About the Survey

FooDS tracks consumer preferences and sentiments on the safety, quality, and price of food at home and away from home with particular focus on meat demand. FooDS is a monthly on-line survey with a sample size of at least 1,000 individuals, weighted to match the US population in terms of age, gender, education and region of residence. See the online technical document for more details.

MEAT DEMAND

<table>
<thead>
<tr>
<th>Willingness-to-Pay</th>
<th>Steak</th>
<th>Chicken Breast</th>
<th>Hamburger</th>
<th>Pork Chop</th>
<th>Deli Ham</th>
<th>Chicken Wing</th>
<th>Beans &amp; Rice</th>
<th>Pasta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last Year: January 2017</td>
<td>$7.55</td>
<td>$5.32</td>
<td>$4.55</td>
<td>$3.79</td>
<td>$2.48</td>
<td>$2.56</td>
<td>$2.59</td>
<td>$3.54</td>
</tr>
<tr>
<td>Last Month: December 2017</td>
<td>$6.65</td>
<td>$4.77</td>
<td>$4.38</td>
<td>$3.38</td>
<td>$1.79</td>
<td>$2.05</td>
<td>$1.80</td>
<td>$3.03</td>
</tr>
<tr>
<td>January 2018</td>
<td>$6.63</td>
<td>$4.69</td>
<td>$4.06</td>
<td>$3.37</td>
<td>$2.04</td>
<td>$2.10</td>
<td>$1.91</td>
<td>$2.74</td>
</tr>
<tr>
<td>% change (Dec. - Jan.)</td>
<td>-0.30%</td>
<td>-1.68%</td>
<td>-7.31%</td>
<td>-0.30%</td>
<td>13.97%</td>
<td>2.44%</td>
<td>6.04%</td>
<td>-9.57%</td>
</tr>
</tbody>
</table>

Compared to one month ago, willingness-to-pay (WTP) increased for deli ham and chicken wings, but decreased for steak, chicken breast, hamburger, and pork chops. WTP for hamburger saw the largest percent decrease among meat products compared to one month ago. WTP for all food products is lower than one year ago.

FOOD EXPENDITURES

<table>
<thead>
<tr>
<th>Current weekly at home</th>
<th>Current weekly away from home</th>
<th>Anticipated change in at home in next 2 weeks</th>
<th>Anticipated change away from home in next 2 weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 2017</td>
<td>$94.16</td>
<td>$53.26</td>
<td>-0.39%</td>
</tr>
<tr>
<td>December 2017</td>
<td>$91.46</td>
<td>$48.08</td>
<td>0.60%</td>
</tr>
<tr>
<td>January 2018</td>
<td>$93.95</td>
<td>$50.00</td>
<td>-0.41%</td>
</tr>
<tr>
<td>% change (Dec. - Jan.)</td>
<td>2.72%</td>
<td>3.99%</td>
<td>------</td>
</tr>
</tbody>
</table>

Expenditures on food eaten at home increased 2.72% from December to January and expenditures on food purchased away from home increased 3.99%. Consumers expect a decrease in chicken, beef, and pork prices compared to one month ago. Consumers plan to buy more chicken and slightly less beef and pork compared to last month. Plans to eat out decreased compared to last month.
AWARENESS & CONCERN TRACKING

*E. coli,* Salmonella, and GMOs were the most visible issues in the news over the past two weeks. Awareness for all items increased relative to last month. The largest percent increase in awareness from December to January was for *E. coli* followed by cloning. *E. coli,* Salmonella, and antibiotics ranked as the top three food safety concerns in January. Concern for all items increased relative to last month. The largest percent increase in concern from December to January was for *E. coli* followed by Salmonella.

### Awareness of Food Issues

- **E. coli**: 11.62
- **Salmonella**: 2.80
- **GMOs**: 2.09
- **Antibiotics**
- **Farm Animal Welfare**
- **Street Flu**
- **Genetically Modified Organisms**
- **Greenhouse Gas**
- **Mad cow**
- **BSE**
- **Biologics**
- **Staphylococcus**
- **Lamb Foot Rot Sarcoma Virus**
- **Rat Toxoplasmosis**
- **MSG**
- **Soybean**

**% Change (December 2017 - January 2018)**

- **E. coli**: 17%
- **Salmonella**: 9%
- **GMOs**: 8%
- **Antibiotics**: 6%
- **Farm Animal Welfare**: 5%
- **Street Flu**: 4%
- **Genetically Modified Organisms**: 3%
- **Greenhouse Gas**: 2%
- **Mad cow**: 1%
- **BSE**: 0%
- **Biologics**: 0%
- **Staphylococcus**: 0%
- **Lamb Foot Rot Sarcoma Virus**: 0%
- **Rat Toxoplasmosis**: 0%
- **MSG**: 0%
- **Soybean**: 0%
- **Soybean**: 0%

Mean (%)

**(Ranking: 1 = Nothing; 5 = A Great Deal)**

- **Last Year: January 2017**
- **Last Month: December 2017**
- **Jan-18**

- **Jan-17**: 0.39, 0.27, 0.32, -0.28, -0.12, 0.27, 0.22, 0.16, 0.14, 0.17
- **Dec-17**: 0.03, 0.02, -0.06, -0.10, 0.27, 0.27, 0.23, 0.14, 0.09
- **Jan-18**: 0.27, -0.03, -0.03, -0.12, -0.28, -0.42, 0.17, 0.05, 0.05, 0.05

**Difference in Agree and Disagree**

- **Jan-17**: 0.39, 0.27, 0.32, -0.28, -0.12, 0.27, 0.22, 0.16, 0.14, 0.17
- **Dec-17**: 0.03, 0.02, -0.06, -0.10, 0.27, 0.27, 0.23, 0.14, 0.09
- **Jan-18**: 0.27, -0.03, -0.03, -0.12, -0.28, -0.42, 0.17, 0.05, 0.05, 0.05

% Change

- **Jan-17**: 0.39, 0.27, 0.32, -0.28, -0.12, 0.27, 0.22, 0.16, 0.14, 0.17
- **Dec-17**: 0.03, 0.02, -0.06, -0.10, 0.27, 0.27, 0.23, 0.14, 0.09
- **Jan-18**: 0.27, -0.03, -0.03, -0.12, -0.28, -0.42, 0.17, 0.05, 0.05, 0.05

**Mean (%)**
GENERAL FOOD VALUES

Taste, safety, and price remained consumers’ most important values when purchasing food this month. Consumers’ food values remained similar to those in past months. Similar to last month, consumers reported that their main challenge was finding affordable foods that fit within their budget. Losing weight was the challenge experiencing the largest percent increase, while finding foods my children will eat was the challenge experiencing the largest percent decrease. In January, about 5.6% of participants reported having food poisoning, a 30% increase from last month. About 5.5% of respondents reported being vegetarian or vegan.

**Consumer Challenges**

**Consumer Values**
AD HOC QUESTIONS

Several new ad hoc questions were added to this month’s survey regarding consumer’s attitudes towards animal farming and animal-free food. The questions were repeated from a survey conducted by the Sentience Institute in October 2017. Similarities were seen between the FooDS data and the data collected by the Sentience Institute for all statements.

This month’s ad hoc questions were motivated from a recent survey by the Sentience Institute, where 42% of Americans agreed with the statement ‘I support a ban on slaughterhouses’. The number frankly seemed outrageous, given that more than 90% of Americans eat meat regularly and it is rather difficult to do so without slaughtering houses.

At first we thought perhaps the survey was biased in some manner, but the documentation on the survey (https://www.sentienceinstitute.org/animal-farming-attitudes-survey-2017) seemed both thorough and scientifically valid. Perhaps many Americans simply did not understand what a ‘slaughterhouse’ is? To test the reliability of the survey results and if Americans understood the question, FooDS replicated the Sentience Institute survey almost exactly.

What did we find? Even more Americans, 47%, in our survey said they wanted to ban slaughterhouses! The responses to the other questions asked in the Sentience Institute survey were about the same also.

About 56% of participants stated they strongly agreed with the statement “Whether to eat animals or be vegetarian is a personal choice, and nobody has the right to tell me which one they think I should do”. About 61% of participants in the Sentience Institute survey stated they strongly agreed.

About 56% of participants stated they disagree with the statement “I support a ban on animal farming”. About 60% of participants in the Sentience Institute’s survey stated they disagree.

Respondents were given the statement: In recent years, scientists and chefs have started using plants to create ‘animal-free’ foods that are very similar to meat, dairy, and eggs in their tastes, texture, and nutritional profile.” Next, respondents were asked if they agreed or disagreed with the statements: “...people should eat more of these [plant-based] foods and fewer animal based foods.” Results were similar for both statements to those found by the Sentience Institute. Respondents were given the same statement where the words “people should” were replaced with “I would prefer to”.

Next, respondents were given the statement: “Scientists and chefs are also using technology to grow real meat from animal cells without animal slaughter, by feeding those cells with plant-based nutrients so they grow and form fibers, just like they would in an animal's body.” Respondents were then asked if “When these foods are the same price as animal-based foods people should eat more of these foods and fewer animal-based foods.” This statement was repeated where the words “people should” were changed to “I would prefer to”.

Lastly, participants were asked: “Suppose a public demonstration against the problems of factory farming occurred near where you live and your friend asked you to come demonstrate with her. If this demonstration fit into your schedule, how likely would you be to join and help demonstrate?” About 12% of participants stated they would be very likely to join, whereas 23% stated they would be very unlikely to join.
AD HOC QUESTIONS

Attitudes Towards Animal Farming and Animal-Free Food

- People should consume fewer animal-based foods...
- I am currently trying to consume fewer animal-based foods...
- I have some discomfort with the way animals are used in the food industry.
- Farmed animals have roughly the same ability to feel pain...
- Whether to eat animals or be vegetarian is a personal choice...
- The factory farming of animals is one of the most important...
- I support a ban on the factory farming of animals.
- I support a ban on slaughterhouses.
- I support a ban on animal farming.
- ...people should eat more of these [plant-based] foods and fewer animal-based foods.
- ...I would prefer to eat more of these [plant-based] foods and fewer animal-based foods.
- ...people should eat more of these [cultured] foods and fewer animal-based foods.
- ...I would prefer to eat more of these [cultured] foods and fewer animal-based foods.
- Most farmed animals are treated well.
- ...foods...I purchase usually come from animals that are treated humanely.
- ...how likely would you be to join and help demonstrate?
About 47% of participants agreed with the statement “I support a ban on slaughterhouses”. Participants who agreed with this statement were asked a follow-up question: “Were you aware that slaughterhouses are where livestock are killed and processed into meat, such that, without them, you would not be able to consume meat?” Approximately 73% of participants stated, yes, they are aware that slaughterhouses are where livestock are killed and processed into meat.

Suppose we take the 27.1% of individuals who did not apparently understand what a slaughterhouse is, and we change their answer to the statement ‘I support a ban on slaughterhouses’ from ‘yes’ to ‘no’. That still leaves about 34% of Americans saying they wish to ban slaughterhouses.

There are a number of reasons this this 34% is an overestimate. A number of questions that came before this question (e.g., “I have some discomfort with the way animals are used in the food industry”) might cause people to be less pro-meat than they really are. Had the survey began with questions like “I eat meat on a regular basis” and “Meat is a healthy food” it is likely the responses would have been different. However, this is not a criticism of the Sentience Institute survey, but a bias inherent in most surveys (including FooDS).

Even after acknowledging these inherent biases, the 34% number is very high, much higher than we expected. This month’s FooDS survey shows, however, that the results by the Sentience Institute survey was not due to a bias sample or flawed methodology. Even though most Americans eat meat, they also do not like the idea of slaughterhouses.

This provides a teachable moment on the use of survey responses. However useful they are, people will state attitudes in surveys that run contrary to their behaviors in the real world. That said, surveys can sometimes tell us more about what consumers want in their social and political institutions than their individual behaviors.

Were you aware that slaughterhouses are where livestock are killed and processed into meat, such that, without them, you would not be able to consume meat?