CRACKING THE CODE ON FOOD ISSUES:
Insights from Moms, Millennials and Foodies

THE CENTER FOR FOOD INTEGRITY 2014 CONSUMER TRUST RESEARCH
How do we connect when scientific consensus and consumer beliefs are not aligned? When consumers don’t accept what science says is true?

We set out to learn the answers to these questions in our 2014 research. Since 2007, we have conducted annual consumer trust research to track trends and attitudes, providing insights and guidance to those in food and agriculture on how to best engage today’s increasingly skeptical consumer.

Our 2014 research, the most in-depth to date, provides a roadmap to making complex and controversial technical information relevant and meaningful—particularly to Moms, Millennials and Foodies—bringing balance to the conversation and helping consumers make informed decisions about food.

In partnership with Iowa State University, CFI was the first to build a research-based consumer trust model. Our peer-reviewed and published model for building trust in today’s food system shows that Confidence (shared values) is three-to-five times more important than Competence (skills and technical expertise or science) in building consumer trust.

In other words, it’s not just about giving consumers more science, more research, more information. It’s about demonstrating that you share their values when it comes to topics they care about most—safe food, quality nutrition, appropriate animal care, environmental stewardship and others.

Our mission at The Center for Food Integrity is to build trust and confidence in today’s food system. Our research is intended to help the food system better understand what it takes to earn and maintain consumer trust. The 2014 research provides insight that can increase authentic consumer engagement to foster informed decision making and help align food system practices with consumer values and expectations.

Earning and maintaining Social License, the privilege of operating with minimal formalized restrictions, depends largely on building trust based on shared values. Of the three primary elements that drive trust—Confidence (shared values and ethics), Competence (skills and ability) and Influential Others (family, friends and credentialed individuals), our peer-reviewed research shows that Confidence, or shared values, is three-to-five times more important than Competence in building trust.
CFI is a not-for-profit organization with members that represent every segment of the food system. CFI does not lobby or advocate for individual food companies or brands. Participating organizations represent the diversity of the food system, from farmers and ranchers to universities, NGOs, restaurants, food companies, retailers and food processors.
OUR CHALLENGE
The application of technology in food and agriculture has provided countless benefits to society. Innovation and technology help us meet one of humanity’s most basic needs—the need to provide safe, nutritious food for our children and our children’s children.

Today, our challenge is not just better technology, but finding better ways to support the informed public evaluation of those technologies and our food production system.

SCIENCE DENIED
No matter what science says, many issues remain contentious because the social decision-making process is complex. The ability to break down the communication barriers is critical to fostering informed decision making that encourages technology and innovation in society’s best interest.

Among the barriers:

Cultural Cognition: the tendency of people to conform their beliefs about controversial matters to group values that define their cultural identities.

Confirmation Bias: the tendency of people to favor information that confirms their existing beliefs and opinions regardless of whether the information is true.

Tribal Communication: the Internet and digital communication have created silos of interest where people can easily find online communities whose values and interests align with theirs.

THE 2014 RESEARCH
Our 2014 research explores consumers’ complex decision-making processes to:

• Better understand how to introduce science and technical information into the public discussion on issues in agriculture and food so that they are considered in the social decision-making process.
• Better understand the communication channels and processes used by Moms, Millennials, Foodies and Early Adopters in today’s environment when forming attitudes and opinions about issues in agriculture and food.

The research provides a model for introducing and discussing complex controversial issues. It’s a model that can be applied when communicating and engaging with consumers to build trust around topics that are critical to our ability to meet the growing demand for food while preserving and protecting our natural resources.

OUR RESEARCH APPROACH
The 2014 web-based survey was completed in September by 2,005 respondents who reflect the general U.S. consumer population. To provide deeper insights, we segmented the respondents into three groups: Moms, Millennials and Foodies.

The issues we selected as stimulus for the research were genetically modified ingredients in food and antibiotic use in animal agriculture. Our intent was not to define messages and strategies specific to these issues, but to use these issues to develop models that can be applied across food and agriculture.

WHAT WE LEARNED

Trusted Messengers
We tested messaging from three different “voices”:

• Mom Scientist (A mother with scientific educational and/or work experience)
• Federal Government Scientist (Self-explanatory)
• Peer (A person who shares your interest about food)

The data shows Mom Scientist was the most trusted source of information before respondents read any stimulus information. As respondents were exposed to more information from the three different voices, trust in Mom Scientist remained strong and the trust scores rose consistently for Government Scientist. The Peer voice ultimately dropped to the least-trusted source of information in most scenarios.

Later in this report, a breakdown of the data as it pertains to Moms, Millennials and Foodies will be provided, but a clear theme in the survey results is that we can make a difference when we choose to engage by first establishing shared values and then providing factual technical information that is relevant and meaningful from a credible source. After Confidence (shared values) has been established, people are more willing to consider technical information, or Competence,
in their decision-making process. The improved trust scores of Government Scientist clearly indicate that having technical expertise and a credential build credibility when communicating technical information, once shared values have been established.

**Trusted Information Sources**
Here’s where Moms, Millennials and Foodies go for food system information:

- Websites are the top-ranked source of information for food system issues for all three segments. Moms ranked Family (not online) second, while Millennials and Foodies prefer Friends (not online) as their second choice.
- Moms also rely on Local TV Stations, while Millennials rely on Online Friends as additional sources of information.
- Food-specific TV Program/Networks are important sources of information about food system issues for Foodies (less so for Moms and Millennials).

Like Moms, Millennials and Foodies, the top food system source for the general population is Websites, followed by Local TV Stations, Friends (not online), Family (not online) and Google.

**HOW TO APPLY WHAT WE LEARNED**

The 2014 CFI research provides a model that can help in creating and sharing information that fosters informed decision making. Here’s how to apply the findings.

1. **Believability is a key driver in creating information that is trusted.** Evaluate the information you want to share against the Fundamental Message Elements and Outrage Factors in the research models (see pages 10–13) and modify where necessary to align your information with the models.

2. **Identify the groups you would like to engage.** Who are the Early Adopters—or opinion leaders—within those groups? What are their values and concerns? Who are the likely sources they view as credible? Listen to the concerns and understand their values before developing your strategy.

3. **Meet them where they are.** Today’s monitoring technology allows you to identify the digital and physical communities where conversations about food and agriculture are taking place. Select those communities that are important to you and develop engagement strategies. Be a good neighbor when you “move in” to the community and remember that how you choose to engage will determine how your new neighbors respond.

4. **Develop a values-based engagement strategy that starts with listening and embracing skepticism.** Engage with the groups you’ve identified and focus on building relationships before sharing information. Understand and appreciate the group expectations and cultural norms as they will influence how to best share information.

5. **Commit to engaging over time.** Building trust is a process, not an event. Authentic transparency and continued engagement using the models developed through this research will encourage objective evaluation of information that supports informed decision making.

The 2014 CFI Consumer Trust Research includes more than can be shared in any single report. We have additional insight, segmentation and detail available. If you or your organization would like more information or would like to schedule a presentation, please contact us by email at learnmore@foodintegrity.org or by phone at 816-880-5360.
Those dedicated to improving our lives through science-based technologies and innovation are left scratching their heads. “Science says it’s so, so why is there still debate?” Many issues remain contentious, no matter the facts, because the social decision-making process is complex.

But why is that? What can we learn from this historic and predictable public resistance—and how can the food system communicate controversial scientific and technical information so consumers and stakeholders consider the science when making decisions?

The ability to break down the communication barriers is critical to fostering informed decision making that encourages technology and innovation in society’s best interest.

WHY FACTS ALONE DON’T DRIVE DECISIONS
We’d like to think that the social decision-making process is logical and rational—that we live in a world where $2 + 2 = 4$, the earth is round and hydrogen and oxygen combine to make water. But it’s more complicated than that.

Today’s environment is one in which many factors drive consumer opinions, feelings and beliefs—particularly when it comes to controversial emotion-laden issues—and facts are only one element in the decision-making equation. It’s a complex, multi-dimensional process that includes many factors.

Cultural Cognition
Cultural cognition is a distinct decision-making process that helps explain how people digest evidence and make decisions about controversial issues.

It refers to the tendency of people to conform their beliefs about controversial matters—like climate change, the death penalty and same-sex marriage—to group values that define their cultural identities.

According to Dan Kahan, professor of law and psychology at Yale University and a member of the Yale Law School Cultural Cognition Project, people endorse whichever position reinforces their connection to others whose values they share. As a result, says Kahan, public debate about science is strikingly polarizing.

In addition, when new evidence is introduced, cultural cognition causes people to interpret that evidence through the lens of pre-existing bias. As a result, groups with opposing views become more polarized, not less, when exposed to scientifically sound information, according to Kahan.

Kahan equates cultural cognition to fans at a sporting event. No matter what the issue, they take their cues about what they should feel and believe from the cheers and boos of their team’s crowd.

There is more detail on cultural cognition later in the report (pages 9-10).

Sources: www.princeton.edu/~achaney/tmve/wiki100k/docs/Confirmation_bias.html

Confirmation Bias
Confirmation bias is the tendency of people to favor information that confirms their existing beliefs and opinions regardless of whether the information is true. Its effect is stronger for emotionally charged issues like choosing food to feed your children and family.

Case in point, during presidential election season engaged voters are likely to get their information from a source consistent with their political affiliation. Voters are likely to watch either Fox News or MSNBC—but
not both. You’re not likely to find a gun control proponent following the National Rifle Association on Facebook. We tend to look for information that confirms our current belief structure and reject information that is inconsistent with our values or current worldview.

**Tribal Communication**

We see cultural cognition and confirmation bias play out very distinctly with the Internet and new digital technologies that have resulted in the revival of a social system from the distant past: tribes.

In his book “Tribes,” entrepreneur, marketer and digital expert Seth Godin explains that while the Internet was supposed to homogenize everyone by connecting us, it has instead created silos of interest. Today we can easily find online communities whose values and interests align with ours—whether you’re a seamstress, Corvette enthusiast, chef or animal rights activist.

“**The Internet was supposed to homogenize everyone by connecting us all. Instead what it’s allowed is silos of interest.**”

**SETH GODIN, TED Talks “The Tribes We Lead,” February 2009**

It’s an environment giving those who are passionate about a hobby, issue or cause—from everyday people to celebrities—the power and platform to lead and impact change.

Consider Jenny McCarthy, TV host and actress, and her influence as an anti-vaccine activist. She gave a high-profile voice to a movement against childhood vaccinations, claiming vaccines caused her son’s autism—despite overwhelming scientific consensus that vaccines are safe.

“**Time magazine’s article on the autism debate reports that the experts are certain ‘vaccines don’t cause autism; they don’t injure children; they are the pillar of modern public health.’ I say, ‘That’s a lie and we’re sick of it.’**”

**JENNY MCCARTHY, Huffington Post, March 9, 2010**

You don’t need doctors or scientists confirming it when you have hundreds of moms.”

Along with tribal consensus comes tribal shunning and the related personal guilt as illustrated by one panelist’s confession: “I think mom guilt is a huge factor. If someone is telling you something is dangerous, for example fructose, and you hear the message more than once, you owe it to yourself to research it or quit consuming it. I can’t keep giving my kids fructose if there’s a potential problem. We have to do our best job.”

The power of tribes when it comes to food issues was underscored during 2013 CFI consumer panels. When asked what sources of information led to the conclusion that genetically modified food is dangerous, one mom replied, “I’m part of a moms group. When there is a big consensus, I think ‘There’s something here.’

Banking consultant turned food ingredient activist Vani Hari has built a considerable following and garnered a great deal of media attention as the Food Babe, rallying her growing online tribe to successfully pressure food companies to ban ingredients she claims are dangerous despite scientific evidence to the contrary.

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Science is Hard

In addition, we’re all exposed to complex issues that we’re simply not qualified to evaluate.

As a result, we make decisions and process information based on bounded rationality—our access to
information, our cognitive ability to understand the information and the time (or lack thereof) that we allocate to the decision-making process. Another way to look at it: because decision makers lack the ability and resources to arrive at the best solution, they simply settle for the satisfactory one. How many of us read the policy positions of candidates before casting our vote, or read all of the safety and performance research before purchasing a car?

Not being able to fully grasp a complex issue does not preclude us from making decisions or having strong opinions, however. We often have strong opinions on issues that we know very little about. The complexity of science and scientific illiteracy can impact informed decision making.

**It’s Complicated**
Other factors, like the bad news bias, tend to complicate the environment. It’s why negative political ad campaigns work and why we are quick to believe the worst in the latest celebrity scandal. It also accounts for why negative claims about agriculture and food—like GMOs are dangerous, foods with ingredients I can’t pronounce will harm me and hormones in milk are causing early puberty—eclipse the science that says otherwise.

Negative information weighs more heavily on our decisions than positive information. And the impact is significant.

In fact, it has been shown that a single item of negative information is capable of neutralizing five similar pieces of positive information (Richey, Koenigs, Richey and Fortin 1975) and that negative information more strongly influences attitudes and purchasing intentions (Weinberger and Dillon 1980).

All it takes is for one person—a friend, a colleague, a reporter, a blogger—in your sphere of influence to make a single “bad news” claim and trust begins to erode.
A history of contradictions muddies the water, too. Remember when butter, eggs and coffee were bad for us? Now the research tells us that’s not so. It’s difficult to trust science when conclusions seem to change like the weather.

Add to that the erosion of trust in “big”—big food, big government, big oil, big corporations. There have been plenty of incidents that have resulted in a loss of trust in science-based technology that we were told was foolproof in the form of devastating oil spills and deadly crashes involving defective automobiles. CFI research shows us that there’s an inverse relationship between the size of a company or organization and the perception of shared values that drive trust. Many consumers believe that “big” companies will put profit ahead of public interest. So “big” technology from “big” companies is plagued by significant public skepticism from the start.

It’s a complex environment we find ourselves in today. There has to be a better way to encourage informed social decision making that fairly evaluates food and agriculture and results in greater trust in those systems that make food accessible and sustainable.

What information sources have you used to come to your conclusions that GMOs are dangerous?

“I’m part of a moms group. When there is a big consensus, I think ‘There’s something here.’ You don’t need doctors or scientists confirming it when you have hundreds of moms.”

HEIDI, CFI Moms Panel on GMOs, Orlando, April 2013
THE RESEARCH:
Making Science Relevant in Today’s Conversation about Food and Agriculture

The application of technology in food and agriculture has provided countless benefits to society, from refrigeration and precision planting to pasteurization and drought-tolerant hybrids. Innovation and technology help us meet one of humanity’s most basic needs—the need to provide safe, nutritious food for our children and our children’s children.

But more must be done. Producing food has a greater impact on the planet than any other human activity and we have to produce more food, using fewer resources every year. The responsible use of technology is key to addressing this moral imperative.

Our challenge is not just better technology, but finding better ways to support the informed public evaluation of those technologies and our food production system. While we know that science alone will not build public support for complex, controversial technology, we need to encourage earnest consideration of scientific consensus in the social decision-making process when it comes to innovation and technology that drive agriculture and food.

Consumer concern and skepticism about food production are understandable. The consolidation, integration and application of technology that makes food safer, more available and more affordable than ever before also prompt concerns about whether technology benefits society or only those who control it, and increases skepticism about the motivation of those in food and agriculture.

Our 2014 Consumer Trust Research, “Cracking the Code on Food Issues: Insights from Moms, Millennials and Foodies,” explores consumers’ complex decision-making processes to:

- Better understand how to introduce science and technical information into the public discussion on issues in agriculture and food so that they’re considered in the social decision-making process.
- Better understand the communication channels and processes used by Moms, Millennials, Foodies and Early Adopters in today’s environment when forming attitudes and opinions about issues in agriculture and food.

The research provides a model for introducing and discussing complex controversial issues. It’s a model that can be applied when communicating and engaging with consumers to build trust around topics that are critical to our ability to meet the growing demand for food while preserving and protecting our natural resources.
Our goal in 2014 was to explore new paths to introducing controversial and complex issues—no matter what the subject—into the public dialogue. To encourage informed decision making, we must find ways to make the science meaningful and relevant.

The issues we selected as stimulus for the research were genetically modified ingredients in food and antibiotic use in animal agriculture. Our intent was not to define messages and strategies specific to these issues, but to use these issues to develop models that can be applied across food and agriculture.

We integrated previous work from three areas of social science into our research—anthropology, psychology and sociology—to gain greater strategic insight. All three offer important perspectives in determining how consumers process information and develop attitudes and beliefs.

**Anthropology:** The work of Dan Kahan and others at The Cultural Cognition Project at Yale University speaks to societal values that are firmly embedded and drive our decision-making process (Kahan, Slovic, Braman and Gastil 2006).

Specifically, cultural cognition refers to the influence of group values—ones relating to equality and authority, individualism and community—on risk perceptions and related beliefs. Members of a group hold tight to their beliefs, regardless of evidence to the contrary, for fear that rejecting beliefs could drive a wedge between them and their peers.

For example, this “protective cognition” is a major cause of political conflict over the credibility of scientific data on climate change and other environmental risks, according to Kahan.

“Those with individualist values who prize personal initiative and those with hierarchical values who respect authority tend to dismiss evidence of environmental risks because the widespread acceptance of such evidence would lead to restrictions on commerce and industry, activities they admire,” writes Kahan.

On the other hand, those with more egalitarian and communal community values see commerce and industry as unjust sources of disparity and, as a result, are more likely to believe that...
restrictions should be imposed due to unacceptable risks.

The bias explained by cultural  
cognition illustrates the disagreement  
more completely than differences in  
individual characteristics like gender,  
race, income, education level and  
political ideology.

Source: Fixing the Communications Failure, Dan Kahan

Psychology: We built our  
measurement approach around  
Outrage Factors as detailed in the  
research of Peter Sandman and  
others on risk communication and  
previous work by CFI. Sandman and  
his colleagues studied what causes  
the public to become outraged about  
a situation that they deem hazardous,  
when in fact there is very little  
evidence of risk.

For example, more parents are  
refusing to vaccinate their children,  
potentially exposing them to  
dangerous and sometimes deadly  
diseases. Yet scientific consensus tells  
us vaccines are safe. More recently,  
public outrage erupted when a handful  
of Ebola cases were diagnosed in the  
United States. But where is the outrage  
about influenza, the highly contagious  
illness that can cause life-threatening  
complications and hospitalizes more  
than 200,000 people in the U.S.  
each year?

When confronted with information  
about technologies perceived as being  
new and controversial, and especially  
in light of hearing conflicting claims by  
those attempting to gain favor for their  
side, people with all levels of formal  
education and across all categories of  
social-demographic characteristics  
who have little scientific knowledge  
about the particular technology will  
evaluate the technology to determine  
if it is friendly or a threat, using the  
Outrage Factors above.

Outrage Factors

• **Voluntary vs. Imposed** People tolerate more risk if it has  
  been voluntarily entered into rather than forced upon  
  them (the difference between being pushed out of an  
  airplane with a parachute against your will as opposed to  
  choosing to skydive).

• **Control vs. No Control** The extent to which government  
  agencies address the risk in a competent manner.  
  People feel alienated and frightened when they believe  
  that government agencies are not doing a good job of  
  regulating potential hazards (if I choose to go skydiving,  
  then I hope the skydiving company is being well-regulated).

• **Familiar vs. Exotic** It is difficult to feel threatened by  
  something familiar—your basement recreation room (in  
  the case of radon) or the car (in the case of seat belts).  
  But anything perceived as strange and unfamiliar can  
  raise the concern just on that fact alone (skydiving for  
  the first time).

“Unlike anyone else in the arena of consumer trust,  
CFI’s approach to the 2014 research is comprehensive.  
Incorporating lessons learned from anthropology,  
psychology and sociology gives us much greater insight.”

DR. STEPHEN SAPP, Professor, Department of Sociology, Iowa State University
Sociology: Our research explores the Diffusion of Innovation, a theory by communication scholar and sociologist Everett Rogers that seeks to explain how, why and at what rate new ideas and technology spread through cultures. In his model, social groups are divided into five adopter categories: Innovators, Early Adopters, Early Majority, Late Majority and Laggards.

We focus on Early Adopters as it’s the group with the highest degree of opinion leadership. Typically information seekers with a higher social status, higher level of education and higher incomes, Early Adopters are the opinion leaders in their social circles. They’re an important group to evaluate as others look to Early Adopters for information when making decisions.

SUMMARY
As individuals we don’t ignore science, we simply interpret it through our cultural, psychological and social lens as we integrate it into our decision-making process. Better understanding how to align information with the lens of those interested in agriculture and food can help focus our efforts to increase understanding and informed decision making.

Not Memorable vs. Memorable Events that elicit much public discussion and news media coverage can seem more risky. For example, a plane crash that results in multiple fatalities is rare but very memorable when compared to the thousands that die each year in car crashes. (Talk radio, 24-hour news and some bloggers work to make issues more memorable and tend to polarize debate to secure listeners, viewers and readers.)

Commonplace vs. Dreaded Certain diseases, contaminants or forces understandably are dreaded, and more so if they are not commonplace. Examples would include rare cancers and radioactive waste, or more recently, Ebola compared to influenza.

Fair vs. Unfair People who have to endure greater risks than others are naturally outraged, especially if it appears the decisions that create the risk are based on politics instead of science. For example, neighbors of an industrial plant may feel unfairly burdened by noise or traffic. The entire community benefits from the economic activity, but immediate neighbors have to deal with the challenges of the plant.

Morally Acceptable vs. Unacceptable Certain actions are unacceptable to most people regardless of the calculated risk (e.g., deliberate contamination/pollution of groundwater used for drinking and deliberate abuse of animals). It is not unusual for this outrage factor to be the trump card in decision making because moral outrage elicits a strong emotional response.

Responsive vs. Unresponsive Does the agency/organization/company tell people what’s going on before the real decisions are made? Is it willing to engage in authentic dialogue? Does it listen and respond to community concerns?

SCENARIO DEVELOPMENT
A multi-step process was used to develop information that was tested in this year’s research.

First, we developed overarching key messages for the topics of genetically modified ingredients in food and antibiotic resistance. Based on a comprehensive review of each topic, we identified four Fundamental Message Elements that are key to effectively communicating a technical message.

- **Unifying Message**: a singular compelling message that touches the deeper drivers of human behavior (connecting on shared values)
- **Openness/Transparency**: acknowledging both sides of the story, providing a level of depth to avoid the appearance of “holding back,” and avoiding oversimplification
- **Accurate Presentation of Risks**: present known risks since known risks trump unknown risks by accurately communicating safety facts
- **Trusted Sources**: leveraging trusted sources

Next, we combined Outrage Factors into three groups to create three different scenarios for each topic.

- **Scenario 1**: Voluntariness, Familiarity and Control
- **Scenario 2**: Fairness, Morality and Process
- **Scenario 3**: Memorability and Dread

Finally, we took each of the three scenarios and wrote in three different “voices” to determine how consumers viewed information coming from various messengers and to compare the impact of experts with those who are connected by shared interests:

- **Mom Scientist**: (A mother with scientific educational and/or work experience)
- **Federal Government Scientist**: (Self-explanatory)
- **A Peer**: (A person who shares your interest about food)

WHAT WE MEASURED

**Believability**
- Which scenario is most believable?
  - For Moms, Millennials and Foodies
- Which type of information is most believable for all consumers and each segment?
  - Fundamental Message Elements (unifying message, openness/transparency, accurate presentation of risks, trusted sources)
  - Outrage Factors
- Which type of information drives/predicts the overall believability of the scenario for all consumers and for each segment?
  - Fundamental Message Elements (unifying message, openness/transparency, accurate presentation of risks, trusted sources)
  - Outrage Factors

**Comfort**
- Which scenario makes consumers feel most comfortable eating food from animals treated with antibiotics or consuming food with GM ingredients?
  - For Moms, Millennials and Foodies
- Which type of information makes consumers feel most comfortable eating food from animals treated with antibiotics or consuming...
fundamental message elements (unifying message, openness/transparency, accurate presentation of risks, trusted sources)

Outrage Factors

Which type of information drives/predicts the overall comfort for all consumers and for each segment?

Fundamental Message Elements (unifying message, openness/transparency, accurate presentation of risks, trusted sources)

Trust

Which voice promotes the highest level of trust across the scenarios?

Fundamental Message Elements (unifying message, openness/transparency, accurate presentation of risks, trusted sources)

Other Analyses

To what extent does having heard about the topic prior to completing the survey impact all of the issues above?

To what extent does the use of different sources of information on food system issues affect responses to believability, comfort and trust in each scenario?

For Moms, Millennials and Foodies

To what extent do prior concerns about food safety and access to accurate information affect responses to believability, comfort, and trust in each scenario?

For Moms, Millennials and Foodies
MAIN FINDINGS

TRUSTED MESSENGERS
In an effort to measure the impact of information on the perception of the messenger, respondents were asked to rate the messenger on several attributes both before and after reading the scenario.

After rating the believability of the message and rating the degree to which the message promotes comfort with the topic, survey participants rated the Messenger on a 0 to 10 agree/disagree scale as a source of information about antibiotic resistance and GM ingredients in food using these statements:
- This person is competent as a source of information.
- I have confidence in this person as a source of information.
- I would trust this person as a source of information.
- This person is a credible source of information.

An overall Messenger Composite Value Score was created by combining the scores on all statements.

As noted earlier, while antibiotic resistance and GM foods were the topics chosen to serve as the vehicle for testing the impact of the messages, the intent of the research is to identify elements in the message and trust in the messenger—not to identify specific messages for these two issues.

On the issue of antibiotic resistance:
Mom Scientist and Government Scientist are viewed as the best sources of information.
- Mom Scientist’s trust scores were highest in two scenarios, while Government Scientist scores rose in all three scenarios and was highest in one. Peer scored lowest in all three.

Among Moms, Millennials and Foodies:
- All three groups gave Mom Scientist the highest scores in two scenarios and gave Government Scientist the highest scores in the third.

On the issue of GM ingredients in food:
Mom Scientist and Government Scientist are viewed as the best sources of information.
- In both scenarios, Mom Scientist trust scores were highest, Government Scientist trust scores were second and Peer was lowest.

Among Moms, Millennials and Foodies:
- In both scenarios, Moms gave Mom Scientist the highest scores. Government Scientist was second and Peer was lowest.
- Millennials gave Mom Scientist the highest score in one scenario. Government Scientist scored highest in the other.
- Foodies gave Government Scientist the highest score in both scenarios. Mom Scientist was second in one and Peer was second in the other.

WHAT PROMOTES MESSENGER TRUST?
Confidence is Key
In predicting trust in the Messenger, models show that both Competence (skills and ability) and Confidence (shared values and ethics) impact trust, but Confidence is typically at least twice as important. In predicting Confidence, Believability is more often a stronger predictor of Messenger Confidence than Promotes Comfort.

Believability Drivers
The types of Fundamental Message Elements that drive Believability in the 20 models tested include Unifying Message (significant in 11 models), Openness/Transparency (significant in 17 models), Accurate Presentation of Risks (significant in 18 models) and Leverage Trusted Sources (significant in five models).
The types of Outrage Factors driving Message Believability include Control (significant in 17 models), Process (significant in 12 models), Fairness, Familiarity and Voluntariness (all significant in one model).

**Impacts on Believability**

Elements impacting Believability are more consistent across all three Messengers when the issue is less controversial and complex, which is the case with antibiotic resistance. Most message elements predicting Believability on antibiotic resistance were common across all three Messengers, including Fundamental Message Elements and Outrage Factors.

With a more controversial and complex issue like GM ingredients in food, the messages necessary to promote Believability vary by Messenger and the elements predicting message Believability were different for each Messenger. The models are still valid, but additional issue-specific testing will help further define which elements are more impactful by Messenger for more controversial issues.

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**TRUSTED INFORMATION SOURCES**

Here’s where Moms, Millennials and Foodies go for food system information.

**MOMS**

- Websites (21%)
  - Family - Not online (12%)
  - Google (12%)
  - Local TV Station (12%)
  - Friends - Not online (11%)

**MILLENNIALS**

- Websites (22%)
  - Friends - Not online (16%)
  - Google (15%)
  - Family - Not online (13%)
  - Friends - Online (8%)

**FOODIES**

- Websites (25%)
  - Friends - Not online (15%)
  - Google (12%)
  - Family - Not online (10%)
  - Food-Specific TV Program/Networks (9%)

- Websites are the top-ranked source of information for food system issues for all three segments (Mom, Millennials and Foodies)
- Moms’ second-highest ranked source is Family (not online), while the second-highest ranked sources for Millennials and Foodies is Friends (not online)
- Moms rely on Local TV Stations, while Millennials rely on Friend (online) as additional sources of information about food system issues

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**TOP SOURCES RANKED #1**

- Food-Specific TV Program/Networks are important sources of information about food system issues for Foodies (less so for Moms and Millennials)

**Like Moms, Millennials and Foodies, the top food system source for the general population is Websites.** Websites are followed by Local TV Stations, Friends (not online), Family (not online) and Google.
FOOD SHAPES IDENTITIES
Food issues are important to Moms, Millennials and Foodies. They help define who they are as people and shape their cultural identities. Foodies, in particular, express a higher level of concern about all topics than any other segment. Because these issues are meaningful and relevant to each of these groups, we can find ways to connect if we follow the approach outlined in the 2014 research.

The social decision-making process is complex and multi-dimensional.

CONNECTING THROUGH SHARED VALUES IS THE FIRST STEP
The change in messenger trust before and after respondents read the scenarios provides specific insight into shaping an effective strategy. Prior to reading the information, respondents generally rated Mom Scientist most trusted, followed by Peer, with Government Scientist being the least trusted.

After reading the information, Mom Scientist was still the most trusted, but her scores often decreased as her halo was tarnished by sharing information that may have conflicted with existing beliefs.

The trust scores for Government Scientist increased as the unifying message helped communicate a commitment to shared values, which was then supported by technical expertise and a credential.

Scores for Peer generally decreased because respondents were looking for more than shared interests on technically complex issues; they were looking for expertise.

How we introduce technical and scientific information is key to supporting informed decision making.

The shift in trust scores for Peer voice clearly indicates that technical information from a credible source is still an important element in building trust and introducing complex, controversial topics.

WE CAN CRACK THE CODE
The social decision-making process is complex and multi-dimensional. Cracking the consumer code to provide technical and scientific information in a manner that supports informed decision making is not easy, but it can be done. The barriers detailed in this report can be overcome with the right strategy and a commitment to sustained engagement.

WHAT IT ALL MEANS
How we introduce technical and scientific information is key to supporting informed decision making.

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The social decision-making process is complex and multi-dimensional. Cracking the consumer code to provide technical and scientific information in a manner that supports informed decision making is not easy, but it can be done. The barriers detailed in this report can be overcome with the right strategy and a commitment to sustained engagement.
HOW TO APPLY WHAT WE LEARNED

AVOIDING THE GALILEO EFFECT
In the 17th century, Galileo used science and his powers of observation to declare that the sun, and not the earth, was the center of the universe. For his contribution to science and society, he was declared a heretic and spent the rest of his life under house arrest.

While no one is likely to be arrested for sharing scientific facts today, we know that simply having science on your side is clearly not enough to encourage and support informed decision making. Being right is not enough to assure your information is considered in the social decision-making process.

The 2014 CFI research provides a model that can help in creating and sharing information. Here’s how to apply the findings.

1 Believability is a key driver in creating information that is trusted. Evaluate the information you want to share against the Fundamental Message Elements and Outrage Factors in the research models (see pages 10–13) and modify where necessary to align your information with the models. (Let us know if CFI can help.)

2 Identify the groups you would like to engage. Who are the Early Adopters—or opinion leaders—within those groups? What are their values and concerns? Who are the likely sources they view as credible? Listen to the concerns and understand their values before developing your strategy.

3 Meet them where they are. Today’s monitoring technology allows you to identify the digital and physical communities where conversations about food and agriculture are taking place. Select those communities that are important to you and develop engagement strategies. Be a good neighbor when you “move in” to the community and remember that how you choose to engage will determine how your new neighbors respond.

4 Develop a values-based engagement strategy that starts with listening and embracing skepticism. Engage with the groups you’ve identified and focus on building relationships before sharing information. Understand and appreciate the group expectations and cultural norms as they will influence how to best share information.

5 Commit to engaging over time. Building trust is a process, not an event.

Certainty and continued engagement using the models developed through this research will encourage objective evaluation of information that supports informed decision making.

The CFI 2014 Consumer Trust Research includes more than can be shared in any single report. We have additional insight, segmentation and detail available. If you or your organization would like more information or would like to schedule a presentation, please contact us by email at learnmore@foodintegrity.org or by phone at 816-880-5360.
The 2014 results show positive trends when it comes to attitudes about the food system. When asked if the food system was headed in the right direction, 42 percent of respondents said yes. That’s up 8 percent from 2013. Only 33 percent of women believe the food system is on the wrong track compared with 42 percent from last year. Nearly half of men, 48 percent, believe the food system is headed in the right direction. That’s up from 39 percent last year.

In 2013, 43 percent of Early Adopters believed the food system was headed down the wrong track. That dropped to 36 percent in the 2014 survey, with 40 percent indicating it’s headed in the right direction.

For the first time, we asked the same question of Moms, Millennials and Foodies. Nearly half of the Foodies believe the food system is headed in the right direction, followed by Millennials and then Moms. Understanding the perspectives of each segment can help inform an effective strategy for increasing trust.

OVERALL CONSUMER CONCERNS
Each year we ask consumers to rate their level of concern about 18 different issues on a scale of 0 to 10. The issues include such broad topics as the rising cost of healthcare, U.S. unemployment, the affordability of healthy food, personal financial situation and having enough food to feed people in and outside the U.S.

Food-related concerns rank toward the top of the list of overall concerns, with the rising cost of food being the top concern for Moms and the affordability of healthy food the top concern for Millennials and Foodies. This level of concern creates a heightened interest in the issue and an opportunity for meaningful engagement by those in the food system.
MOST CONCERNING LIFE ISSUES

- Rising Energy Costs: 66%
- Keeping Healthy Food Affordable: 69%
- U.S. Economy: 70%
- Rising Cost of Food: 72%
- Rising Healthcare Costs: 72%

The numbers reflect the percentage of those who gave the issues a “top box” rating, or an 8-10 rating on a 0-10 scale where 0-3 is a low level of concern, 4-7 is a moderate level of concern and 8-10 is a high level of concern.

ADDITIONAL FOOD SYSTEM CONCERNS

- Imported Food Safety (63%)
- Food Safety (62%)
- Enough to Feed U.S. (55%)
- Humane Treatment of Farm Animals (49%)
- Environmental Sustainability in Farming (49%)
- Access to Accurate Information to Make Healthy Food Choices (49%)

Women were more concerned about most issues than men.

Early Adopters were more concerned about all issues than later adopters.

Lowest concern was for having enough food to feed people outside the U.S. - 33%
CONSUMERS LESS CONCERNED ABOUT ALL TOP ISSUES IN 2014

The numbers in parentheses reflect the mean score for the issue on a scale of 0-10.

TOP CONCERNS ABOUT ISSUES BY SEGMENT

### MOMS
- Rising Cost of Food (8.71)
- Keeping Healthy (8.65)
- Food Affordable
- Rising Healthcare Costs (8.51)
- Rising Energy Costs (8.35)
- Food Safety (8.29)
- U.S. Economy (8.28)

### MILLENNIALS
- Keeping Healthy (8.18)
- Food Affordable
- Rising Cost of Food (8.13)
- Rising Healthcare Costs (8.09)
- U.S. Economy (8.01)

### FOODIES
- Keeping Healthy (9.27)
- Food Affordable
- Food Safety (9.18)
- Rising Cost of Food (9.10)
- Rising Healthcare Costs (9.08)
- Rising Energy Costs (9.08)
- U.S. Economy (9.02)

Foodies Expressed a Higher Level of Concern on All Issues
It’s worth noting that Foodies rated their level of concern significantly higher on all issues compared to other segments. These are individuals who have a high level of concern and interest in these issues and are therefore more likely to be interested and engaged in the public discussion.

CONSUMER ATTITUDES OVER TIME
CFI’s research benchmarks consumer attitudes on food system issues over the years. Survey participants this year rated their level of agreement with 31 statements on a 0–10 scale with 0–3 reflecting low level of agreement, 4–7 moderate and 8–10 strong level of agreement. Here are 22 issues showing trend lines of note and a new statement that reflects the amount of work still needed in building consumer trust. (Additional attitudinal results are available. Please contact CFI if you are interested in learning more.)

“I am as confident in the safety of the food I eat as I was a year ago.”

More than 1 in 3 strongly agree.

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<thead>
<tr>
<th>Year</th>
<th>0–3</th>
<th>4–7</th>
<th>8–10</th>
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</thead>
<tbody>
<tr>
<td>2007</td>
<td>12%</td>
<td>52%</td>
<td>36%</td>
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All attitudinal measurements related to food safety improved this year. The seven-year trend, shown above, is encouraging with more than one-third of consumers strongly agreeing with the statement.

“The U.S. has a responsibility to provide food for the rest of the world.”

Less than 1 in 4 strongly agree.

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<tbody>
<tr>
<td>2008</td>
<td>32%</td>
<td>46%</td>
<td>22%</td>
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While more still strongly disagree than strongly agree, we are beginning to see some movement in the belief that the U.S. has a responsibility to feed the world.

“I have access to all of the information I want about where my food comes from, how it is produced and its safety.”

Nearly 1 in 3 strongly agree.

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<tbody>
<tr>
<td>2007</td>
<td>16%</td>
<td>54%</td>
<td>31%</td>
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The strong seven-year trend, shown above, indicates more consumers now believe they have access to the information they want about food. Nearly one-third strongly agree with this statement. This is consistent with the change we’ve seen in preferred sources of information. In early years, local TV was the primary preferred source. It is now websites, which give consumers more direct access and control over the information they seek.

“I am more concerned about global warming than I was one year ago.”

More than 1 in 3 strongly agree.

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<tr>
<td>2008</td>
<td>20%</td>
<td>43%</td>
<td>36%</td>
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As shown in the seven-year trend line above, after four years of decline the last three years have seen a steady increase in concern over global warming/climate change.

“I trust today’s food system.”

Only 28% strongly agree.

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CFI posed this statement for the first time in 2014. With the majority of consumers in the unsure or ambivalent range, more work clearly needs to be done to build consumer trust.

“Food prices are a greater concern to me now than they were a year ago.”

More than 50% strongly agree.

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<tr>
<td>2007</td>
<td>6%</td>
<td>41%</td>
<td>53%</td>
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Concern on this issue has eased since it was first introduced to survey participants in 2008.
“With the increase in food prices, we tend to eat out less often than one year ago.”

Nearly 90% moderately or strongly agree.

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Agreement with this statement has remained relatively steady over the seven years of the study.

“U.S. food is amongst the most affordable in the world today.”

1 in 3 strongly agree.

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We know this statement to be true, yet consumers in previous years were unconvinced. While a mean score of 6 is relatively low, the trend line shows consumers increasingly in agreement.

“Family farms are likely to put their interests ahead of my interests.”

Nearly 1 in 3 strongly agree.

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“Commercial farms are likely to put their interests ahead of my interests.”

Half strongly agree.

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“Big is bad” in the minds of many consumers and the response to these two statements bears that out. The data shows many people think smaller farms are more likely to share their interests. The full study also shows the trend to be consistent between small and large food companies as well as local companies and national companies.

“I am confident in the safety of the food I eat.”

Only 10% have low level of disagreement.

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All measurements on food safety concerns, including the following two statements and another on the previous page, show improvement. The mean score here, which dipped below 6 two years ago, is now the highest it been in the seven years of the study.

“Today’s food supply is safer than it was when I was growing up.”

27 percent of the respondents strongly agree with this statement, a 5 percent increase from last year.

“Government food safety agencies are doing a good job ensuring the safety of the food we eat.”

Nearly 1 in 3 strongly agree.

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Strong agreement with this statement rose three percent from last year.

“I trust food produced in the U.S. more than I trust food produced outside the U.S.”

Only 6% strongly disagree.

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The level of agreement with this statement was virtually unchanged from a year ago.
“I make a special effort to buy items produced in the United States.”

More than **90%** moderately or strongly disagree.

The level of agreement is unchanged from last year.

“Food grown organically is more healthful than conventionally grown food.”

More than **1 in 3** strongly agree.

The mean score on this statement has risen steadily since 2010 and is at its highest point in the seven years of this study.

“It is more important for the U.S. to teach developing nations how to feed themselves than to export food to them.”

More than **half** strongly agree.

Strong agreement with this statement had the highest level of agreement in 2014. It’s the top concern for Millennials, Foodies and Early Adopters.

“I am more concerned about healthy eating than I was a year ago.”

More than **90%** moderately or strongly agree.

This statement had the highest level of agreement in 2014. It’s the top concern for Millennials, Foodies and Early Adopters.
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