



Association of Food and Drug Officials

2020-2021 State Food Program Resource Survey

Due to COVID-19 impacts on inspectional programs, data provided in this survey was obtained from work performed during calendar year 2019.

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I. INTRODUCTION

The Association of Food and Drug Officials (AFDO) periodically conducts a resource survey of state human and animal food regulatory programs to collect important data that can be used to reinforce what a critical role state food safety programs play in the national regulatory scheme. This year AFDO broke the survey out into components and distributed them based on commodity or facility types, in an effort to focus more directly on each segment of the food safety regulatory system.

AFDO recognizes that 2020 was an extremely challenging year as a result of COVID-19, and that inspection related data associated with this year may not be representative of normal operations for most programs. For that reason, AFDO requested that programs provide their annualized data based on calendar year 2019 information. Data was collected from state manufactured food, retail food, grade-A milk, shellfish, meat and poultry, produce, and laboratory programs.

AFDO would like to thank all the state programs and their staff that were involved in assembling the data that was compiled for this survey.

This survey was supported by the Food and Drug Administration (FDA) of the U.S. Department of Health and Human Services (HHS) as part of a financial assistance award with 100 percent of this project funded by FDA/HHS. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by FDA/HHS, or the U.S. Government.

II. AGENCIES RESPONDING TO THE SURVEY

| State | Departments of Agriculture | Departments of Health | Other Agencies |
|---------------|--|--|---|
| Alaska | | | Alaska Department of Environmental Conservation |
| Alabama | Alabama Department of Agriculture and Industries | Alabama Department of Public Health | |
| Arizona | Arizona Department of Agriculture | Arizona Department of Health Services | |
| Arkansas | Arkansas Department of Agriculture | Arkansas Department of Health | |
| California | California Department of Food and Agriculture | California Department of Public Health | |
| Colorado | Colorado Department of Agriculture | Colorado Department of Public Health & Environment | |
| Connecticut | Connecticut Department of Agriculture | Connecticut Department of Public Health | Connecticut Department of Consumer Protection Connecticut Agricultural Experiment Station |
| Delaware | Delaware Department of Agriculture | Delaware Department of Health and Social Services | |
| Florida | Florida Department of Agriculture & Consumer Services | Florida Department of Health | |
| Georgia | Georgia Department of Agriculture | | |
| Hawaii | Hawaii Department of Agriculture | Hawaii Department of Health | |
| Idaho | Idaho Department of Agriculture | Idaho Department of Health & Welfare | |
| Illinois | | Illinois Department of Public Health | |
| Indiana | | Indiana Department of Health | Indiana State Chemist |
| Iowa | Iowa Department of Agriculture & Land Stewardship | | Iowa Department of Inspections & Appeals State Hygienic Laboratory at the University of Iowa |
| Kansas | Kansas Department of Agriculture | | |
| Kentucky | Kentucky Department of Agriculture | Kentucky Department of Public Health | Kentucky Division of Regulatory Services |
| Louisiana | Louisiana Department of Agriculture & Forestry | Louisiana Department of Health | |
| Maine | Maine Department of Agriculture, Conservation & Forestry | Maine Department of Health & Human Services | Maine Department of Marine Resources |
| Maryland | Maryland Department of Agriculture | Maryland Department of Health | |
| Massachusetts | Massachusetts Department of Agricultural Resources | Massachusetts Department of Public Health | |
| Michigan | Michigan Department of Agriculture and Rural Development | | |
| Minnesota | Minnesota Department of Agriculture | Minnesota Department of Health | |
| Mississippi | Mississippi Department of Agriculture & Commerce | Mississippi State Department of Health | Mississippi State Chemical Laboratory - Office of the State Chemist Mississippi Department of Marine Resources |

| State | Departments of Agriculture | Departments of Health | Other Agencies |
|----------------|--|---|---|
| Missouri | Missouri Department of Agriculture | Missouri Department of Health & Senior Services | |
| Montana | Montana Department of Agriculture | Montana Department of Public Health & Human Services | Montana Department of Livestock |
| Nebraska | Nebraska Department of Agriculture | Nebraska Department of Health & Human Services | |
| Nevada | Nevada State Department of Agriculture | Nevada Department of Health & Human Services | |
| New Hampshire | New Hampshire Department of Agriculture Markets & Food | New Hampshire Department of Health and Human Services | |
| New Jersey | New Jersey Department of Agriculture | New Jersey Department of Health | |
| New Mexico | New Mexico Department of Agriculture | New Mexico Department of Health | New Mexico Environment Department |
| New York | New York Department of Agriculture & Markets | New York Department of Health | |
| North Carolina | North Carolina Department of Agriculture & Consumer Services | North Carolina Department of Health & Human Services | |
| North Dakota | North Dakota Department of Agriculture | North Dakota State Department of Health | North Dakota State Department of Environmental Quality |
| Ohio | Ohio Department of Agriculture | Ohio Department of Health | |
| Oklahoma | Oklahoma State Department of Agriculture, Food & Forestry | Oklahoma Department of Health | |
| Oregon | Oregon Department of Agriculture | Oregon Health Authority | |
| Pennsylvania | Pennsylvania Department of Agriculture | Pennsylvania Department of Health | |
| Rhode Island | | Rhode Island Department of Health | |
| South Carolina | South Carolina Department of Agriculture | South Carolina Department of Health & Environmental Control | |
| South Dakota | | South Dakota Department of Health | South Dakota State University Animal Disease Research and Diagnostic Laboratory |
| Tennessee | Tennessee Department of Agriculture | Tennessee Department of Health | |
| Texas | Texas Department of Agriculture | Texas Department of State Health Services | |
| Utah | Utah Department of Agriculture and Food | Utah Department of Health | |
| Vermont | Vermont Agency of Agriculture Food & Markets | Vermont Department of Health | |
| Virginia | Virginia Department of Agriculture and Consumer Services | Virginia Department of Health | Virginia Department of General Services |
| Washington | Washington Department of Agriculture | Washington State Department of Health | |
| West Virginia | West Virginia Department of Agriculture | West Virginia Department of Health & Human Resources | |
| Wisconsin | Wisconsin Department of Agriculture, Trade & Consumer Protection | Wisconsin Department of Health Services | |
| Wyoming | Wyoming Department of Agriculture | | |

III. SUMMARY OF KEY DATA

Total Number of State Inspections Conducted in 2019

| Establishment Type | Total Number of State Inspections |
|-----------------------------------|--|
| Manufactured Food | 45,995 |
| Retail Food | 968,195 |
| Grade A Milk & Manufacturing Milk | 112,522 |
| Shellfish | 4,885 |
| Meat & Poultry | 129,950 |
| Produce | 1,121 |
| Total | 1,262,668 |

Total Number of Complaint Investigations Conducted by the States in 2019

| Establishment Type | Total Number of State Complaint Investigations |
|-----------------------------------|---|
| Manufactured Food | 3,053 |
| Retail Food | 26,812 |
| Grade A Milk & Manufacturing Milk | 140 |
| Shellfish | 303 |
| Meat & Poultry | 650 |
| Produce | 7 |
| Total | 30,965 |

Total Number of Enforcement Actions Initiated by States in 2019

| Establishment Type | Total Number of State Enforcement Actions |
|-----------------------------------|--|
| Manufactured Food | 11,570 |
| Retail Food | 22,098 |
| Grade A Milk & Manufacturing Milk | 1,184 |
| Shellfish | 829 |
| Meat & Poultry | 2,037 |
| Produce | 13 |
| Total | 37,731 |

Total Monetary Penalties Issued by States in 2019

| Establishment Type | Total State Issued Monetary Penalties |
|-----------------------------------|--|
| Manufactured Food | \$3,802,434 |
| Retail Food | \$4,724,926 |
| Grade A Milk & Manufacturing Milk | \$119,400 |
| Shellfish | \$23,725 |
| Meat & Poultry | \$99,103 |
| Produce | 0 |
| Total | \$8,769,588 |

Total State Embargoes and Quarantines Levied in 2019

| Establishment Type | Total Pounds of Food Embargoed and Quarantined | Total Value of Food Embargoed and Quarantined |
|-----------------------------------|---|--|
| Manufactured Food | 197,981 | \$26,271,990 |
| Retail Food | 241,930 | \$4,876,930 |
| Grade A Milk & Manufacturing Milk | 1,097,767 | \$39,805 |
| Shellfish | 12,631 | \$78,162 |
| Meat & Poultry | 54,508 | \$115,831 |
| Produce | 0 | 0 |
| Total | 1,604,817 | \$31,383,272 |

Total Condemns and Destructs of Food Overseen by States in 2019

| Establishment Type | Total Pounds of Food Condemned and Destroyed | Total Value of Food Condemned and Destroyed |
|-----------------------------------|---|--|
| Manufactured Food | 468,249 | \$10,741,494 |
| Retail Food | 83,937 | \$5,310,177 |
| Grade A Milk & Manufacturing Milk | 1,743,404 | \$234,396 |
| Shellfish | 10,523 | \$17,271 |
| Meat & Poultry | 373,692 | \$1,001,065 |
| Produce | 0 | 0 |
| Total | 2,679,805 | \$17,304,403 |

Total Number of State Laboratory Analyses Conducted in 2019

| Analysis Type | Total Analyses |
|--|-----------------------|
| <i>Human Food Microbiology Analyses</i> | 171,577 |
| <i>Human Food Chemistry Analyses</i> | 83,413 |
| <i>Animal Food Microbiology Analyses</i> | 5,792 |
| <i>Animal Food Chemistry Analyses</i> | 80,433 |
| <i>Whole Genome Sequencing</i> | 14,557 |
| Total | 355,772 |

IV. MANUFACTURED FOOD

A. General Questions

| How are manufactured food facilities regulated in the state? | |
|--|-----|
| State is responsible for licensing and inspecting all facilities | 66% |
| State licenses and inspects facilities except where local jurisdictions are delegated authority / have their own program | 7% |
| State licenses facilities but inspections are completed by local agencies | 2% |
| Responsibility for licensing and inspections is shared between two or more state agencies | 16% |
| All facilities are licensed and inspected by local agencies | 0% |
| Other | 9% |
| Total Number of Responses: 44 | |

| Who oversees cottage food or home based food operations within the state? | |
|--|-----|
| State Department of Agriculture | 32% |
| State Department of Health | 29% |
| Local Agencies | 16% |
| Cottage food is not permitted within the state | 9% |
| Other | 14% |
| Total Number of Responses: 44 | |

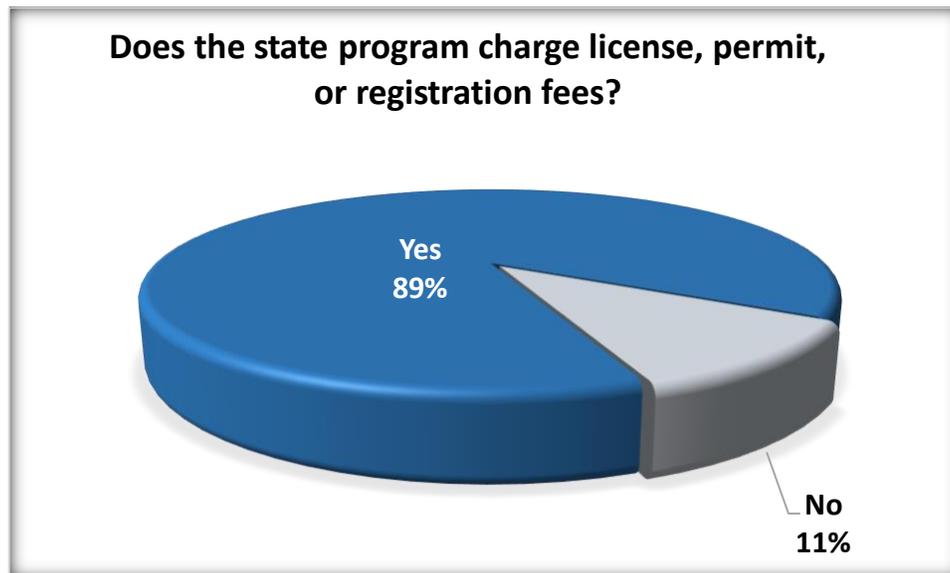


Figure 1. Total Number of Responses: 44

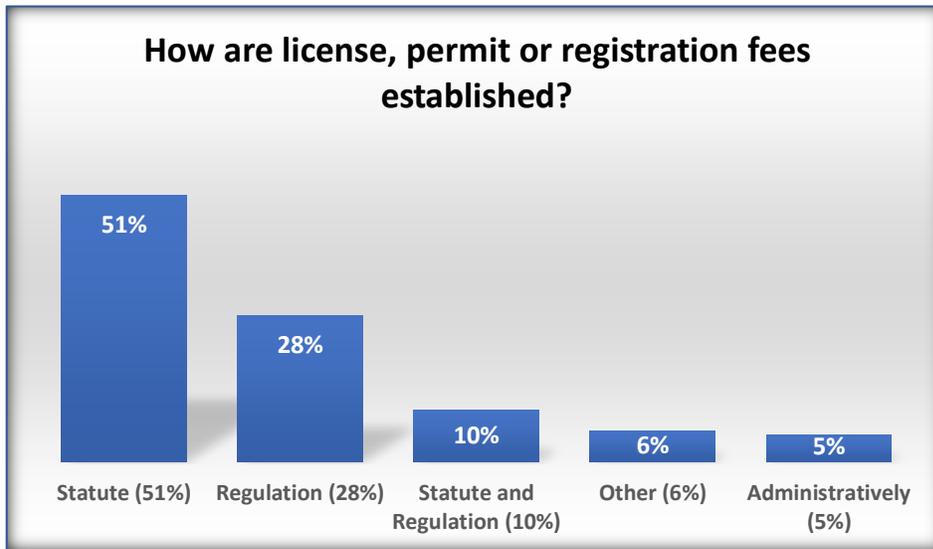


Figure 2. Total Number of Responses: 39

| What factors are license, permit, or registration fees based on? (Selected all that applied) | |
|---|-----|
| Risk | 21% |
| Facility type or products processed | 49% |
| Facility square footage | 28% |
| Facility revenue | 28% |
| Number of employees | 10% |
| Other | 18% |
| Total Number of Responses: 39 (Responders may have selected more than one factor) | |

| Are inspection frequencies established based on risk? | |
|--|-----|
| Yes | 86% |
| No | 14% |
| Total Number of Responses: 44 | |

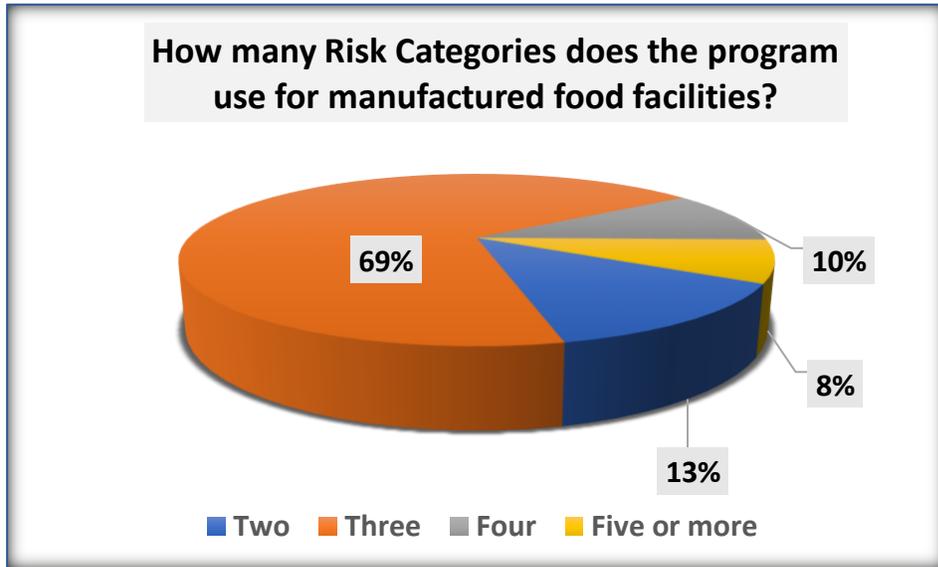


Figure 3. Total number of responses: 39

| State program has responsibility for inspecting facilities processing or handling the following products intended for human consumption (Selected all that applied) | |
|--|-----|
| Hemp | 49% |
| CBD | 40% |
| Marijuana | 14% |
| Medical Marijuana | 26% |
| Cannabis Extraction | 19% |
| None | 37% |
| Total Number of Responses: 43 (Responders may have selected more than one category type) | |

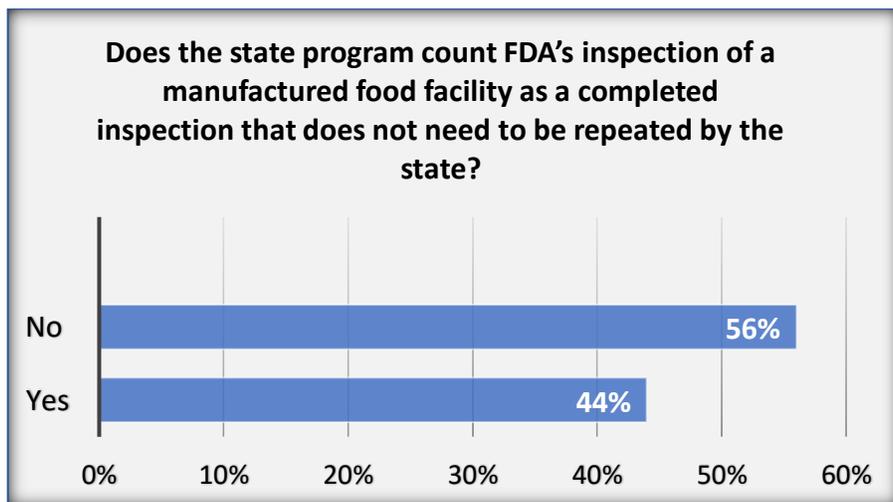


Figure 4. Total number of responses: 43

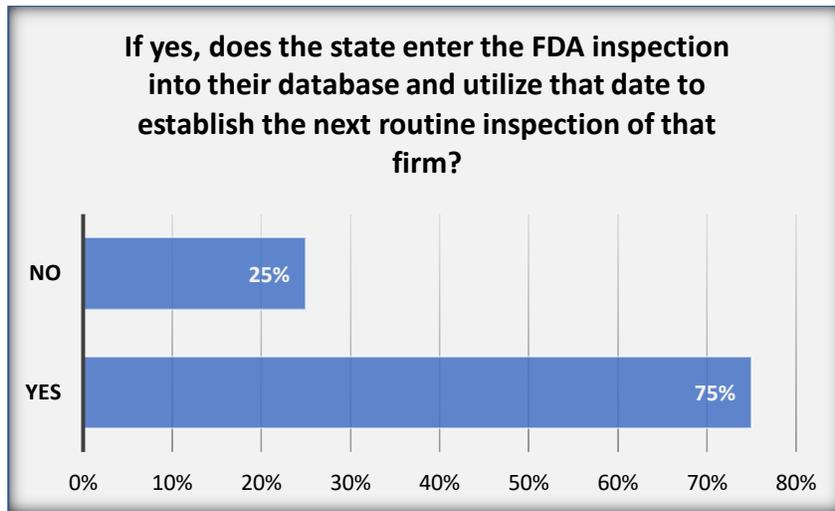


Figure 5. Total number of responses: 20

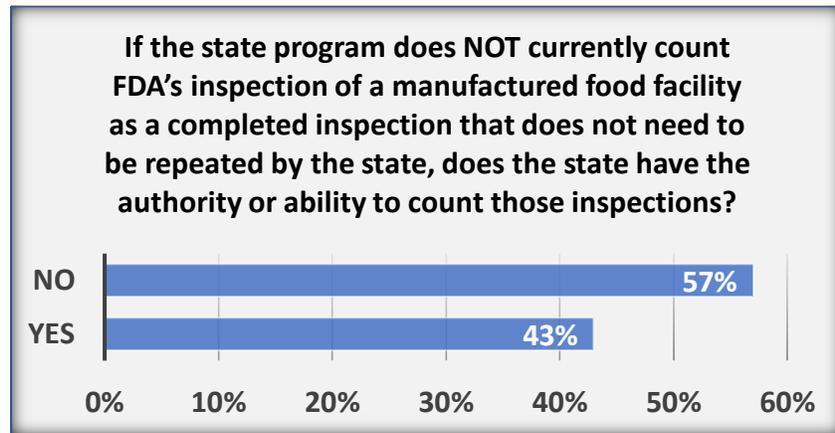


Figure 6. Total number of responses: 23

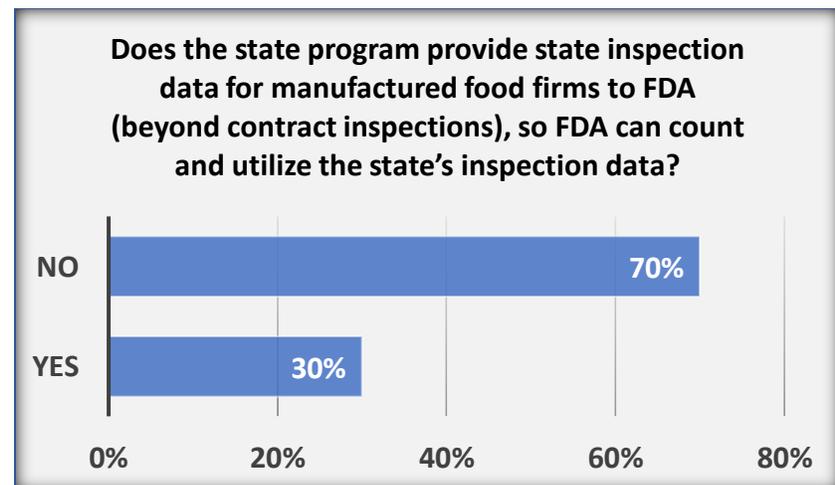


Figure 7. Total number of responses: 44

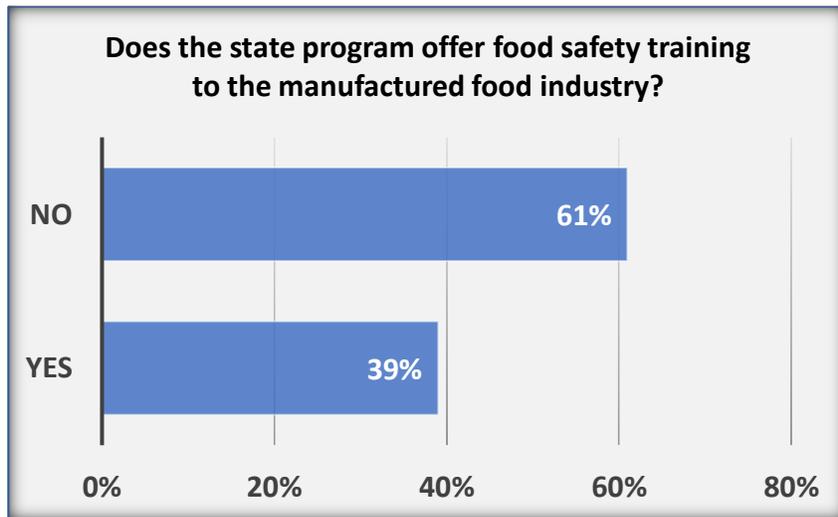


Figure 8. Total number of responses: 44

| If yes, what types of training does your state program offer? | |
|---|-----|
| Current Good Manufacturing Practices | 47% |
| Preventive Controls | 65% |
| HACCP | 47% |
| Recalls | 35% |
| Allergen Control | 41% |
| Labeling | 47% |
| Other | 0% |
| Total Number of Responses: 17 (Responders may have selected more than one training program type) | |

B. State Inventories and Inspections

| Establishment Type | Total Number Licensed or Permitted Facilities | Total Number of State Inspections in 2019 |
|---|---|---|
| Food Processor | 69,069* | 29,108* |
| Food Warehouse | 28,294* | 9,605 |
| Food Salvage | 411 | 199 |
| Cottage Food/Home Based Food Ops. | 17,694* | 2,213 |
| Food Transportation Vehicles | 2 | 0 |
| Dietary Supplement Manufacturer | 404* | 340 |
| Bottled Water | 1,613* | 199 |
| Water Vending | 2,327 | 197 |
| Ice Vending | 595 | 50 |
| FDA Contract Inspections | 2,115* | 4,084* |
| TOTAL | 122,524* | 45,995* |
| <i>Total Number of Responses varies by establishment type.</i> | | |
| <i>*Includes 1,426 facilities and 643 inspections under local jurisdictions in 3 states</i> | | |

C. Complaints, Recalls, Tracebacks, and Traceforwards

| Total non-foodborne illness related consumer complaints received & investigated in 2019: | |
|---|-------|
| Total Number of Consumer Complaints Received | 3,835 |
| Total Number of Consumer Complaints Investigated | 3,053 |
| Total Number of Responses: 39 | |

| Total recall and tracing activities that were conducted during calendar year 2019: | |
|---|-----|
| Tracebacks / Traceforwards related to adulterated and misbranded food | 220 |
| Recalls overseen related to firms under the state's jurisdiction | 395 |
| Recalls initiated as a result of investigative activities conducted by the state | 306 |
| Number of recall effectiveness checks conducted | 844 |
| Disaster or Emergency Responses (not related to foodborne illness) | 957 |
| Total Number of Responses varies by activity, range is 38-41. | |

D. Foodborne Disease

| Agency is responsible for the following functions: | |
|--|-----|
| Surveillance of foodborne disease outbreaks | 49% |
| Epidemiological investigations of foodborne disease outbreaks | 42% |
| Foodborne disease outbreak follow-up inspections / investigations at food establishments | 77% |
| Receiving and investigating alleged foodborne disease complaints | 81% |
| Total Number of Responses: 43 (Responders may have selected more than one function) | |

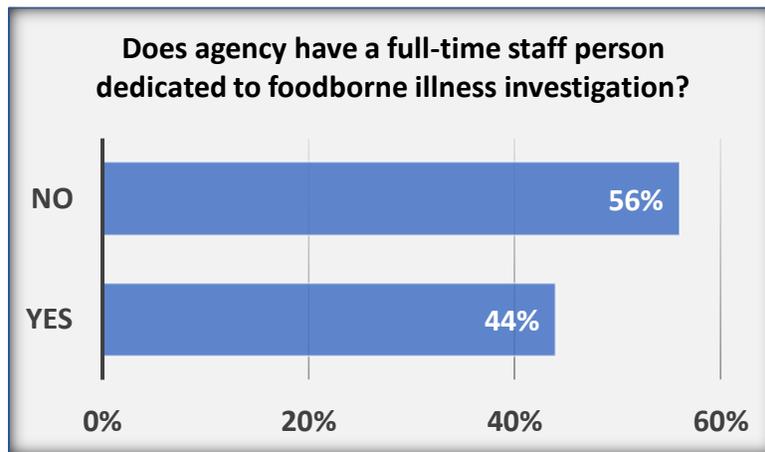


Figure 9. Total number of responses: 43

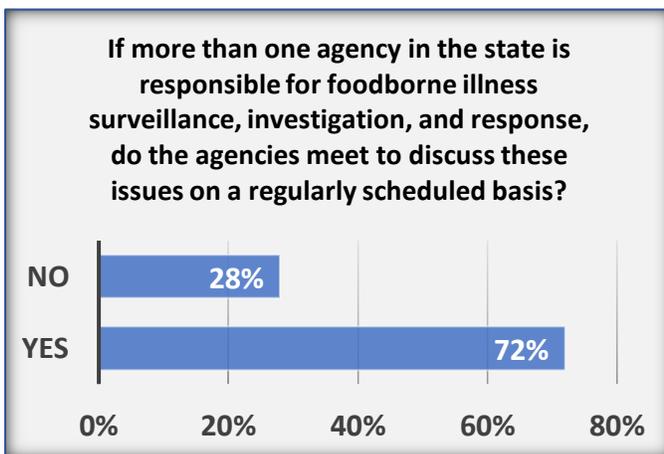


Figure 10. Total number of responses: 43



Figure 11. Total number of responses: 43

| Total number of foodborne disease related activities in 2019: | |
|---|-------|
| Alleged foodborne disease complaints (including ill food worker complaints) received | 1,939 |
| <u>Confirmed</u> foodborne disease outbreak <u>epidemiological</u> investigations the agency conducted? | 333 |
| <u>Confirmed</u> foodborne disease outbreak <u>follow-up inspections or investigations</u> the agency conducted | 98 |
| Foodborne disease outbreak <u>investigations</u> the agency conducted (confirmed + unconfirmed) | 631 |
| Foodborne disease outbreak <u>follow-up inspections or investigations</u> the agency conducted (confirmed + unconfirmed outbreaks) | 120 |
| Total Number of Responses: Varies by activity, range is 30-37 | |

E. Enforcement Authorities and Actions

| State Enforcement Authority | State programs reporting they have this enforcement authority | Total number of times enforcement authority was utilized during CY 2019 |
|--|--|--|
| Embargo/Quarantine/Impound | 93% | 1,486 |
| Seizure | 68% | 2,218 |
| Condemnation | 67% | 0 |
| Stop Sale Order | 57% | 44 |
| Voluntary Destruction / Disposal | 93% | 483 |
| Regulatory / Warning Letters | 98% | 2,290 |
| Health Advisories | 64% | 5 |
| Monetary Penalties (civil penalties) | 65% | 4,537 |
| License / Permit Suspension | 81% | 12 |
| License / Permit Revocation | 86% | 30 |
| Hearings | 90% | 186 |
| Closures | 67% | 17 |
| Criminal Complaints | 49% | 256 |
| Civil Complaints | 51% | 1 |
| Injunctions | 61% | 0 |
| Inspection Warrants | 33% | 5 |
| Search Warrants | 26% | 0 |
| Total Number of Responses: Varies by activity, range is 41-44 | | |

| Enforcement Activity in 2019 | |
|--|--------------|
| Total Number of Monetary Penalties Issued | 3,630 |
| Total Amount of Monetary Penalties Issued | \$3,802,434 |
| Total Embargoes and Quarantines | |
| Total Number of Embargoes and Quarantines | 1,476 |
| Total Pounds of Food Embargoed and Quarantined | 197,981 |
| Total Value of Food Embargoed and Quarantined | \$26,271,990 |
| Total Condemns and Destructions | |
| Total Number of Condemns or Destructions | 3,496 |
| Total Pounds of Food Condemned or Destroyed | 468,249 |
| Total Value of Food Condemned or Destroyed | \$10,741,494 |
| Total Number of Responses: Varies by activity, range is 21-33 | |

F. Staffing

| Program Staffing | Total Number of Full Time Equivalent Staff |
|--|---|
| Field Inspection / Investigation | 519 |
| Supervisors (Over Field Activities) | 76 |
| Compliance & Enforcement (Includes Recall Coordinators) | 34 |
| Emergency Response | 24 |
| Industry & Community Relations | 10 |
| Quality Management (includes Program Standards and Auditing) | 43 |
| Training Outreach | 12 |
| Administrative Support | 68 |
| Managers | 53 |
| Other Not Identified | 3 |
| Total State Program FTE's | 842 |
| Total Number of Responses: 44 | |

G. Program Funding

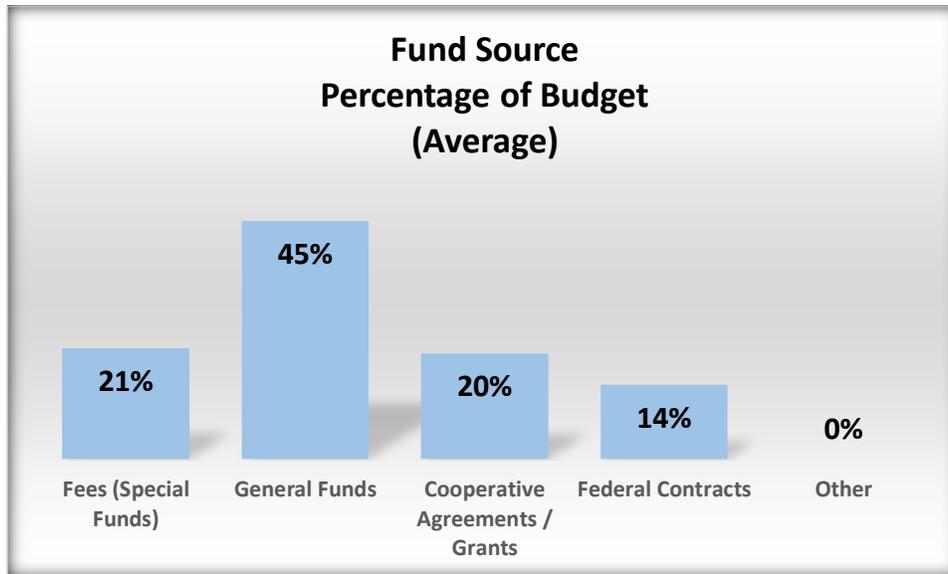


Figure 12. Total number of responses: 40

V. RETAIL FOOD

A. General Questions

| How are retail food establishments regulated in the state? | |
|--|-----|
| State is responsible for licensing and inspecting all food establishments | 20% |
| State licenses and inspects establishments except where local jurisdictions are delegated authority / have their own program | 40% |
| State licenses establishments but inspections are completed by local agencies | 2% |
| Responsibility for licensing and inspections is shared between two or more state agencies | 5% |
| All food establishments are licensed and inspected by local agencies | 18% |
| Other | 15% |
| Total Number of Responses: 40 | |

| Who oversees cottage food or home based food operations within the state? | |
|--|-----|
| State Department of Agriculture | 43% |
| State Department of Health | 27% |
| Local Agencies | 10% |
| Cottage food is not permitted within the state | 0% |
| Other | 20% |
| Total Number of Responses: 40 | |

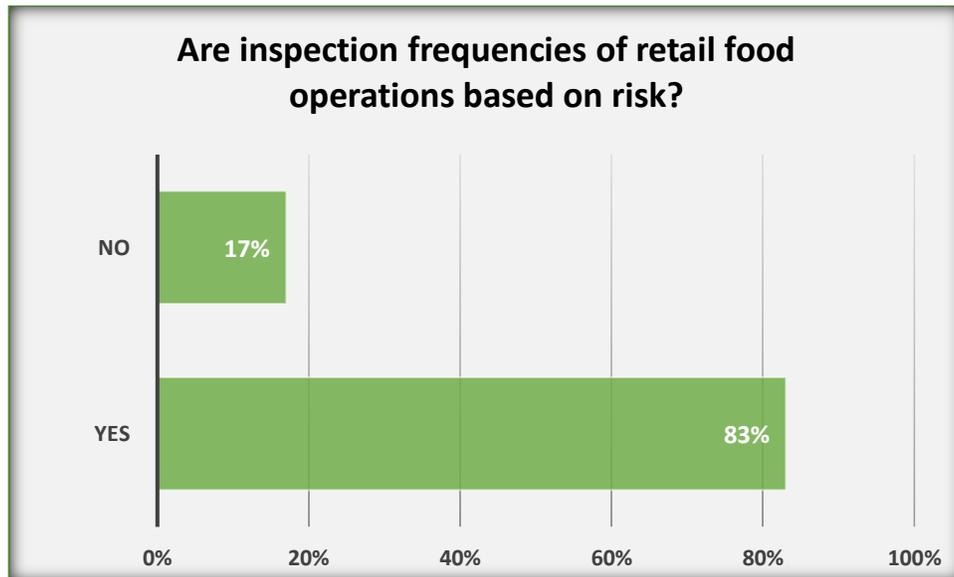


Figure 13 Total number of responses: 40

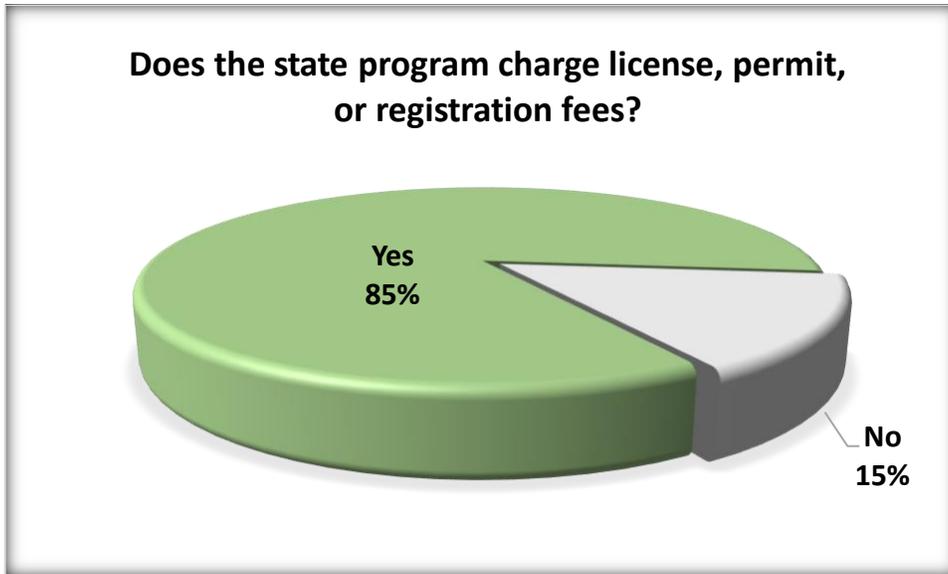


Figure 14. Total number of responses: 40

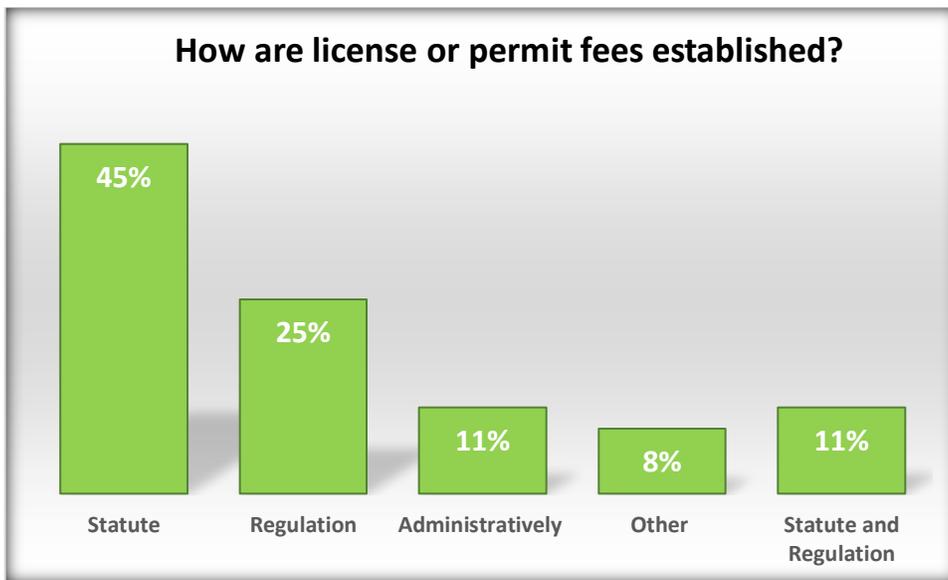


Figure 15. Total number of responses: 36

| What factors are license, permit, or registration fees based on? (Selected all that applied) | |
|--|-----|
| Risk | 28% |
| Facility type | 47% |
| Facility square footage | 22% |
| Facility revenue | 17% |
| Number of employees | 6% |
| Other | 31% |
| Total Number of Responses: 36 (Responders may have selected more than one factor) | |

| State program has responsibility for inspecting retail food establishments involved in processing or handling the following products (Selected all that applied) | |
|--|-----|
| Hemp at retail | 18% |
| CBD at retail | 25% |
| Marijuana at retail | 3% |
| Medical marijuana at retail | 3% |
| None | 70% |
| Total Number of Responses: 40 (Responders may have selected more than one answer) | |

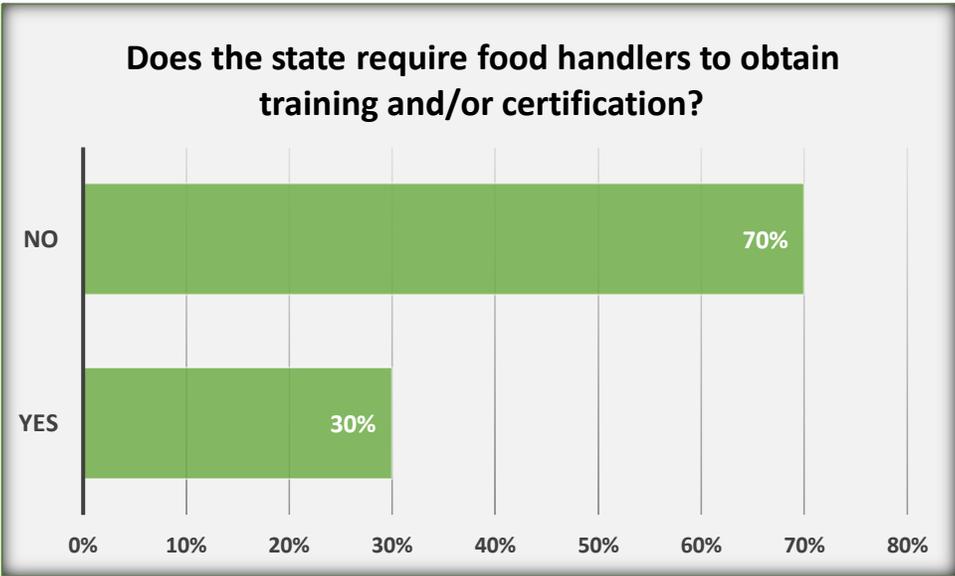


Figure 16. Total number of responses: 40

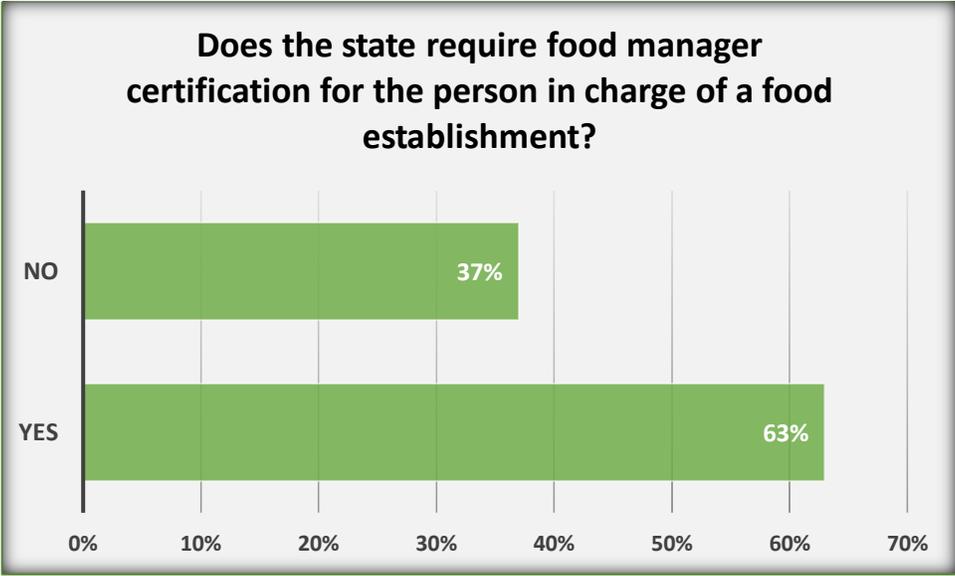


Figure 17. Total number of responses: 40

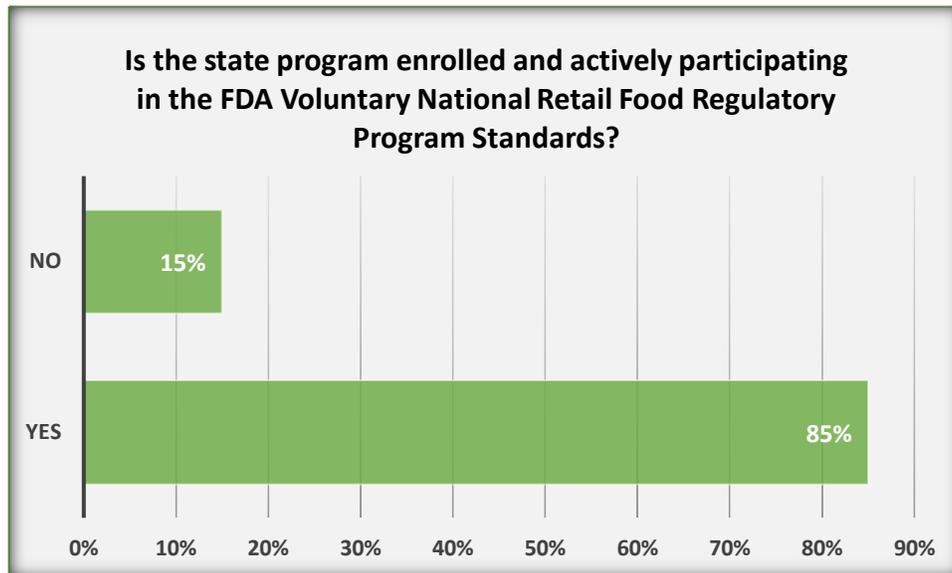


Figure 18. Total number of responses: 41

| If participating in the retail program standards, which standards is the program fully conformant with (self-assessment and verification audit completed)? | |
|---|-----|
| Standard 1 | 63% |
| Standard 2 | 20% |
| Standard 3 | 43% |
| Standard 4 | 20% |
| Standard 5 | 37% |
| Standard 6 | 20% |
| Standard 7 | 80% |
| Standard 8 | 13% |
| Standard 9 | 13% |
| Total Number of Responses: 30 (Responders may have selected more than one answer) | |

| Year last full assessment of the retail standards was completed: | |
|---|-----|
| 2020 | 9% |
| 2019 | 22% |
| 2018 | 19% |
| 2017 | 12% |
| 2016 | 16% |
| More than five (5) years | 22% |
| Total Number of Responses: 32 | |



Figure 19. Total number of responses: 38

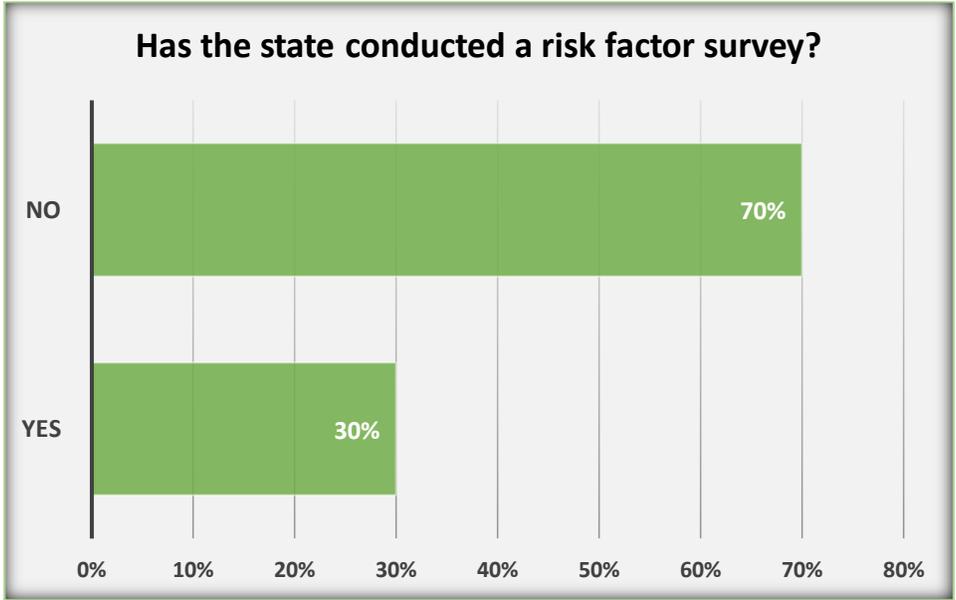


Figure 20. Total number of responses: 30

| For states that have conducted a risk factor survey: | |
|---|-----|
| It was conducted as an independent risk factor survey | 67% |
| It was conducted using inspectional results as the risk factor survey | 33% |
| Total Number of Responses: 12 | |

| For states that have conducted a risk factor survey, did they find interventions from the survey have impacted change in the inspectional program? | |
|---|-----|
| Yes | 18% |
| No | 0% |
| Not enough time has elapsed to determine | 46% |
| Not sure | 36% |
| Total Number of Responses: 11 | |

| Does the state use the FDA risk factor survey results to modify, improve, or update program procedures? | |
|--|-----|
| Yes | 44% |
| No | 56% |
| Total Number of Responses: 39 | |

B. State Inventories and Inspections

| Establishment Type | Total Number Licensed or Permitted Facilities | Total Number of State Inspections in 2019 |
|--|--|--|
| Retail Food Service | 302,273* | 320,014* |
| Temporary Food Service | 53,262* | 33,435* |
| Mobile Food Units | 40,413* | 42,073* |
| Inst. Food Service: Hospitals, Care Facilities | 2,512* | 1,027* |
| Inst. Food Service: Schools, Correctional Facilities | 24,361* | 441,415* |
| Retail Food Stores | 173,094* | 108,517* |
| Water Vending | 3,802 | 17,914 |
| Ice Vending | 968 | 346 |
| Cottage Food/Home Based Food Ops. | 6,390* | 1,219 |
| Other | 8,651 | 2,235 |
| TOTAL | 615,726* | 968,195* |
| Total Number of Responses: Varies by Establishment type, range is 34-38 | | |
| *Includes 234,177 facilities and 232,971 inspections under local jurisdictions in 14 states | | |

C. Complaints, Recalls, Tracebacks, and Traceforwards

| Total non-foodborne illness related consumer complaints received & investigated in 2019: | |
|---|--------|
| Total Number of Consumer Complaints Received | 43,589 |
| Total Number of Consumer Complaints Investigated | 26,812 |
| Total Number of Responses: Varies by category, Range is 32-34 | |
| Total recall and tracing activities that were conducted during calendar year 2019: | |
| Number of recall effectiveness checks conducted | 390 |
| Total Number of Responses: 31 | |

D. Foodborne Disease

| Agency is responsible for the following functions: | |
|--|-----|
| Surveillance of foodborne disease outbreaks | 58% |
| Epidemiological investigations of foodborne disease outbreaks | 44% |
| Foodborne disease outbreak follow-up inspections / investigations at food establishments | 78% |
| Receiving and investigating alleged foodborne disease complaints | 81% |
| Total Number of Responses: 36 (Responders may have selected more than one answer) | |

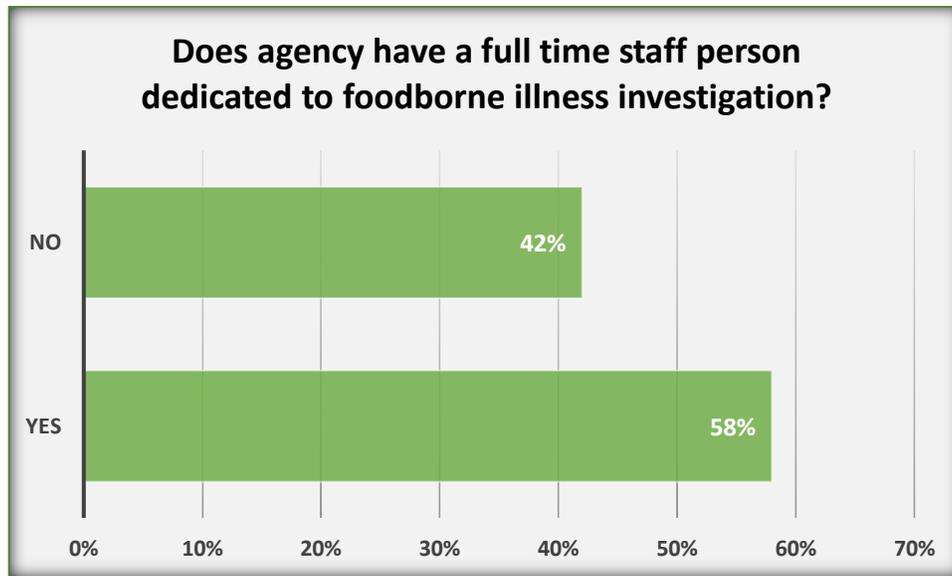


Figure 21. Total Number of Responses: 40

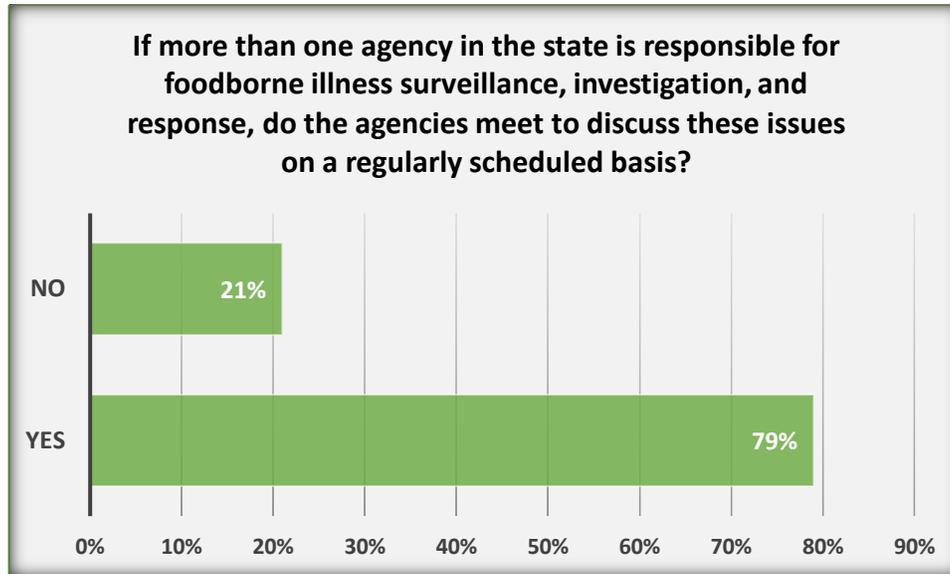


Figure 22. Total Number of Responses: 39

| How often do the agencies meet to discuss foodborne illness surveillance, investigation, and response? | |
|---|------|
| Weekly | 18% |
| Bi-Weekly | 7% |
| Monthly | 29% |
| Bi-Monthly | 3.5% |
| Quarterly | 25% |
| Annually | 3.5% |
| As needed | 14% |
| Total Number of Responses: 28 | |

| Total number of foodborne disease related activities in 2019: | |
|---|-------|
| Alleged foodborne disease complaints (including ill food worker complaints) received | 9,521 |
| <u>Confirmed</u> foodborne disease outbreak <u>epidemiological</u> investigations the agency conducted? | 270 |
| <u>Confirmed</u> foodborne disease outbreak <u>follow-up inspections or investigations</u> the agency conducted | 203 |
| Foodborne disease outbreak <u>investigations</u> the agency conducted (confirmed + unconfirmed) | 1,343 |
| Foodborne disease outbreak <u>follow-up inspections or investigations</u> the agency conducted (for confirmed + unconfirmed outbreaks) | 696 |
| Total Number of Responses: Varies by activity, range is 24-29 | |

E. Enforcement Authorities and Actions

| State Enforcement Authority | State programs reporting they have this enforcement authority | Total number of times enforcement authority was utilized during CY 2019 |
|--|---|---|
| Embargo/Quarantine/Impound | 84% | 1,157 |
| Seizure | 50% | 1 |
| Condemnation | 56% | 0 |
| Stop Sale Order | 51% | 83 |
| Voluntary Destruction / Disposal | 92% | 7,594 |
| Regulatory / Warning Letters | 89% | 7,251 |
| Health Advisories | 65% | 0 |
| Monetary Penalties (civil penalties) | 74% | 5,323 |
| License / Permit Suspension | 81% | 49 |
| License / Permit Revocation | 86% | 50 |
| Hearings | 89% | 226 |
| Closures | 86% | 115 |
| Criminal Complaints | 35% | 191 |
| Civil Complaints | 50% | 3 |
| Injunctions | 55% | 50 |
| Inspection Warrants | 36% | 5 |
| Search Warrants | 24% | 0 |
| Total Number of Responses: Varies by Authority/Action, range is 36-38 | | |

| Enforcement Activity in 2019 | |
|--|-------------|
| Total Number of Monetary Penalties Issued | 6,193 |
| Total Amount of Monetary Penalties Issued | \$4,724,926 |
| | |
| Total Number of Embargoes and Quarantines | 3,358 |
| Total Pounds of Food Embargoed and Quarantined | 241,930 |
| Total Value of Food Embargoed and Quarantined | \$4,876,930 |
| | |
| Total Number of Condemns or Destructions | 7,602 |
| Total Pounds of Food Condemned or Destroyed | 83,937 |
| Total Value of Food Condemned or Destroyed | \$5,310,177 |
| Total Number of Responses: Varies by activity, range is 13-25 | |

F. Staffing

| Program Staffing | Total Number of Full Time Equivalent Staff |
|---|--|
| Field Inspection / Investigation | 2,738* |
| Supervisors (Over Field Activities) | 176 |
| Compliance & Enforcement (Includes Recall Coordinators) | 14 |
| Emergency Response | 14 |
| Industry & Community Relations | 9 |
| Quality Management (includes Program Standards and Auditing) | 13 |
| Training | 13 |
| Administrative Support | 52 |
| Managers | 25 |
| Other | 4 |
| Total State Program FTE's | 3,320 |
| Total Number of Responses: 39 | |
| *Field inspection / investigation number includes local agencies reported totals. | |

G. Program Funding

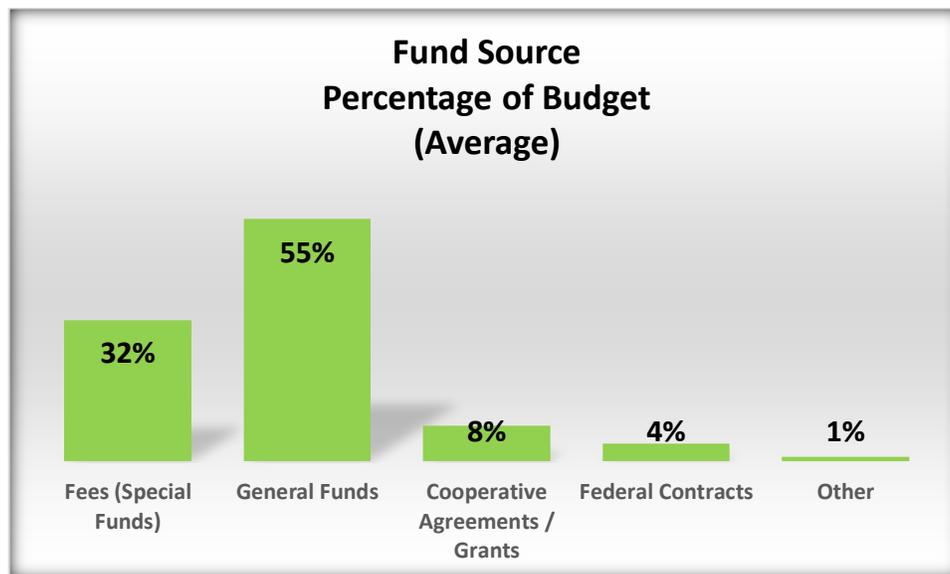


Figure 23. Total number of responses: 38

***VI. GRADE A
AND
MANUFACTURING
MILK***

A. General Questions

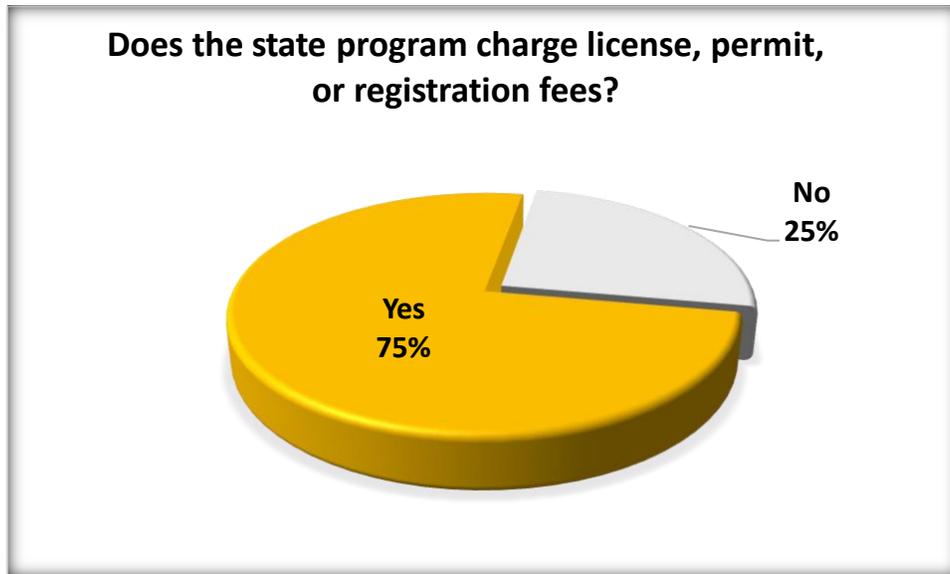


Figure 24. Total number of responses: 44

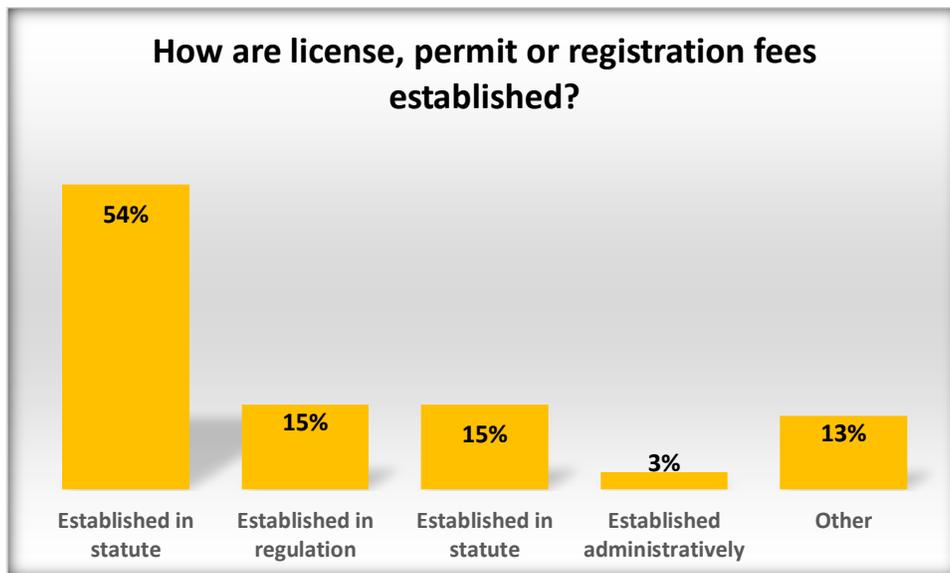


Figure 25. Total number of responses: 39

| What factors are license, permit, or registration fees based on? (Selected all that applied) | |
|---|-----|
| Risk | 2% |
| Facility type (or produces processed) | 57% |
| Facility square footage | 0% |
| Facility revenue | 7% |
| Number of employees | 0% |
| Volume of product processed | 35% |
| Other | 26% |
| Total Number of Responses: 42 (Responders may have selected more than one factor) | |

B. State Inventories and Inspections

| Establishment Type | Total Number Licensed or Permitted Facilities | Total Number of State Inspections in 2019 |
|--|--|--|
| Milk Producers | 31,207 | 69,665 |
| Grade A Milk Plants (with no manufacturing grade dairy products) | 459 | 3,723 |
| Grade A Milk Plants (with manufacturing grade dairy products) | 590 | 3,596 |
| Receiving/Transfer Stations | 190 | 390 |
| Milk Distributor | 1,438 | 1,313 |
| Bulk Milk Hauler/Sampler | 18,127 | 8,958 |
| Industry Plant Samplers | 4,417 | 2,744 |
| Milk Tank Trucks | 16,669 | 9,349 |
| Freestanding Tanker Washing Facilities (i.e., not attached to a milk plant) | 206 | 376 |
| Single Service Container Facility | 437 | 1,201 |
| FDA Contract Inspections | 327 | 586 |
| Manufacturing Milk Only Firms | 2,277 | 10,509 |
| Other | 57 | 112 |
| TOTAL | 76,401 | 112,522 |
| Total Number of Responses: 44 (some could not provide answers for all categories) | | |

C. Complaints, Recalls, Tracebacks, and Traceforwards

| Total non-foodborne illness related consumer complaints received & investigated in 2019: | |
|---|-----|
| Total Number of Consumer Complaints Received (Grade-A) | 111 |
| Total Number of Consumer Complaints Investigated (Grade-A) | 106 |
| Total Number of Consumer Complaints Received (Manufacturing Milk) | 35 |
| Total Number of Consumer Complaints Investigated (Manufacturing Milk) | 34 |
| Total Number of Responses: 44 | |

| Total recall and tracing activities that were conducted during calendar year 2019: | |
|---|-----|
| Tracebacks / Traceforwards related to Grade-A & Manufacturing Milk | 18 |
| Recalls overseen related to firms under the state's jurisdiction | 152 |
| Recalls initiated as a result of investigative activities conducted by the state | 28 |
| Number of recall effectiveness checks conducted | 27 |
| Total Number of Responses: 43 | |

D. Foodborne Disease

| If more than one agency in the state is responsible for foodborne illness surveillance, investigation, and response, do the agencies meet to discuss these issues on a regularly scheduled basis? | |
|--|-----|
| Yes | 57% |
| No | 43% |
| Total Number of Responses: 40 | |
| If yes, do MOU's, agreements, or procedures exist between the agencies conducting joint surveillance or investigations? | |
| Yes | 79% |
| No | 21% |
| Total Number of Responses: 24 | |

| Total number of foodborne disease related activities in 2019: | |
|---|-------|
| Alleged foodborne disease complaints (including ill food worker complaints) received | 1,689 |
| <u>Confirmed</u> foodborne disease outbreak <u>follow-up inspections or investigations</u> the agency conducted | 75 |
| Foodborne disease outbreak <u>investigations</u> the agency conducted (confirmed + unconfirmed) | 440 |
| Foodborne disease outbreak <u>follow-up inspections or investigations</u> the agency conducted (for confirmed + unconfirmed outbreaks) | 87 |
| Total Number of Responses: 38 | |

E. Enforcement Authorities and Actions

| State Enforcement Authority | State programs reporting they have this enforcement authority | Total number of times enforcement authority was utilized in Grade-A Plants in CY 2019 | Total number of times enforcement authority was utilized in Manufacturing Milk Plants in CY 2019 |
|---|---|---|--|
| Warning Letters / Notice of Violation | 100% | 967 | 1,049 |
| Permitted Firms De-listed | 93% | 177 | 1 |
| Embargo/Quarantine/Impound | 81% | 8 | 30 |
| Seizure | 71% | 7 | 25 |
| Condemnation | 81% | 5 | 0 |
| Mandatory Recall | 72% | 5 | 11 |
| Mandatory Destruction | 70% | 27 | 31 |
| Voluntary Destruction / Disposal | 91% | 20 | 7 |
| Monetary Penalties (civil penalties) | 67% | 2 | 3 |
| License / Permit Suspension | 95% | 56 | 14 |
| License / Permit Revocation | 95% | 0 | 0 |
| Hearings | 88% | 6 | 7 |
| Criminal Complaints | 42% | 2 | 0 |
| Civil Complaints | 44% | 2 | 6 |
| Injunctions | 35% | 0 | 0 |
| Inspection Warrants | 37% | 0 | 0 |
| Search Warrants | 26% | 10 | 0 |
| Total Number of Responses: 37-43 (Some responders could not track or break down activities; includes 481 additional non-categorized) | | | |

| Enforcement Activity in 2019 | |
|--|-----------|
| Total Number of Monetary Penalties Issued | 88 |
| Total Amount of Monetary Penalties Issued | \$119,400 |
| | |
| Total Number of Embargoes and Quarantines | 71 |
| Total Pounds of Milk & Manufacturing Milk Products Embargoed and Quarantined | 1,097,767 |
| Total Value of Milk & Manufacturing Milk Products Embargoed and Quarantined | \$39,805 |
| | |
| Total Number of Condemnsions or Destructions | 38 |
| Total Pounds of Milk & Manufacturing Milk Products Condemned or Destroyed | 1,743,404 |
| Total Value of Milk & Manufacturing Milk Products Condemned or Destroyed | \$234,396 |
| Total Number of Responses: 41 (some did not report all areas) | |

F. Staffing

| Program Staffing | Total Number of Full Time Equivalent Staff |
|--|---|
| Milk Inspectors (Grade A & Manufacturing Milk) | 382 |
| Inspectors Dedicated to Grade A Only | 40 |
| Milk Sanitation Rating Officers (SRO) | 108 |
| Compliance Officers | 16 |
| Supervisor | 65 |
| Emergency Response | 31 |
| Manager | 38 |
| Other Administrative Staff | 64 |
| Laboratory Evaluation Officers (LEO) | 77 |
| Total State Program FTE's (excluded other | 821 |
| Total Number of Responses: 44 | |

G. Program Funding

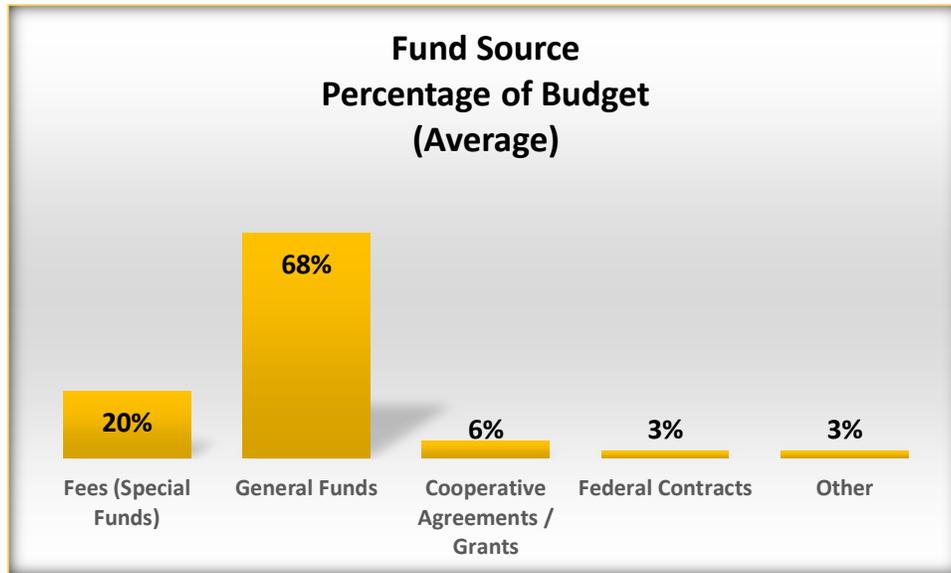


Figure 26. Total Number of Responses: 43

VII. SHELLFISH

A. General Questions

| How are shellfish regulated by the state? | |
|--|-----|
| One state program is responsible for licensing and inspecting all shellfish related operations (including growing areas) | 63% |
| Responsibility for licensing and inspecting shellfish related operations is shared between two or more state agencies | 30% |
| Other | 7% |
| Total Number of Responses: 27 | |

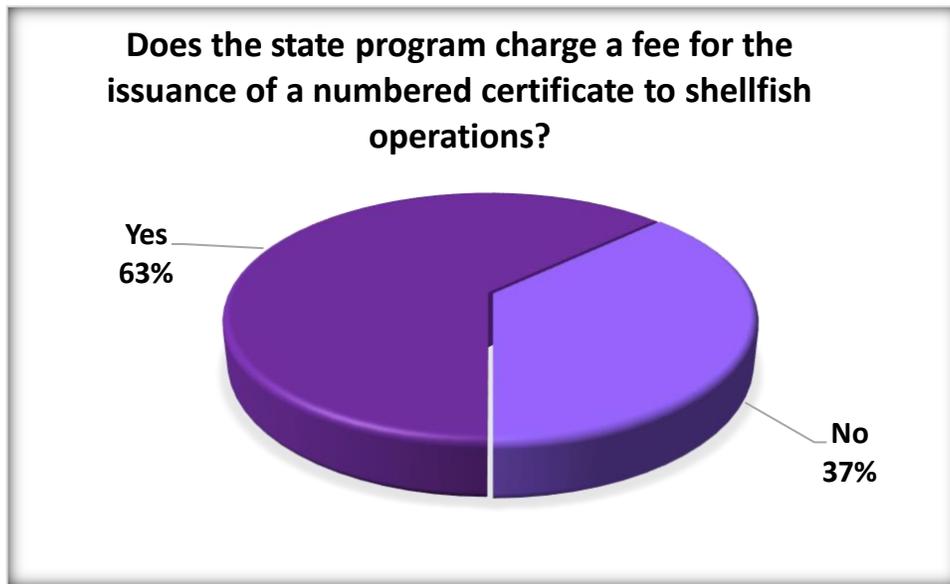


Figure 27. Total Number of Responses: 27

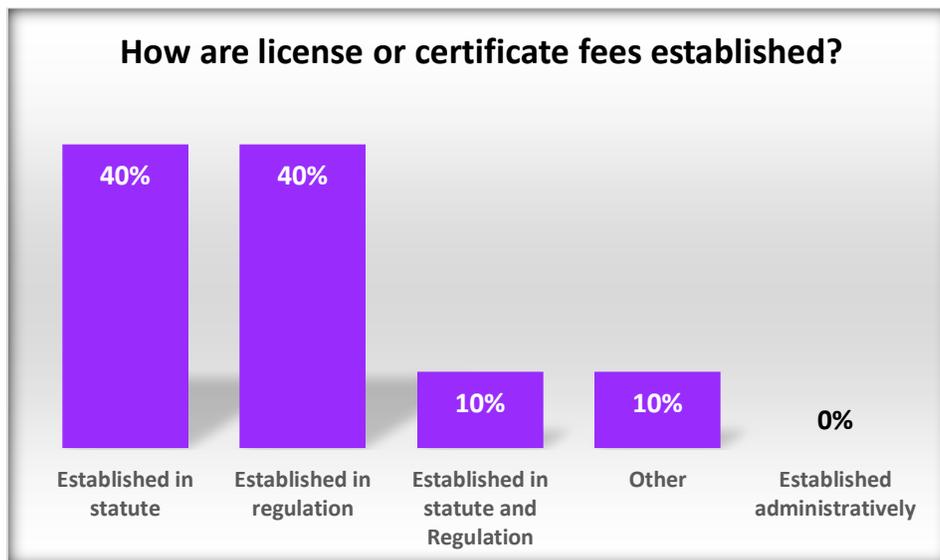


Figure 28. Total Number of Responses: 10

| What factors are certificate fees based on? (Selected all that applied) | |
|--|-----|
| Facility type (RS, SS, SP, DP, etc.) | 70% |
| Facility square footage | 10% |
| Facility revenue | 0% |
| Volume of shellstock handled or sold | 0% |
| Number of employees | 0% |
| Other | 40% |
| Total Number of Responses: 10 (Responders may have selected more than one factor) | |

| Does the state program offer food safety training to the shellfish industry? | |
|---|-----|
| Yes | 56% |
| No | 44% |
| Total Number of Responses: 27 | |
| If yes, what types of training does your state program offer? | |
| Sanitation (SSOPs) | 75% |
| Seafood HACCP | 67% |
| Recalls | 8% |
| Allergen Control | 8% |
| Labeling | 25% |
| Other | 75% |
| Total Number of Responses: 12 (Responders may have selected more than one training type) | |

B. State Inventories and Inspections

| Establishment Type | Total Number of Certificates Issued | Total Number of State Inspections in 2019 |
|--------------------------------------|-------------------------------------|---|
| Depuration Processor (DP) | 6 | 62 |
| Repacker (RP) | 21 | 70 |
| Reshipper (RS) | 493 | 894 |
| Shellstock Shipper (SS) | 1,023 | 2,818 |
| Shucker-Packer (SP) | 133 | 616 |
| Post-Harvest Processor (PHP) | 6 | 28 |
| Aquaculture (AQ) | 107 | 109 |
| Wet Storage (WS) | 131 | 183 |
| Other | 92 | 105 |
| TOTAL | 2,012 | 4,885 |
| Total Number of Responses: 27 | | |

C. Complaints, Recalls, Tracebacks, and Traceforwards

| Total non-foodborne illness related consumer complaints received & investigated in 2019: | |
|--|-----|
| Total number of complaints related to shellfish received | 455 |
| Total number of complaints related to shellfish investigated | 303 |
| Total Number of Responses: 27 | |

| Total recall and tracing activities that were conducted during calendar year 2019: | |
|--|-----|
| Tracebacks / Traceforwards related to shellfish | 252 |
| Recalls overseen related to shellfish firms under the state's jurisdiction | 11 |
| Shellfish recalls initiated as a result of investigative activities conducted by the state | 4 |
| Number of shellfish related recall effectiveness checks conducted | 174 |
| Total Number of Responses: 27 | |

D. Foodborne Disease

| Total number of foodborne illness related activities attributed to shellfish in 2019: | |
|---|-----|
| Alleged foodborne illness complaints | 421 |
| Foodborne illness complaint <u>investigations</u> agency conducted (confirmed + unconfirmed) | 269 |
| Total Number of Responses: 27 | |

E. Enforcement Authorities and Actions

| State Enforcement Authority | State programs reporting they have this enforcement authority | Total number of times enforcement authority was utilized during CY 2019 |
|--------------------------------------|---|---|
| Embargo/Quarantine/Impound | 92% | 13 |
| Seizure | 69% | 53 |
| Condemnation | 81% | 9 |
| Stop Sale Order | 81% | 11 |
| Voluntary Destruction / Disposal | 100% | 36 |
| Regulatory / Warning Letters | 100% | 89 |
| Health Advisories | 77% | 23 |
| Monetary Penalties (civil penalties) | 69% | 3 |
| License / Permit Suspension | 89% | 5 |
| License / Permit Revocation | 89% | 1 |
| Hearings | 89% | 2 |
| Closures | 89% | 158 |
| Criminal Complaints | 46% | 96 |
| Civil Complaints | 65% | 0 |
| Injunctions | 58% | 0 |
| Inspection Warrants | 46% | 163 |
| Search Warrants | 46% | 2 |
| Other | 8% | 165 |
| Total Number of Responses: 26 | | |

| Enforcement Activity in 2019 | |
|---|----------|
| Total Number of Monetary Penalties Issued | 29 |
| Total Amount of Monetary Penalties Issued | \$23,725 |
| | |
| Total Number of Embargoes and Quarantines | 20 |
| Total Pounds of Shellfish Embargoed and Quarantined | 12,631 |
| Total Value of Shellfish Embargoed and Quarantined | \$78,162 |
| | |
| Total Number of Condemnsions or Destructions | 33 |
| Total Pounds of Shellfish Condemned or Destroyed | 10,523 |
| Total Value of Shellfish Condemned or Destroyed | \$17,271 |
| Total Number of Responses: 26 | |

F. Staffing

| Program Staffing | Total Number of Full Time Equivalent Staff |
|--|--|
| Field Inspection / Investigation | 80 |
| Supervisors (Over Field Activities) | 24 |
| Compliance & Enforcement (Includes Recall Coordinators) | 36 |
| Emergency Response | 23 |
| Industry & Community Relations | 11 |
| Quality Management (includes Program Standards and Auditing) | 18 |
| Training Outreach | 25 |
| Administrative Support | 16 |
| Managers | 24 |
| Other | 46 |
| Total State Program FTE's | 303 |
| <i>Total Number of Responses: 26</i> | |

G. Program Funding

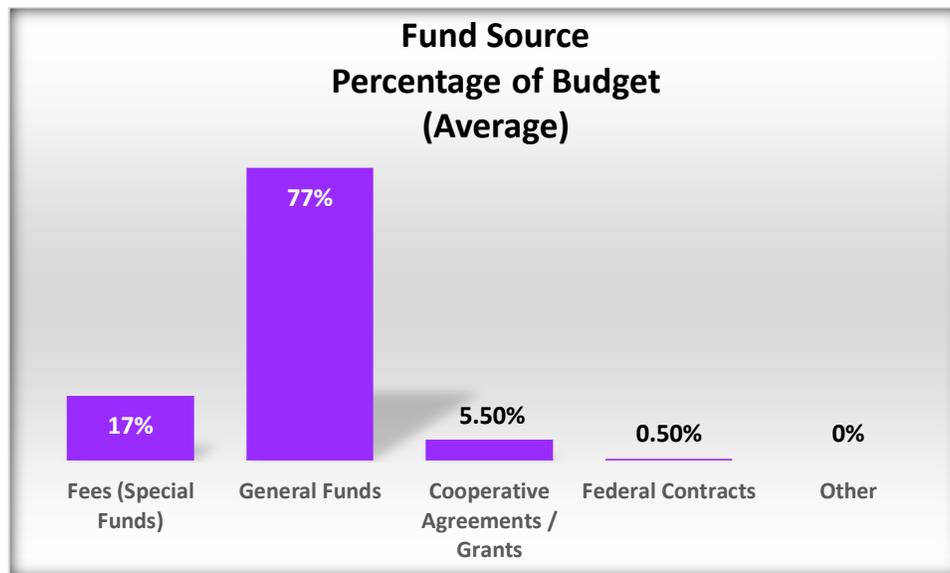


Figure 29. Total Number of Responses: 23

VIII. MEAT AND POULTRY

A. General Questions

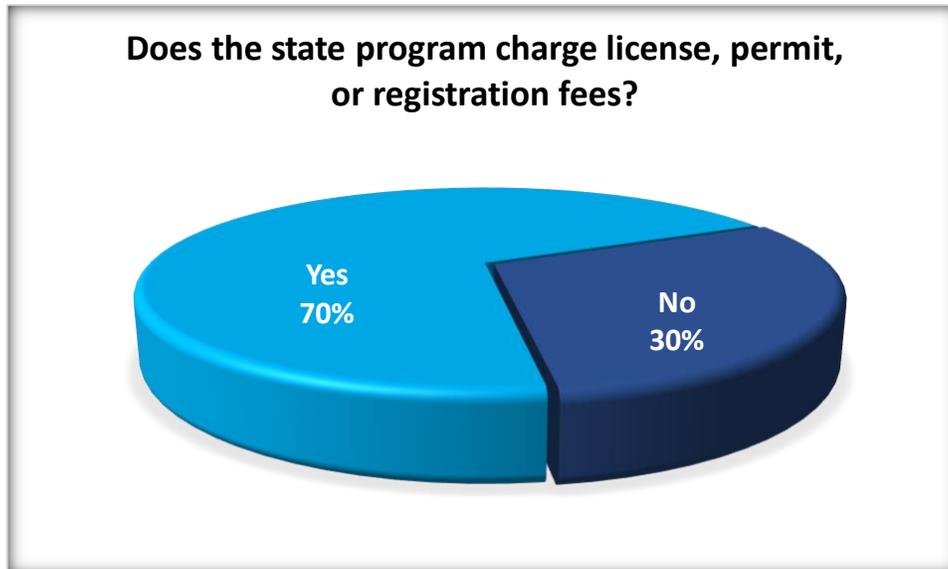


Figure 30. Total Number of Responses: 20

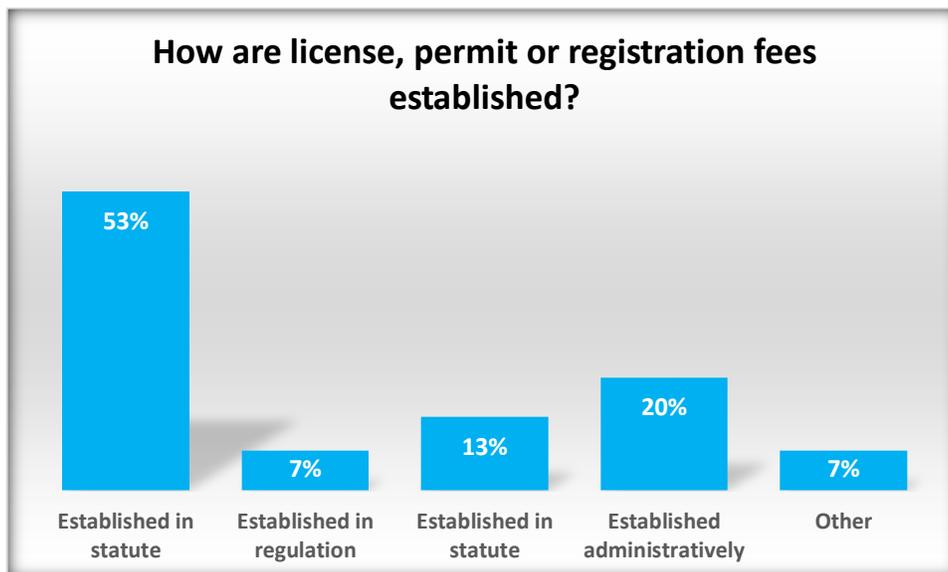


Figure 31. Total Number of Responses: 15

| What factors are license, permit, or registration fees based on? (Selected all that applied) | |
|---|-----|
| Risk | 13% |
| Facility type or products processed | 80% |
| Facility square footage | 13% |
| Facility revenue | 7% |
| Number of employees | 0% |
| Volume of product processed | 13% |
| Other | 33% |
| Total Number of Responses: 15(Responders may have selected more than one factor) | |

B. State Inventories and Inspections

| Establishment Type | Total Number of Firms Licensed | Total Number of State Inspections in 2019 |
|--|---------------------------------------|--|
| Small Animal Slaughterhouses (Meat & Poultry) | 739 | 126,183 |
| Custom Exempt Meat | 1,051 | 1,507 |
| Custom Exempt Poultry | 173 | 178 |
| Retail Processing Establishments | 2,414 | 1,253 |
| Wild Game | 174 | 120 |
| Pet Food | 706 | 82 |
| Live Animal Markets | 96 | 569 |
| Rendering Plants | 45 | 31 |
| Other | 55 | 27 |
| TOTAL | 5,453 | 129,950 |
| Total Number of Responses: Varies by type, range is 19-20 | | |

C. Complaints and Recalls

| Total non-foodborne illness related consumer complaints received & investigated in 2019: | |
|---|-----|
| Total number of complaints received | 700 |
| Total number of complaints investigated | 650 |
| Total Number of Responses: 20 | |

| Total recall activities that were conducted during calendar year 2019: | |
|--|----|
| Recalls overseen related to firms under the state's jurisdiction | 35 |
| Recalls initiated as a result of investigative activities conducted by the state | 7 |
| Number of recall effectiveness checks conducted | 61 |
| Total Number of Responses: 20 | |

Enforcement Authorities and Actions

| State Enforcement Authority | State programs reporting they have this enforcement authority | Total number of times enforcement authority was utilized during CY 2019 |
|---|---|---|
| Embargo/Quarantine/Impound | 88% | 109 |
| Seizure | 78% | 0 |
| Condemnation | 78% | 9 |
| Stop Sale Order | 83% | 56 |
| Voluntary Destruction / Disposal | 89% | 1,307 |
| Regulatory / Warning Letters | 88% | 474 |
| Health Advisories | 59% | 3 |
| Monetary Penalties (civil penalties) | 94% | 15 |
| License / Permit Suspension | 94% | 0 |
| License / Permit Revocation | 94% | 0 |
| Hearings | 100% | 16 |
| Closures | 65% | 15 |
| Criminal Complaints | 82% | 27 |
| Civil Complaints | 94% | 2 |
| Injunctions | 71% | 0 |
| Inspection Warrants | 41% | 3 |
| Search Warrants | 53% | 1 |
| Total Number of Responses: Varies by authority, range is 16-18 | | |

| Enforcement Activity in 2019 | |
|--|-------------|
| Total Number of Monetary Penalties Issued | 17 |
| Total Amount of Monetary Penalties Issued | \$99,103 |
| | |
| Total Number of Embargoes and Quarantines | 298 |
| Total Pounds of Meat/Poultry Embargoed and Quarantined | 54,508 |
| Total Value of Meat/Poultry Embargoed and Quarantined | \$115,831 |
| | |
| Total Number of Condemnsions or Destructions | 1,331 |
| Total Pounds of Meat/Poultry Condemned or Destroyed | 373,692 |
| Total Value of Meat/Poultry Condemned or Destroyed | \$1,001,065 |
| Total Number of Responses: Varies by activity, range is 14-18 | |

D. Staffing

| Program Staffing | Total Number of Full Time Equivalent Staff |
|---|--|
| Inspection | 470 |
| Supervisors (Over Field Activities) | 63 |
| Compliance & Enforcement (Includes Recall Coordinators) | 40 |
| Emergency Response | 62 |
| Administrative Support | 41 |
| Managers | 30 |
| Other | 0 |
| Total State Program FTE's | 706 |
| <i>Total Number of Responses: 20</i> | |

E. Program Funding

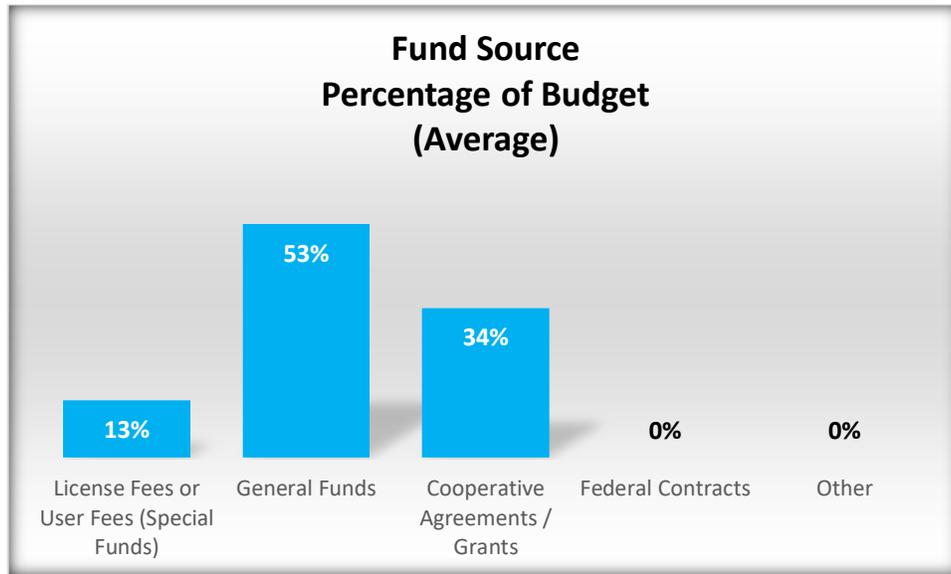


Figure 32. Total Number of Responses: 20

IX. PRODUCE

A. General Questions

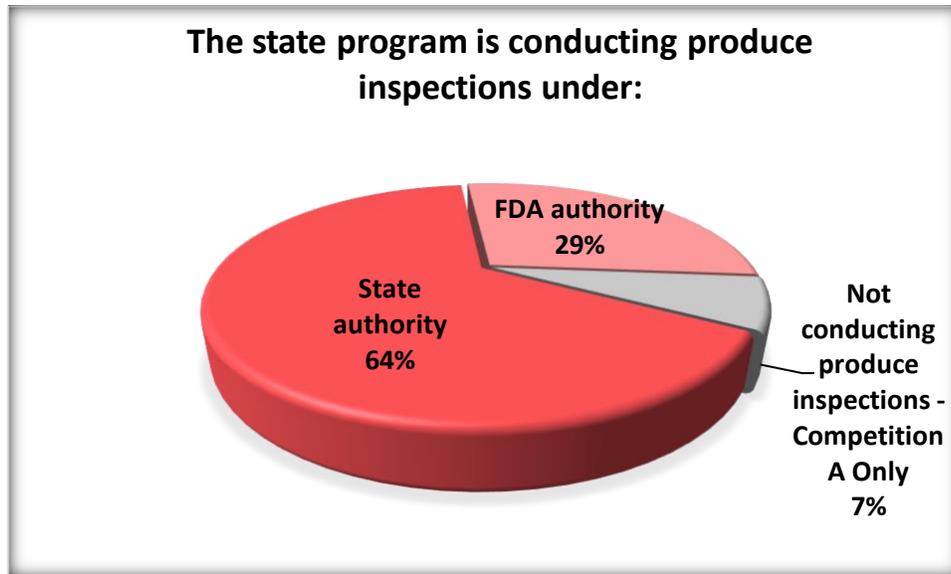


Figure 33. Total Number of Responses: 46

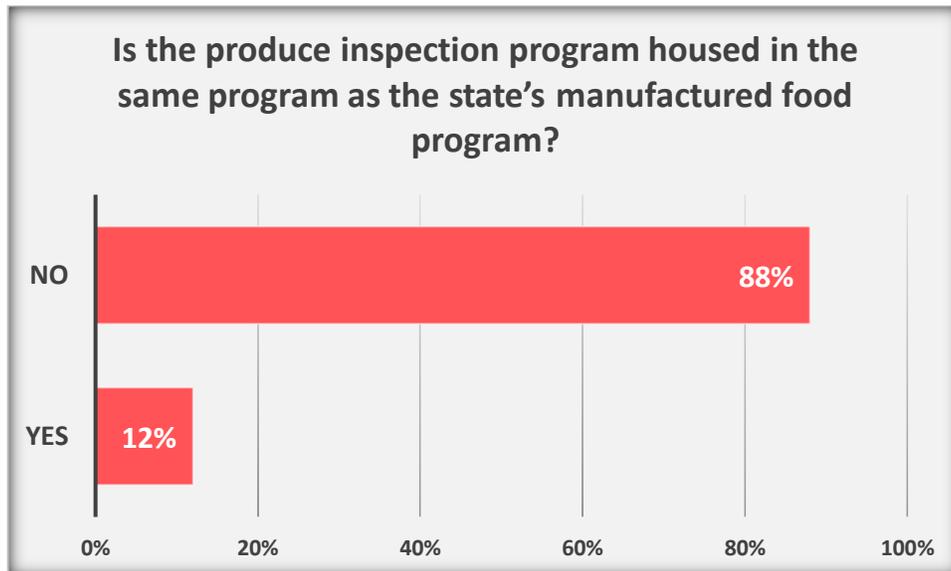


Figure 34. Total Number of Responses: 43

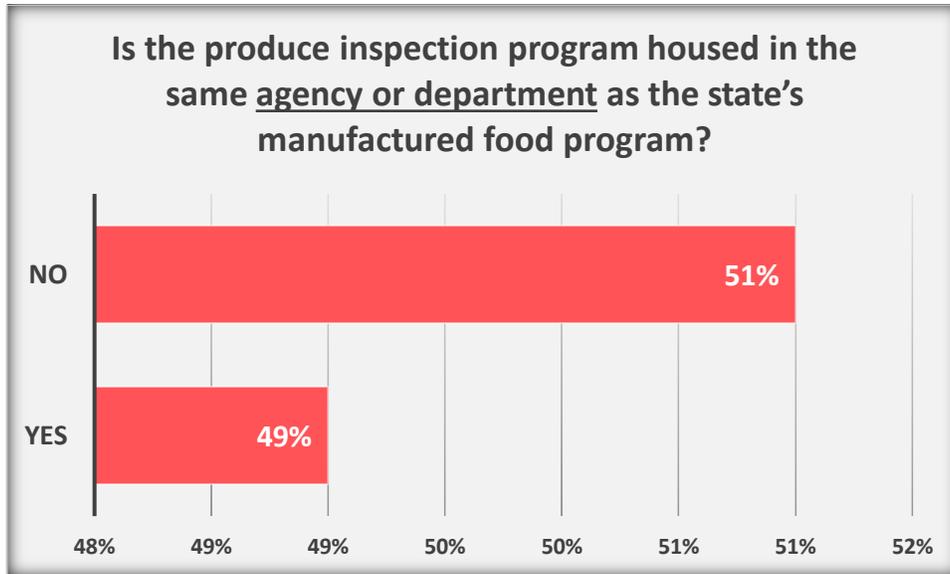


Figure 35. Total number of responses: 43

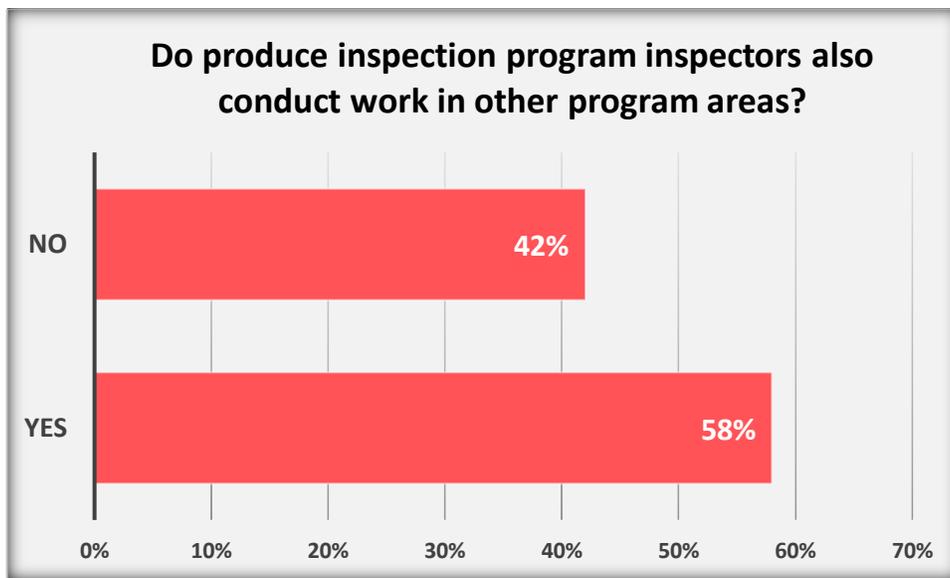


Figure 36. Total number of responses: 43

| Does the program currently have the authority or is legislative authority being sought to register businesses under the state's jurisdiction? | |
|--|-----|
| Yes, currently have the authority to register businesses | 44% |
| Yes, seeking legislative authority to register businesses | 5% |
| No | 51% |
| Total Number of Responses: 43 | |

| Has the state conducted On Farm Readiness Reviews (OFRR)? | |
|--|-----|
| Yes | 91% |
| No | 9% |
| Total Number of Responses: 46 | |

| If OFRRs are completed, who conducts them? | |
|---|-----|
| State Program | 24% |
| Contractor (cooperative extension, etc.) | 12% |
| Both | 64% |
| Total Number of Responses: 42 | |

| Does the state program offer produce (food) safety training to the produce industry? | |
|---|-----|
| Yes | 91% |
| No | 9% |
| Total Number of Responses: 46 | |

| If yes, what types of training does your state program offer? | |
|---|------|
| Grower training course (produce rule) | 100% |
| Basic sanitation | 17% |
| Recalls | 12% |
| Other | 26% |
| Total Number of Responses: 42 (Responders may have selected more than one training type) | |

| State produce inspections completed in 2019: | |
|---|-------|
| Total state inspections | 1,121 |
| Total Number of Responses: 46 | |

| Sprout operations are being inspected by: | |
|--|-----|
| State produce inspection program | 22% |
| State manufactured food program | 9% |
| FDA | 54% |
| State manufactured food program/FDA | 7% |
| State produce inspection program/FDA | 2% |
| State Department of Health | 4% |
| State manufactured food program/produce inspection program | 2% |
| Total Number of Responses: 46 | |

| Total complaints related to farm activities or growing operations received & investigated in 2019: | |
|---|---|
| Total number of complaints received | 8 |
| Total number of complaints investigated | 7 |
| Total Number of Responses: 46 | |

B. Enforcement Authorities and Actions

| State Enforcement Authority | State programs reporting they have this enforcement authority | Total number of times enforcement authority was utilized during CY 2019 |
|--------------------------------------|--|--|
| Embargo/Quarantine | 50% | 1 |
| Seizure | 37% | 0 |
| Condemnation | 41% | 0 |
| Stop Sale Order | 57% | 0 |
| Voluntary Destruction / Disposal | 67% | 0 |
| Regulatory / Warning Letters | 67% | 12 |
| Monetary Penalties (civil penalties) | 61% | 0 |
| Criminal Complaints | 11% | 0 |
| Civil Complaints | 26% | 0 |
| Injunctions | 26% | 0 |
| Inspection Warrants | 17% | 0 |
| Search Warrants | 17% | 0 |
| Total Number of Responses: 46 | | |

| Does the state produce program defer all egregious conditions to the FDA for enforcement or compliance actions? | |
|--|-----|
| Yes | 42% |
| No | 58% |
| Total Number of Responses: 43 | |

C. Staffing

| Program Staffing | Total Number of Full Time Equivalent Staff |
|---|--|
| Produce Field Inspection / Investigation | 112 |
| Direct Program Management (Over Field Activities) | 56 |
| Training / Outreach | 50 |
| Administrative Support | 41 |
| Other | 19 |
| Total State Program FTE's | 280 |
| <i>Total Number of Responses: 46</i> | |

D. Program Funding

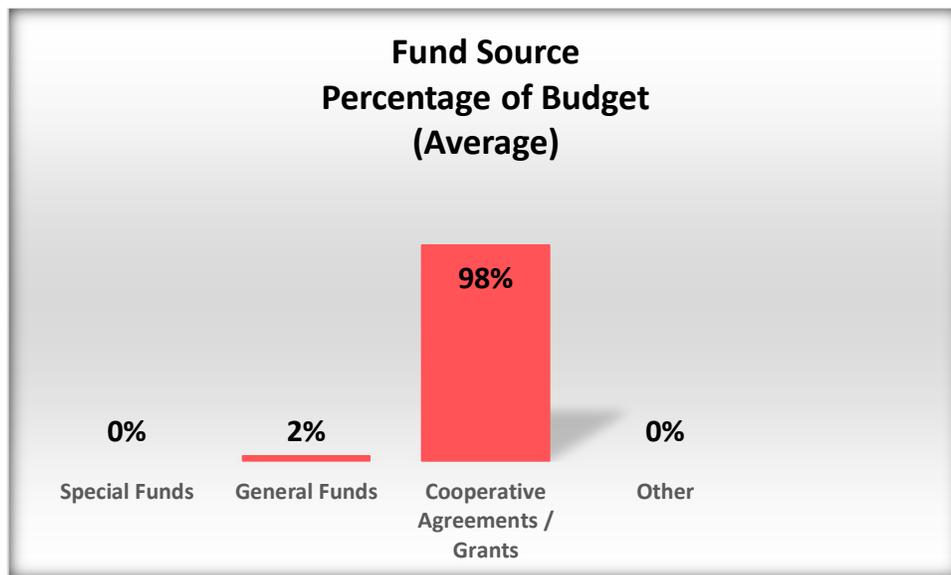


Figure 37. Total Number of Responses: 46

***X. FOOD & FEED
LABORATORIES***

A. General Questions

| What category of products does the laboratory perform testing on? (checked all that apply) | |
|---|-----|
| Human Food | 75% |
| Animal Food | 55% |
| Produce | 59% |
| Environmental Samples (related to food or feed operations) | 77% |
| Milk/Dairy | 63% |
| Shellfish | 25% |
| Cannabis, Hemp, CBD | 33% |
| Total Number of Responses: 64 (Responders may have selected more than one product type) | |

| If the laboratory analyzes animal food, is the laboratory active in APHL and/or AAFCO? | |
|---|-----|
| APHL Only | 17% |
| AAFCO Only | 25% |
| Both APHL and AAFCO | 47% |
| Not active in either association | 8% |
| Total Number of Responses: 35 | |

B. Sampling

| Who collects samples that are analyzed by the laboratory? (Checked all that applied) | |
|---|-----|
| Agency's regulatory program | 78% |
| Other regulatory program (other state or local program, FDA, etc.) | 52% |
| Laboratory staff | 28% |
| Industry | 9% |
| Other sources | 23% |
| Total Number of Responses: 63 (Responders may have selected more than one answer) | |

C. Laboratory Accreditation

| Laboratory is accredited to the following for its food / feed testing:4.7 | |
|--|-----|
| ISO/IEC 17025 | 65% |
| ALACC AOAC | 15% |
| AAFCO QA/AC Guidelines for Feed Laboratories | 13% |
| AIHA FoodLAP | 5% |
| Other | 20% |
| Not accredited or seeking accreditation | 28% |
| Total Number of Responses: 54 (Responders may have selected more than one answer) | |

D. Laboratory Methods

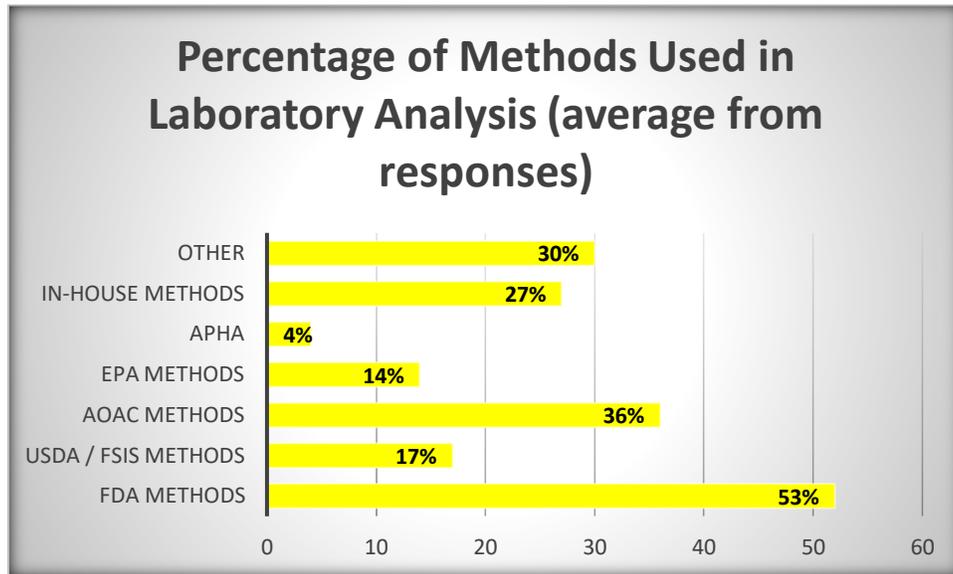


Figure 38. Total number of responses: 55

E. Laboratory Analyses - Total Analyses Reported for 2019

MICROBIOLOGY – HUMAN FOOD

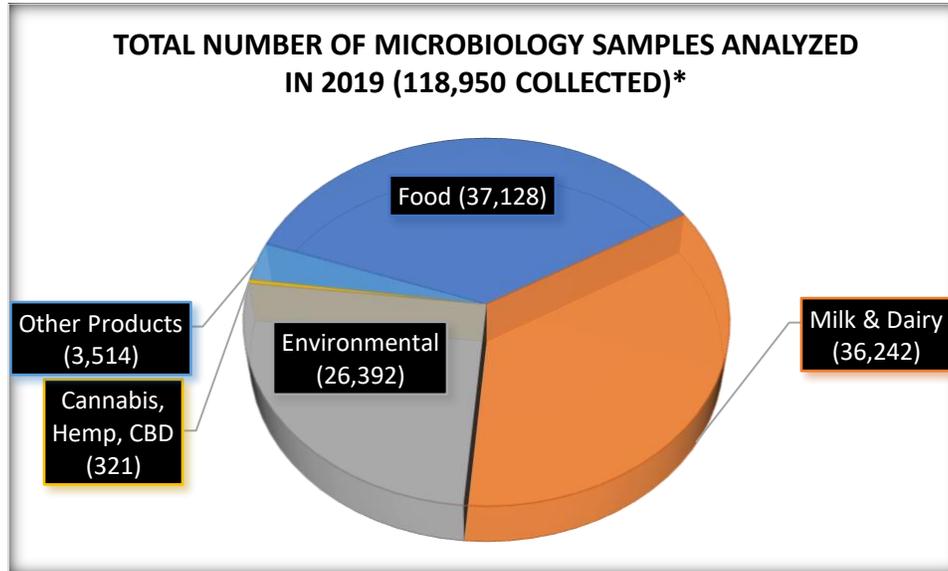


Figure 39. *Totals discrepancy due to some states not providing specific lab analysis breakdown by category or providing totals data only.

| Laboratory Analyses | All Analyses (Total for Each Pathogen)* | Food Samples (includes produce & shellfish) | Milk & Dairy Samples | Environ. Samples | Cannabis, Hemp, CBD Samples | Other Products |
|---|---|---|----------------------|------------------|-----------------------------|----------------|
| Total Number of Microbiology Samples Analyzed in 2019* | 171,577 | 57,362 | 48,824 | 38,565 | 198 | 3,909 |
| <i>Salmonella</i> | 37,001 | 20,305 | 1,635 | 12,439 | 79 | 1,316 |
| <i>Listeria monocytogenes</i> | 23,668 | 12,440 | 1,977 | 6,694 | 59 | 552 |
| <i>Pathogenic E. coli (STEC, EHEC, etc.)</i> | 14,845 | 11,376 | 813 | 1,664 | 59 | 724 |
| <i>Other Analyses</i> | 96,063 | 13,241 | 44,399 | 17,768 | 1 | 1,317 |
| Total Number of Responses: 47 | | | | | | |
| *Totals discrepancy due to some states not providing specific lab analysis breakdown by category or providing totals data only. | | | | | | |

CHEMISTRY – HUMAN FOOD

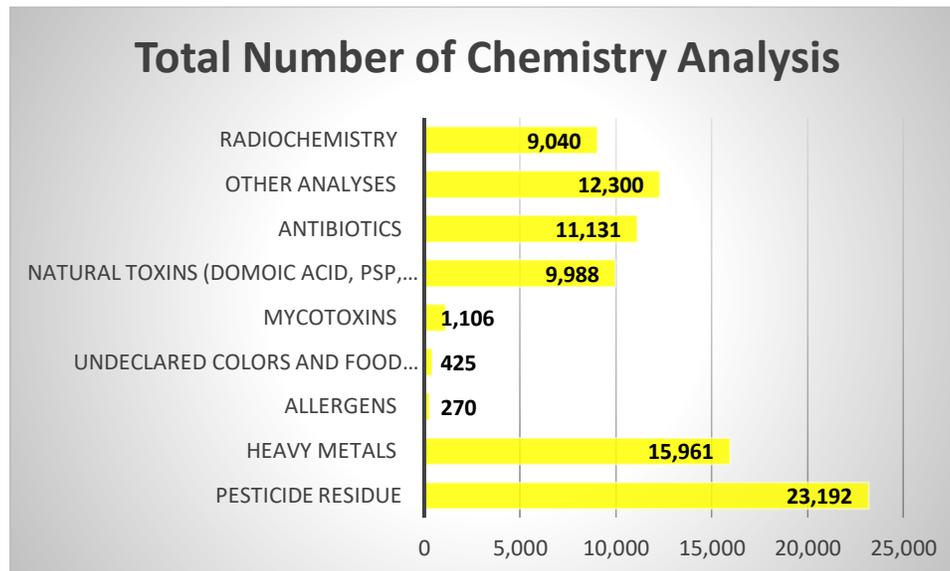


Figure 40. *Totals discrepancy due to some states not providing specific lab analysis breakdown by category or providing totals data only.

| Laboratory Analyses | Total Number Chemistry Analyses * | Food Samples (includes produce & shellfish) | Milk & Dairy Samples | Environ. Samples | Cannabis, Hemp, CBD Samples | Other Products |
|---|-----------------------------------|---|----------------------|------------------|-----------------------------|----------------|
| Total Number of Chemistry Samples Analyzed in 2019* | 83,413 | 27,603 | 26,118 | 8,109 | 3,792 | 3,699 |
| <i>Pesticide residue</i> | 23,192 | 10,940 | 9,738 | 98 | 215 | 2,084 |
| <i>Heavy metals</i> | 15,961 | 2,230 | 240 | 1,671 | 255 | 28 |
| <i>Allergens</i> | 270 | 193 | 0 | 75 | 0 | 2 |
| <i>Undeclared colors and food additives</i> | 425 | 398 | 0 | 6 | 0 | 21 |
| <i>Mycotoxins</i> | 1,106 | 977 | 99 | 0 | 0 | 0 |
| <i>Natural toxins (Domoic Acid, PSP, etc.)</i> | 9,988 | 9,887 | 0 | 0 | 0 | 1 |
| <i>Antibiotics</i> | 11,131 | 142 | 9,133 | 0 | 155 | 444 |
| <i>Other Analyses</i> | 12,300 | 1,935 | 6,700 | 0 | 2,943 | 122 |
| <i>Radiochemistry</i> | 9,040 | 801 | 208 | 6,259 | 224 | 997 |
| Total Number of Responses: 64 | | | | | | |
| * Totals discrepancy due to some states not providing specific lab analysis breakdown by category or providing totals data only | | | | | | |

MICROBIOLOGY – ANIMAL FOOD

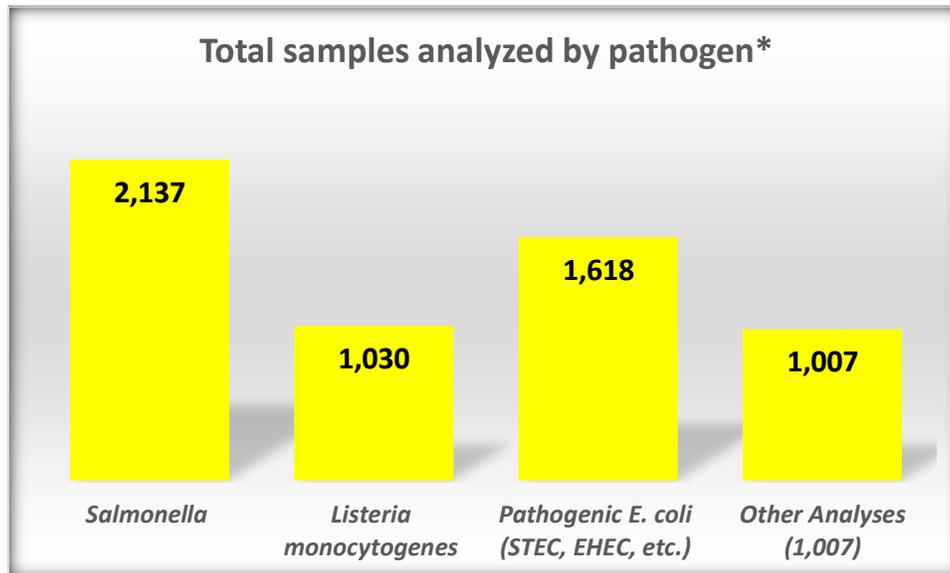
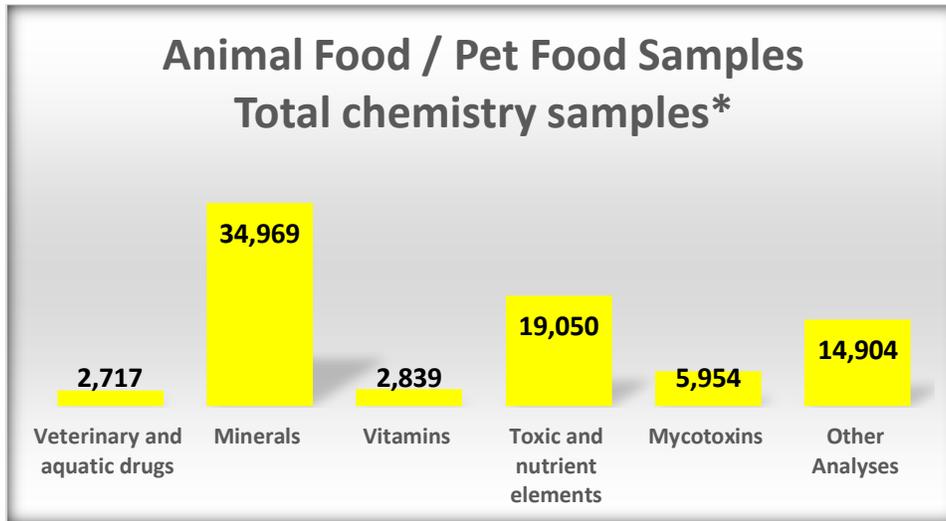


Figure 41. *Totals discrepancy due to some states not providing specific lab analysis breakdown

| Laboratory Analyses | All Analyses (Total for Each Pathogen)* | Animal Food / Pet Food Samples | Cannabis, Hemp, CBD Samples | Other Samples |
|---|---|--------------------------------|-----------------------------|---------------|
| Total Number of Microbiology Samples Analyzed in 2019* | 5,792 | 5,215 | 0 | 55 |
| <i>Salmonella</i> | 2,137 | 2,127 | 0 | 0 |
| <i>Listeria monocytogenes</i> | 1,030 | 988 | 0 | 30 |
| <i>Pathogenic E. coli (STEC, EHEC, etc.)</i> | 1,618 | 1,618 | 0 | 0 |
| <i>Other Analyses</i> | 1,007 | 482 | 0 | 25 |
| Total Number of Responses: 64 | | | | |
| *Totals discrepancy due to some states not providing specific lab analysis breakdown by category or providing totals data only. | | | | |

CHEMISTRY – ANIMAL FOOD



*Figure 42. *Totals discrepancy due to some states not providing specific lab analysis breakdown by category or providing totals data only.*

| Laboratory Analyses | Animal Food / Pet Food Samples* | Other Samples |
|--|---------------------------------|---------------|
| Total Number of Chemistry Samples Analyzed in 2019* | 80,433 | 35,327 |
| <i>Veterinary and aquatic drugs</i> | 2,717 | 10 |
| <i>Minerals</i> | 34,969 | 34,194 |
| <i>Vitamins</i> | 2,839 | 0 |
| <i>Toxic and nutrient elements</i> | 19,050 | 780 |
| <i>Mycotoxins</i> | 5,954 | 343 |
| <i>Other Analyses</i> | 14,904 | 0 |
| Mammalian Protein | 99 | N/A |
| Total Number of Responses: 64 | | |
| <i>*Totals discrepancy due to some states not providing specific lab analysis breakdown by category or providing totals data only.</i> | | |

Whole Genome Sequencing

| Is laboratory a member of GenomeTrakr Network? | |
|--|-----|
| Yes | 35% |
| No | 65% |
| Total Number of Responses: 62 | |

| If not currently a member of GenomeTrakr Network are you planning to join? | |
|--|-----|
| Yes | 95% |
| No | 5% |
| Total Number of Responses: 39 | |

| Bacteria Whole Genome Sequencing (WGS) | Number of labs performing (n=26) | Percentage of programs that perform WGS/ % of those laboratories (specific organisms) | Total number of samples analyzed during CY 2019 |
|--|----------------------------------|---|---|
| Bacteria (n=62) | | 41.9% | |
| <i>Salmonella</i> | 26 | 100% | 9,323 |
| <i>Listeria monocytogenes</i> | 25 | 96% | 1,115 |
| <i>E. coli/Shigella</i> | 26 | 100% | 2,710 |
| <i>Campylobacter</i> | 19 | 73% | 927 |
| <i>Vibrio parahaemolyticus</i> | 15 | 58% | 205 |
| Other bacteria | 13 | 50% | 277 |
| Parasites Whole Genome Sequencing (WGS) | Number of labs performing (n=1) | Percentage of programs that perform WGS/ % of those laboratories (specific organisms) | Total number of samples analyzed during CY 2019 |
| Parasites (n=62) | | 1.6 % | |
| <i>Cyclospora</i> (n=62) | 1 | 100% | 0 |
| Other parasites (n=62) | 1 | 100% | 0 |
| Viruses Whole Genome Sequencing (WGS) | Number of labs performing (n=5) | Percentage of programs that perform WGS/ % of those laboratories (specific organisms) | Total number of samples analyzed during CY 2019 |
| Viruses (n=62) | 5 | 8.1% | |
| Hepatitis A | 1 | 20% | 0 |
| Norovirus | 3 | 60% | 17 |
| Other viruses | 5 | 100% | 0 |
| Total Number of Responses: Varies by type, range is 13-26 | | | |

F. Staffing

| Laboratory Staffing | Total Full Time Equivalents |
|--|-----------------------------|
| <i>Lab Analysts by Discipline (Microbiologists)</i> | 226 |
| <i>Lab Analysts by Discipline (Chemistry)</i> | 25 |
| <i>Lab Analysts by Discipline (Other)</i> | 36 |
| Total Laboratory Analysts (all disciplines combined) | 520 |
| Supervisors | 104 |
| Managers/Administrators/Director | 81 |
| Laboratory Support (Sample Custodian, Sample Prep, Media Prep, Safety Officer, etc.) | 109 |
| Administrative Support (Clerical) | 43 |
| Quality Assurance Staff | 63 |
| Research Staff | 8 |
| Other | 6 |
| Total Human and/or Animal Food Laboratory FTE's | 935 |
| Total Number of Responses: 63 | |

G. Funding

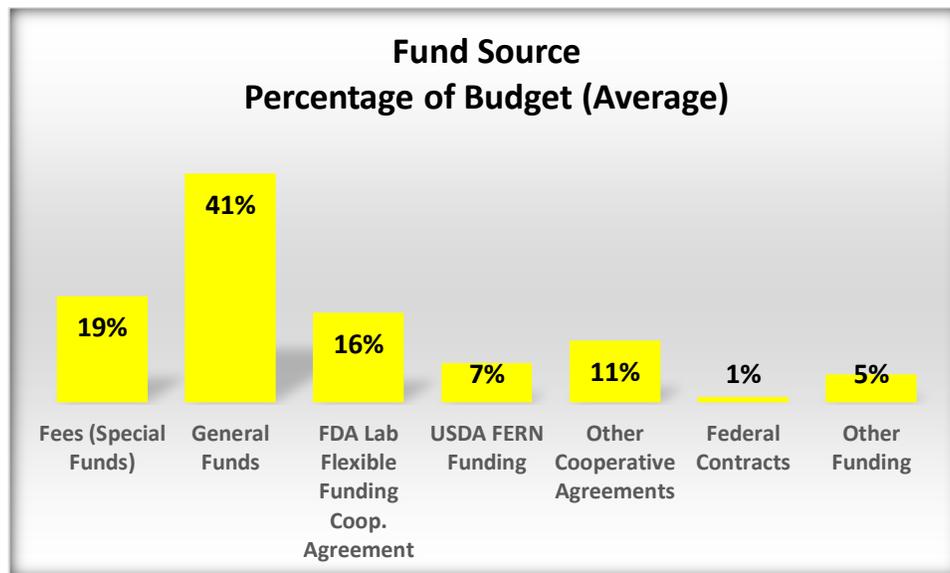


Figure 43. Total number of responses: 60