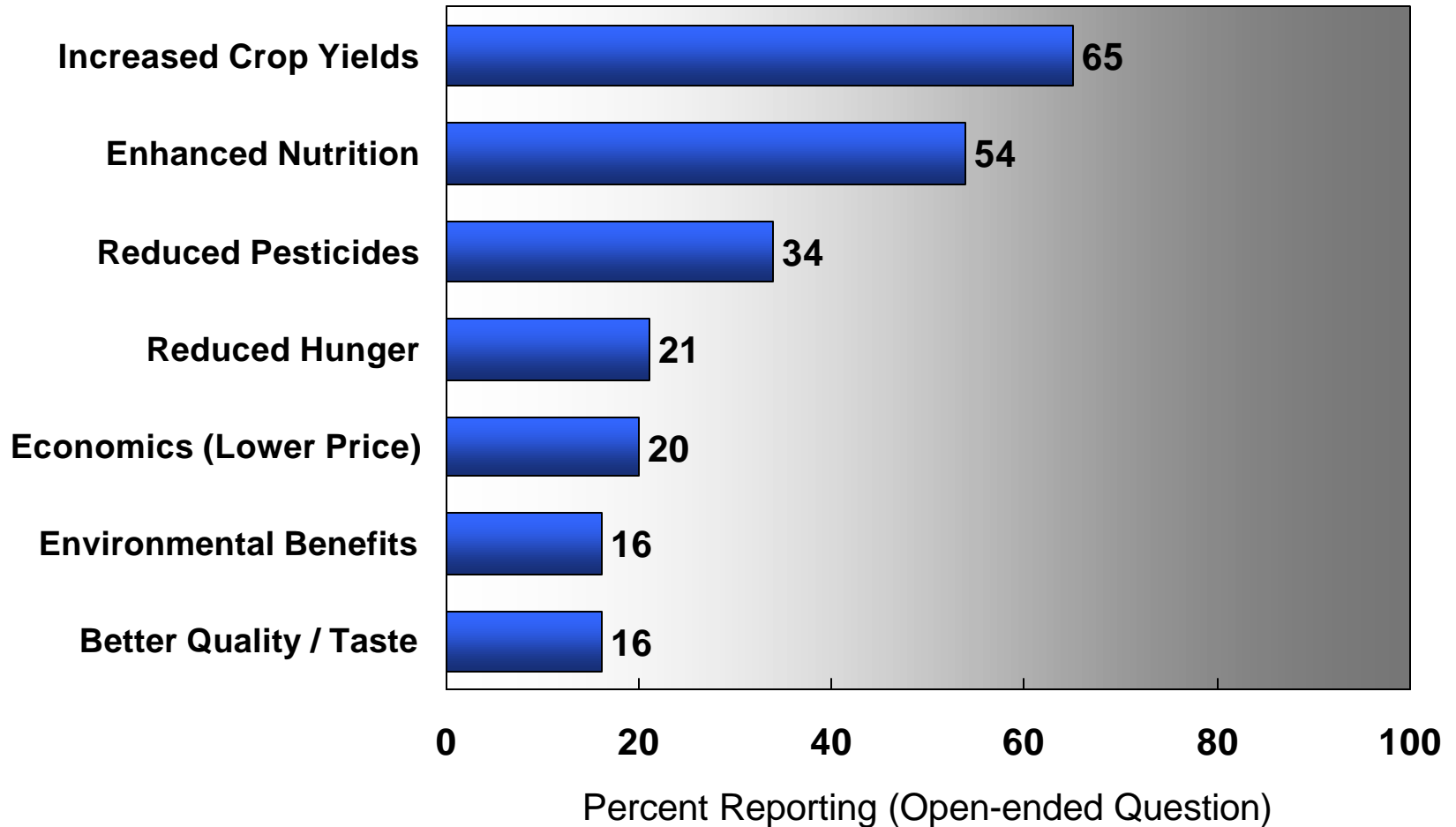


Attitudes Toward Biotechnology – II

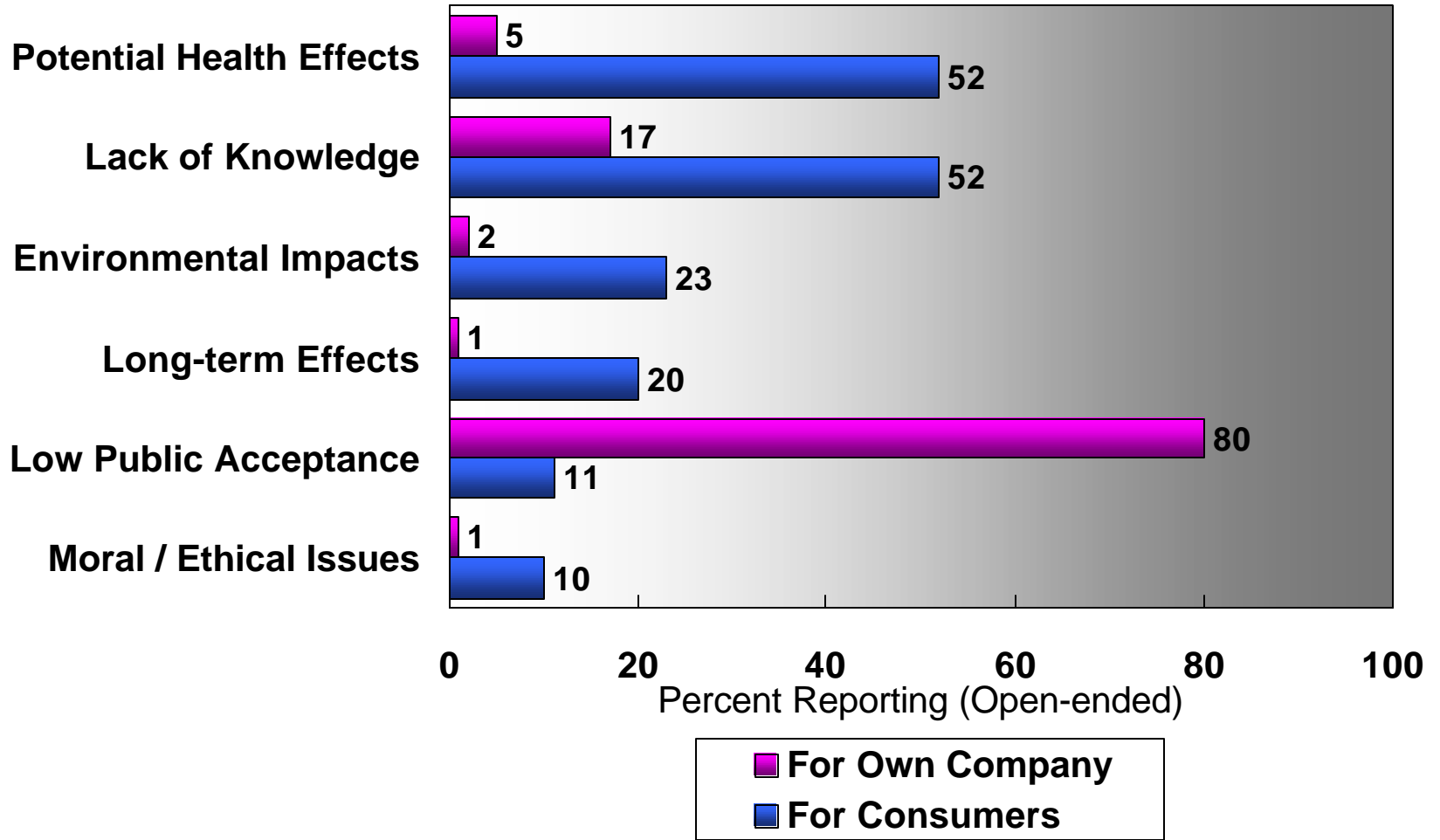
Government Leaders



Food Industry Leaders' Views on Most Important Potential Benefit of Biotechnology

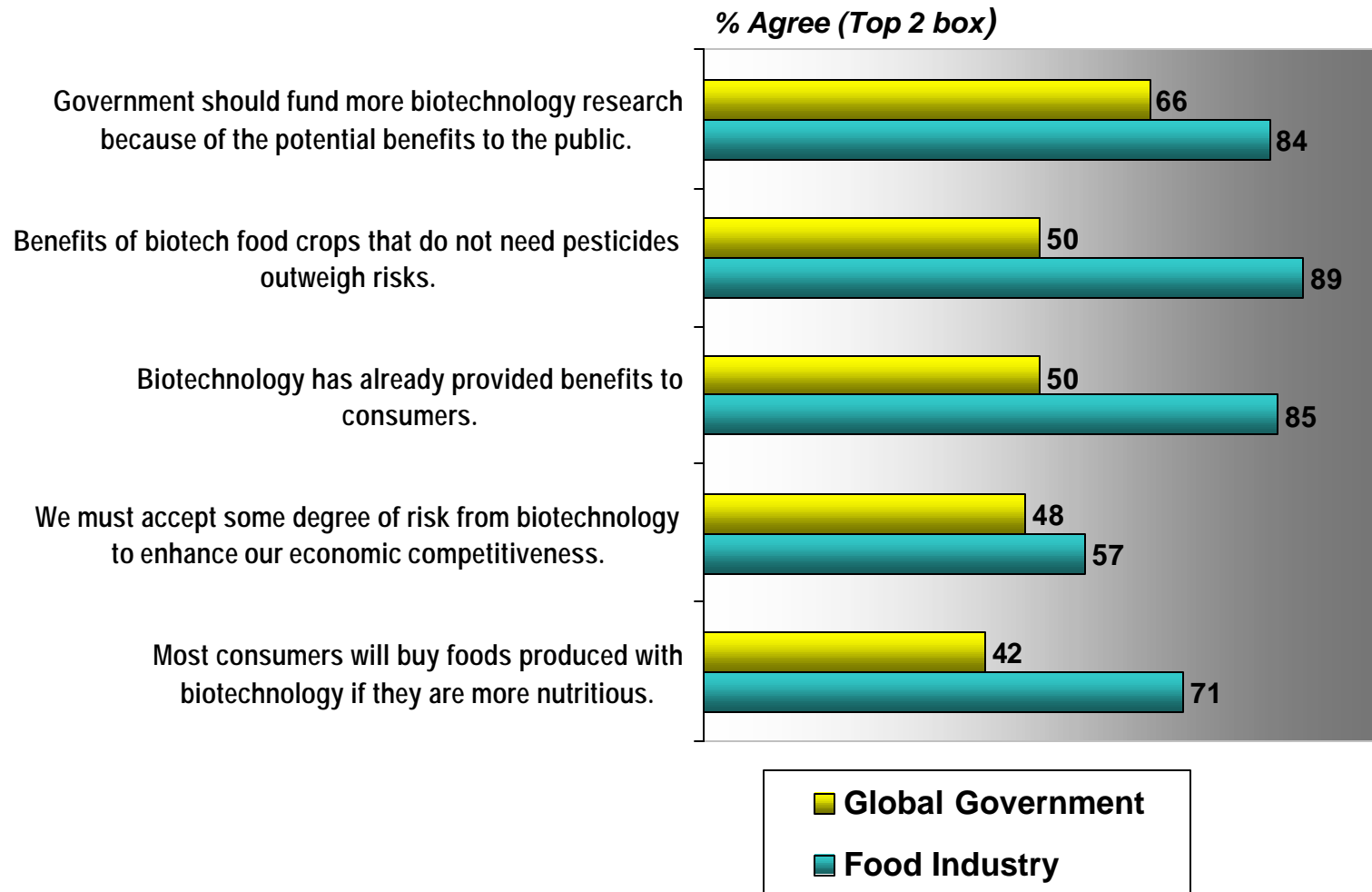


Most Important Biotechnology Concerns Reported by Food Industry Leaders



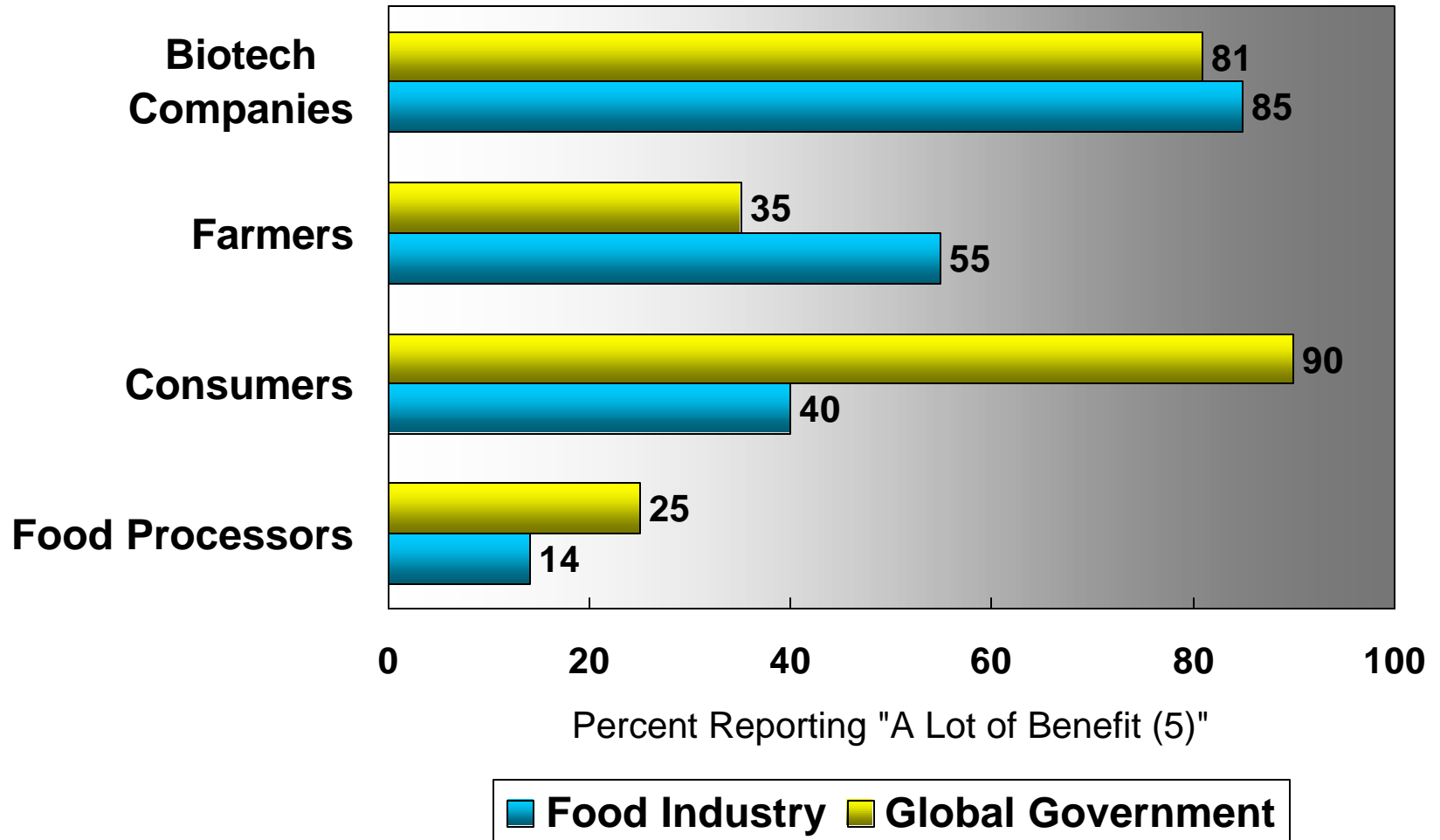
Q8p. For each of the next statements about the use of modern biotechnology in agriculture and food production please respond with one of the following categories: "strongly agree, somewhat agree, somewhat disagree, or strongly disagree" to best indicate your response to each statement.

Attitudes towards Biotechnology Benefits



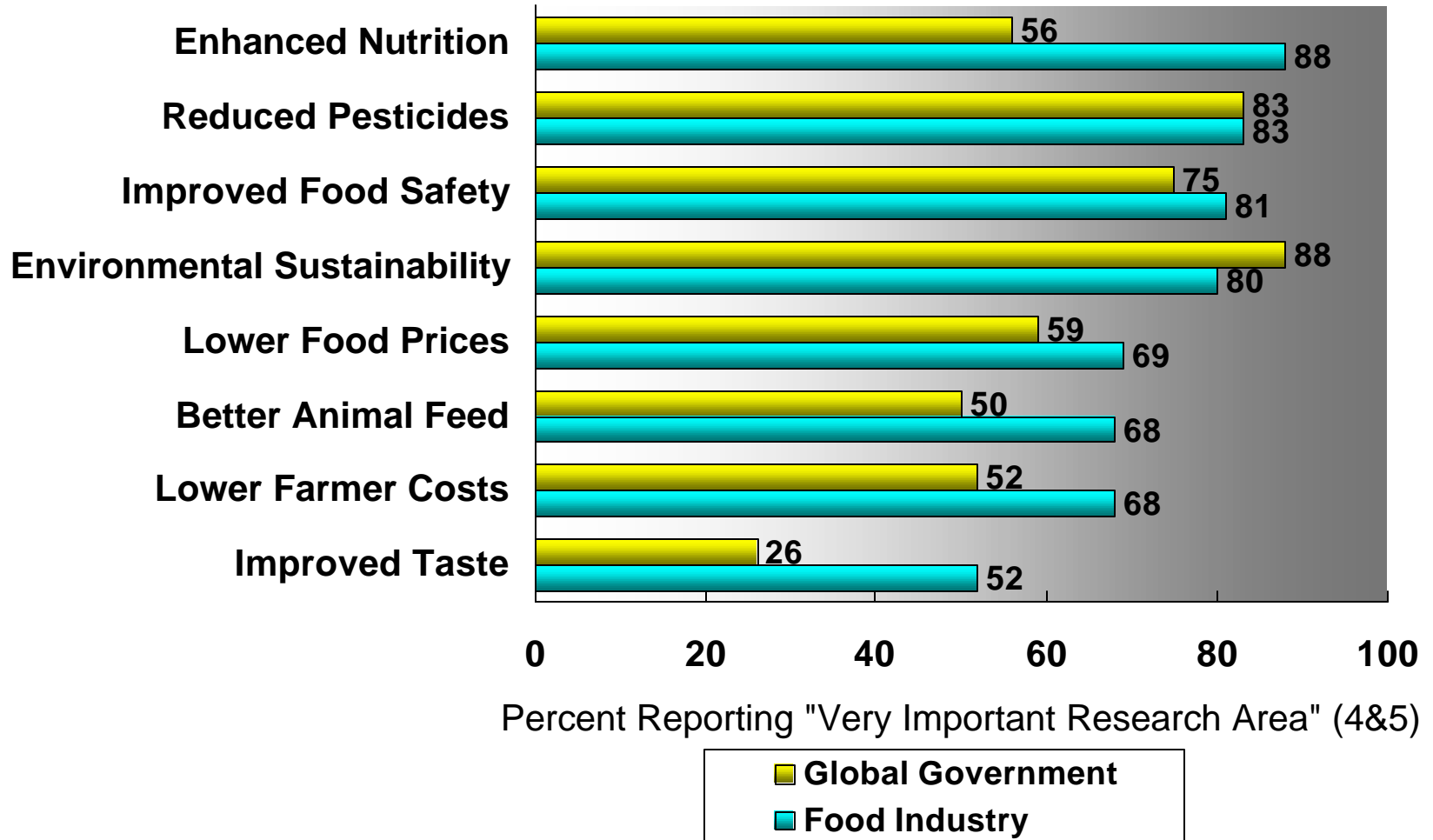
Q3p. How much do you think each of the following groups will benefit from the use of biotechnology in agriculture and food production? Please use a scale from 1 to 5 where 1 means they will not benefit at all, 3 means they will receive some benefit, and 5 means they will receive a lot of benefit.

Leaders' Views on How Much Benefit Groups Will Get from Biotechnology



Q8p. For each of the next statements about the use of modern biotechnology in agriculture and food production please respond with one of the following categories: "strongly agree, somewhat agree, somewhat disagree, or strongly disagree" to best indicate your response to each statement.

Leaders' Views on Important Area for Biotechnology Research



Public Policy and Labeling Issues

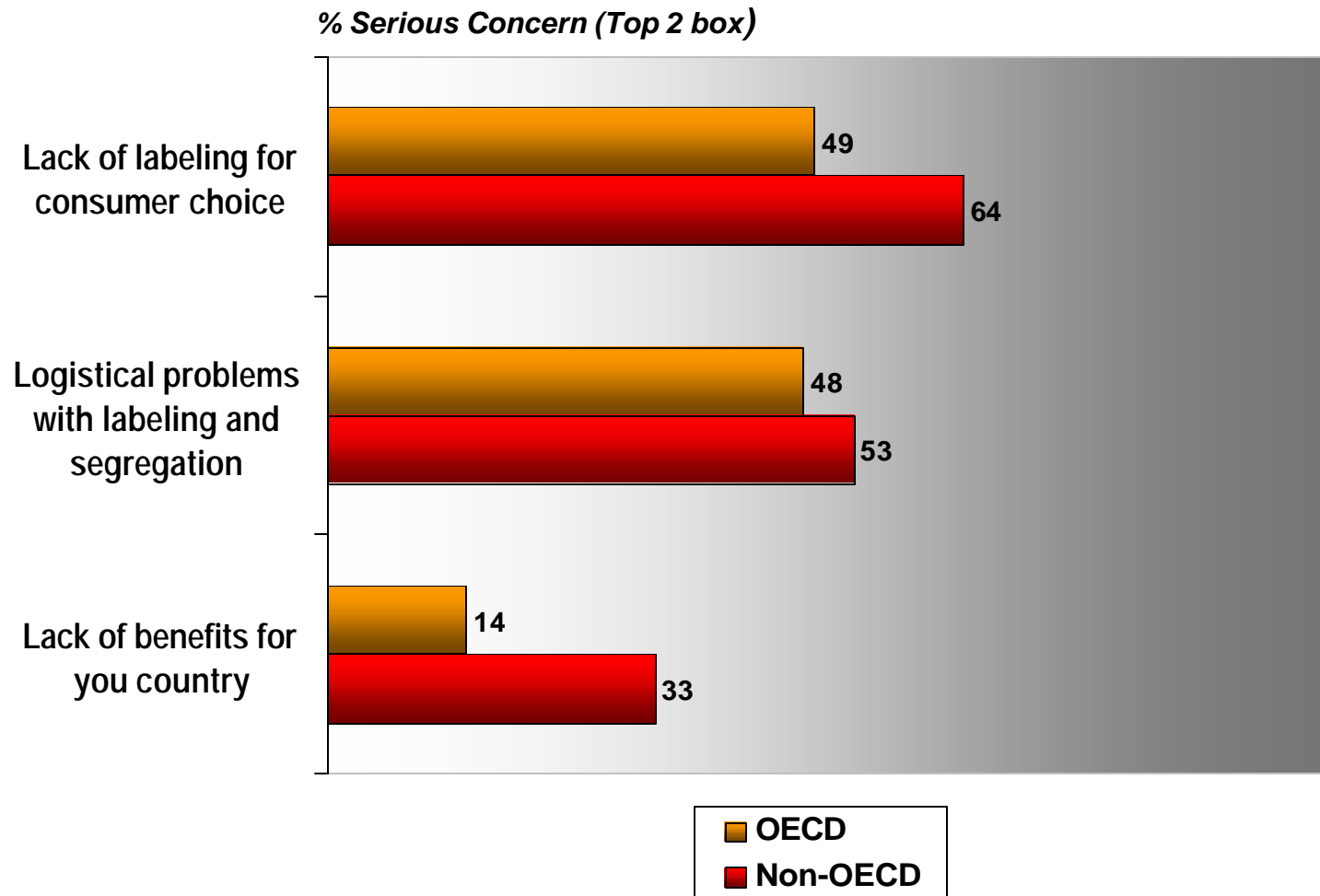
Public Policy and Labeling Issues

- Non-OECD government leaders are much more likely than OECD leaders to question whether biotechnology will benefit their countries
- Over half of the global government leaders disagree that we have sufficient regulations surrounding biotechnology
- Food industry leaders are most confident in US government regulation of biotechnology, while global government leaders are least confident in US regulation.
- A majority of all respondents feel that if food is not fundamentally changed then labeling is not required
- A majority of food industry leaders believe that labeling will come across as a “warning”
- The food industry strongly believes that to segregate biotech from conventional crops would be very difficult

Q5m. How serious are each of the following **concerns** that have been raised about the use of biotechnology in agriculture and food production? Use a scale from 1 to 5 (where 1 is not at all serious, 3 is somewhat serious, and 5 is very serious):

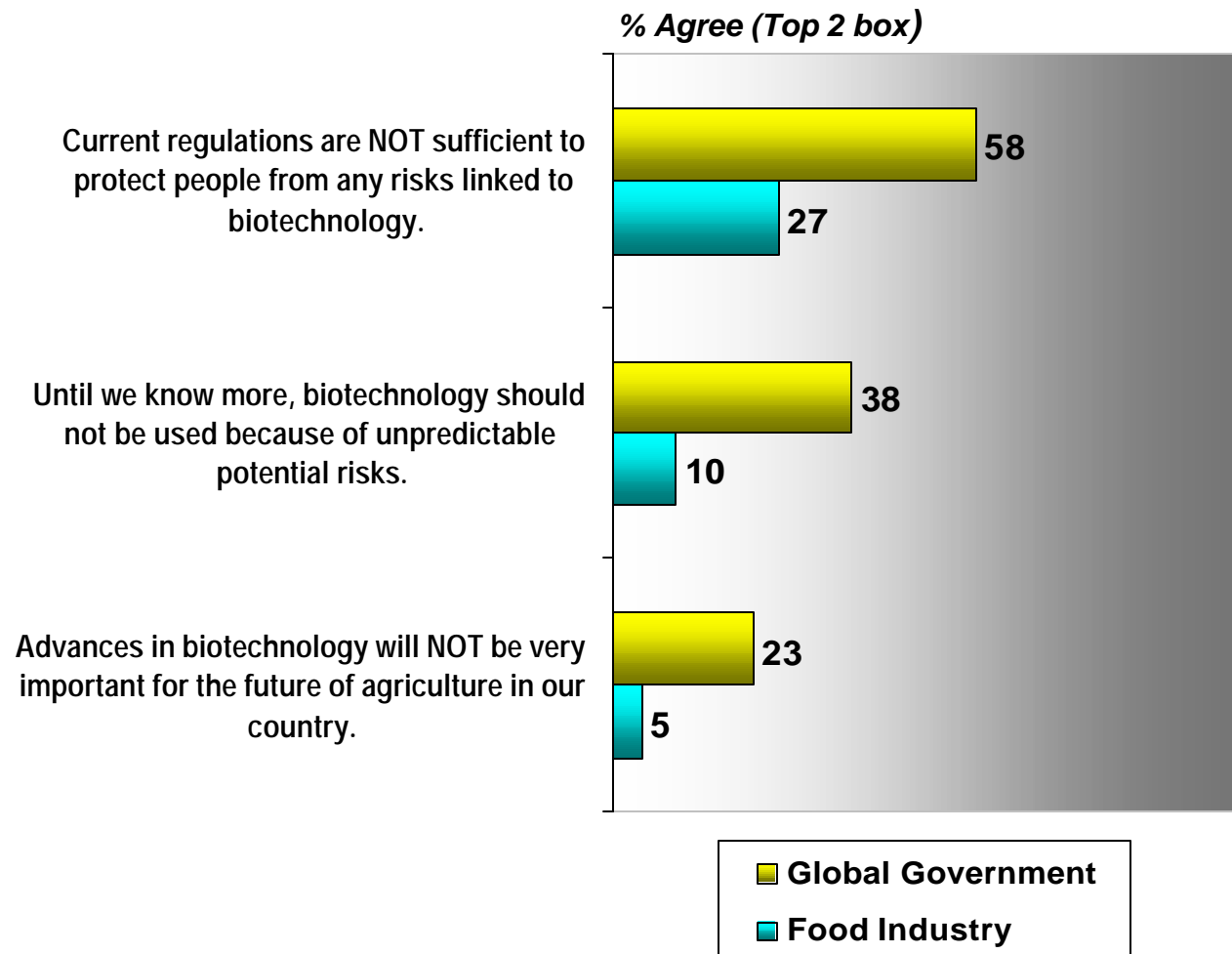
Concerns about Biotechnology

Government Leaders



Q8p. For each of the next statements about the use of modern biotechnology in agriculture and food production please respond with one of the following categories: "strongly agree, somewhat agree, somewhat disagree, or strongly disagree" to best indicate your response to each statement.

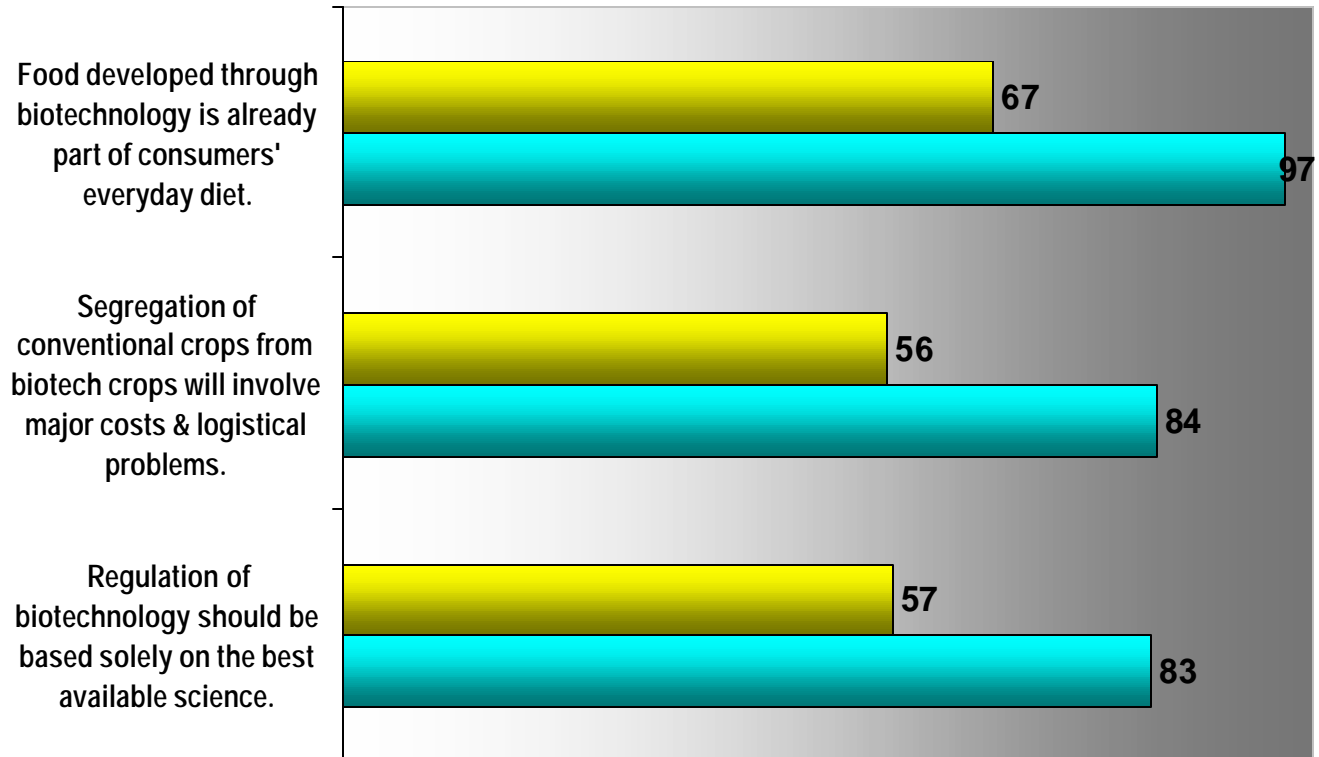
Attitudes Towards Regulation - I



Q8p. For each of the next statements about the use of modern biotechnology in agriculture and food production please respond with one of the following categories: "strongly agree, somewhat agree, somewhat disagree, or strongly disagree" to best indicate your response to each statement.

Attitudes Towards Regulation - II

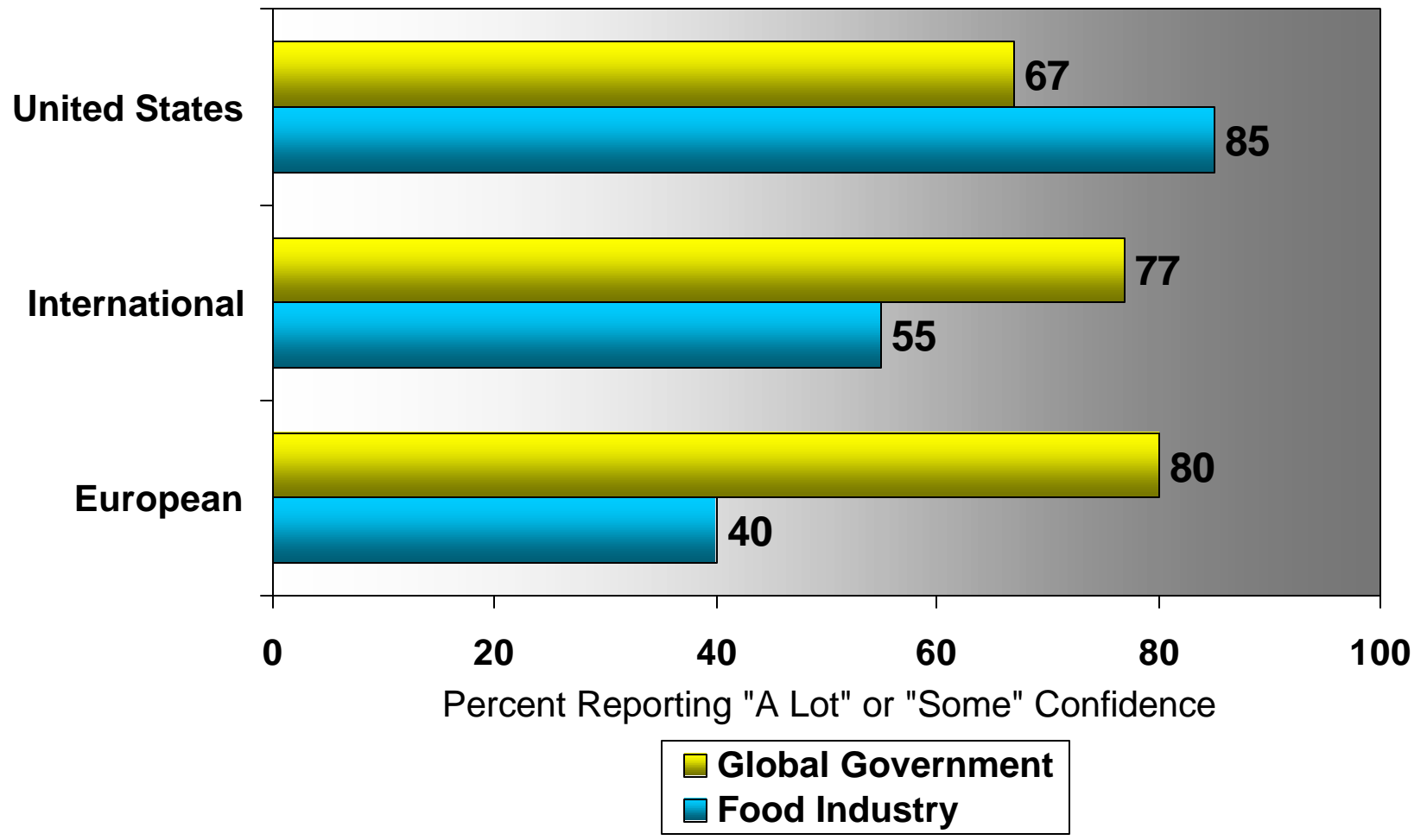
% Agree (Top 2 box)



 **Global Government**

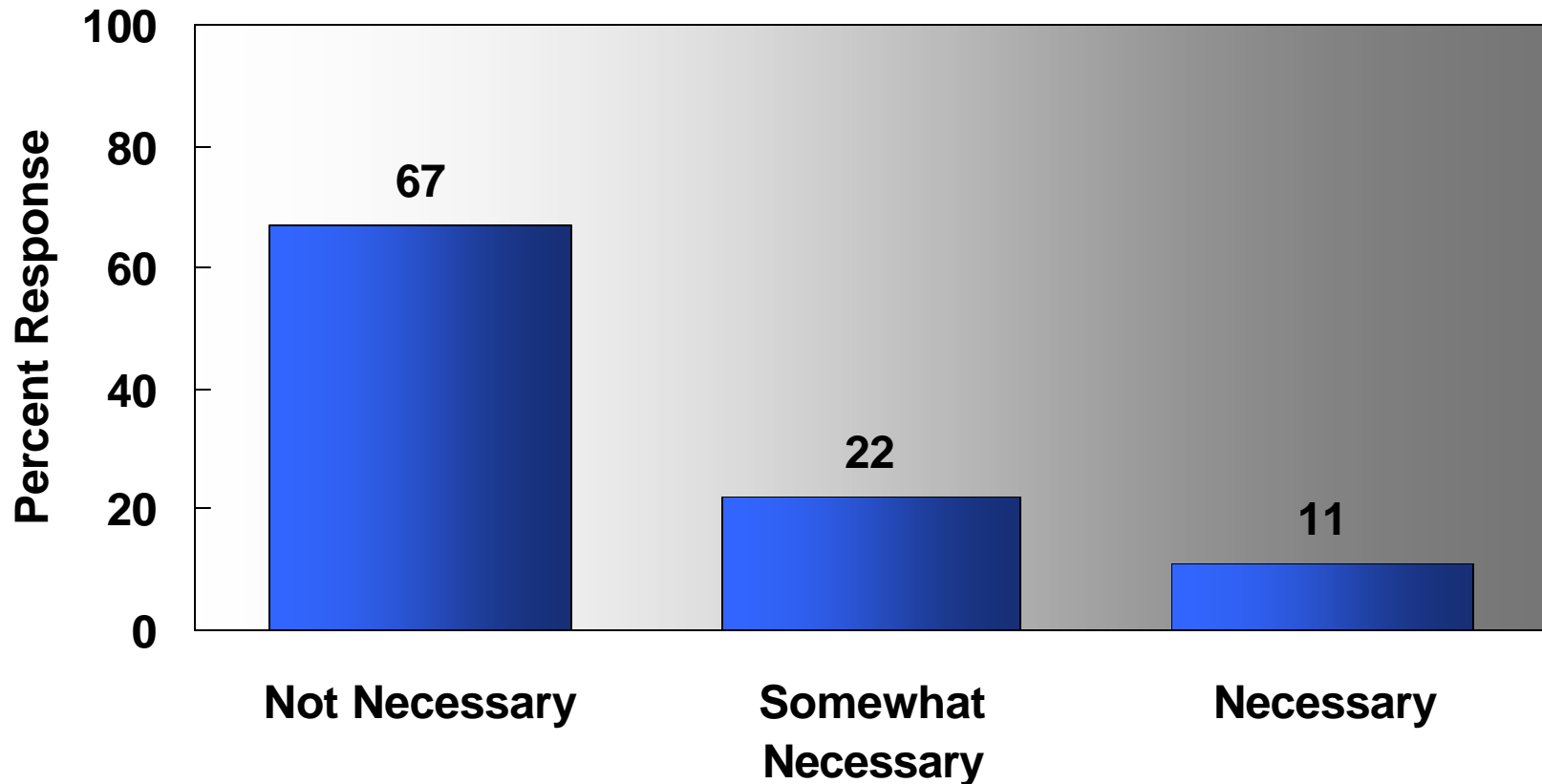
 **Food Industry**

Level of Confidence in Government Bodies to Effectively Regulate Biotechnology

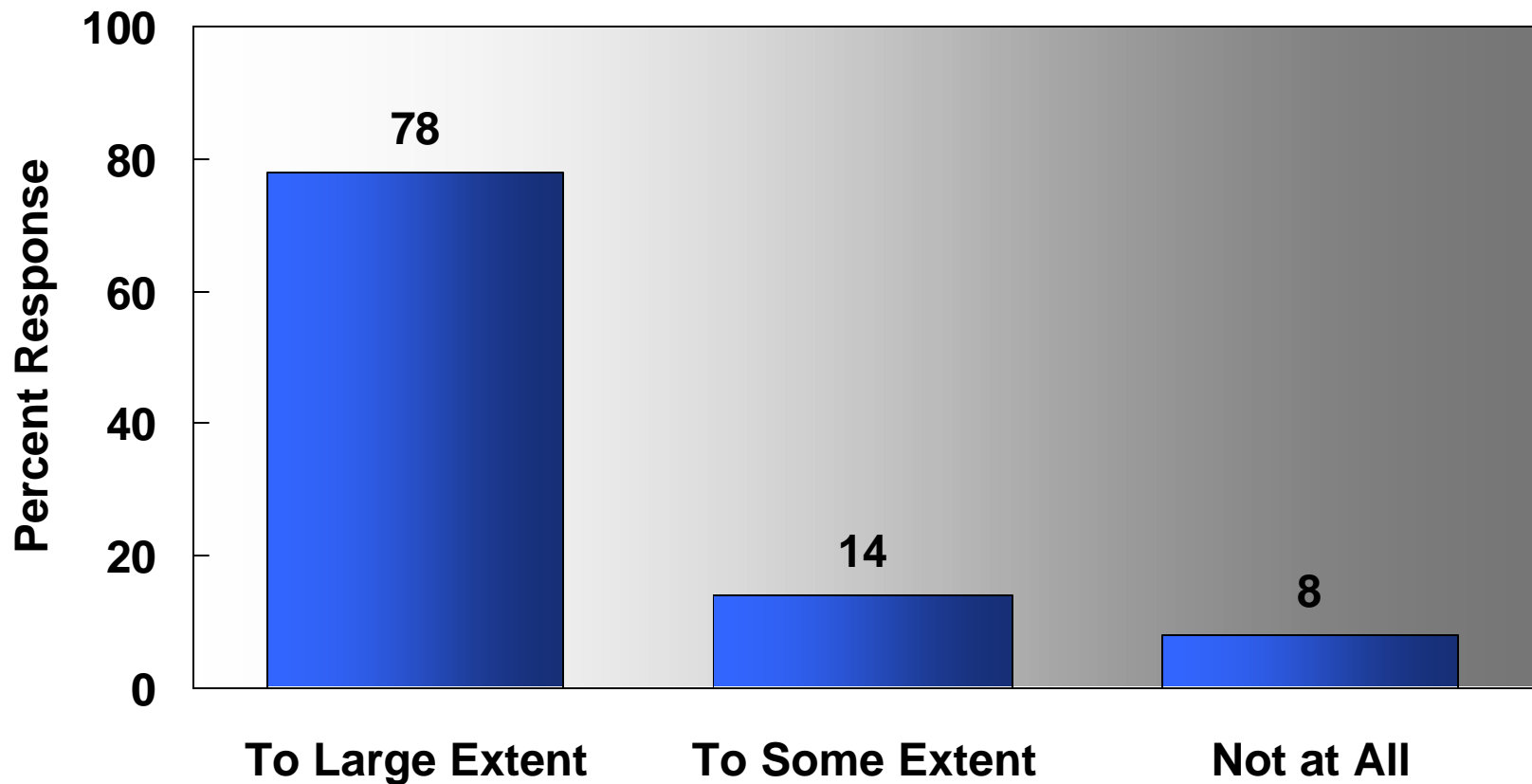


Q9p. Assume that a new corn variety is developed through modern biotechnology that is protected from insects and uses fewer pesticides. This does not change the nutrition, safety, or taste of food made from this grain. In your view, should it be very necessary, somewhat necessary, or not at all necessary to label processed foods containing this grain as a product of biotechnology?

No Need to Label Biotech Foods Say Food Industry Leaders

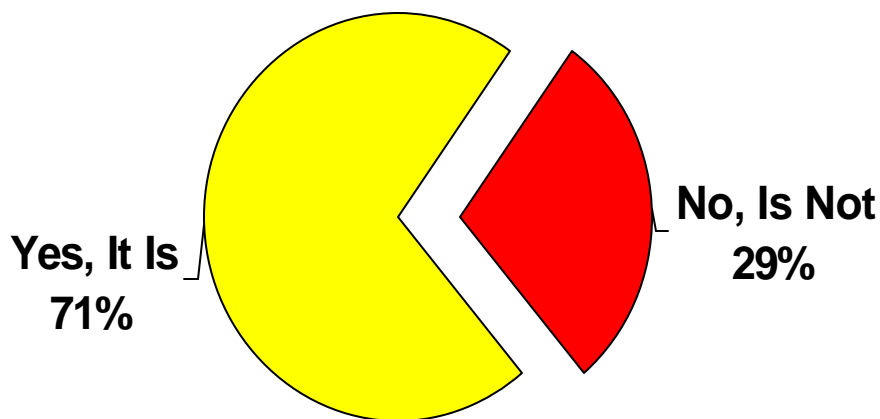


Food Industry Leaders Say Biotech Food Labels will be Seen as a Warning



Q14p. The term “organic” refers to foods that are grown without synthetic chemicals. If that term also meant that a food did not include any products of biotechnology, would the “organic” niche represent a reasonable enough alternative for those consumers who wish to avoid foods developed through biotechnology?

Food Industry Leaders Say the “Organic Niche” is a Reasonable Alternative for Consumers Concerned about Biotechnology

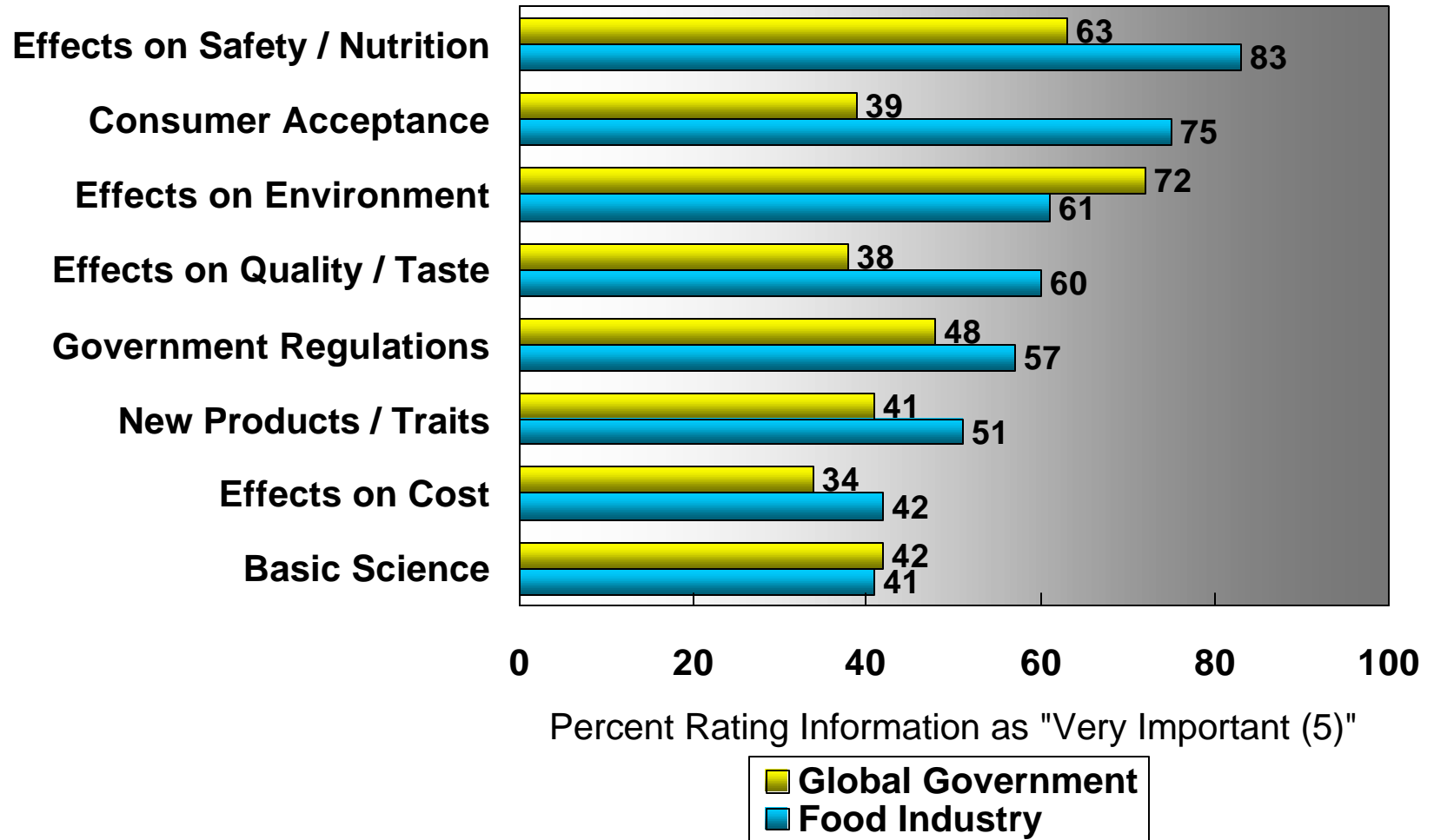


Educational Needs and Opportunities

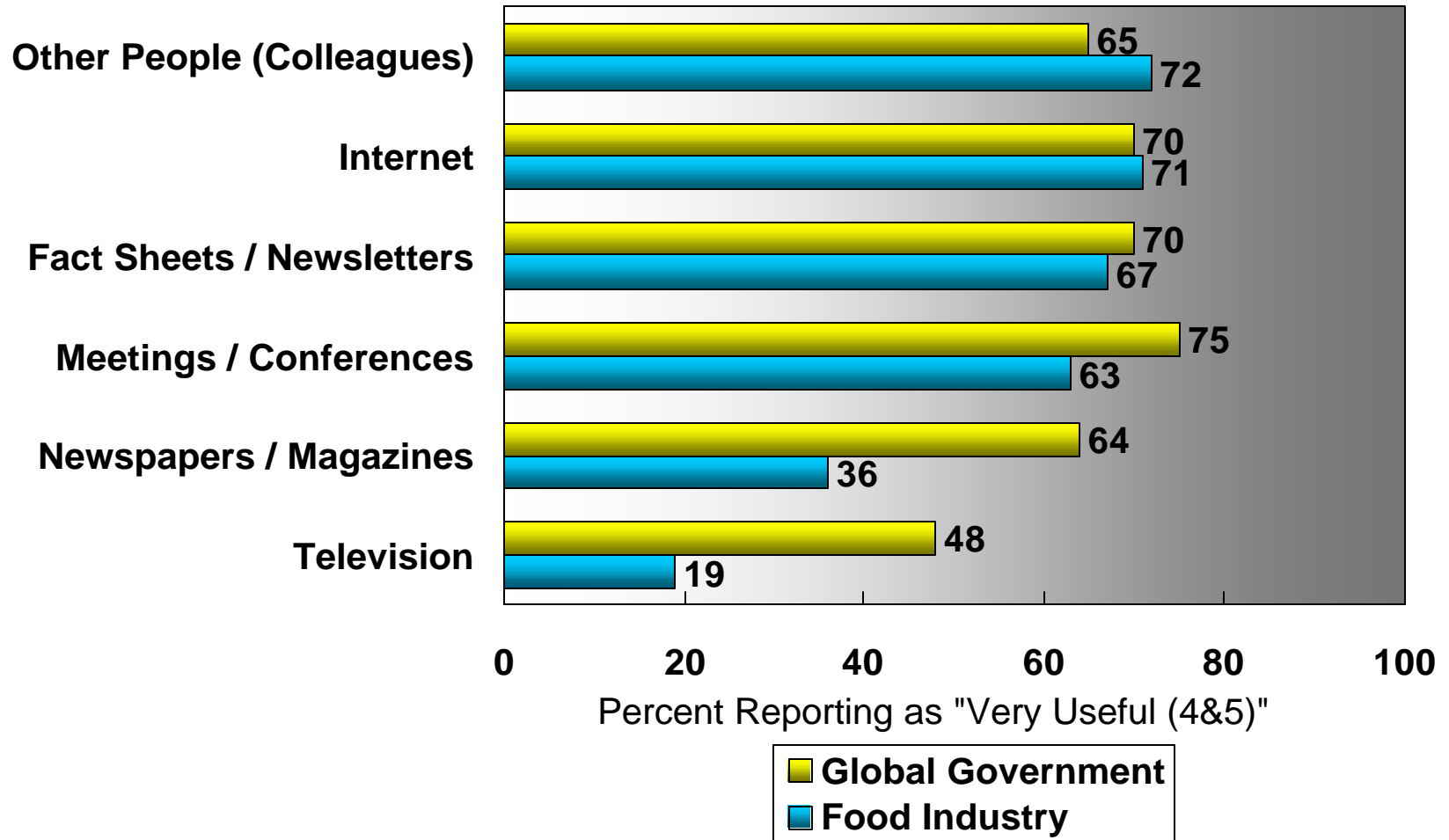
Educational Needs and Opportunities

- Both food industry and global government leaders feel consumer education is key to understanding safety and nutrition of crops produced through biotechnology
- The use of colleagues, the internet, fact sheets and meetings are most likely to be supported as effective means of communicating with industry and government leaders
- Food industry leaders believe that biotechnology is portrayed negatively by the media. Global government leaders disagree, saying media coverage is positive
- Leaders from both sectors trust university scientists and medical associations the most, with surprising few saying they trust biotechnology companies

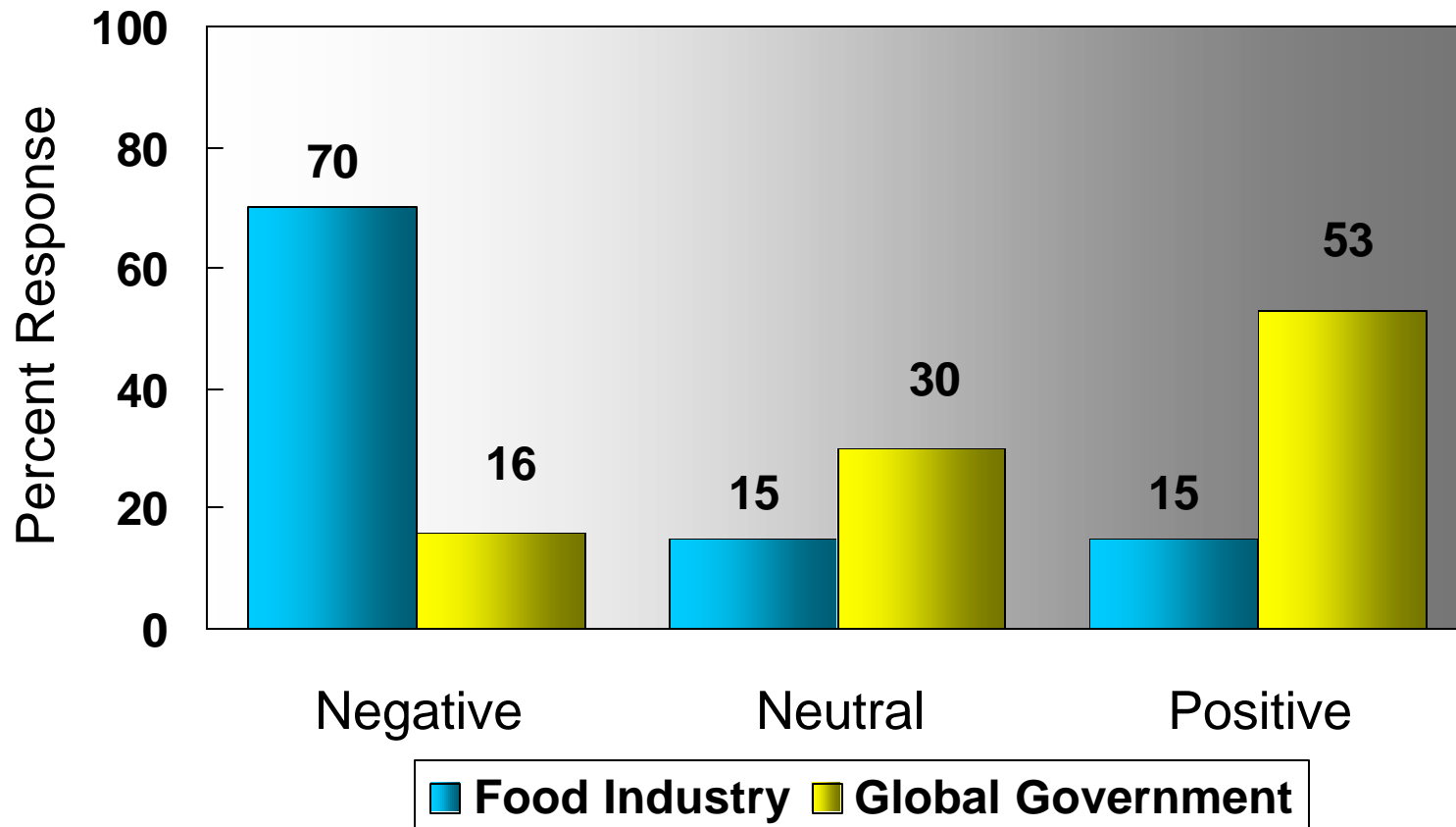
Leaders' Ratings of Importance for Additional Biotechnology Information



Leaders' Reported Usefulness of Different Ways for Receiving Biotechnology Information

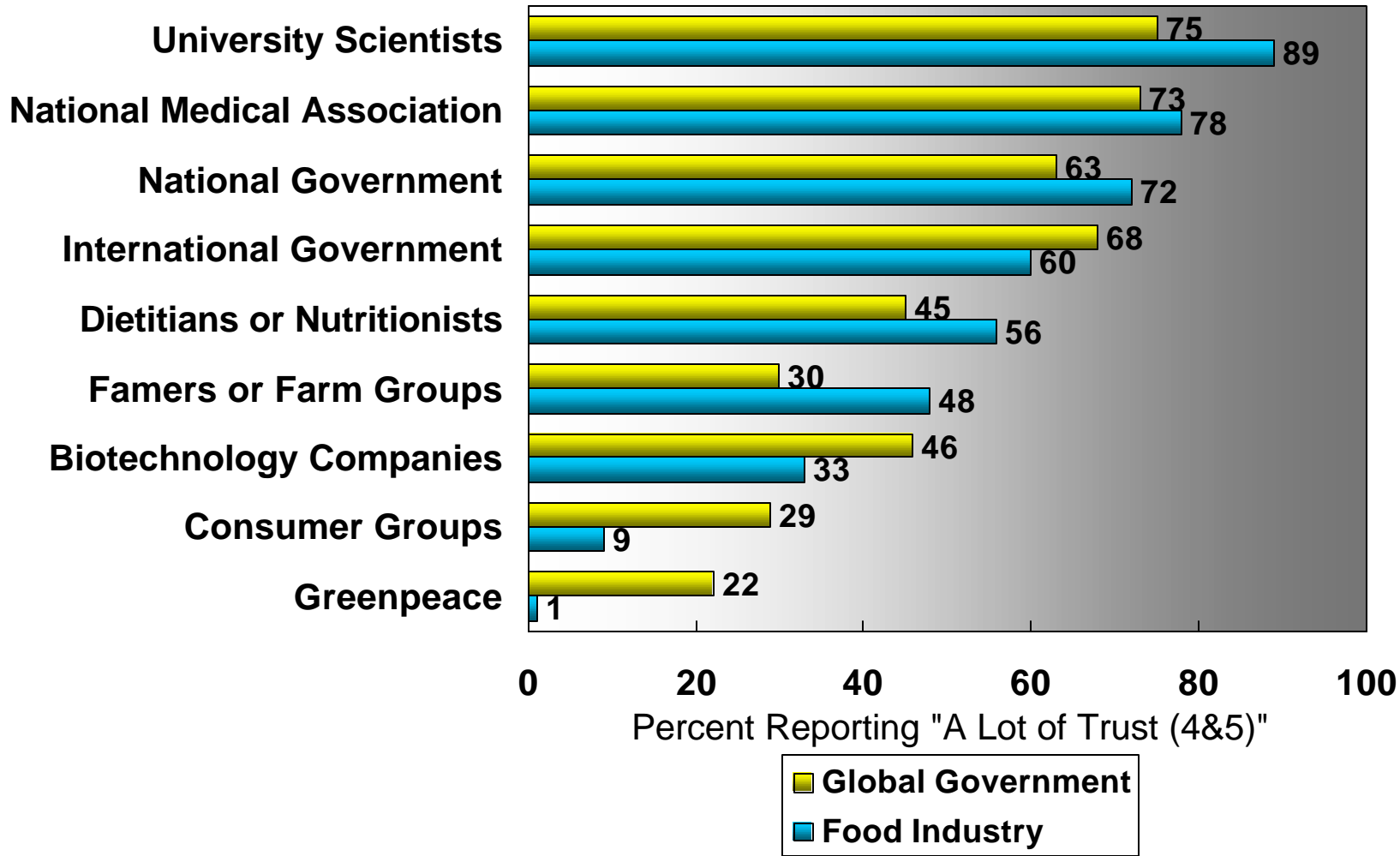


Leaders' Description of Overall Tone of Media Reports on Biotechnology



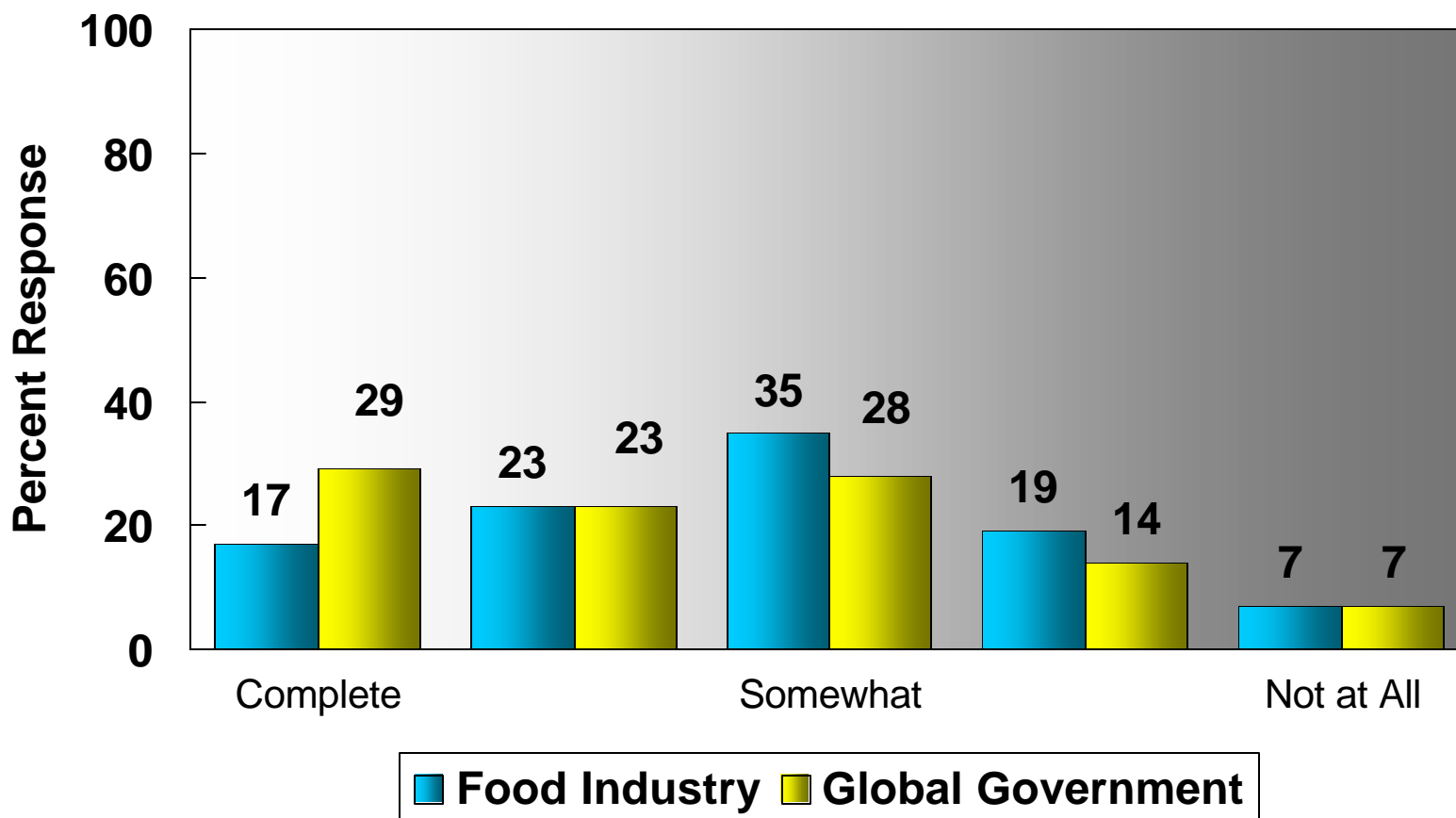
Q24p. Suppose a number of groups made public statements about the safety of foods developed through biotechnology. Would you have a lot, some, or no trust in statements made by...? Use a scale of 1 to 5 (where 1 is no trust, 3 is some trust, and 5 is a lot of trust).

Leaders' Reported Trust in Sources of Biotechnology Information

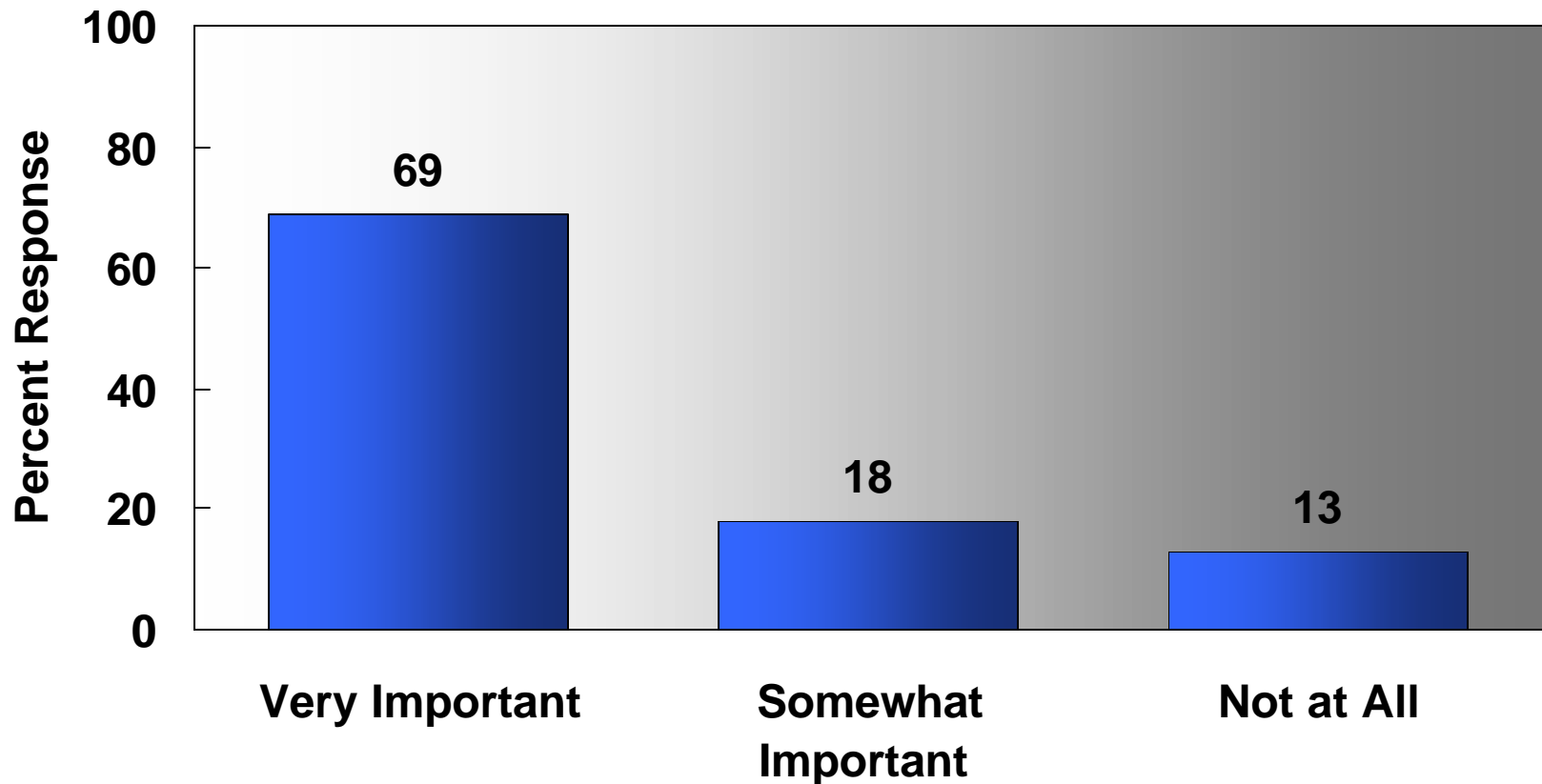


Q26p. Suppose you were asked to give a presentation about agricultural biotechnology. How comfortable would you be with the subject matter? Use a scale of 1 to 5 where 1 means you would not be at all comfortable and 5 means you would be completely comfortable.

Leaders' Comfort Level for Giving a Presentation about Biotechnology

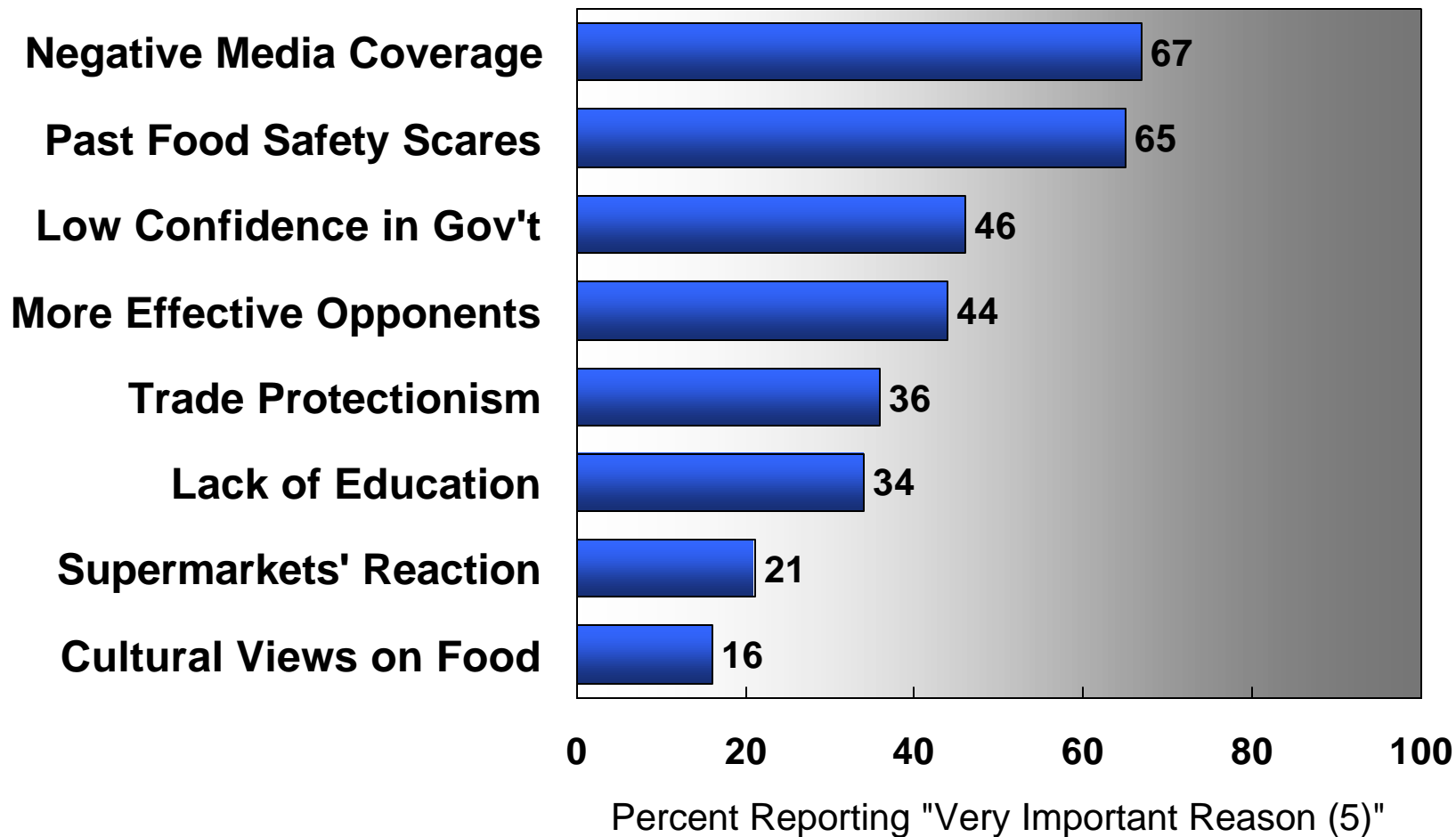


Food Industry Leaders' Say Environmental Benefits Important to Emphasize

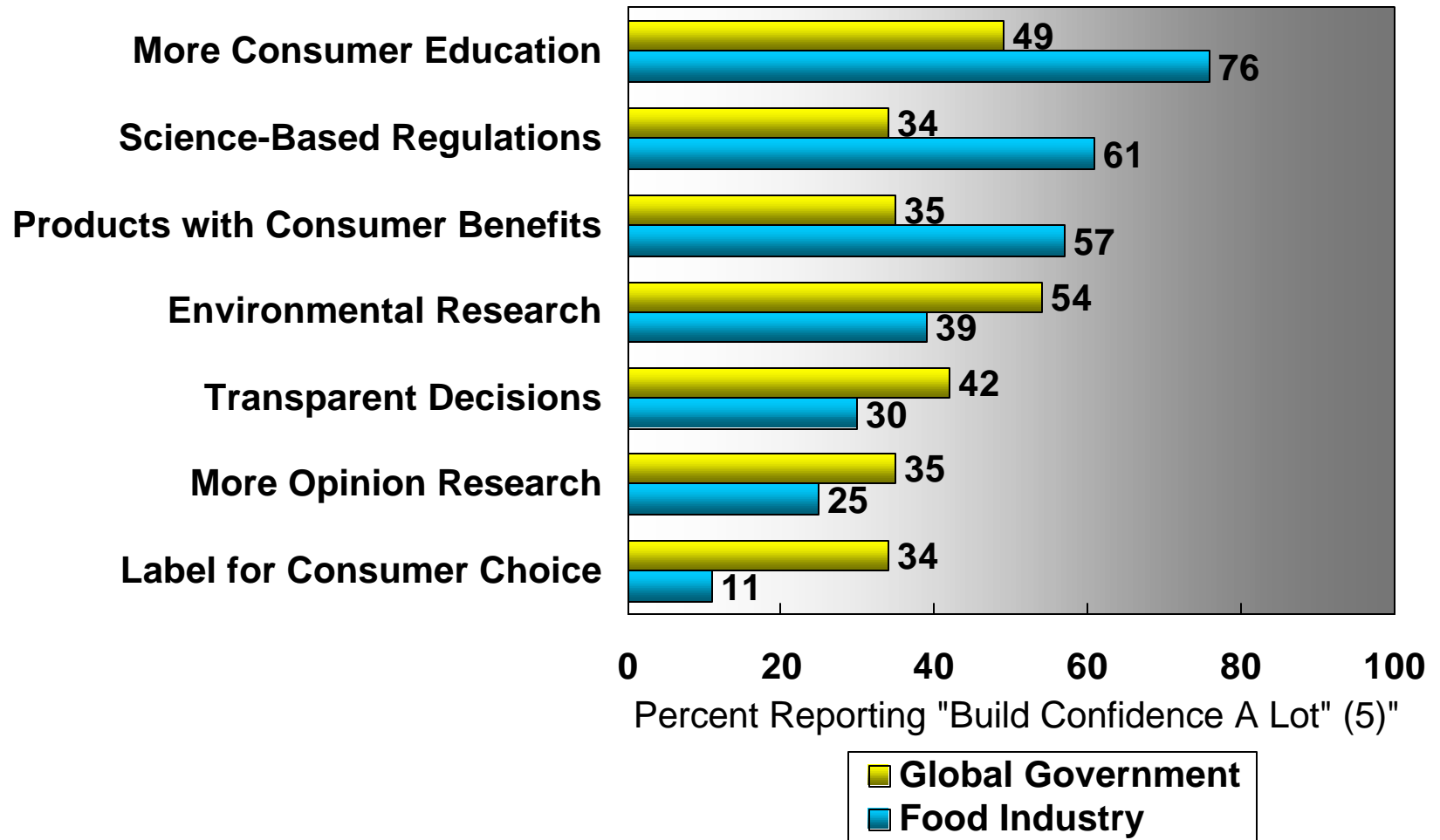


Q27p. As you may know, consumers in some countries (such as Great Britain) have been more negative about modern biotechnology than consumers in other countries (such as the United States). Tell me how important each of the following reasons is for explaining why consumers in some countries are more negative.

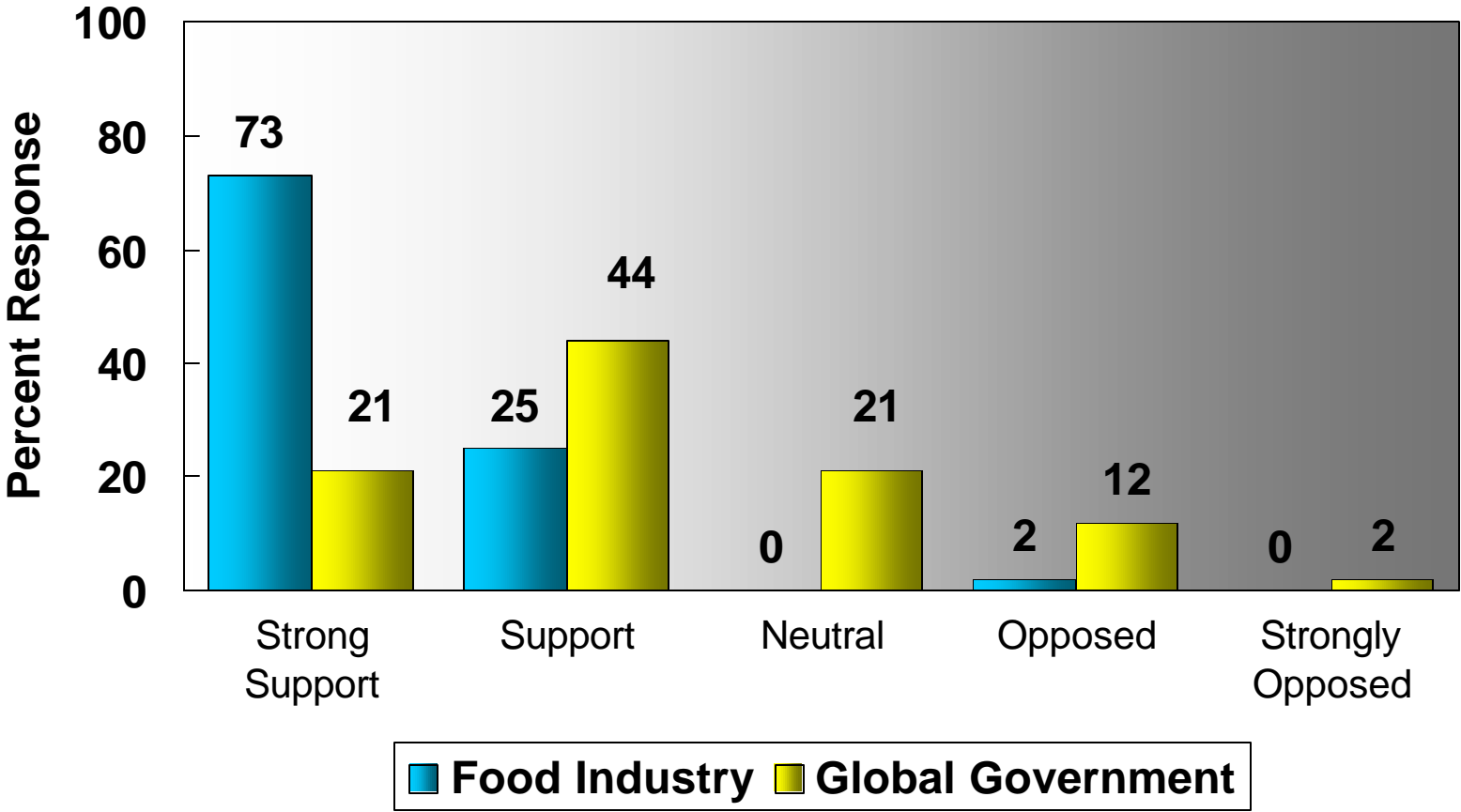
Food Industry Leaders' Views on Why Europe has been More Negative than US



Most Effective Approaches for Building Consumer Confidence in Biotechnology



Leaders' Summary Statement of Support for or Opposition to Agricultural Biotechnology



Implications for the Food Industry

- Although some companies have publicly given in to activist pressure (which is short-sighted), the entire food industry in both the US and EU clearly supports biotechnology
- The food industry trusts the science and the regulations (as most consumers do)
- The food industry should focus on what it does best: developing and delivering value-added foods that consumers want
- Communication is vital and needs to be coordinated and led by third-parties

Implications for Global Regulatory Environment

- Most government officials tend to recognize many important benefits from biotechnology
- Opportunities for building greater confidence in government and local scientific capacity
- Need to provide more balanced information from credible sources through appropriate channels
- Conflicts will ultimately be resolved over time as the benefits become compelling and more countries participate

Need Major Initiatives to Foster Cooperation

- Enhance communication and ensure mutual benefits for all parties in the food value chain (technology providers; farmers; food handlers and processors; retailers and food service)
- Recently established Land Grant University task force to implement biotechnology education and research programs.
- Major initiative from the University of North Carolina system that will integrate all aspects of food and human health.

Strong support for government funding of biotechnology

% Agree with statement	Producers	Manufacturers	Distributors
Segregation of conventional crop varieties from those developed through biotechnology will involve major costs and logistical problems.	89	87	77
Government should fund more biotechnology research because of the potential benefits to the public.	85	85	83
Regulation of biotechnology should be based solely on the best available science.	80	93	80
We have to accept some degree of risk from biotechnology if it enhances the economic competitiveness of our country.	53	69	51
The infrastructure for storing and segregating identity-preserved grains is already in place.	33	25	29
It is vital that our company have access to biotechnology so we can develop truly new food products.	30	45	30
Current regulations are NOT sufficient to protect people from any risks linked to	28	18	31

END

Manufacturers want information new products and traits

% Saying need more information on...	Producers	Manufacturers	Distributors
Consumer perceptions of foods developed through biotechnology?	93	92	84
The effects of biotechnology on food safety or nutrition?	93	95	94
The effects of biotechnology on food quality?	86	88	84
Government policies and regulations regarding food biotechnology?	85	83	77
The effects of biotechnology on the environment?	79	83	80
New products or traits under development?	73	85	66
The effects of biotechnology on food costs?	60	79	60
The basic science behind biotechnology?	55	59	64

Low trust for biotech companies, farm groups and farmers

% <i>Saying they trust</i>	Producers	Manufacturers	Distributors
Scientists from education or research institutions.	82	93	87
The medical association in your country.	76	79	76
Dieticians or nutritionists.	64	63	63
A government agency in your country.	59	79	50
An international scientific body, such as the WHO.	48	72	56
Food processors or manufacturers.	32	61	29
Farmers or farm groups in your country.	31	51	38
Biotechnology companies.	22	34	23
Consumer groups.	9	12	13
An activist group, such as Greenpeace.	1	3	6

Media coverage & food safety scares blamed for negative attitudes

% Saying important reason for negative consumer attitudes	Producers	Manufacturers	Distributors
More negative media coverage.	84	94	84
More food scares or food safety problems in the past.	76	84	77
More effective opposition groups.	73	81	69
Trade issues or protectionism.	66	66	60
A lack of education for leaders and	64	70	72
Lower confidence in government agencies.	59	76	67
Different cultural beliefs about food.	48	43	45
Negative reaction from supermarkets.	42	55	38
A less accepting culture for new technologies in general.	38	39	50

Most Effective Measures to Reduce Consumer Concerns

<i>% Saying effective at reducing consumer concerns about GM foods...</i>	Producers	Manufacturers	Distributors
More consumer education about biotechnology.	91	94	97
Products that have more real consumer benefits.	85	88	78
More science-based regulations for product safety.	82	85	83
More research on the environmental impacts of biotech.	76	82	79
More research on public perceptions of biotechnology.	59	54	70
Transparent processes for public policy decisions.	57	72	63
Package labels to inform customers.	40	31	48