Contents

Message from the Administrator

Acronyms and Abbreviations

Introduction ........................................................................................................................................1

Agency Performance Management and Governance .................................................................2

Goal 1: Prevent Foodborne Illness and Protect Public Health
Outcome 1.1: Prevent Contamination ..........................................................................................3
Outcome 1.2: Limit Illness From Regulated Products .................................................................9

Goal 2: Modernize Inspection Systems, Policies, and the Use of Scientific Approaches
Outcome 2.1: Improve Food Safety and Humane Handling Practices Through Adoption of Innovative Approaches ...........................................................13
Outcome 2.2: Enhance Access to Complete and Accurate Information to Inform Decisions ............................................................................................................17

Goal 3: Achieve Operational Excellence
Outcome 3.1: Maintain a Well-Trained and Engaged Workforce ..............................................19
Outcome 3.2: Improve Processes and Services ...........................................................................22

Cross-Cutting
Result 16: Enhance Collaboration With Our Partners ................................................................25

Appendix A: Collaborations, Partnerships, Organizations, and Meetings and Conferences ......27
I am excited to publish the FY 2019 Annual Plan of the United States Department of Agriculture’s (USDA) Food Safety and Inspection Service (FSIS). This Annual Plan is aligned with FSIS’ 2017-2021 Strategic Plan and details the ways the agency will achieve its strategic goals over the next fiscal year (FY).

As evident in this year’s plan, FSIS expects a very busy and productive FY 2019. The agency will be working toward building on the past year’s accomplishments, while also rolling out new science-based and customer-focused initiatives. Modernizing our inspection systems and processes will continue to be a major focus for FSIS this year, as the agency works to finalize its proposals to strengthen swine slaughter and egg products inspections.

For FSIS, modernization efforts are not just limited to inspection systems. We are taking a holistic approach to modernization to improve how we do business and fulfill our mission, which cuts across every strategic goal. In FY 2019, FSIS will continue to strengthen our information technology (IT) infrastructure, enhance the Public Health Information System (PHIS) with new functionality, improve our training resources, and explore innovative tools to pilot in the field. By embracing the latest science and technology, FSIS is working to arm our workforce with the information and tools to make timely and informed public health decisions.

In FY 2018, FSIS began extensive use of Whole Genome Sequencing (WGS) to monitor and track foodborne illnesses. WGS is a perfect example of how the agency is using the latest science to more effectively protect consumers from foodborne illnesses. Having operationalized WGS at FSIS laboratories last year, in FY 2019, FSIS will continue to strengthen WGS capabilities, broaden its use to inform inspection and enforcement decisions, and enhance collaboration and data-sharing with our public health partners.

We expect that our regular monitoring of results and measures outlined in this Annual Plan will help ensure that we stay focused on achieving our strategic goals. I look forward to working together to complete the actions in this plan so that we can continue to make a real impact in decreasing foodborne illness.

Carmen M. Rottenberg
Administrator, Food Safety and Inspection Service
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>ADR</td>
<td>Alternative Dispute Resolution</td>
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<tr>
<td>APHL</td>
<td>Association of Public Health Laboratories</td>
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<td>APMS</td>
<td>Adulterated Product Monitoring System</td>
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<tr>
<td>CARE</td>
<td>Compliance, Assistance, Review, and Evaluation</td>
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<tr>
<td>CCMS</td>
<td>Consumer Complaint Monitoring System</td>
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<tr>
<td>CFP</td>
<td>Conference of Food Protection</td>
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<td>CIFOR</td>
<td>Council to Improve Foodborne Outbreak Response</td>
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<tr>
<td>E. coli</td>
<td>Escherichia coli</td>
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<tr>
<td>EEO</td>
<td>Equal Employment Opportunity</td>
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<td>EEOC</td>
<td>Equal Employment Opportunity Commission</td>
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<td>EG</td>
<td>Enterprise governance</td>
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<td>EHS-Net</td>
<td>Environmental Health Specialists Network</td>
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<td>EIAO</td>
<td>Enforcement, Investigation and Analysis Officer</td>
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<td>ERM</td>
<td>Enterprise risk management</td>
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<tr>
<td>EWA</td>
<td>Early Warning Alert</td>
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<td>EWG</td>
<td>Evaluation Workgroup</td>
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<td>FERN</td>
<td>Food Emergency Response Network</td>
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<td>FEVS</td>
<td>Federal Employee Viewpoint Survey</td>
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<td>FOIA</td>
<td>Freedom of Information Act</td>
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<td>FoodNet</td>
<td>Foodborne Disease Active Surveillance Network</td>
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<td>FSA</td>
<td>Food Safety Assessment</td>
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<td>FY</td>
<td>Fiscal Year</td>
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<tr>
<td>Gen-FS</td>
<td>Interagency Collaboration on Genomics for Food and Feed Safety</td>
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<tr>
<td>GIS</td>
<td>Geographic Information System</td>
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<td>HR</td>
<td>Human Resources</td>
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<td>HR-GSS</td>
<td>Human Resource General Support System</td>
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<td>IPP</td>
<td>Inspection Program Personnel</td>
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<td>IT</td>
<td>Information Technology</td>
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<tr>
<td>Lm</td>
<td>Listeria monocytogenes</td>
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<td>LMA</td>
<td>Labor Management Agreement</td>
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<td>LRN</td>
<td>Laboratory Response Network</td>
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<td>MLST</td>
<td>Multilocus Sequence Typing</td>
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<tr>
<td>MPI</td>
<td>Meat and Poultry Inspection</td>
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<tr>
<td>NARMS</td>
<td>National Antimicrobial Resistance Monitoring System</td>
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<td>NC</td>
<td>Noncompliance</td>
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<tr>
<td>NPIS</td>
<td>New Poultry Inspection System</td>
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<td>NRP</td>
<td>National Residue Program</td>
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<td>PFP</td>
<td>Partnership for Food Protection</td>
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<td>PFGE</td>
<td>Pulsed-Field Gel Electrophoresis</td>
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<td>PHIS</td>
<td>Public Health Information System</td>
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<td>PHR</td>
<td>Public Health Regulation</td>
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<td>PHRE</td>
<td>Public Health Risk Evaluation</td>
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<td>PHV</td>
<td>Public Health Veterinarian</td>
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<td>POE</td>
<td>Point of Entry</td>
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<td>RRT</td>
<td>Rapid Response Team</td>
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<td>RTE</td>
<td>Ready-to-Eat</td>
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<tr>
<td>SCORE</td>
<td>Surveillance, Complaints, and Outbreaks Response Enterprise</td>
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<tr>
<td>SRT</td>
<td>Self-Reporting Tool</td>
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<tr>
<td>STEC</td>
<td>Shiga-toxin producing E. coli</td>
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<tr>
<td>WGS</td>
<td>Whole Genome Sequencing</td>
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<tr>
<td>APHIS</td>
<td>Animal and Plant Health Inspection Service</td>
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<tr>
<td>CDC</td>
<td>HHS/Centers for Disease Control and Prevention</td>
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<tr>
<td>FDA</td>
<td>HHS/Food and Drug Administration</td>
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<tr>
<td>FSIS</td>
<td>Food Safety and Inspection Service</td>
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<tr>
<td>HHS</td>
<td>Department of Health and Human Services</td>
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<tr>
<td>HP FSWG</td>
<td>Healthy People Food Safety Workgroup</td>
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<tr>
<td>ICLN</td>
<td>Integrated Consortium of Laboratory Networks</td>
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<tr>
<td>IFORC</td>
<td>Interagency Foodborne Outbreak Response Collaboration</td>
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<tr>
<td>IFSAC</td>
<td>Interagency Food Safety Analytics Collaboration</td>
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<tr>
<td>INFAL</td>
<td>Inter-American Network of Food Analysis Laboratories</td>
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<tr>
<td>IRAC</td>
<td>Interagency Risk Assessment Consortium</td>
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<tr>
<td>NACMCF</td>
<td>National Advisory Committee on Microbiological Criteria for Foods</td>
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<tr>
<td>NACMPI</td>
<td>National Advisory Committee on Meat and Poultry Inspection</td>
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<tr>
<td>OPM</td>
<td>Office of Personnel Management</td>
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</table>
The Food Safety and Inspection Service (FSIS) is the public health agency in USDA whose mission is to protect the public’s health by ensuring the safety of the Nation’s commercial supply of meat, poultry, and processed egg products. FSIS ensures food safety through the authorities of the Federal Meat Inspection Act\(^1\), the Poultry Products Inspection Act\(^2\), and the Egg Products Inspection Act\(^3\), as well as humane animal handling through the Humane Methods of Slaughter Act\(^4\). FSIS employs approximately 9,600 employees working collectively to conduct a broad range of food safety activities to achieve FSIS’ overall vision—that everyone’s food is safe. FSIS employees are highly trained, motivated, and skilled professionals working as “one team with one purpose.” FSIS activities contribute to USDA’s Fiscal Year (FY) 2018-2022 Strategic Plan in its Goal 7, “Prevent Foodborne Illness and Protect Public Health,” and FY 2019 marks the third year of the agency’s FSIS 2017-2021 Strategic Plan. The goals, outcomes, and objectives set forth in FSIS’ FY 2017-2021 Strategic Plan directly align to the agency’s Annual Plans, and provide an integrated framework for understanding how FSIS fulfills our mission and addresses 21st-century public health challenges. Specifically, 15 Annual Plan results directly correlate to 15 Strategic Plan objectives, with an additional Result on partner collaborations.

<table>
<thead>
<tr>
<th>GOAL 1</th>
<th>OUTCOME</th>
<th>OBJECTIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevent Foodborne Illness and Protect Public Health</td>
<td>1.1 - Prevent Contamination</td>
<td>1.1.1 - Drive Compliance With Food Safety Statutes and Regulations</td>
</tr>
<tr>
<td></td>
<td>1.2 - Limit Illness From Regulated Products</td>
<td>1.1.2 - Strengthen Sampling Programs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.1.3 - Ensure Establishments Are Meeting Pathogen Reduction Performance Standards</td>
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<tr>
<td></td>
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<td>1.1.4 - Promote Food Defense Practices</td>
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<td></td>
<td>1.2.1 - Improve Food Safety at In-Commerce Facilities</td>
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<td>1.2.2 - Improve Response to Foodborne Illness Outbreaks and Adulteration Events</td>
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<tr>
<td></td>
<td></td>
<td>1.2.3 - Increase Public Awareness of Recalls, Foodborne Illness, and Safe Food Handling Practices</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>GOAL 2</th>
<th>OUTCOME</th>
<th>OBJECTIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modernize Inspection Systems, Policies, and the Use of Scientific Approaches</td>
<td>2.1 - Improve Food Safety and Humane Handling Practices Through Adoption of Innovative Approaches</td>
<td>2.1.1 - Modernize Scientific Techniques and Inspection Procedures</td>
</tr>
<tr>
<td></td>
<td>2.2 - Enhance Access to Complete and Accurate Information to Inform Decision</td>
<td>2.1.2 - Increase Adoption of Humane Handling Best Practices</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.2.1 - Improve the Reliability, Access, and Timely Collection and Distribution of Information</td>
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<thead>
<tr>
<th>GOAL 3</th>
<th>OUTCOME</th>
<th>OBJECTIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achieve Operational Excellence</td>
<td>3.1 - Maintain a Well-Trained and Engaged Workforce</td>
<td>3.1.1 - Improve Recruitment and Retention for Mission Critical Positions</td>
</tr>
<tr>
<td></td>
<td>3.2 - Improve Processes and Services</td>
<td>3.1.2 - Enhance Training and Development Opportunities Across Competency Areas</td>
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<td></td>
<td></td>
<td>3.1.3 - Ensure Equal Opportunity and a Diverse and Inclusive Work Environment</td>
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<tr>
<td></td>
<td></td>
<td>3.2.1 - Enhance Efficiency and Effectiveness of Key Business Processes and Systems</td>
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<tr>
<td></td>
<td></td>
<td>3.2.2 - Improve Service Delivery</td>
</tr>
</tbody>
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\(^1\)Federal Meat Inspection Act (FMIA, P.L. 90-492).
\(^2\)Poultry Products Inspection Act (PPIA, P.L. 90-492).
\(^3\)Egg Products Inspection Act (EPIA, P.L. 91-597).
\(^4\)Humane Methods of Slaughter Act (HMSA, P.L. 85-765).
Agency Performance Management and Governance

FSIS will implement this FY 2019 AP by utilizing its performance management framework, which includes monitoring and reporting processes underpinned by the agency’s enterprise governance (EG) process. FSIS fosters a performance-based environment by using an agency-wide dashboard, with executives and senior staff assigned to regularly track and monitor progress, ensure FSIS meets intended targets, and make timely and necessary adjustments to key activities or approaches. Our AP this year includes a greater focus on outcome-based measures, while continuing internal tracking of other key milestones, management controls, and outputs.

FSIS has used its EG process to present public health and other mission-related topics to executive leadership, particularly those that cut across programs and/or have agency-wide implications, and for collaborative decision making and implementation. All new investments, major projects, proposed policy initiatives, and major changes to existing policies go through this process. Three governance boards regularly meet to deliberate, and along with their associated work groups and committees (sub-boards), provide key analysis, evaluation, and recommendations regarding program enhancements that support data-driven decision making. The agency is also integrating new Office of Management and Budget enterprise risk management (ERM) requirements into its current governance activities and structure. To this end, FSIS leveraged existing internal risk-related expertise to develop an ERM profile and will continue to work on incorporating ERM into its decision-making culture.
Goal 1
Prevent Foodborne Illness and Protect Public Health

OUTCOME 1.1: PREVENT CONTAMINATION

RESULT 1
Drive Compliance With Food Safety Statutes and Regulations

This Result primarily focuses on the work of thousands of FSIS inspectors across the United States verifying industry compliance with applicable food safety regulatory requirements, which extends to both imported and domestically produced food products. Key areas of emphasis to drive compliance and reduce the risk of FSIS-regulated product contamination include the following:

- Conducting public health risk evaluations (PHREs) and Food Safety Assessments (FSAs) to ensure regulated establishments have developed and implemented food safety systems that reduce or prevent food safety hazards.
- Ensuring an effective international equivalence process.
- Strengthening existing efforts in sampling imported products.
- Continuing review of State Meat and Poultry Inspection (MPI) Programs.
- Enhancing outreach to small and very small establishments and other domestic stakeholders about food safety requirements.

PHREs: PHREs and FSAs often result in improvements to Hazard Analysis and Critical Control Point system design, process controls, and/or reduction in non-compliance that help to reduce hazards present in food. In FY 2019, FSIS will continue to perform activities and take steps to reduce non-compliance and for-cause FSAs based on public health risk determinants.

Outreach: For domestic stakeholders, including small and very small establishments, FSIS will continue to deploy innovative approaches to develop and deliver outreach that is focused on enhancing the communication of technical, scientific, and regulatory compliance information. The agency will utilize advanced technologies, such as digital applications and the FSIS Small Plant Help Desk, to simplify how stakeholders receive technical assistance and resources. FSIS will also conduct webinars for establishment owners, operators, and other industry partners that highlight relevant agency initiatives and recently published agency policy and regulations. Additionally, the agency will continue outreach to small and very small establishments through Enforcement, Investigation, and Analysis Officers (EIAOs).

<table>
<thead>
<tr>
<th>Measure</th>
<th>Target</th>
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<tbody>
<tr>
<td>% of establishments scheduled for a PHRE due to public health risk determinants&lt;sup&gt;4&lt;/sup&gt; (1.1.1.1)</td>
<td>1.13%</td>
</tr>
<tr>
<td>% of product combinations tested from equivalent countries for biological and chemical hazards&lt;sup&gt;2&lt;/sup&gt; (1.1.1.2)</td>
<td>21%</td>
</tr>
<tr>
<td>Establish revised baseline for number of foreign countries engaged in FSIS international outreach activities (1.1.1.3)</td>
<td>N/A</td>
</tr>
<tr>
<td>% of international audits conducted based on FY 2019 schedule</td>
<td>90%</td>
</tr>
<tr>
<td>% of enforcement actions that address food safety violations</td>
<td>≥ 87%</td>
</tr>
<tr>
<td>% of planned onsite State MPI Program audits completed</td>
<td>≥ 87%</td>
</tr>
<tr>
<td>% of planned State lab audits and desk reviews completed</td>
<td>≥ 87%</td>
</tr>
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</table>

<sup>1</sup>The PHRE is a decision making process that FSIS uses to determine whether an FSA needs to be scheduled. It is a distinct, separate activity from an FSA. See FSIS Directive 5100.4 Rev. 1. The purpose of an FSA is to assess and analyze an establishment’s food safety system to verify that the establishment is able to produce safe and wholesome meat or poultry products in accordance with FSIS statutory and regulatory requirements. See FSIS Directive 5100.1 Rev. 4.

<sup>2</sup>This measure calculates the percentage of establishments scheduled for a PHRE due to specific public health criteria out of all establishments eligible for a PHRE, using PHIS as the data source. Expected performance is downward in small increments through FY 2021.

<sup>3</sup>This measure calculates the percentage of all country/product combinations submitted for import reinspection that are assigned lab analysis for biological and chemical hazards.
In FY 2019, FSIS will measure the effectiveness of its outreach by surveying stakeholders and partners on value, efficiency, quality of delivery, and if expectations were met. Based on the results of such surveys, FSIS will develop resources that reflect the stakeholder comments.

**State MPI Programs:** FSIS’ work in the area of compliance also includes State MPI Programs. The agency will continue its work to ensure that the 27 States with an MPI Program maintain “at least equal to” status with Federal food safety requirements. As in FY 2018, FSIS will continue in FY 2019 to ensure it meets annual onsite audits and State self-assessment verification requirements, and to audit State MPI laboratory programs.

**Imported Products:** FSIS’ food safety mission also extends to ensuring the safety of imported products. FSIS’ equivalence process ensures that eligible foreign countries maintain equivalent food safety inspection systems through continuous monitoring. This includes document review, point of entry (POE) reinspections, and an onsite audit of each eligible country at least triennially. In FY 2019, FSIS expects to see continued growth in the number of foreign countries seeking an equivalence determination from FSIS to become eligible to export meat, poultry, or processed egg products to the United States. In FY 2018, FSIS leveraged the new and improved Self-Reporting Tool (SRT) that crosswalks previously submitted information for equivalent countries exporting FSIS-regulated products to the United States. In FY 2019, the agency will provide guidance to help countries complete the new SRT.

A significant component of ensuring the safety of imported products is FSIS’ reinspection of products at official import inspection establishments. In FY 2018, FSIS reduced the number of Failures-to-Present that required recall from commerce through implementation of strategies for reducing POE violations. These include proactive education and outreach to foreign government counterparts to focus their attention on mitigating POE violations before they occur, and the use of data analytics tools to monitor POE reinspection activities.

**Sampling Imported Food:** In FY 2019, FSIS will continue to support a risk-based sampling plan for imported foods. This plan consists of both samples that are planned based on country profiles that include amenable species and volume shipped, as well as samples that are unplanned/for-cause. For-cause samples can be triggered by recent violative samples, issues identified during FSIS audits, and/or other data or information received. FSIS will also utilize analytics tools to identify trends of concern from data obtained through foreign country audits and POE reinspection activities to direct the agency’s annual sampling plan and support decisions on further for-cause sampling initiatives.

**International Outreach:** FSIS will continue working with foreign regulatory counterparts to share information about FSIS regulatory requirements and about how the agency uses the latest technology to ensure protective public health standards for food safety. This will be done through technical assistance exchange programs, meetings with foreign government officials and organizations, educational seminars, and FSIS-sponsored visits to U.S. laboratories and regulated establishments. FSIS aims to increase the overall participation of foreign governments and officials in FSIS international outreach activities in FY 2019. FSIS also intends to continue reaching out to international regulatory counterparts who are currently implementing or working to modernize existing food safety inspection programs to inform them of our best practices and technological advances, and work with them to improve food safety standards and vital health protections worldwide. In FY 2019, the Office of International Coordination will report the number of foreign countries engaged in FSIS outreach activities to develop a revised baseline for future growth in this area.

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8Import samples are collected to verify that eligible countries are maintaining equivalent food safety inspection systems. See also Result 2.
OUTCOME 1.1: PREVENT CONTAMINATION

RESULT 2

Strengthen Sampling Programs

This Result focuses on the establishment of an annual sampling plan that will structure sampling programs and projects to inform agency decision making and policy. The annual sampling plan will facilitate the gathering of knowledge on the relative risk of contamination of FSIS regulated products. It will also include approaches such as unifying testing to only collect one sample of each product at an establishment and test it for multiple microbiological hazards or chemical residues. The new plan will help FSIS leverage new technology to increase precision, gain efficiencies, and better identify and define hazards to decrease their presence in food.

New Sampling Approach: To support planning, analysis, and future decision making related to sampling, FSIS conducted an internal evaluation in FY 2018 of its existing sampling programs and projects. One overarching concept in that evaluation is that the main value of conducting sampling programs lies in the data they generate and the use of those data in agency decisions. Based on that premise and this analysis, FSIS identified criteria for evaluating how much information is generated by a sampling program to help FSIS allocate and use its sampling and inspection resources as effectively as possible. Those criteria capture the following ways that FSIS uses sampling information in its decisions:

1. To assess individual establishments or countries;
2. To conduct investigations;
3. To modernize agency policies and regulations; and
4. To track agency progress, conduct national surveillance, and establish/support priorities.

In FY 2018, FSIS also assessed the beef bench trim sampling project and comminuted chicken sampling projects including the current sample design and associated outcomes of assigned samples within various categories, such as by establishment type and product volume. Based on the findings, FSIS will make recommendations for stratification or other design improvements to improve collection rates.

FSIS will begin to use the results of the sampling program/project evaluation and the above criteria to modify our annual sampling plans as needed in FY 2019. By prioritizing testing based on degree of hazard, FSIS will more efficiently allocate and manage sampling resources and maximize the benefits to public health. As part of this effort, FSIS has modified its Strategic Plan measure to reflect this revised approach and to assure that planned samples are collected and analyzed as scheduled, and that FSIS uses the results of those sampling programs in its decisions. Taking into account the criteria from the internal evaluation, the agency may also consider additional sampling programs or projects such as analyzing raw beef components for Shiga-toxin producing *E. coli* (STECs), analyzing raw chicken livers for *Salmonella* and *Campylobacter*, and analyzing egg products for pesticide residues. Additional sampling projects include the following:

**Pork – Salmonella**

FSIS completed Phase II of its raw pork exploratory sampling program for *Salmonella* in slaughter establishments in FY 2018 and will complete data analysis in FY 2019. This will include conducting a predictive risk assessment model based on the sampling data gathered. In addition, FSIS will start to gather data on the risks from STEC in pork products. FSIS will use the data gathered from these projects to inform FSIS policies, industry guidance and/or performance standards for these products.
Beef – *Salmonella*

In FY 2018, FSIS assessed data from sampling programs implemented in 2014\(^9\), along with newer baseline data and outbreak/illness data to assess risks associated with raw beef. In FY 2019, FSIS will use these data to inform FSIS policies, industry guidance and/or performance standards for such products.

Poultry – *Campylobacter*

FSIS will continue to sample and analyze poultry products for *Campylobacter*\(^{10}\) using an enrichment method as opposed to direct plating. The agency will consider new performance standards for *Campylobacter* in these products using the same analytics used to generate the current performance standards. Should new *Campylobacter* performance standards be established, results may be re-incorporated into this Strategic Plan measure or reported in a new *Campylobacter*-specific measure.

Residue Sampling

FSIS developed the FY 2019 National Residue Program (NRP) (also known as the Blue Book) and will post the plan to the FSIS website in early FY 2019. The FY 2018 NRP results (also known as the Red Book) will be posted in early FY 2019. FSIS will continue to work through its current interagency partnerships via the Surveillance Advisory Team and the Interagency Residue Control Group meetings and the National Antimicrobial Resistance Monitoring Program (NARMS) to develop new partnerships or projects in FY 2020 as needed.

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\(^9\)79 FR 32436

\(^{10}\)See Chapter 4 of the *Microbiology Laboratory Guidebook*
**OUTCOME 1.1: PREVENT CONTAMINATION**

**RESULT 3**

Ensure Establishments Are Meeting Pathogen Reduction Performance Standards

This Result focuses on using pathogen reduction performance standards to assess the food safety performance of establishments that slaughter and process poultry and meat products.

**Poultry: Salmonella**

FSIS is implementing a data-driven regulatory strategy to improve *Salmonella* control in raw poultry slaughter and processing establishments. In FY 2018, this strategy informed the development and issuance of two instructional notices to the field covering FSIS inspection program personnel (IPP) follow-up sampling and verification of establishment initiated corrective actions/reassessment activities for establishments that are not meeting the *Salmonella* performance standards. FSIS also hosted four informational webinars: two targeted industry stakeholders, and communicated the results of an analysis of the effect of neutralizing Buffered Peptone Water on the current poultry carcass and chicken parts performance standards, and two additional informational webinars described how categories are assigned to individual establishments subject to the *Salmonella* performance standards.

To provide additional transparency to establishments, FSIS implemented category alerts for when an establishment’s category status declines. In FY 2019, FSIS will assess whether follow-up associated with Category 2 alerts is effective in preventing establishments from failing performance standards. FSIS began to post the category status for individual establishments producing raw chicken and turkey carcasses subject to a *Salmonella* performance standard in January 2018, and announced plans to begin posting the *Salmonella* category status for individual establishments producing raw chicken parts (legs, breasts, wings) and comminuted chicken and turkey products in the first quarter of FY 2019.

FSIS created a new PHIS report to help Enforcement, Investigation and Analysis Officers (EIAs) determine whether any *Salmonella* isolates from a poultry establishment’s positive samples have Pulsed-Field Gel Electrophoresis (PFGE) patterns that match a recent PulseNet cluster. In FY 2019, FSIS will continue to develop criteria based on a risk-ranking process for determining when serotype, PFGE, antibiotic resistance, and WGS results should trigger a PHRE, and to further distinguish Category 3 establishments.

More specifically, for poultry establishments that are Category 3 for *Salmonella*, FSIS will explore the use of WGS analysis with other existing techniques to determine if product isolates contain *Salmonella* of relevance to public health. The agency will use this information to develop a framework for regulatory considerations.

In FY 2019, FSIS will develop and implement an action plan to encourage establishments which have been chronically, or intermittently assigned to Category 3 and not meeting the performance standards, to regain process controls for *Salmonella*.

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11 For each product with a *Salmonella* performance standard, this measure is calculated by dividing the number of establishments that passed their included moving window by the total number of establishments with a completed moving window that either passed or failed. (A moving window is an approach to sampling in which FSIS evaluates a set number of sequential results from a single establishment to assess process control. For example, if FSIS chose to evaluate 20 results under the moving window approach, FSIS would assess the most recent 20 FSIS results for a particular establishment. The “moving window” approach provides FSIS with more flexibility for scheduling sample collection at different establishments.)
OUTCOME 1.1: PREVENT CONTAMINATION

RESULT 4  Promote Food Defense Practices

This Result focuses on how FSIS will remain vigilant and sustain progress made in food defense and preparedness to respond to acts of intentional contamination of food. The evolving threat landscape and emerging risks demand that the agency maintain and enhance its capability and capacity to prevent, protect against, mitigate, respond to, and recover from all hazards. The agency will continue to promote agency preparedness, and that of the regulated industry, to drive enhanced capabilities and capacities to respond to and recover from threats and hazards of greatest risk.

In FY 2018, FSIS continued implementing a multi-year strategy for food defense. This included conducting food defense tasks at establishments and analyzing task data to inform program activities; continued integration of food defense into FSIS policies; development of an Outreach and Communication Plan to better direct food defense outreach activities; performance of vulnerability assessments to identify emerging threats and associated countermeasures; and collaboration with the Food and Drug Administration (FDA) and other agencies and organizations.

In addition, the agency completed the first Vulnerability Assessment Framework, which is a new risk-based approach FSIS is using to determine if new or updated vulnerability assessments are needed based on new and emerging threats. As a result of this Framework, FSIS updated vulnerability assessments for both cyber and domestic transportation. The agency also focused on promoting the newly released Food Defense Preparedness and Recall Exercise Package, which was well received by industry. Additionally, preparedness activities included data analyses of food incidents to prioritize agency efforts, exercises to validate response and recovery plans, and development of a FSIS Special Security Events Planning Guide for food defense-targeted threat surveillance at National Special Security Events. This Guide was used to perform targeted threat surveillance testing for Super Bowl LII.

In FY 2019, FSIS will continue its work in aligning and integrating key food defense concepts and activities into day-to-day inspection operations, and will continue to update critical food defense policies and resources, as needed. By conducting food defense surveillance activities in regulated establishments, the agency will continue to identify food defense practices in use. FSIS will also continue to conduct vulnerability assessment activities to identify critical risks and the best practices to reduce them.

Also in FY 2019, FSIS will continue to seek out and enhance collaborative opportunities with stakeholders. These activities will include providing information to public and private partners to emphasize the importance of food defense and highlight tools and resources available on the FSIS website, support for foreign governments to protect the supply of food to the United States, and publishing food defense articles in multiple sources.

FSIS will also continue to improve capabilities to respond to and recover from any hazards through preparedness activities, including conducting analyses of food incidents to prioritize agency efforts and conducting exercises to validate response and recovery plans and to minimize negative public health and economic impacts. The agency will continue to promote preparedness by remaining engaged in National Special Security Event activities at least twice in FY 2019, while implementing updated risk assessments and a normalized food defense sampling strategy to drive the enhanced capabilities and capacities for all food defense practices.

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In FY 2017, FSIS revised the food defense task for IPP, which resulted in the establishment of a baseline of the percent of FSIS-regulated establishments that voluntarily maintain food defense practices as the basis of this measure.
Proper handling of meat, including Siluriformes fish, poultry, shell egg, and egg products at in-commerce facilities like warehouses, distributors, and retailers, is critical to preventing foodborne illnesses. Product volumes at some of these facilities can be very high, and the way products are handled or even further processed at some of these facilities can introduce additional food safety hazards. FSIS focuses its surveillance, investigations, enforcement, and other in-commerce activities on those facilities that present the greatest risk to consumers. FSIS conducts follow-up surveillance activities at facilities where conditions have been observed that could lead to unsafe products. FSIS also collaborates with State and local authorities to ensure to the extent possible that all types of in-commerce firms are routinely monitored. FSIS also promotes safe food handling practices at in-commerce facilities through outreach and education.

In FY 2018, FSIS distributed several thousand Retail Deli Best Practices brochures to retailers across the country while performing surveillance activities to verify food safety at in-commerce facilities.

FSIS will continue to conduct the majority of its surveillance activities at the business types that pose the highest risk to public health in FY 2019. The agency will also perform follow-up surveillance activities at in-commerce facilities where initial surveillance reveals food safety violations, and take product control actions when appropriate and necessary to remove unsafe food from commerce.

In FY 2019, FSIS will continue to verify that retail locations that operate delis are safely handling ready-to-eat (RTE) meat and poultry intended for sale to consumers to mitigate contamination with \textit{Listeria monocytogenes} (\textit{Lm}). \textit{Lm} is associated with a significantly higher fatality rate than most other foodborne pathogens. It can survive and grow at cool temperatures, including during refrigeration, and can persist in retail deli environments. The agency will continue to focus on educating and tracking progress on the adoption of safe food handling practices at retail delis, and enforcing the recordkeeping requirements for retailers that grind beef. FSIS will continue to collect and analyze surveillance data to assess the effectiveness of its efforts at retail and to inform the development of strategies to improve those efforts. As part of this effort, FSIS plans to work with FDA and other public health partners including State and local health departments to jointly develop specific outreach materials for retailers (e.g., for ground beef traceback) and to disseminate them.

\textsuperscript{13}The Strategic Plan measure tracks the percentage of retailers that are following all 8 of the most important retail deli \textit{Lm} guidelines. These 8 are among the 33 recommendations in the AP measure that follows. The large difference between the targets is in part because all 8 need to be followed to be counted in the percentage. The AP measure with a 91% target reflects an aggregate of recommendations being followed that are weighted equally. The recommendations cover product handling, cleaning and sanitizing, facility and equipment controls, and employee practices.
In addition to the control of \( Lm \) at retail delis, FSIS continues to identify other food safety priorities at retail/in-commerce facilities and performs surveillance activities focused on these priorities. Specifically, FSIS is verifying that grinding log records are maintained at retail stores that grind raw beef products. This is to improve FSIS’ ability to accurately trace the source of foodborne illness outbreaks involving ground beef products and identify the source materials that may need to be recalled. In FY 2018, FSIS began issuing Notice of Warning letters to facilities that are not in compliance with grinding log record-keeping requirements. In FY 2019, FSIS will continue to monitor compliance with grinding log recordkeeping requirements, educate retailers on the rule, conduct targeted outreach to retail industry organizations and issue Notice of Warning letters when violations of the rule are identified.

FSIS serves in an advisory role on the Executive Board for the Conference of Food Protection (CFP), and in this capacity, works with the FDA and the Centers for Disease Control and Prevention (CDC) to recommend changes to the Food Code that impact the safety of meat and poultry products in-commerce. In FY 2018, FSIS supported the CFP biennial meeting planning by developing a workshop and presenting three recommended issues for consideration. These issues included the creation of a committee to develop guidance on the safe preparation, handling, and cooking of roaster pigs for retailers including caterers; the creation of a committee to develop guidance on the safe practices for handling and cooking rotisserie chicken at retail; and the inclusion of a link in the Food Code Annex to FSIS’ guidance on chicken livers. Of these recommendations, the CFP agreed to the creation of a committee to develop guidance for roaster pigs and to include a link in the Food Code Annex to FSIS’ guidance on chicken livers. In FY 2019, FSIS will continue to collaborate with CFP to develop guidelines for these products. In addition, FSIS will also continue working with the FDA during monthly meetings to harmonize language between FSIS regulations and the FDA Food Code.
OUTCOME 1.2: LIMIT ILLNESS FROM REGULATED PRODUCTS

RESULT 6

Improve Response to Foodborne Illness Outbreaks and Adulteration Events

FSIS collaborates with public health partners, including the CDC, FDA, and State and local departments of health and agriculture, to respond to foodborne illness outbreaks and food adulteration events. Timely information exchange between partners facilitates rapid response. Collection of evidence from consumer complaints, case-patient interviews, product traceback/traceforward, environmental inspection and sampling, and laboratory testing are essential to identifying and controlling foodborne illness and hazards, including foreign material and undeclared allergens. The agency continues to utilize advances in technology, such as WGS, to better understand and respond to foodborne illness that are of greatest concern to public health.

In FY 2017, FSIS began annual surveys of State public health partners to inform and prioritize outreach efforts. From the FY 2018 survey results, FSIS identified the agency in each State most likely to notify FSIS of outbreaks and noted that investigative information sharing remains a key topic of interest among partners. Additionally, in FY 2018, FSIS shared lessons learned and information on prevention efforts with stakeholders by posting its second outbreak summary, regarding salmonellosis outbreaks associated with pork products.

In FY 2019, FSIS will continue surveys of State partners to identify ways to strengthen communication and collaboration. Additionally, FSIS will continue to explore mechanisms to share investigative information and lessons learned with partners to assist in outbreak vehicle identification and illness prevention. The agency will also continue to encourage partners to notify FSIS promptly of illnesses associated with FSIS-regulated products and to provide detailed investigative information, since early notification can better enable FSIS to take effective action to protect public health. FSIS also plans to improve response to recalls associated with foreign material by drafting an industry guide and creating a visualization tool for FSIS employees to better understand trends of adulterated product (foreign material) within establishments and movement between establishments.

<table>
<thead>
<tr>
<th>STRATEGIC PLAN</th>
<th>MEASURE</th>
<th>TARGET</th>
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<tbody>
<tr>
<td>% of State partners that indicate that they routinely notify FSIS of information regarding illness outbreaks that may be associated with FSIS-regulated products</td>
<td>70%</td>
<td></td>
</tr>
</tbody>
</table>

14 This measure reviews the percentage of State and local partners based on survey responses who, because of FSIS outreach efforts, can provide information that improves identification of contaminated product.
OUTCOME 1.2: LIMIT ILLNESS FROM REGULATED PRODUCTS

RESULT 7

Increase Public Awareness of Recalls, Foodborne Illness, and Safe Food-Handling Practices

FSIS continues to increase public awareness of recalls, foodborne illness, policies, and safe food handling practices through a broad range of communications channels with the goal of reducing the rates of foodborne illness. The agency will continue strategic outreach through traditional media, social media, events, partnerships, educational materials, mobile applications, seasonal outreach, and other forms of public engagement. This outreach communicates the importance of safe food handling, informs the public of current recalls and public health alerts, and educates them about important policy modernization efforts that affect their food.

In FY 2018, the agency completed the first year of a multi-year social science research effort examining food handling practices of consumers in a test kitchen. The insights gained from this research allow FSIS to better understand how consumers handle and prepare food, and when the most unsafe food handling practices occur during meal preparation. With this newfound information, FSIS began communicating to the public about the most risky food safety practices in the summer of FY 2018 and will continue to do so in FY 2019.

In FY 2019, FSIS will expand its proactive outreach efforts to the press, will continue to work with partners to serve as message multipliers to extend and expand the reach of safety messaging, and will engage with the public and key stakeholders through traditional and new media. By updating our outreach to address areas where consumers can reduce risk, FSIS will reach more consumers with actionable and tested safety messages to increase public awareness of recalls, foodborne illness, and safe food handling practices and promote positive behavior change.

Additional key activities for FY 2019 include achieving more proactive placements of stories about recalls, foodborne illnesses, important policy modernization efforts, and safe food handling practices with national, regional/State, and local media. FSIS will track the impressions these placements achieve and will also track the subset of placements that are based on insights gained from the agency’s consumer research efforts. FSIS will promote the agency as a research-based, 21st century public health institution by facilitating presentations about our communications and outreach at national conferences. Other key activities will include: executing policy-related communications strategies that educate the public about important policy modernization efforts that affect their food, training a limited number of field staff to serve as spokespeople during local interviews and food demonstrations, and providing better customer service via user experience improvements to the agency’s website.

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15 This indexed measure includes weighted metrics primarily of impressions, including direct connections, website traffic, application downloads, event participation, physical and digital educational material distribution, social media engagement, media impressions and emails distributed. The percentage represents more than 50 million weighted impressions as its target for FY 2019.

16 This measure is a subset of the index measure used in 1.2.3.1. This measure tracks the component of our overall public outreach that applies the lessons learned from consumer research to improve our messages.
Goal 2
Modernize Inspection Systems, Policies, and the Use of Scientific Approaches

OUTCOME 2.1: IMPROVE FOOD SAFETY AND HUMANE HANDLING PRACTICES THROUGH ADOPTION OF INNOVATIVE APPROACHES

RESULT 8
Modernize Scientific Techniques and Inspection Procedures

This Result focuses on identifying or developing innovative tools, techniques, and methodologies or approaches to support continued modernization. More specifically, advanced tools for WGS analysis will be used to inform risk management and regulatory decisions; new pathogen screening platforms will be deployed in FSIS laboratories; innovative inspection tools will be explored through pilot projects; and, as appropriate, new and innovative methodologies will be implemented to modernize inspection systems and improve hazard detection and response. This Result also focuses on enhancing PHIS functionalities and data system interoperability. In addition to PHIS, FSIS will also modernize critical laboratory IT infrastructure that supports all the applications including WGS and new screening platforms. The goal is to provide our inspectors, EIAOs, and regulatory partners with the information they need to support decision making in a timely manner. Key activities in this Result aim to reduce consumer risks by systematically controlling and preventing hazards associated with FSIS-regulated products with the use of modern practices, technology, and science to inform regulatory requirements and inspection procedures.

Tools and Techniques
Whole Genome Sequencing

As a part of WGS capacity building in FSIS, in FY 2018, the agency used WGS to characterize pathogen isolates from regulatory samples, including Salmonella, Campylobacter, Lm, and STEC. In addition, FSIS used WGS to characterize bacterial isolates from NARMS cecal samples and other sources. In FY 2018, FSIS used both PFGE and WGS to characterize pathogens, however, in January 2018, PFGE for Lm was discontinued. In FY 2019, in consultation with appropriate stakeholders, FSIS plans to broaden the application for WGS in our regulatory framework to inform inspection and enforcement activities by transitioning from PFGE to WGS for Salmonella, Campylobacter, and STEC. As the application of WGS is broadened, the use of PFGE will be phased-out to the extent practicable. In addition, FSIS is continuing to work with FDA and other partners to develop a standardized approach for sharing WGS information involving dual jurisdiction establishments.

17This measure is calculated as the percent of establishments receiving a Public Health Regulation Early Warning Alert whose Public Health Regulation noncompliance rate is below the threshold for receiving an Early Warning Alert 120 days after receiving the alert.
18All Salmonella, Campylobacter, and some E. coli and Enterococcus from the NARMS cecal sampling program and a small fraction of Salmonella from USDA’s Agricultural Marketing Service were subject to WGS analysis.
The agency uses WGS analysis to assess sequence relatedness among food, environmental, or clinical \textit{Lm} isolates, applying two primary analytic approaches: Multilocus Sequence Typing (MLST) and High Quality Single Nucleotide Polymorphism. When high genetic similarities are found between clinical and food or environmental isolates, FSIS uses this information to identify harborage or to explore further epidemiological connections and linkage during outbreak investigations. FSIS communicates WGS information for \textit{Lm} to RTE establishments in quarterly letters and will incorporate such communication for other pathogens as PFGE is phased out. FSIS will also explore the use of WGS analysis with other existing techniques (including serotype, PFGE, antibiotic resistance, etc.) to develop criteria based on a risk-ranking process to determine if product isolates contain \textit{Salmonella} of relevance to public health. The agency will use this information to develop a framework for regulatory considerations.

In FY 2019, FSIS will develop and deliver targeted communication on the use of WGS in FSIS’ investigative process by field personnel and other stakeholders by conducting educational outreach to EIAOs, developing an annual summary report on all FSIS WGS activities and analyses, and developing communication tools (i.e., Fact Sheets and/or Frequently Asked Questions.)

**Laboratory Screening for Pathogens in FSIS Samples**

For over a decade, FSIS has used a specific platform and methodology for screening samples that are enriched. While this approach has been reliable and robust, there have been several developments in the field of detection and screening. Hence, FSIS evaluated its current and future needs, developments in screening and detection technology and selected a new screening platform for its routine screening to complement the current technology. In FY 2019, FSIS will incorporate the new detection platform for screening FSIS enrichments. FSIS will also update the methodology in the Microbiology Laboratory Guidebook and announce these changes to the stakeholders.

**Potential Inspector/EIAO Tools**

In FY 2018, FSIS performed a laboratory evaluation of three portable water activity meters. The tools were compared to the benchtop unit in the Eastern Laboratory for accuracy, as well as potential usability for infield conditions. The agency continues to explore the development and application of real-time microbiological testing methodology for field application. In FY 2019, FSIS will continue to work with USDA’s Agricultural Research Service (ARS) and FDA to explore different platforms that are suitable for FSIS in-field application for real-time testing. Initially the focus will be on a real-time in-field system applicable to \textit{Lm} environmental sampling, as well as quantitation of indicator bacteria for initial deployment for PHRE and FSAs. The information could potentially be used to screen out negative results prior to sending samples to FSIS laboratories.

FSIS continually explores alternatives for evaluating the effectiveness of process control, and for identifying conditions that may lead to cross-contamination of product during slaughter and processing. In FY 2019, FSIS will continue assessing N60 alternatives and other methods for food contact surface sampling in FSIS-regulated establishments (e.g., for \textit{Salmonella}, STEC, \textit{Lm}, or indicator organisms).

In FY 2018, FSIS explored expansion of the Accredited Laboratory Program to include microbiological testing and to update analytic methods. In FY 2019, FSIS plans to communicate the results of this exploration. This will provide FSIS additional flexibility to have commercial laboratories accredited to perform FSIS methods if the agency requires additional analytical capacity.
In FY 2018, FSIS began developing functionality in PHIS for the System Tracking E. coli O157:H7 Positive Suppliers, Recall Management, and Industry Notification of Adulteration applications. These functionalities are scheduled to be released in FY 2019 under the Adulterated Products Monitoring System (APMS). In addition, FSIS will begin integrating APMS reporting features, Alerts and Notifications, and the APMS Dashboard into PHIS.

**Inspection Procedures and Approaches**

In FY 2019, FSIS will continue to monitor the number of establishments whose noncompliance rate decreases 120 days after receiving an Early Warning Alert (EWA) for Public Health Regulations/ Noncompliance Records (PHR/NRs). In FY 2018, FSIS developed analytical tools and reports to assist monitoring and evaluation of EWA data. FSIS continues to develop interactive data driven graphics to research individual establishment performance over time. These tools will assist FSIS in identifying recidivist establishments that need further assistance or action and influence policy decisions to address specific food safety concerns and improve public health. In FY 2018, FSIS developed a PHIS alert for IPP in poultry establishments whose performance declined from the previous category. FSIS will continue to use these alerts in FY 2019, and IPP will also receive a follow-up sampling performance alert summarizing recent performance to assist in trend analysis. The alerts will include number of positives, number of samples analyzed, and running percentage positive.

**Modernized Inspection Systems**

FSIS will continue to modernize inspection procedures and develop new approaches to assess the industry’s control of hazards. Specifically, FSIS will continue to implement the New Poultry Inspection System (NPIS) in poultry establishments that opt in and are ready to adopt the new system. This inspection system is designed to facilitate pathogen reduction in poultry products by focusing the agency’s online activities to provide for more efficient and effective carcass-by-carcass inspection, allowing some of the agency’s online inspection resources to be used to perform additional offline inspection activities that are more effective in ensuring food safety.

In FY 2018, FSIS continued efforts to modernize inspection systems by proposing the New Swine Slaughter Inspection System for market hog slaughter establishments and the Egg Products Rule for egg products plants. FSIS also announced the expansion of line speed waivers for poultry establishments. In FY 2019, FSIS will assess comments from these two proposed rules and the data gathered from the line speed waivers to determine if additional changes are needed.

**Development of New Science To Inform Regulatory Requirements**

In FY 2018, FSIS completed Phase II of pork exploratory sampling, which entailed the testing of finished raw pork products for *Salmonella* from establishments that conduct both slaughter and processing, and STEC for establishments that are involved in slaughter only. In FY 2019, data generated from this sampling will be used to identify risk management options for policy consideration.
OUTCOME 2.1: IMPROVE FOOD SAFETY AND HUMANE HANDLING PRACTICES THROUGH ADOPTION OF INNOVATIVE APPROACHES

RESULT 9  Increase Adoption of Humane Handling Best Practices

This Result primarily focuses on livestock slaughter through using humane methods, with a specific focus on restraint and/or stunning of livestock to improve establishment compliance and reduce the risk of humane handling incidents at slaughter establishments. FSIS will continue to communicate with and train staff on these important requirements.

During FY 2018, a new task was created in PHIS which has public health veterinarians (PHVs) doing a monthly assessment of whether establishments slaughtering livestock have a Robust Systematic Approach to humane handling. In FY 2019, FSIS will analyze the results from this task and, based on that analysis, make appropriate changes to current policy.

The agency will also continue its enhanced education and outreach strategy recently designed to target small and very small establishments to ensure more consistent application of humane handling best practices and compliance with humane handling regulatory requirements. To support these efforts, FSIS plans to analyze data from the FY 2018 small and very small slaughter establishment survey, which solicited information on knowledge gaps regarding humane handling regulations and policies. The survey also collected data about small and very small slaughter establishments’ preferred format for FSIS guidance documents. Using the survey results, the agency will develop an action plan for implementing a new educational strategy focused on preventing multiple stun events resulting in FSIS enforcement actions.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Target</th>
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</thead>
<tbody>
<tr>
<td>% of slaughter establishments that are compliant with all livestock restraint and/or stunning requirements (2.1.2.1)</td>
<td>90.2%</td>
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</tbody>
</table>
OUTCOME 2.2: ENHANCE ACCESS TO COMPLETE AND ACCURATE INFORMATION TO INFORM DECISIONS

RESULT 10

Improve the Reliability, Access, and Timely Collection and Distribution of Information and Data

This Result focuses on improvements to systems, tools, and communications that will enable FSIS employees and external stakeholders to more easily access and apply agency information. Improvements in the content, format, and delivery of information allow for more consistent implementation and better understanding of policy by both field employees and industry. Leveraging technology by developing and enhancing systems and tools (1) facilitates the timely distribution and coordination of information among agency employees, and (2) equips analysts with ways to synthesize the large volume of data and present quality analyses for informed and sound regulatory decision making and policy development for food safety.

In FY 2018, FSIS created four tools using a server-based visualization program, integrated the Consumer Complaint Monitoring System (CCMS) functionality into PHIS for improved user access, created a Spanish version of the electronic CCMS form, reformatted and condensed a key FSIS directive on safe and suitable ingredients to make information easier to find, and implemented a pilot project in two establishments utilizing tablets to increase online access for FSIS employees.

In FY 2019, FSIS plans to continue to expand on the activities from FY 2018. This includes development of more tools to aid in access, analysis, and visualization of FSIS data to assist IPP in performing inspection tasks, and providing innovative ways to present guidance to industry, information to inspectors and consumers, and analyses with partners, such as:

- Expanding a server-based visualization program that integrates Geographic Information System (GIS) modeling functionality with FSIS data, increasing the number of data visualization tools on the Analytics Portal (deployed in FY 2018), and continuing to expand data visualization access for FSIS analysts in headquarters and district offices.
- Continuing to design the Compliance Guide Index webpage to make the information more accessible for establishments.
- Continuing collaboration with our Federal food safety partners on allergen control.

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19This measure calculates a weighted score, from survey results of FSIS data analysts who have access to and use FSIS’ major data systems (such as PHIS), and who can and have verified that they analyze and visualize FSIS data using statistical or other software. FSIS assesses progress in achieving this measure through an annual survey of FSIS analysts. FSIS developed this measure because of its focus on continually modernizing the agency’s use of technical and analytic tools. An assessment about how the score is calculated will be conducted. Based on the assessment, the measure or target may change.
• Modernizing and migrating surveillance and investigation databases into PHIS within the Surveillance, Complaints, and Outbreaks Response Enterprise (SCORE) interface and developing an integrated GIS for SCORE modules.

• Continuing to improve the functionality of the Residue Violator Tracking system on the FSIS Analytics Portal that replaced the legacy system on residue violators.

FSIS plans to continue developing and researching other innovative ways to present instructions to inspectors and guidelines to industry in FY 2019. FSIS will continue sharing key datasets and reports, and plans to post four new establishment-specific datasets each fiscal year. In FY 2018, FSIS posted datasets on the microbiological sampling results for raw beef components, raw beef follow-up sampling, raw chicken carcasses, and raw turkey carcasses. Sharing these data allows FSIS better engagement with its stakeholders and enables them to have quality information on an ongoing basis.

FSIS aims for more employees to gain online access to FSIS-approved systems through increasing the availability and use of electronic devices and to ensure access to FSIS training materials, data reports, and other information on the FSIS intranet. FSIS plans to implement a pilot program in two locations in the first quarter of FY 2019 to test a new method for obtaining eAuthorization certification and LincPass for employees within their first week on the job through the e-Onboarding program. If successful, this adjusted methodology will be implemented agency-wide, with LincPass credentialing stations placed in each District Office to allow employees to obtain their LincPass during initial orientation.
Goal 3
Achieve Operational Excellence

OUTCOME 3.1: MAINTAIN A WELL-TRAINED AND ENGAGED WORKFORCE

RESULT 11

Improve Recruitment and Retention for Mission Critical Positions

This Result primarily focuses on continuing to implement an expanded set of incentives, strategies, and initiatives that will sustain or improve mission-critical hiring and improve retention, including for hard-to-fill locations. It also focuses on recruitment activities for specific populations, such as veterinarians, veterans, and IT professionals to support FSIS’ ability to maintain a diverse and highly qualified workforce. As a large majority of FSIS’ workforce is critical to the day-to-day oversight of inspection operations, these strategies help reduce the inherent risks the agency faces in ensuring a sufficient number of inspectors are in place to conduct inspection activities to prevent FSIS-regulated product contamination and ensure animals are treated humanely before slaughter.

In FY 2018, FSIS utilized its direct hiring authority for targeting veterinarians, and conducted end-to-end on-site hiring events that provided individuals an opportunity to apply, be evaluated, interviewed, and medically examined within a few days, culminating in a tentative job offer. In FY 2019, FSIS will also execute the following:

- Pursue options to create a Pre-Apprenticeship program to target transitioning military service members for food inspector and consumer safety inspector positions.
- A retention program that enables FSIS to best utilize incentives, focused on public health veterinarians, which would require continued Federal service agreements to improve long-term career opportunities. Further develop and implement the multipronged PHV incentive program to improve PHV staffing.
- Implement the Human Resource General Support System (HR-GSS) to enable better position tracking, improved hiring metrics calculations, and report development.
- Use hiring metrics and reports from HR-GSS to identify and address hiring bottlenecks to improve hiring.
- FSIS aims to continue Student Loan Repayment opportunities.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Target</th>
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<tbody>
<tr>
<td>% of mission-critical front-line positions that are filled (3.1.1.1)</td>
<td>95.5%</td>
</tr>
<tr>
<td>% of employees that remain at FSIS for 2 years or more (3.1.1.2)</td>
<td>81.1%</td>
</tr>
<tr>
<td>% of PHVs remaining with FSIS for &gt;2 years after acquiring incentive (including Malak Scholars)</td>
<td>81%</td>
</tr>
</tbody>
</table>
OUTCOME 3.1: MAINTAIN A WELL-TRAINED AND ENGAGED WORKFORCE

RESULT 12
Enhance Training and Development Opportunities Across Competency Areas

This Result focuses on delivering a range of training and development activities to FSIS employees, as well as developing and deploying competency models and skill gap assessments for key occupations to enhance employee training and development. FSIS continues to enhance and expand its training offerings through using new training delivery mechanisms and frequent course offerings. The FSIS workforce is critical to the day-to-day oversight of inspection operations, and these training strategies help reduce the inherent risks the agency faces in ensuring that its inspection workforce is sufficiently trained to prevent FSIS-regulated product contamination and to ensure animals are treated humanely before slaughter.

In FY 2018, FSIS continued to focus on expanding and transforming training programs and offerings. To date, FSIS has delivered training and established competency models in certain mission-critical occupations. FSIS plans to continue to modernize its training efforts in FY 2019 and will continue to support a range of training and development activities, including:

- Implementing a redesigned, interactive formal PHV classroom program.
- Posting quick, on-demand, online refresher trainings and reference materials.
- Continuing with the redesign of Inspection Methods and starting the redesign of Imports, and Imports Inspection classroom training.
- Employing alternative delivery methods and training approaches that are suitable to the content and audiences FSIS is reaching.
- Marketing and promoting increased Office of Field Operations participation and use of online technical materials available through IPP Help, PHIS Help, Supervisor Help, Industry Help, FSIS Intranet, and AgLearn.
- Supporting external training offerings to both maintain competencies and fill key gaps in key areas.
- Providing easy to find and quick access to visuals online such as photographs, animations, videos, and point-of-view reference materials.

Leadership training will focus on offerings/opportunities to improve leadership and management competencies in the areas of accountability, vision, problem-solving, and leveraging diversity. FSIS will fill core classes to at least 90% capacity. Inspection and technical training will focus on competencies in staff through new and expanded offerings, such as in data and information analysis, animal pathology, regulation compliance, consumer safety knowledge, and critical thinking.

To measure progress, FSIS will assess knowledge gained from these efforts to analyze training results to better interpret and measure training outcomes. FSIS will also continue to analyze and use Federal Employee Viewpoint Survey (FEVS) results and employee responses to training and FSIS’ annual surveys to advance content development, training delivery, and interpret and measure outcomes.

In FY 2019, FSIS will also continue its work assessing competency gaps in the PHV occupation by providing training modules to supervisors to address gaps identified. FSIS will continue to assess workforce competencies by completing additional competency gap assessments on Consumer Safety Inspectors and beginning assessments of Food Inspectors.
OUTCOME 3.1: MAINTAIN A WELL-TRAINED AND ENGAGED WORKFORCE

RESULT 13

Ensure Equal Opportunity and a Diverse and Inclusive Environment

FSIS stays committed to ensuring equal opportunity for all stakeholders and fostering a workforce that is diverse, inclusive, and engaged. This result seeks to build on these values by ensuring compliance with Civil Rights and Equal Employment Opportunity (EEO) laws and regulations and by promoting and enhancing employee engagement initiatives and activities. Required activities that the agency will continue to implement which support this goal include: distributing civil rights policies, conducting compliance reviews, processing EEO complaints, managing Special Emphasis Programs, and reporting affirmative action plans and complaint activity data to the Department and the Equal Employment Opportunity Commission (EEOC).

In FY 2018, FSIS led numerous efforts to enhance its EEO and Civil Rights programs, such as developing an extensive library of new EEO and Civil Rights trainings, marketing and promoting its Alternative Dispute Resolution (ADR) programs, and modifying its EEO compliance review process. In order to ensure employees understand EEO and Civil Rights laws and protections, FSIS developed eight new training modules on the EEO process, Anti-Harassment, Anti-Retaliation, and other Civil Rights topics. These training modules were uploaded and made available in AgLearn or as hard-copy training packets, and upon request, were delivered through in-person presentations. Additionally, the agency implemented a new process for evaluating the effectiveness of its training program; FSIS incorporated standardized knowledge check questions into its training modules to assess employees’ EEO and Civil Rights competency. The agency also took several steps to promote its ADR program and educate the workforce on its conflict resolution services. In FY 2018, FSIS issued mandatory ADR training for all employees to complete, launched a lunch-and-learn series, and marketed the ADR program through various articles published in the Wednesday Newsline and other FSIS publications. Improvements were also made to Compliance Assistance, Review and Evaluation (CARE), the agency’s EEO compliance review program. In particular, FSIS enhanced the program’s communication strategies to ensure employees were knowledgeable about CARE, and to increase participation in CARE surveys and the review process. The agency also began the development of a data analysis plan that will allow FSIS to more effectively assess the CARE survey results and workforce demographic data. FSIS will continue to analyze FEVS results to develop employee engagement activities.

In FY 2019, FSIS plans to continue several EEO activities it began in FY 2018. Utilizing its new training library, FSIS will issue mandatory EEO training to all employees and will assess the effectiveness of the training through its competency assessment questions and tracking. The agency will also continue its CARE process improvement efforts and finalize and use its newly developed data analysis plan to complete five reviews of program areas and districts. To encourage employee participation during the reviews, FSIS will implement marketing strategies to include delivering a personalized message from the FSIS leadership team to the field and headquarters offices on the importance of EEO and the CARE process. In response to several statutory and regulatory changes imposed by EEOC, the agency will also modify its affirmative action plan and conduct a comprehensive barrier analysis to address any potential barriers to EEO. Most especially, FSIS will review employment actions and practices affecting the hiring and retention of persons with disabilities.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Target</th>
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<tbody>
<tr>
<td>% of ADR acceptance rate for formal and informal EEO complaints (3.1.3.1)</td>
<td>45%</td>
</tr>
<tr>
<td>% of employees who complete mandatory EEO/Civil Rights training that satisfy competency requirements (3.1.3.2)</td>
<td>80%</td>
</tr>
<tr>
<td>% increase in FSIS’ FEVS employee engagement survey index (3.1.3.3)</td>
<td>7% (increase to 67.95%)</td>
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FSIS FY 2019 Annual Plan 21
OUTCOME 3.2: IMPROVE PROCESSES AND SERVICES

RESULT 14

Enhance Efficiency and Effectiveness of Key Business Processes and Systems

This Result focuses on ensuring FSIS’ business practices and systems are efficient and effective, and increasingly enabling FSIS personnel—in particular its frontline workforce—to dedicate more of their time to day-to-day mission activities. FSIS continues to further align and enhance organizational business and management processes, data flows, and technology to support sound operations, with a particular focus on HR, IT, and procurement. These activities will help reduce inherent risks associated with processes and systems by better optimizing them to improve reliability or accessibility and to ensure FSIS adequately supports its personnel.

FSIS will leverage progress from FY 2018 activities to enhance strategic human capital planning activities, procurement, IT, and Freedom of Information Act (FOIA) processes, external audit and internal evaluation processes, and further build out or complete budget and financial management system enhancements in FY 2019. Examples include the following:

Human Resources (HR): In FY 2019, FSIS anticipates continuing the mission-critical position review for the remaining frontline positions based on forecasted requirements and modernization initiatives to proportionally align its frontline and non-frontline workforces. The subsequent workforce reshaping will progress as FSIS implements modernization efforts that provide for a sustainable frontline-to-support ratio.

Procurement: To better project the upcoming FY 2019 acquisition workload, FSIS will hold meetings with each program area to develop an acquisition plan in the first quarter. Within the context of the existing fiscal environment, this will aid Procurement in identifying when to best execute the agency’s procurement actions.

Evaluation: The Evaluation Working Group (EWG) was established in FY 2017 as a cross-agency, collaborative effort to establish a yearly program evaluation agenda. The EWG’s evidence-based evaluations directly support FSIS enterprise governance and agency decision making by providing information about how activities, policies, processes, or changes may be optimized to achieve desired results. In FY 2019, FSIS will continue to support programs by conducting both EWG and program identified evaluations, surveys, and other analyses in high-priority areas to help enhance program and/or process efficacy.

21FSIS uses an indexed measure to drive improvements related to meeting defined process times for hiring, procurement, and IT. Hiring: FSIS will target the Office of Personnel Management’s (OPM’s) 80-day time to hire metric, and add assessment of pre-recruit activities, which captures activities prior to submission of the manager’s request to fill a position. FSIS is using 80 days as a baseline under OPM hiring guidance. The FSIS target is meeting 80 days or less for 75% of the hiring actions. IT: This measure calculates the process times for which development, modernization, and enhancement investments are met for specific projects. The FY 2019 target is 85%. Procurement: A representative number of contracts have been identified according to their impact and dollar value. The process times for each contract across three phases (planning, implementation, and closeout) will be met 70% of the time. Separately, FSIS will also continue to use internal process time metrics for resolving grievances and unfair labor practices as prescribed in the LMA, as well as preparing and deciding on discipline cases in accordance with 5 CFR.

22Reviews will include non-baseline projects only and will be conducted for projects until development is complete; more reviews will be conducted toward the end of the fiscal year as more activity will be available for review from the start of the year. Reviews exclude operational type projects such as travel.
IT: FSIS will continue to evaluate and modernize its processes and IT Roadmap, including increasing the use of cloud and mobile technologies as possible, to ensure its business technology and enterprise architecture will continue to meet its evolving mission and increasingly mobile workforce. FSIS will redesign and streamline processes and select innovative technologies to help support workforce productivity and, in FY 2019, respond to updated Departmental and Federal requirements. The IT Procurement Process Toolkit v2.0 was launched on April 16, 2018, to improve the customer experience with IT procurements, and FSIS will conduct additional IT road mapping activities, such as a multi-year transition plan to deploy additional cloud and mobile technologies, and continue its transition to more Agile methodologies.

Freedom of Information Act (FOIA): FOIA efforts this year will focus on improving customer service through an enhanced FOIA process, continued training of FSIS personnel and stakeholder outreach. This enhanced FOIA process will include consistent engagement of a broader array of subject matter experts from across FSIS, and enhanced communication with stakeholders. FSIS will also launch a new catalogue containing a searchable list of sampling projects/test codes with data available through the FOIA process. The FOIA staff will assess how the new catalogue and enhanced process impacts the timeliness and quality of FOIA responses involving sampling data. FSIS will issue a new FOIA directive by December 30, 2018, to reflect the process enhancements. The FOIA staff will also conduct several training sessions with FSIS staff that highlight all employees’ responsibilities under FOIA, ensuring knowledge of FSIS processes and requirements, and improving the quality and timeliness of FOIA responses. The FOIA staff will continue to brief stakeholders on the FSIS FOIA process and evaluate stakeholder feedback to further enhance the customer experience.

Audit: FSIS will continue to identify approaches that will streamline our audit liaison process to help improve implementation of corrective actions in response to audit recommendations.

Financial Systems: In FY 2018, FSIS implemented its Financial Reporting Improvements Optimization project and the new Departmentwide relocation tracking and execution system which will create greater efficiencies in its financial and budgeting processes. In FY 2019, FSIS will continue work on building or modifying interfaces and automating business processes, increasing analysis capabilities, and gaining efficiencies in transforming complex financial data into practical information. This includes completing FSIS-specific projects related to budgeting and financial management. The agency will also continue to support the modernization of its export certificate process and industry billing processes.

Investment Reviews: The Enterprise Investment Board will conduct periodic reviews of agency enterprise governance-approved projects. This coordinated approach will promote good fiscal stewardship and accountability for agency funds by monitoring project progress to ensure that the project milestones are being met and, if they are not, corrective actions are being taken to bring the projects back in alignment, as appropriate.
OUTCOME 3.2: IMPROVE PROCESSES AND SERVICES

RESULT 15  Improve Service Delivery

In parallel with Result 14, this Result focuses on the delivery of high-quality services in a responsive manner—particularly, but not only, in acquisition management, human resources, and IT. FSIS continues to develop and maintain a more robust service standard that is more attuned to individual and organizational needs. In addition, FSIS has emphasized more and better communication across mission and servicing organizations to ensure informational needs are met, mutual accountabilities are clearly known, and outcomes are shared and mutually beneficial.

The agency will leverage progress from FY 2018 activities to enhance customer satisfaction in HR, procurement processes, and IT governance analyses into FY 2019. Examples include the following:

**Human Resources:** In HR, FSIS will maintain or improve upon its survey results for applicants and hiring managers as provided through the Office of Personnel Management. The agency will also compress pre-employment activities to keep candidates engaged. This will be accomplished through on-site recruiting events targeting mission-critical occupations, assisting candidates with the application process, assisting managers with the selection process, and moving away from paper-based pre-employment tools to digital tools such as digital fingerprints and electronic forms submission. Additionally, HR will improve the employee on-boarding experience by acquiring a LincPass for each new employee by the end of the first week of employment, thereby providing access to FSIS systems more rapidly. HR will also begin creating individual employee electronic identification and e-mail accounts as part of employee profile for faster receipt of agency information.

**Procurement:** In FY 2019, FSIS acquisition management will improve service delivery by assigning the program areas of FSIS a central point of contact in the Procurement Branch to ensure quality and timeliness of requested actions and effectively communicate status of their procurement requests. Additionally, each program will have an identified team lead assigned to their program. This lead will serve to efficiently provide updates to program officials on the status of their program’s actions and manage workflow. This new process will eliminate the need for program officials to identify and address multiple contract specialists who may be working their requirement, improving service delivery.

**Financial Systems:** In FY 2018, FSIS implemented its Financial Reporting Improvements Optimization project and the new Department wide relocation tracking and execution system which will create greater efficiencies in its financial and budgeting processes. In FY 2019, FSIS will continue work on building or modifying interfaces and automating business processes, increasing analysis capabilities, and gaining efficiencies in transforming complex financial data into practical information. This includes completing FSIS-specific projects related to budgeting and financial management. The agency will also continue to support the modernization of its export certificate process and industry billing processes.

**IT:** In IT, FSIS will improve its approval process and customer support procedures to increase customer satisfaction and workforce productivity. For example, FSIS plans to use recent survey results to make improvements to the customer experience when requesting new hardware or software. It also includes working with FSIS program areas to launch and implement innovative ways to visually display information to support decision making.

**Customer Service:** In FY 2019, FSIS will analyze data from recent surveys on services within FSIS, and this data will inform decisions on future potential enhancements. FSIS will also use survey data on employee preferences related to course access and delivery, as well as to continue to incorporate online resource information and customer feedback materials into IPP Help and new Supervisor Help to increase customer satisfaction.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Target</th>
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<tbody>
<tr>
<td>% of client satisfaction with key FSIS services (3.2.2.1)</td>
<td>80%</td>
</tr>
<tr>
<td>Maintain the agency’s IT ranking in the American Customer Service Index</td>
<td>#4 (ranking)</td>
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</table>
Enhance Collaboration With Our Partners

FSIS maintains a multitude of collaborations and partnerships to improve food safety outcomes in a manner that would be impossible to achieve alone. FSIS engages with Federal, State, Tribal, territorial, and local agencies and stakeholders at meetings, conferences, and in working groups aimed at preventing and responding to foodborne illness and protecting public health.

Each year, FSIS builds on its successes from existing collaborations and initiating new relationships to further its strategic goals to prevent foodborne illness, protect public health, and modernize inspection systems, policies, and the use of scientific approaches. During FY 2019, FSIS will focus on the following collaborations that will further U.S. food safety efforts. A description of each group referenced and additional collaborations can be found in Appendix A.

**FSIS-FDA Dual-Jurisdiction Establishments Workgroup:** In January 2018, USDA and FDA entered into a formal agreement to increase regulatory and operational efficiency and improve program effectiveness through enhanced collaboration and coordination on areas of mutual interest. As part of the agreement, interagency workgroups were convened to improve coordination on issues of common concern. FSIS and FDA established an interagency Dual-jurisdiction Establishments Workgroup to bring greater clarity and consistency to jurisdictional decisions under FSIS and FDA’s respective authorities, identify and potentially reduce the number of establishments subject to the dual regulatory requirements, and define a transition period. The efforts of the working group will increase regulatory efficiency, decrease unnecessary regulatory burdens, and use government resources more efficiently to protect public health.

During FY 2019, the work group will focus on near-term activities to further coordination and information sharing on inspictional findings; sampling and test results; contaminated, adulterated, or illness-associated ingredients that are used in both FSIS and FDA products; enforcement actions; and food recalls. The working group will also catalogue all applicable statutes, regulations, memoranda of understanding, and inspection and sampling tasks and identify possible changes through rulemaking.

**Healthy People Food Safety Workgroup (HP FSWG):** Healthy People is a long-standing Governmentwide initiative aimed at improving the health of all Americans through establishing and monitoring science-based 10-year national objectives. Food safety is one of the topic areas. The HP FSWG includes subject matter experts from CDC, FDA, other HHS organizations, USDA FSIS, and the Food and Nutrition Service. The goal of the HP food safety topic area is to reduce foodborne illness in the United States by improving food safety-related behaviors and practices. In FY 2019, FSIS will continue to co-lead, with FDA, the HP FSWG, work to continue tracking HP 2020 food safety objectives and finalize the objectives, data sources, and targets for the HP 2030 decade.

**Interagency Retail \(Lm\) Action Plan: Enhancing Outreach on the Control of *Listeria monocytogenes* in Retail Delicatessens:** In FY 2018, FSIS convened a retail workgroup to develop an interagency retail \(Lm\) action plan to guide outreach to support the control of \(Lm\) at retail delicatessens. This effort was in response to a recommendation from the National Advisory Committee on Meat and Poultry Inspection (NACMPI) to FSIS.

During FY 2019, FSIS will work through its retail workgroup to improve intra-agency coordination of retail-related activities, and will collaborate with FDA and CDC to map out current Federal outreach activities related to the control of \(Lm\) at retail and use this information to identify opportunities to better leverage limited Federal resources to support retail food safety. FSIS, with input from FDA and CDC, will garner input from retailers and State and local health departments on the access and usefulness of Federal outreach and other sources of information to support sanitation and safe handling of RTE foods at retail to mitigate the risk of listeriosis. This information will be used by FSIS and its public health partners to develop the Interagency Retail \(Lm\) Action Plan supporting best practices in the control of \(Lm\) at retail delicatessens and to jointly develop specific outreach materials for retailers (e.g., for slicers) and to disseminate them.
**Interagency Collaboration on Genomics for Food and Feed Safety (Gen-FS) and PulseNet:** During FY 2018, Gen-FS formed a molecular markers workgroup to focus on genes involved in virulence and pathogenicity, survival and adaptability, resistance to biocides including antimicrobial resistance, and mobilome. In FY 2019, an FSIS-led subgroup will focus on virulence and pathogenicity genes in *Salmonella* of One Health interest. At the end of FY 2019, this workgroup expects to develop a framework to zero-in on genes that could have potential in further categorizing certain genotypes based on one health risk potential.

In order to provide a harmonized view of what WGS can do in a public health or one health setting, and capture how it is being used currently, the Gen-FS steering committee has initiated work on a WGS publication titled “The Use of Whole Genome Sequencing for Food Safety and Public Health in the United States- A Publication by the Gen-FS”. The manuscript for this publication is in early stages of development and expected to go in multi-agency clearance process in FY 2019 and the final publication/print will follow after the clearance process is completed.

From the start of WGS, the agency has used both PFGE and WGS to characterize *Salmonella*, *Campylobacter*, STEC, and *Lm*. However, PFGE for *Lm* was discontinued in January 2018 and FSIS started relying on WGS analysis for regulatory applications including determining harborage. FY 2019 forward, in consultation with appropriate stakeholders, FSIS intends to phase-out the use of PFGE with primary reliance on WGS analysis to inform inspection and enforcement activities for *Salmonella*, *Campylobacter*, and STEC. While transition from PFGE to WGS analysis approach called MLST depends on CDC- our public health partner, we anticipate this transition to take place in FY 2019 unless there are delays due to unforeseen circumstances.

**Interagency Risk Assessment Consortium (IRAC):** In FY 2019, FSIS will participate on an Environmental Protection Agency and FDA-led multi-agency Federal effort exploring current quantitative approaches to evaluate the interpretation of epidemiological data for use in risk assessments. This evaluation is part of on-going efforts to utilize current approaches to enhance the rigor and reproducibility of Federal risk assessments.

**National Advisory Committee on Microbiological Criteria for Foods (NACMCF):** In FY 2018, the NACMCF finalized two draft reports, *Salmonella* Control Strategies in Poultry, and Virulence Factors and Attributes that Define Foodborne STEC as Severe Human Pathogens, and made them publicly available. During FY 2019, NACMCF will work on publishing the two reports in the Journal of Food Protection. The Committee will also hold at least two subcommittee meetings to work on two new charges, the Use of Water in Animal Slaughter and Processing and Appropriate Product Testing Procedures and Criteria to Verify Process Control for Microbial Pathogens or appropriate indicator organisms in RTE Foods under FDA’s jurisdiction. Regulatory agencies such as FSIS must be able to provide supportable alternatives to current water consumption practices that allow industry to potentially use less and recycle water through developing criteria on the appropriate uses of varying water sources and treatment technologies in the processing of meat, poultry, and egg products.

**National Advisory Committee on Meat and Poultry Inspection (NACMPI):** The Committee will host a plenary session and renew its Charter.
Appendix A: Collaborations, Partnerships, Organizations, and Meetings and Conferences

Association of Public Health Laboratories (APHL)
FSIS serves on the APHL Food Safety Committee in a liaison capacity. The committee, which is comprised of representatives from State agriculture, environmental, and public health laboratories, meets by teleconference each month and in-person twice a year. The committee's purpose is to share information, promote beneficial strategies, coordinate training, and develop methods standardization across labs. In the past, FSIS has collaborated through APHL to provide coordination for FERN activities, but this could be expanded to consider other laboratory efforts.

Conference for Food Protection
The CFP is a biennial forum where representatives from the food industry, government, academia, and consumer organizations identify and address emerging problems of food safety and formulate recommendations. Though CFP has no formal regulatory authority, it significantly influences food safety guidance, model laws, and regulations among all government agencies and minimizes disparate interpretations and implementation.

Consumer Food Safety Education Conference
The Consumer Food Safety Education Conference is a gathering of consumer health-focused professionals from public and private sectors to explore influences on consumers and the way forward to enhance proper food preparation and hand hygiene practices. Participants include food safety educators and communicators, public health, environmental health, and Cooperative Extension professionals, consumer advocates, food and beverage industry professionals, local, State and Federal Government and military personnel, and K-12 and college and university educators. The conference features take-home strategies, tools, and resources to support attendees in their efforts to tackle their biggest food safety education program challenges and influence consumer food safety attitudes, knowledge, and behaviors. The conference also provides opportunities to network and engage in collaborative dialogue with a range of health and food safety professionals.

Council to Improve Foodborne Outbreak Response
The Council to Improve Foodborne Outbreak Response (CIFOR) is a multidisciplinary collaboration of national associations and Federal agencies, including FSIS, working together since 2006 to improve methods at the local, State, and Federal levels to detect, investigate, control, and prevent foodborne disease outbreaks. Council member representatives include expertise in epidemiology, public health laboratory, and environmental health activities and food regulation at the local, State, and Federal levels. CIFOR was created to develop and share guidelines, processes, and products that will facilitate effective and collaborative foodborne outbreak response.

Dual-Jurisdiction Establishments Workgroup (January 2018 USDA-FDA Memorandum of Understanding)
In January 2018, USDA and FDA entered into a formal agreement to increase regulatory and operational efficiency and improve program effectiveness through enhanced collaboration and coordination on areas of mutual interest. As part of the agreement, interagency workgroups were convened to improve coordination on issues of common concern. FSIS and FDA established an interagency Dual-jurisdiction Establishments Workgroup to bring greater clarity and consistency to jurisdictional decisions under FSIS and FDA’s respective authorities, identify and potentially reduce the number of establishments subject to the dual regulatory requirements, and define a transition period. The efforts of the working group will increase regulatory efficiency, decrease unnecessary regulatory burdens, and use government resources more efficiently to protect public health.

Enhancing Outreach and Partnerships with 27 State MPI Programs
FSIS maintains a multitude of collaborations and partnerships to improve food safety outcomes in a manner that would be impossible to achieve alone. FSIS engages with State, Tribal, territorial, and local agencies and stakeholders at meetings, conferences, and in working groups aimed at preventing and responding to foodborne illness and to protect public health. FSIS builds on its successes from existing collaborations/partnerships with State MPI programs to prevent foodborne illness and protect public health.
Environmental Health Specialists Network (EHS-Net)
EHS-Net (pronounced S-Net) is a CDC-led collaborative forum of State and local environmental health specialists and Federal agencies, including FSIS, whose mission is to improve environmental health practice. These specialists collaborate with epidemiologists and laboratorians to identify and prevent environmental factors contributing to foodborne illness outbreaks.

Food Emergency Response Network (FERN)
In 2004, Homeland Security Presidential Directive 9 established the creation of the FERN under the joint oversight of FSIS and the FDA. The network’s mission is to integrate the Nation’s multi-level food testing laboratories to detect, identify, respond to and recover from a bioterrorism or public health emergency involving the food supply. FERN provides Federal funding to FERN partner/State laboratories annually for the development of analytical methods, validation of analytical methods and targeted surveillance of FDA/FSIS-regulated commodities at the retail level. FSIS will continue to provide joint oversight with the FDA FERN National Program Office. FSIS will continue to partner with the FDA in targeted surveillance oversight of National Special Security Events (e.g., Presidential Inauguration) and National Security Events (e.g., Super Bowl) annually.

Food and Agriculture Government and Sector Coordinating Councils
In 2003, the Federal Government designated the Food and Agriculture Sector as a critical infrastructure sector, recognizing its significant contribution to national security and the economy. Since then, the sector has successfully built public-private partnerships that improved information sharing, created forums to share best practices, and developed tools and exercises to improve incident response and recovery. FSIS will continue to work with partners from the private sector, academia, and Federal, State, local, Tribal, and territorial governments through the Food and Agriculture Government and Sector Coordinating Councils to promote voluntary adoption of food defense practices by FSIS-regulated establishments.

Food Safety and Inspection Service Research Priorities and Research Collaborations
FSIS maintains and publishes a list of food safety research priorities to promote research in areas of importance to the FSIS mission. FSIS convenes its Research Priorities Review Panel annually to identify data gaps and propose research topics and associated study priorities to FSIS management for approval. To facilitate support, Research Priorities are communicated to the food safety research community via the FSIS web page, scientific meetings, and university/industry outreach. These priorities are also communicated to USDA ARS Food Safety National Program and USDA National Institute of Food and Agriculture Food Safety Program via regularly scheduled meetings. FSIS often facilitates accomplishment of priority research by collaborating with food safety researchers. Such collaborations may include contributing samples, data, microbiological isolates, and scientific expertise.

Foodborne Diseases Active Surveillance Network (FoodNet)
FoodNet conducts surveillance for *Campylobacter*, *Cryptosporidium*, *Cyclospora*, *Listeria*, *Salmonella*, STEC O157 and non-O157, *Shigella*, *Vibrio*, and *Yersinia* infections diagnosed by laboratory testing of samples from patients. The network was established in July 1996 and is a collaborative program among the CDC; 10 State health departments—Connecticut, Georgia, Maryland, Minnesota, New Mexico, Oregon, Tennessee, and selected counties in California, Colorado, and New York; FSIS; and the FDA. FoodNet accomplishes its work through active surveillance, surveys of laboratories, physicians, and the general population and population-based epidemiologic studies.

Healthy People Food Safety Workgroup (HP FSWG)
Healthy People is a long-standing Governmentwide initiative aimed at improving the health of all Americans through establishing and monitoring science-based 10-year national objectives. Food Safety is one of the topic areas. The HP FSWG includes subject matter experts from CDC, FDA, other Department of Health and Human Services organizations, USDA FSIS and FNS. The goal of the HP food safety topic area is to reduce foodborne illness in the United States by improving food safety-related behaviors and practices.
Appendix A: Collaborations, Partnerships, Organizations, and Meetings and Conferences

Inter-American Network of Food Analysis Laboratories (INFAL)
INFAL is hosted by the Pan American Health Organization. The network includes laboratories in every country in the Americas and offers a vehicle through which the laboratories exchange information, share data, and offer training. The INFAL mission is to promote the assurance of food safety and food quality in the region of the Americas for the prevention of foodborne diseases, protect consumers’ health and facilitate trade, and encouraging and strengthening the development and interaction of food analysis laboratories within the framework of national integrated programs for food protection. Its general objectives are promoting methodological harmonization and methodological equivalence of food analysis laboratories, promoting the implementation of equivalent quality management systems in INFAL laboratories (ISO/IEC 17025), and strengthening the technical-scientific cooperation among the countries involved. FSIS is available to host laboratory methods training for countries in the Network.

Integrated Consortium of Laboratory Networks (ICLN)
ICLN was established in June 2005 by a Memorandum of Agreement among 10 Federal Departments/Agencies. Signatories work cooperatively to optimize national laboratory preparedness, promote common standards of performance, and fill gaps in coverage across all response phases. FSIS participates monthly in Laboratory Network Coordinating meetings hosted by the ICLN. This group primarily develops and proposes policies and procedures but also establishes common operating guidelines/standard operating procedures for the ICLN. FSIS participates in table top exercises, functional proficiency events, and leveraged training coordinated by the ICLN.

Integrated Foodborne Outbreak Response and Management Conference
The biannual Integrated Foodborne Outbreak Response and Management Conference and PulseNet/OutbreakNet Regional meetings bring Federal, State, and local agency laboratorians, epidemiologists, environmental health specialists, and regulatory officials together to share the latest best practices in surveillance and outbreak detection and response to enteric diseases, with a focus on those caused by contaminated foods, water, and animals.

Interagency Collaboration on Genomics for Food and Feed Safety (Gen-FS)
Gen-FS is an interagency group with agency leaders from FDA, CDC, and USDA FSIS, ARS, and Animal and Plant Health Inspection Service, and the National Center for Biotechnology Information at the National Institutes of Health, with the primary function to coordinate, strengthen, and lead U.S. WGS efforts among Federal and State partners and further improve public health. The group works on crosscutting priorities for molecular sequencing of foodborne and other zoonotic pathogens causing human illness—for data collection and analysis and for the use of these data in support of surveillance and outbreak investigation activities.

Interagency Foodborne Outbreak Response Collaboration (IFORC)
IFORC, chartered in 2013, represents an important effort to improve coordination of Federal foodborne outbreak response responsibilities of CDC, USDA FSIS, and FDA. IFORC works to improve activities by CDC, USDA FSIS, and FDA concerning multistate foodborne outbreak detection, hypothesis generation, hypothesis testing, food vehicle identification, control measures to prevent illnesses and deaths, root cause analyses, and the dissemination of information on identified food safety systems gaps to inform efforts to prevent future outbreaks.

Interagency Food Safety Analytics Collaboration (IFSAC)
To enhance the safety of our food, three Federal agencies—CDC, FDA, and USDA FSIS—teamed up in 2011 to create IFSAC. The goal of this collaboration is to improve coordination of Federal food safety analytic efforts and address crosscutting priorities for food safety data collection, analysis, and use. The current focus of IFSAC’s activities is foodborne illness source attribution, defined as the process of estimating the most common food sources responsible for specific foodborne illnesses.
Appendix A: Collaborations, Partnerships, Organizations, and Meetings and Conferences

Interagency Retail *Lm* Action Plan: Enhancing Outreach on the Control of *Listeria monocytogenes* in Retail Delicatessens
In FY 2018, FSIS, in collaboration with FDA and CDC, convened a workgroup to develop an interagency retail *Lm* action plan to guide outreach to support the control of *Lm* at retail delicatessens. This effort was undertaken in response to a recommendation from the NACMPI to FSIS. During FY 2019, the interagency workgroup will map out current Federal outreach activities related to the control of *Lm* at retail. FSIS, with input from FDA and CDC, will garner input from retailers and State and local health departments on the access and usefulness of Federal outreach and other sources of information to support sanitation and safe handling of RTE foods at retail to mitigate the risk of listeriosis. This information will be used by FSIS and its public health partners to develop the Interagency Retail *Lm* Action Plan supporting best practices in the control of *Lm* at retail delicatessens.

Interagency Risk Assessment Consortium (IRAC)
This consortium consists of representatives from 23 U.S. Government agencies, institutes, and centers with responsibilities and related interests in the conduct of food safety risk assessments. In this consortium, agencies collectively work to enhance communication and coordination among the member agencies and promote the conduct of priority scientific research useful for the conduct of food safety risk assessment, advancement of modelling methods, and sharing data and information. IRAC supports continued advancement of the emergent field of quantitative microbiological risk assessment and evolving field of chemical risk assessment; both are required to guide major Federal policies and support risk management decisionmaking.

International Association for Food Protection Annual Meeting
The International Association for Food Protection hosts an annual meeting which provides attendees with information on current and emerging food safety issues, the latest science, innovative solutions to new and recurring problems, and the opportunity to network with thousands of food safety professionals from around the globe. The meeting, which is held in various locations throughout North America and is attended by over 3,600 top industry, academic, and governmental food safety professionals, has become the leading food safety conference worldwide. FSIS experts present on the agency’s contributions in the field of food safety.

Laboratory Response Network (LRN)
The LRN was established by CDC in accordance with Presidential Decision Directive 39, which outlined National anti-terrorism policies and assigned specific missions to Federal Departments and agencies. The LRN is charged with the task of maintaining an integrated network of State and local public health, Federal, military, and international laboratories that can respond to bioterrorism, emerging infectious diseases, chemical terrorism, and other public health emergencies. FSIS has maintained its status as LRN member lab since 2002.

National Advisory Committee on Meat and Poultry Inspection (NACMPI)
This committee advises the U.S. Secretary of Agriculture on matters affecting Federal and State inspection program activities, including on food safety policies that will contribute to USDA’s regulatory policy development.

National Advisory Committee on Microbiological Criteria for Foods (NACMCF)
This committee provides impartial scientific advice to Federal agencies to use in developing integrated food safety systems from farm to table and to ensure food safety in domestic and imported foods.
Appendix A: Collaborations, Partnerships, Organizations, and Meetings and Conferences

National Antimicrobial Resistance Monitoring System (NARMS)
NARMS is an interagency, collaborative partnership with State and local public health departments, FDA, CDC, and USDA. This national public health surveillance system tracks changes in antimicrobial susceptibility of select foodborne enteric bacteria found in ill people (CDC), retail meats (FDA), and food animals (FSIS). The NARMS program at USDA focuses on sampling and testing of intestinal cecal contents, carcasses, and meat and poultry by FSIS. The primary objectives of NARMS are to monitor trends in antimicrobial resistance among enteric bacteria from humans, retail meats, and animals; disseminate timely information on antimicrobial resistance to promote interventions which reduce resistance among foodborne bacteria; conduct research to achieve better understanding of emergence, persistence, and spread of antimicrobial resistance; and provide data that assists FDA in decision making involving the approval of safe and effective antimicrobial drugs for animals. The NARMS findings from all the agency partners are published on a periodic basis in a single NARMS Integrated Report.

Partnership for Food Protection (PFP)
The PFP is a group of professionals from Federal, State, and local governments with roles in protecting the food supply and public health. PFP is the structure used to coordinate representatives with expertise in numerous specialties—food, feed, epidemiology, laboratory, animal health, environment, and public health—to integrate activities in the food safety system. PFP is led by a Governing Council of members from Federal, State, and local agencies, for which FSIS has a non-voting representative; Governing Council is responsible for oversight and management of the overall partnership.

PulseNet
PulseNet is a national laboratory network, consisting of more than 83 laboratories in seven U.S. regions and headquartered at CDC, that connects foodborne illness cases to detect outbreaks. PulseNet uses DNA fingerprinting, or patterns of bacteria making people sick, to detect thousands of local and multistate outbreaks. Since the network began in 1996, PulseNet has improved our food safety systems through identifying outbreaks early. This allows investigators to find the source, alert the public sooner, and identify gaps in our food safety systems that would not otherwise be recognized.

Rapid Response Teams (RRTs)
RRTs are State-led multi-agency, multi-disciplinary teams that operate using Incident Command System/National Incident Management System principles and a Unified Command structure to respond to human and animal food emergencies. The teams can be comprised of partners from local, State, and Federal agencies, including FSIS, as well as stakeholders from academia and industry. The desired outcome of RRT development is to minimize the time between agency notification of a human food or animal feed contamination event and implementation of effective control measures.

State-led Food Safety Councils and Taskforces
FSIS routinely participates on State agency-led food safety councils and taskforces that bring together the various stakeholders to discuss upcoming events and exercises, public outreach, and information sharing on current activities through monthly or quarterly in-person meetings. The stakeholders include State and local agriculture; consumer protection; environmental health and public health officials; Federal food safety agencies; Federal, State, and local law enforcement personnel; and State emergency management personnel.
FSIS CORE VALUES

ACCOUNTABLE
FSIS holds itself accountable in fulfilling its regulatory mission and in serving the public interest.

COLLABORATIVE
FSIS actively promotes and encourages collaboration within our agency and with our partners to prevent illness and protect public health.

EMPOWERED
FSIS employees are empowered with the necessary training, tools, and approaches they need to make and carry out informed decisions that protect public health and promote food safety.

SOLUTIONS-ORIENTED
FSIS is committed to deploying effective, evidence-based solutions to ensure that the Nation’s food supply is safe.

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