



The Food Industry Center  
UNIVERSITY OF MINNESOTA

# Consumer Perception of Food Defense Spending and Patterns

DHS University Network on Research & Education  
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## **Session 3: RISK PERCEPTION AND COMMUNICATION**

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Co-director, The Food Industry Center**

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# TFIC's Partnership with the National Center for Food Protection & Defense (NCFPD)

- Protect the safety of the nation's food supply through research and education
- Reduce likelihood of intentional attack
- Develop knowledge to respond to and reduce consequences of intentional attack



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# Consumer Attitudes & Expectations About Food Defense

**National U.S. Survey of Consumers  
August 2005**

**4000+ adult Americans  
Internet – weighted to  
represent population**

**Co-authors: Tom Stinson,  
Dennis Degeneffe, Koel Ghosh**



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# Research Goals



- **To elicit consumers opinions and beliefs about future terrorist attacks in the U.S.**
- **To determine how consumers would allocate funds being spent for protection and defense against terrorism for food defense relative to protecting commercial airlines and 5 other possible types of attacks.**
  - *Knowing the dollar allocation for airlines gives us a benchmark to determine the willingness to pay for food defense.*
  - *Compare to current DHS allocations for security initiatives*

# Research Goals

- **To learn how serious consumers believe the threat of terrorist attacks are to them personally and to their country.**
- **To compare priorities for funding activities for food security relative to food safety**
- **To correlate their answers with their demographic and lifestyles characteristics, attitudes about a variety of social and political issues, and their preferences for media communication – *to provide insights for preparation and forms of communication***

# Survey Implementation

- Conducted focus groups to design questions
- Pre-tested questions with a variety of groups to refine them.
- Contracted with TSN-NFO research firm to use their internet panel of 1.2 million consumers to deliver at least 4,000 completed surveys among a representative sample of American consumers.
- Survey was conducted the first week of August 2005.

# Key Survey Question:

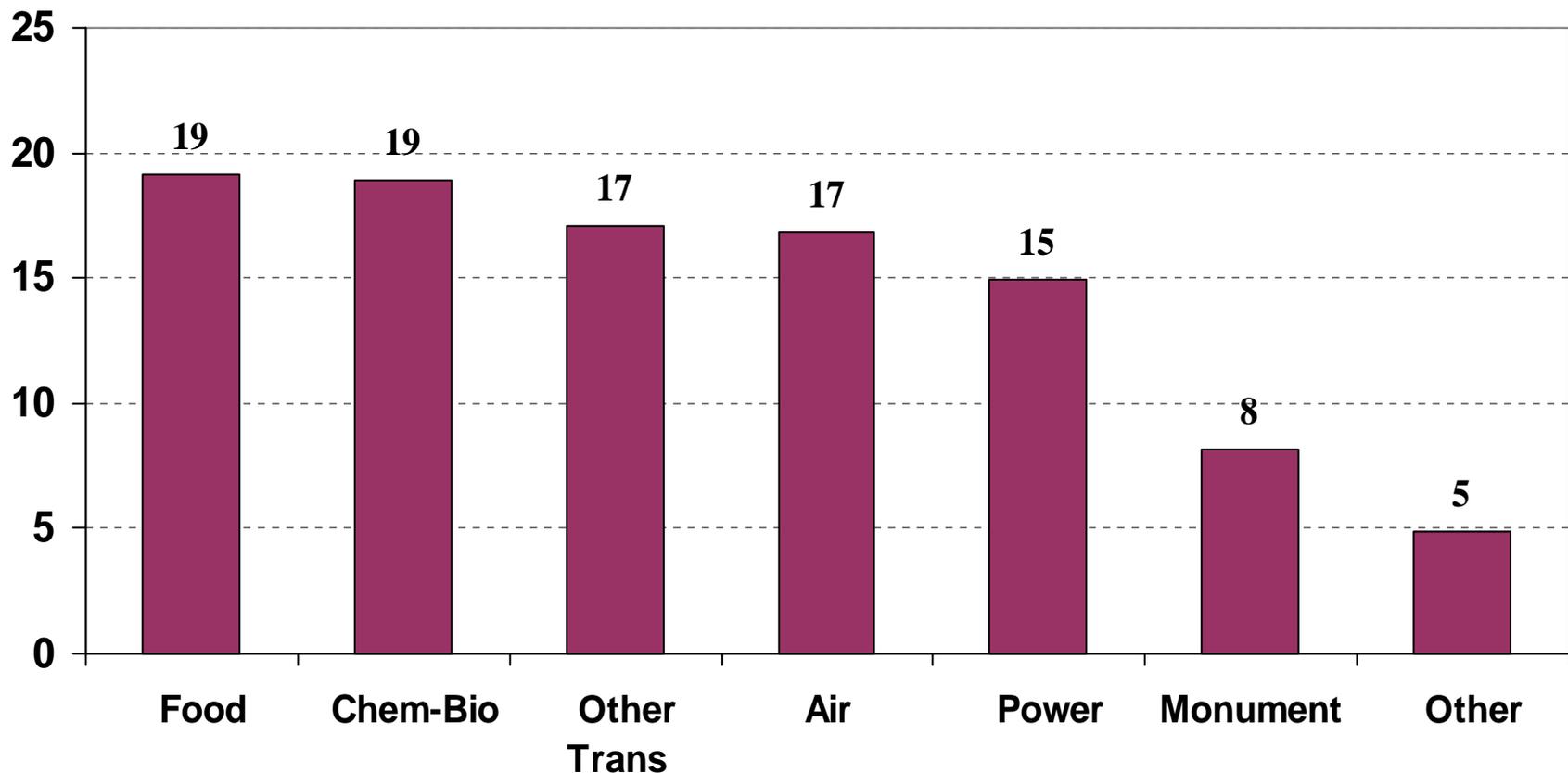
- For every \$ 100 that you think should be spent to protect the country from terrorism, how would you divide it across the following kinds of attacks? (Fill in the \$ amount in the box for each type of attack. You can put zero against one or more boxes but the total amount in all boxes must sum up to \$ 100)

- |  |          |
|--|----------|
| 1. An attack on a passenger aircraft   | \$ _____ |
| 2. Attack on other public transportation   | \$ _____ |
| 3. Destruction of a national monument  | \$ _____ |
| <b>4. Deliberate chemical or biological contamination of a common food product</b> | \$ _____ |
| 5. Disruption of the electrical power grid   | \$ _____ |
| 6. Release of a biological or chemical agent in a crowded public area              | \$ _____ |
| 7. Others (please specify) _____   | \$ _____ |
| Total = \$100  |          |

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# Americans Believe Protecting Food and Protecting Against Chemical/Biologic Attacks Should Receive Most Funding

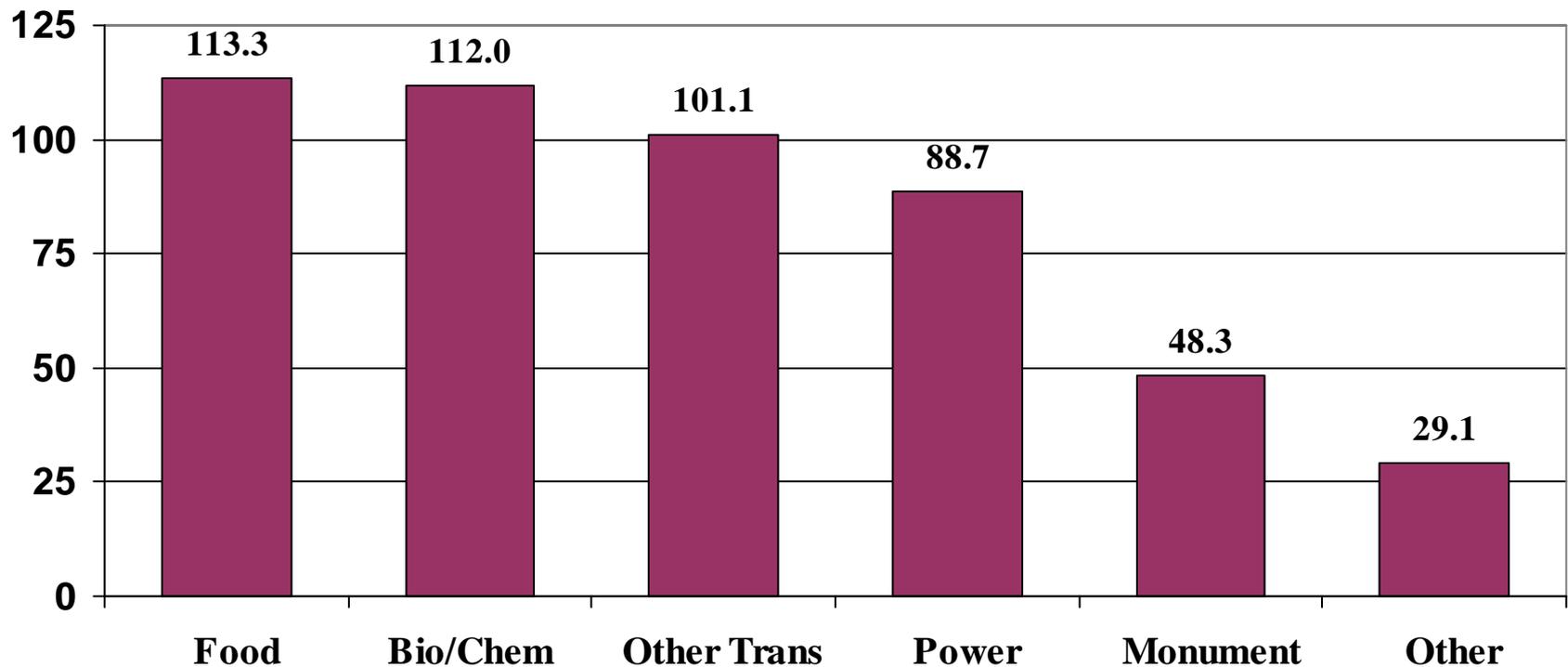
% of All Anti-Terrorism Spending



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# Public Says Spend More to Protect Food Supply and Defend against Chemical -Biologic Attack than to Secure Air Travel

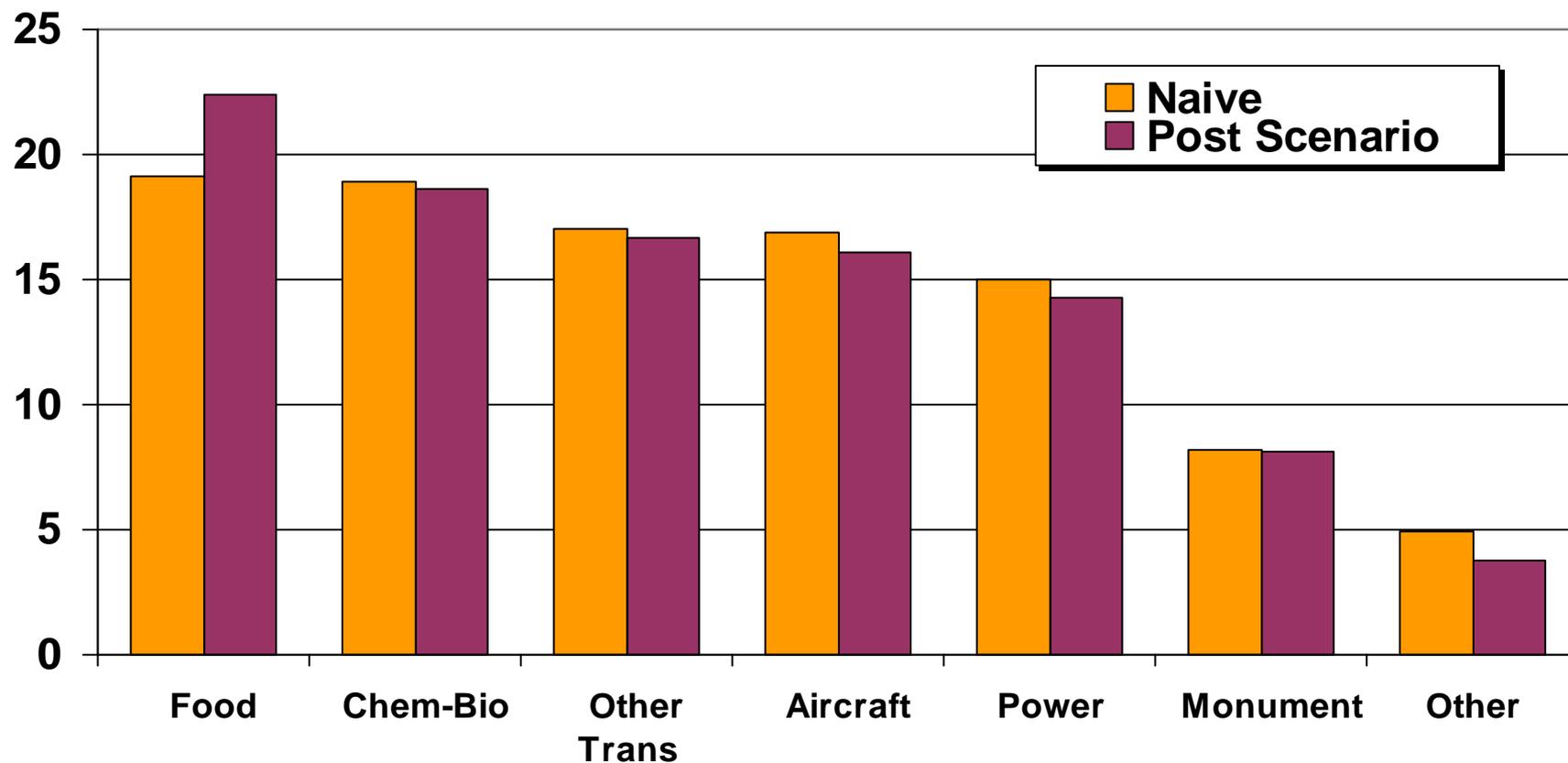
Percent of allocation for air travel



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# After More Information Americans Say Spend More to Protect Food Supply, Less to Protect Airways

Pct of Budget



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# Food Safety vs Food Defense?



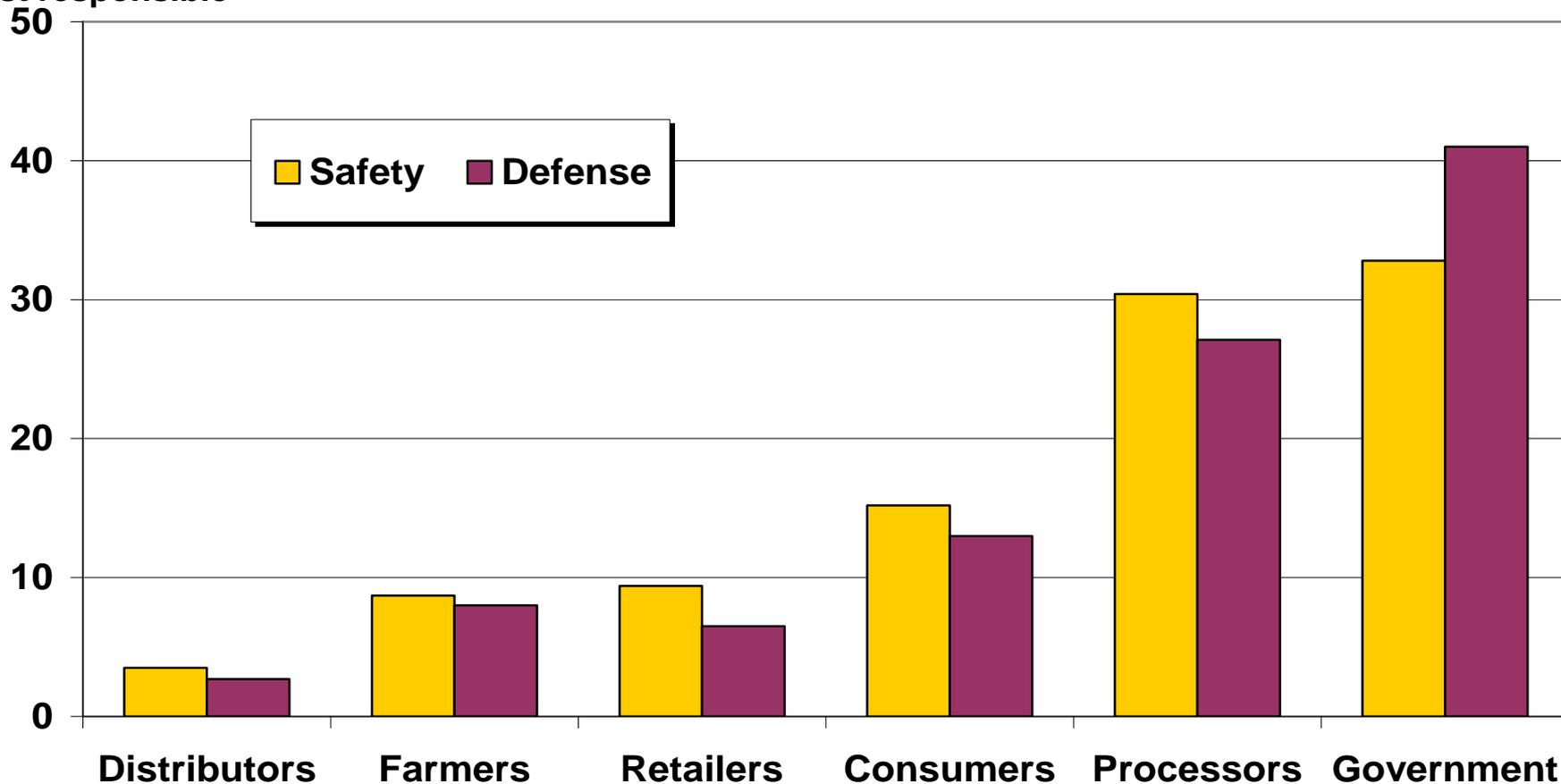
*Who is Responsible?*

*Who Should Bear the Costs?*

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# Public Sees Government as Most Responsible for Food Defense

Percent indicating most responsible

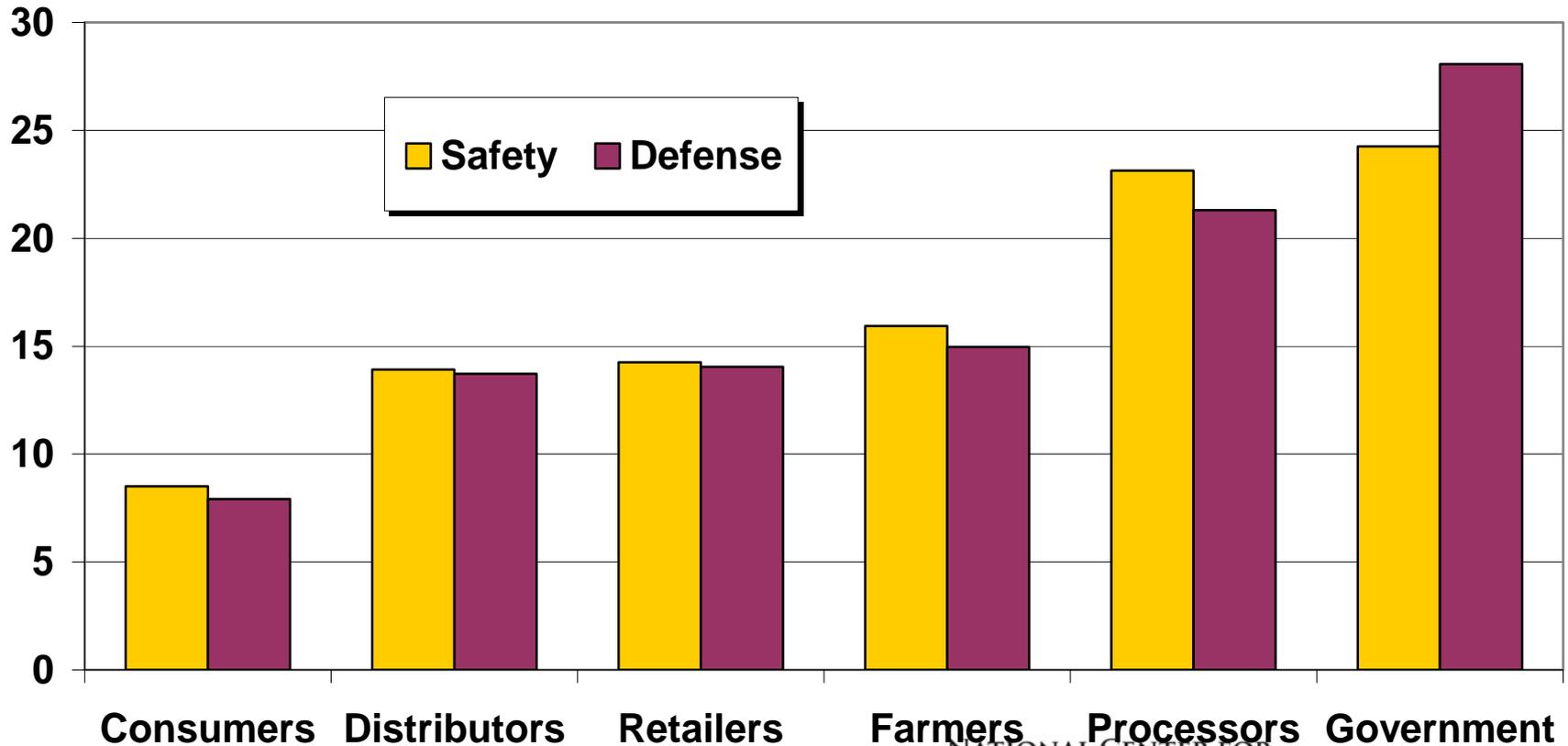


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# Public Expects Government and Food Processors to Pay for Food Defense

Percentage of total food defense spending



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# The Key to Interpreting Consumer Attitudes – Segmentation!

- How do consumers differ from one another?
- What dimensions underlie consumer needs with respect to terrorism and food security?



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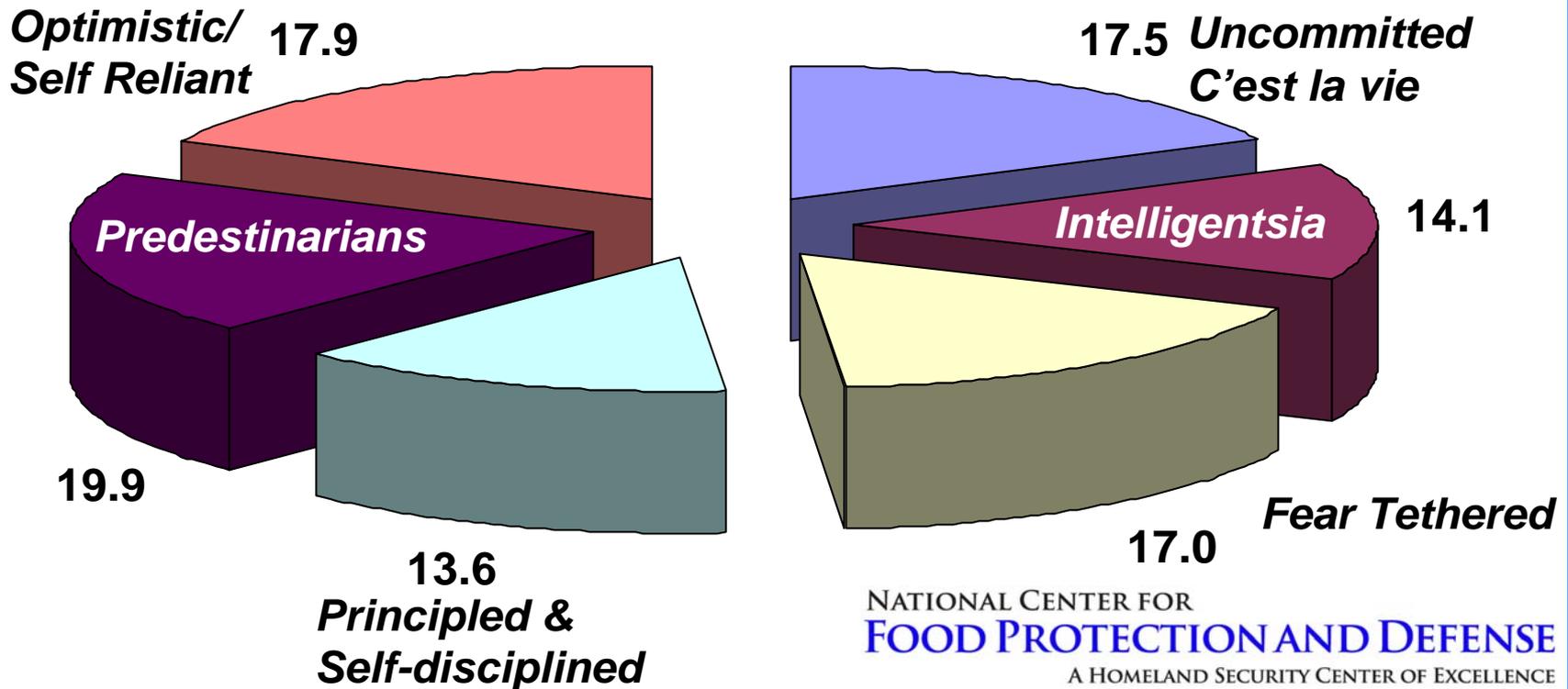
# Approach - Segmentation

- Survey included a battery of 75 general consumer attitude and value statements.
- Respondents were asked the extent to which they agreed or disagreed with the statements.
- Respondents were grouped by the pattern of their answers – and Segments were identified.
- Each segment was profiled across all other survey measures.

# Segments Identified

- Six different types of consumers were identified:

## Consumer Segments



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## Segment 3 Profile “Fear Tethered”

### Defining Attitudes and Values

Attitude Statement	Percent Total	Pe Seg
<b><i>Stronger Agreement than General Population (Top 2 Box Index 130+)</i></b>	4260	
I am frightened by diseases I have recently heard about	16.2	
I am frightened by things I have recently heard about in the news	19.9	
The danger of catching a serious illness is increasing	30.7	
I feel anxious that someone in my family will get sick	18.4	
I believe that future events are predestined	19.2	
I can never do enough to make sure my family is safe	43.2	
Just as the Bible says, the world was literally created in six days	35.0	
I often crave excitement	18.3	
I find that my busy schedule prevents me from exercising as I should	26.7	
I have a stronger sense of ambition than others	19.3	
One must consider the cost of protecting the environment	38.0	
I follow the latest trends and fashions	8.2	E
Religious faith is a major part of my life	44.2	IE
I set specific goals for my career/life	32.2	

# Preliminary Implications

	Segment 3	Segment 4	Segment 2	Segment 5	Segment 6	Segment 1
						
<b>Name</b>	<b>Fear Tethered</b>	<b>Principled &amp; Self-Discipl.</b>	<b>Intelligentsia</b>	<b>Predestinarians</b>	<b>Optimistic &amp; Self-Rel.</b>	<b>Uncommitted C'est la vie</b>
<b>Size</b>	<b>17.0%</b>	<b>13.6%</b>	<b>14.1%</b>	<b>19.9%</b>	<b>17.9%</b>	<b>17.5%</b>
<b>Concern Food Defense % (5-6)</b>	<b>79.9%</b>	<b>70.0%</b>	<b>59.0 %</b>	<b>51.7%</b>	<b>25.0%</b>	<b>15.7%</b>
<b>Concern food Defense/Concern food safety (ratio of mean scores):</b>	1.20	1.20	1.19	1.16	1.12	0.98
<b>Confidence in Food defense/Food safety (ratio of mean scores)</b>	0.76	0.74	0.73	0.83	0.80	0.87

# Consumer Segment Summary

	Segment 3	Segment 4	Segment 2	Segment 5	Segment 6	Segment 1
						
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<b>Media Used</b>	<ul style="list-style-type: none"> <li>•CNN</li> <li>•Local radio</li> </ul>	<ul style="list-style-type: none"> <li>•Any TV</li> <li>•Local Newspapers</li> <li>•USA Today</li> </ul>	<ul style="list-style-type: none"> <li>•PBS, C-Span</li> <li>•MSNBC</li> <li>•NY Times</li> </ul>	<ul style="list-style-type: none"> <li>•Fox News</li> <li>•Local radio</li> </ul>	<ul style="list-style-type: none"> <li>•ABC</li> <li>•Wall St. Journal</li> <li>•NY Times</li> </ul>	<ul style="list-style-type: none"> <li>•CNN Headline</li> <li>•USA Today</li> </ul>
<b>Notable Demographic Characteristic</b>	<ul style="list-style-type: none"> <li>•Female</li> <li>•Small families</li> <li>•Less educated</li> </ul>	<ul style="list-style-type: none"> <li>•Age 50+</li> <li>•1-2 Person HH</li> <li>•Lower income</li> </ul>	<ul style="list-style-type: none"> <li>•Educated</li> <li>•Age 50+</li> <li>•Male</li> <li>•Small Households</li> </ul>	<ul style="list-style-type: none"> <li>•Young adult</li> <li>•Low income</li> <li>•Less educated</li> </ul>	<ul style="list-style-type: none"> <li>•Age 25-50</li> <li>•College degree +</li> <li>•Northeast</li> </ul>	<ul style="list-style-type: none"> <li>•Younger single male</li> <li>•Mid-Income</li> <li>•Medium pop. center</li> </ul>
	<ul style="list-style-type: none"> <li>•Age 35-49</li> </ul>			<ul style="list-style-type: none"> <li>•Small metro</li> <li>•Diverse ethnicity</li> </ul>	<ul style="list-style-type: none"> <li>•Metro</li> <li>•Families</li> </ul>	<ul style="list-style-type: none"> <li>•Western U.S.</li> </ul>

# Results:

- **Food is assumed to be safe-it is trusted!**
- **Eating food is ultimately involuntary and information about its actual safety is unknowable.**
- **So – there is a greater willingness to pay to prevent a catastrophic loss from food than to protect us from using an airplane for terrorism.**

# Results

- **Allocating the percent of food defense dollars in the same way as consumers implies that 13% more should be spent on food defense as on airline defense.**
- **Therefore, \$5.7 B. would be allocated to food defense and \$5.6 B. to biological and chemical attacks compared to the \$8.6 B. allocated to ALL catastrophic terrorist attacks in 2006.**

# Results

Consumers fear attacks on food more than other types of attacks and would allocate the most terrorist defense dollars to that threat.



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Thank you.

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